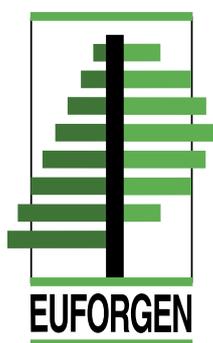




# Scattered Broadleaves Network

## Summary of the first meeting

Copenhagen, Denmark, 11-14 May 2005



European Forest Genetic Resources Programme (EUFORGEN)

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## Summary of the meeting

The meeting started in the afternoon of 11 May 2005 with two parallel sessions for the earlier Noble Hardwoods Network and the *Populus nigra* Network. During these sessions, the participants of the two earlier Networks discussed and wrapped-up the outputs of their recent activities.

### **Meeting of the Noble Hardwoods group**

M. Rusanen welcomed the participants and presented a tentative agenda of the meeting which was modified and then adopted. M. Heuertz and K. Russell were nominated as rapporteurs.

### **Documentation, information and public awareness**

#### ***Photo-CD***

B. De Cuyper gave a presentation on the Photo-CD of noble hardwood species (an image collection database), which currently contains 388 images of 28 species contributed by 22 countries. The images can be freely used for public awareness purposes provided that the name of the photographer and EUFORGEN are acknowledged (e.g. B. De Cuyper/EUFORGEN Noble Hardwoods Network). Copies of the Photo-CD were distributed to participants.

#### ***Technical Guidelines***

M. Bozzano provided an update to the state of the EUFORGEN Technical Guidelines for genetic conservation and use. A total of 12 Technical Guidelines have been published for noble hardwoods (*Acer campestre*, *A. pseudoplatanus*, *Alnus glutinosa*, *Castanea sativa*, *Fraxinus excelsior*, *Liquidambar orientalis*, *Malus sylvestris* - *Pyrus pyraeaster*, *Prunus avium*, *Sorbus domestica*, *Sorbus torminalis*, *Tilia cordata*/*T. platyphyllos* and *Ulmus laevis*). Hard copies of these publications can be obtained from the EUFORGEN Secretariat and they are also available electronically at the EUFORGEN Website. Regarding new guidelines, a draft is ready for *Alnus cordata* and it will be circulated to the members of the Scattered Broadleaves Network by **31 August 2005**. It was agreed that F. Ducci will coordinate the development of a draft for *Juglans regia* together with K. Russell and will send the draft to the Secretariat by **15 September 2005**. The finalization and printing of these two remaining guidelines will then take place by the end of 2005.

#### ***Poster on noble hardwoods***

M. Bozzano presented the poster on noble hardwoods and distributed copies to the participants. Additional copies as well as the poster template can be obtained from the EUFORGEN Secretariat. The poster will also be made available through the EUFORGEN Website.

#### ***Update to the elm proposal***

E. Collin provided an update to the elm proposal ("Dynamic conservation and utilisation of elm genetic resources in Europe, ElmPops") which is being developed for submission to the Council Regulation on genetic resources in agriculture (EC No 870/2000). The proposal is coordinated by L. Gil and it is expected to comprise 10 contracted participants and 10 invited participants with emphasis on Eastern Europe.

### **Meeting of the *Populus nigra* group**

Berthold Heinze welcomed participants and presented a tentative agenda of the meeting which was then adopted. A. Vanden Broeck and M. Villar were nominated as rapporteurs.

### ***Populus alba* and *P. nigra* databases**

The database of *Populus alba* was presented by C. Maestro. Currently it contains information on 1014 accessions from 10 countries. A Website is also under development by INIA (Spain) to make the database available online. The database has the same structure as the *P. nigra* database which was presented by L. Vietto. The *P. nigra* database contains 3352 entries from 20 countries including 13 national collections. New fields have been added following the recommendations of the previous meeting in Switzerland (e.g. 'RIVER' and 10 extra fields for additional information). It was agreed to change the name of the clone database to "*Populus nigra* database". It was also agreed to ask representatives of the Scattered Broadleaves Network to identify national contact persons for the two poplar databases and a list of these persons will then be compiled by L. Vietto.

### ***P. nigra* and *P. alba* leaflet**

S. de Vries presented and circulated a draft for a leaflet on *P. nigra* and *P. alba*. He proposed that suitable images for the leaflet could be selected from the two poplar images collections. The purpose of the leaflet is to inform the general public about these species, their biology and the need to conserve their genetic resources. All participants were invited to send comments by **15 June 2005**. S. De Vries will provide the final text and images to the EUFORGEN secretariat by **31 August 2005**.

### **Technical Guidelines for *P. alba***

J. Koskela provided an update to the development of the guidelines. The distribution map and the drawings of *P. alba* for the technical guidelines are ready. It was agreed that J. Koskela will contact I. Palancean and ask him to send the final text to the Secretariat

### **Outputs of the 22<sup>nd</sup> International Poplar Commission meeting**

D. Kajba presented the outputs of the 22<sup>nd</sup> IPC meeting which was held in Chile between 28 November and 9 December 2004. It also included a field trip to Argentina. The meeting was attended by 120 participants from 28 countries and 21 IPC member countries and the Russian Federation presented country progress reports. These and 156 abstracts of submitted papers can be found at [www.fao.org/forestry/ipc](http://www.fao.org/forestry/ipc). D. Kajba presented a DVD he prepared on the meeting and it is available from the Secretariat.

### **Update on the POPGIS proposal**

L. Vietto presented the POPGIS proposal which is also being developed for submission to the Council Regulation on genetic resources in agriculture (EC No 870/2000). The objectives of the proposed project are to 1) establish a European network of *in situ* gene conservation units for *Populus nigra* and *P. alba* to improve their conservation at European level, and 2) promote the use of the genetic material from selected units for rehabilitation projects and tree improvement programs in Europe. The proposal is coordinated by L. Vietto and interested countries and institutions were asked to contact him if they wish to join the proposal.

### **Core collection of *Populus nigra***

L. Vietto gave an update to the core collection of *P. nigra*, which now includes 40 genotypes. The origin of the clones covers approximately a third of the natural distribution area of the species while the clones are missing from Northern Africa, China, Georgia, Greece, Ireland, Macedonia FYR and Russia. Partial duplicates of the core collection have been installed in eight countries (Austria, Belgium, France, Netherlands, Portugal, Spain, Turkey and Ukraine). It was discussed whether material from the core collection can be distributed to non-European countries. It was agreed that the material can be distributed provided that national authorities do not object this. Before any material is distributed, the Network representatives in those countries which have provided clones to the collection were asked to consult their national authorities and inform L. Vietto accordingly.

### **First meeting of the Scattered Broadleaves Network**

J. Koskela welcomed the participants from 33 countries to the first meeting of the newly-established Scattered Broadleaves Network, which will continue the work of the earlier Noble Hardwoods Network and the *Populus nigra* Network. He then introduced B. Ditlevsen, Denmark's National Coordinator to EUFORGEN and asked him to open the meeting. B. Ditlevsen welcomed the participants to Denmark and stressed the importance of practical implementation of gene conservation as well as the new challenges raised by changes in forest management practices.

After the welcome address, the selection of Chair and Vice-Chair for the new Network was discussed. After some discussion and consultation, the meeting participants unanimously elected B. De Cuyper as Chair and B. Heinze as Vice-Chair of the new Network. J. Koskela presented the tentative agenda of the meeting which was then adopted. M. Heuertz, R. Brus and K. Russell were nominated as rapporteurs for the meeting.

### **Introduction to EUFORGEN Phase III (2005-2009)**

J. Koskela informed the participants on the outputs of the fourth EUFORGEN Steering Committee meeting and provided an introduction to Phase III of the Programme, which started in January 2005. He also highlighted the objectives of Phase III and presented the new Network structure of the Programme. So far, 21 countries have officially joined Phase III and in several other countries the official process is underway. New member countries include Georgia, Moldova and Romania. The discussions are also in an advanced stage with Greece and the Russian Federation, which could also become new members.

EUFORGEN continues to promote conservation and sustainable use of forest genetic resources in Europe. The objectives for Phase III are as follows: 1) promote practical implementation of gene conservation and appropriate use of genetic resources as an integral part of sustainable forest management, 2) facilitate further development of methods to conserve genetic diversity of European forests, and 3) collate and disseminate reliable information on forest genetic resources in Europe.

EUFORGEN now has three species-oriented Networks, namely Conifers, Scattered Broadleaves and Stand-forming Broadleaves. In addition, a new thematic Forest Management Network has been established to promote integration of gene conservation and sustainable forest management. Furthermore, an Information Working Group will facilitate inter-Network collaboration through task forces on certain topics.

### **Progress made in various countries**

#### **Central and Eastern Europe (*Czech Republic, Georgia, Hungary, Moldova, Poland, Romania, Slovakia, Slovenia*)**

Many countries of Central and Eastern Europe have made significant progress regarding legislation. The new EU member countries have adopted national laws that follow the Council Directive 1999/105/EC on the marketing of forest reproductive material. However, gene conservation is covered by different laws in different countries (Forest Acts and Nature Protection Acts, for example). Many of the countries are implementing *in situ* conservation through approved seed stands but also gene reserve forests with long-term commitments have been established. In Hungary, river habitats have been reconstructed for *Populus nigra*. On the other hand, *ex situ* conservation has been seriously hindered in many countries owing to funding problems. Regarding research, several studies on genetic variation (based on molecular markers and phenotypic and phenological traits) have been carried out for *Sorbus*, *Prunus*, *Acer*, *Malus*, *Ulmus* and *Fraxinus* as part of PhD or other kinds of national projects. Slovakia and Romania also took part in the EU-funded FRAXIGEN project on the three ash species in Europe.

#### **Mediterranean region (*Albania, Bulgaria, Croatia, France, Italy, Macedonia FYR, Portugal, Serbia and Montenegro, Spain, Turkey*)**

Several countries reported increasing efforts to use scattered broadleaves in rehabilitation and tree planting along river ecosystems or within natural parks. In Italy, Portugal and Spain, the use of native poplar species has been promoted as part of these activities. In Macedonia FYR and Portugal, other broadleaved species have also been used for the same purpose. Spain has started developing a national strategy for the conservation of forest genetic resources and Turkey reported progress in collecting forest reproductive material and establishing new gene conservation areas. Albania has been developing distribution maps for poplar species using GIS and Macedonia FYR has carried out an inventory of broadleaved species in the country. In most countries, genetic studies on scattered broadleaves have been carried out as part of research projects. In Bulgaria, several PhD studies are currently focusing on *Ulmus*, *Prunus* and *Sorbus* spp. and research has also been done on *Juglans regia* and *Acer heldreichii*. Gene flow studies on *Sorbus*, *Fraxinus* and *Prunus* spp. have carried out in France. Spain also reported a research project on *Juglans nigra* and Serbia and Montenegro for *Prunus avium*. In Croatia, clonal orchards have been established for *Fraxinus angustifolia* and *Prunus avium*.

**Northern Europe (Denmark, Finland, Iceland, Lithuania, Norway, Russia, Sweden)**

The scattered broadleaved tree species in this part of Europe include cherry, elms (*Ulmus glabra*, *U. laevis*), ash, maple and lime. Iceland is an exception as none of these species are native there, but rowan and aspen have a similar position in the country. Gene conservation of scattered broadleaves has been carried out for the last 10 years in several countries but it is still difficult to convince policy-makers that scattered broadleaves are important genetic resources. However, scattered broadleaves are slowly receiving more attention and the situation is beginning to change. In all the northern countries some efforts have been made to create seed orchards of native material, in some cases the orchards are even located in other countries. In Denmark, the biggest threats to genetic resources of scattered broadleaves are fragmentation and widespread use of unsuitable forest reproductive material and in Norway, Dutch elm disease is still a major problem. Finland and Sweden are trying to find ways to better combine gene conservation and nature conservation. In Iceland, so far no effort has been initiated to protect the native broadleaves (rowan) from introgression of imported genetic material. In Lithuania, the major problem is the poor condition of the broadleaved stands and lack of natural regeneration. The situation with the scattered broadleaves is neither good in Russia which has inadequate legislation for conservation of forest genetic resources.

**Western Europe (Austria, Belgium, Germany, Ireland, Luxemburg, Netherlands, Switzerland, United Kingdom)**

Several countries reported inventories and collection of genetic material of a number of scattered broadleaved species. During the discussion, it was also pointed out that some species are scattered in one country and stand-forming in another. In Austria, seed of *Alnus glutinosa* is being harvested in two regions to produce disease-free material. Germany is finalizing a report which contains an inventory of all collections and seed banks between 2000 and 2004. The report will be finalized by September 2005 and it will also be available in English on the internet. Other recent efforts in Germany work include investigation of gene flow in wild cherry and development of a distribution map for *Populus nigra*. Ireland has initiated a survey of alder stands to register appropriate seed stands and is continuing its birch improvement programme with provenance testing and additional germplasm collections. Luxemburg has carried out an inventory of *Sorbus* spp. and currently similar work is underway for *Populus nigra*. A seed orchard of *Sorbus domestica* is also being established. In the Netherlands, the materials collected during inventories have been propagated and currently field genebanks are being established. Belgium is also in the process of setting up genebanks for several species and Switzerland is finalizing a map indicating valuable genetic resources for 24 tree species. In United Kingdom, seed stands for ash (*Fraxinus excelsior*), cherry (*Prunus avium*), sycamore (*Acer pseudoplatanus*) and birch (*Betula* spp.) have been registered and molecular investigations into gene flow in ash and cherry have been completed. The impact of nearby new plantings of *Prunus avium* on the genetic composition of *P. avium* populations in old woodland has also been investigated.

## **Criteria and minimum requirements for gene conservation units of noble hardwoods in Europe**

B. Heinze presented the output of a task force of the former Noble Hardwoods Network on the criteria and minimum requirements for gene conservation units of noble hardwoods in Europe. The document was discussed and then adopted by the Network to be used as the basis for further development of the common action plans.

## **Common action plans**

M. Rusanen introduced the concept of 'common action plan' using *Acer platanoides* as a model species and summarised the earlier discussion on this topic. M. Villar presented the current state of the *Populus nigra* survey map which aims at locating *P. nigra* populations along European rivers. It was agreed that M. Villar will send the collected information to the Secretariat where various country maps will be geo-referenced and digitalised. The Secretariat will also explore a possibility to purchase a detailed shapefile on European rivers. The country maps will be circulated to the Network members for final checking.

For further development of the common action plans, it was decided to include new tree species and divide them into three groups based on their similar habitats. The groups (CAP-groups) are as follows:

Group 1: **Heuertz**, De Cuyper, Rusanen, Jensen, Ducci, König, Myking, Russell.  
*Fraxinus excelsior*, *Prunus avium*, *Acer* spp., *Ulmus glabra*, *Tilia cordata*, *Tilia platyphyllos*.

Group 2: **Collin/Villar**, de Vries, Nagy, Vanden Broeck, Notivol, Haska, Vietto, Varela, Maestro, Kajba.  
*Populus nigra*, *P. alba*, *Ulmus laevis*, *U. minor*.

Group 3: **Pucko/Brus**, Rotach, Alan, Litschauer, Longauer, Pandeva.  
*Malus sylvestris*, *Pyrus pyraeaster*, *Sorbus torminalis*, *S. domestica*.

The groups should collect information on potential gene conservation units and their management. By the end of Phase III, the common action plans will be ready for all these species, and ideally, some of them have already been implemented.

## **Meetings, projects and other initiatives**

### **FRAXIGEN project**

J. Stewart gave an update on the EU-funded FRAXIGEN project, which has been conducting research in six countries (Greece, Romania, Slovakia, Spain, Sweden and UK) on the three European ash species (*Fraxinus excelsior*, *F. angustifolia* and *F. ornus*). The project ends in June 2005 and it has analyzed patterns of nuclear and chloroplast genetic diversity across the species' distributions and carried detailed within-population studies of genetic structure and patterns of gene flow. As part of the project, pollination experiments and phenological observations have also been carried out to explore the influence of reproductive processes on gene flow. In addition, networks of field trials (reciprocal transplant experiments) were established to investigate the importance of local adaptation and the scale over which it operates.

The research results have implications for gene conservation strategies, and in particular for policies relating to the sourcing of FRM for conservation and ecological restoration objectives. The presentation described some of the project's most interesting findings, which will also be summarized in a book aimed at policy makers and practitioners, in addition to more detailed accounts in scientific papers.

### ***RAP project***

B. De Cuyper summarized some results of the RAP project (Realising Ash's Potential), which was a four-year EU-project focusing on common ash (*Fraxinus excelsior*). The project ended in January 2005 and it involved 15 partners from 10 European countries. The objectives of the project were to characterize genetic diversity and genetic structure in ash populations, develop technical methods to accelerate the utilisation of valuable genepools and deploy the genetic potential.

In addition to molecular techniques, a new European provenance trial was also established to characterize the genetic diversity of the species. Seven partners were involved in the establishment of the provenance trial (INRA, France - NFVA, Germany - Coillte, Ireland - FR, UK - CNR-IMGPF, Italy - IFG and CRNFB, Belgium) using 32 provenances. Initial results show variation in the flushing behaviour of the different provenances and highly significant interaction between provenances and sites in this regard. Northern and western provenances from Denmark, Ireland, Lithuania and UK are late flushing while southern and eastern provenances from Ireland and the Czech Republic are early flushing. Provenances from France, Belgium and Germany show an intermediate flushing behaviour. Surprisingly, a Lithuanian provenance seems to be very early flushing and this might indicate that the provenance is not native to Lithuania. However, the project period was too short to obtain reliable results but the follow-up measurements of the trial are expected to provide long-term data and thus more reliable results.

### ***EUFGIS proposal***

J. Koskela first informed the meeting about the current situation regarding the Council Regulation No 870/2004 on genetic resources in agriculture. The first call for proposals is expected to be opened in July 2005 and the second one in 2006.

In May 2004, the EUFORGEN Steering Committee discussed the Regulation and requested the EUFORGEN Secretariat to coordinate the development of an inter-Network proposal on information management. Subsequently, in collaboration with focal points in six countries (Austria, Denmark, France, Slovakia, Slovenia and the United Kingdom), the Secretariat developed a concept note for the establishment of a European Information System on Forest Genetic Resources (EUFGIS).

The EUFGIS project aims at developing minimum requirements for dynamic gene conservation units of forest trees and common information standards at pan-European level, and creating a web-based, permanent information system on national inventories on forest genetic resources in Europe. The role of the EUFORGEN Networks is to provide technical backstopping through the Information Working Group and in particular, contribute to the harmonization of various

minimum requirements for the gene conservation units and other relevant information standards. If established, all Networks can benefit from EUFGIS in their further efforts to develop common action plans for various tree species.

### **Malus-Pyrus proposal**

In February 2005, J. Jensen and J. Buiteveld attended, on behalf of the Scattered Broadleaves Network, a meeting in Gembloux, Belgium organized by the Working Group on *Malus/Pyrus* of the ECP/GR Fruit Network. The meeting discussed the development of a joint ECP/GR-EUFORGEN proposal for submission to the Council Regulation (EC No 870/2000). The proposal could focus on both wild and domestic fruit trees (*Malus*, *Pyrus* and possibly also *Prunus*). However, it was noted that development of this proposal has been rather slow and that there has been little communication from the ECP/GR Fruit Network regarding future steps. Therefore, it was decided that the Scattered Broadleaves Network would not participate in the further development of this proposal while individual institutes may do so, if they wish. J. Koskela was asked to inform the ECP/GR Secretariat about this decision.

### **Development of a new work plan**

J. Koskela introduced the topics of three working groups based on the Phase III objectives (see Annex I). He then presented the distribution of the participants into the three working groups to discuss the future activities of the new Network during Phase III. During this meeting, the working groups should develop concrete proposals for activities to be included into the new work plan. The working groups held their discussions during various sessions on 13 May 2005 and their outputs were discussed in plenary during the wrap-up session on 14 May 2005. The working groups and their suggestions are listed below.

#### **Group 1**

H. Haska, R. Litschauer, J. Jensen, F. Ducci, M. Heuertz, V. Andonovski, S. de Vries, Z. Sobierajski, M.C. Varela, A.L. Curtu, N. Demidova, R. Brus, P. Rotach and F. Toplu.

#### **Activities (timeframe) (note: activity numbers refer to the Annex I)**

Activity 1 (whole phase): The working group considered this as an ongoing task for all representatives in all EUFORGEN Networks (a latest update of the technical guidelines must be considered).

Activity 2: This is an item to be addressed at policy level and therefore it was not considered an activity for the Scattered Broadleaves Network.

Activity 3: As activity 2.

The Secretariat was asked to provide updates to all Network members before and after each MCPFE event.

Activity 4 (whole phase): This was considered an ongoing task for all representatives in all EUFORGEN Networks.

Activity 5 (second half of phase III): This activity was not considered feasible in the first part of Phase III. It will be addressed once the common action plans are available and when best management practices have been identified.

Activity 6 (first half of phase III): Three stages of forest management practices were identified as important: afforestation, regeneration and tending. The Scattered Broadleaves Network should develop, jointly with the newly-created Forest Management Network, management guidelines for each of these stages and for targeting each of the three previously identified groups of tree species (cf. the CAP-groups).

The Scattered Broadleaves Network expressed its interest to interact with the Forest Management Network on developing such management guidelines for the priority species (CAP-species). The Forest Management Network is also encouraged to take up contact with the respective authors.

Regarding the first part of phase III, the Network considers activities 1, 4, and 6 as the most relevant. For the second part of Phase III, activity 5 is considered as very important.

## **Group 2**

A. Vanden Broeck, M. Slovacek, M. Rusanen, E. Collin, I. Tvauri, A. König, E. O'Connor, K. Cesnavicius, G. Postolache, T. Myking, M. Almeida, L. Dinca, M. Pucko, E. Notivol and S. Black-Samuelsson.

## **Activities (timeframe)**

Activity 1: Common Action Plans. It was proposed that the CAP-groups select two species to start with (**by 31 May 2005**) and create a document specifying what is required for a conservation unit (**by 31 December 2005**). The document will be sent out immediately to the country representatives together with a common cover letter (to be developed by B. Heinze) providing the objectives. Country representatives will then provide the required information to the CAP-groups **by 30 June 2006**. After this, the CAP-groups will identify conservation/information gaps and prepare a tentative list of selected pan-European conservation units for the next meeting. The Secretariat will provide the CAP-groups with the information standard already developed by the Conifers Network by **21 May 2005**.

### Activity 2: Genetic monitoring

It was proposed that methods for genetic monitoring should be reviewed by a task force (**König**, Rusanen, Longauer, Notivol, Jensen). This task force will then send out a request to other Networks for more members and also for external experts to join in. The review should include ideas on selection of priority species, development of simple indicators (not too ambitious, cost-effective) and whether markers may be used in specific cases. The review will be circulated **before next Network meeting**.

### Activity 3: Technical Guidelines

It was proposed that thematic guidelines could be produced to supplement the existing species-based guidelines (e.g. guidelines of genetic conservation in general). This may be a task for the Information Working Group with inputs from the species-oriented Networks (the Secretariat will communicate this issue to the other Networks).

Activity 4: Negative consequences of the use of inappropriate FRM

A document with convincing evidence should be produced by the Information Working Group (B. Heinze informed that a paper analyzing the economic consequences of this topic has already been published by M. Liesebach<sup>1</sup>). The Network members are encouraged to send to the Secretariat examples of inappropriate use of FRM in their countries. The information could include data from demonstration plots and provenance trials to calculate potential economic loss owing to the use of inappropriate FRM. The group defined 'inappropriate FRM' as non-adapted material and/or having a too narrow genetic base. The message should be targeted to both directions, i.e. to politicians and to forest managers.

The secretariat will send a reminder on this issue by **30 September 2005**.

Activity 5: Methods to promote genetically sustainable regeneration

The group pointed out that this Network should emphasize the special requirements of scattered broadleaves (e.g. think about the whole forest, not only a compartment). A task force could be established to collect information and develop recommendations for genetically sound regeneration practices. This may not be of high priority and it could be postponed until the next Network meeting to be reconsidered.

Activity 6: Collaboration between nature conservation and gene conservation efforts in Europe

The group recognized that collaboration with governmental environmental agencies is important due to their consistency and predictability and that there is a need to increase cooperation with them. In addition, collaboration with others, such as Planta Europa, is important. S. Black-Samuelsen and G. Postolache will provide more information on Planta Europa to the Secretariat which should then explore possibilities for cooperation. It was also brought up that the Natura 2000 areas could be considered when locating gene conservation units for the common action plans.

Activity 7: Expansion of the Programme

The group concluded that this activity is for the Secretariat.

Related to this objective, the participants discussed the possibility to re-organize species between the Scattered Broadleaves Network and the Stand-forming Broadleaves Network. No final agreement was reached but possible species to be moved were identified as follows: *Betula pendula* with *B. pubescens*, *Carpinus betulus*, *Castanea sativa*, *Acer pseudoplatanus*, *Fraxinus excelsior* and *F. angustifolia*.

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<sup>1</sup> Liesebach, M.1994. Forstgenetik – Umsetzung forstgenetischer Erkenntnisse rechnet sich volks- und betriebswirtschaftlich [Transformation of forest genetic findings count economically both for the country and the enterprise] Der Wald 44: 282-284.

**Group 3**

B. Heinze, B. De Cuyper, D. Pandeva, D. Kajba, M. Villar, L. Nagy, H. Sverrisson, L. Vietto, D. Pop-Stojanov, S. Orlovic, R. Longauer, C. Maestro Tejada, M. Alan and K. Russel.

**Activities (timeframe)**

Under Objective 3, the group discussed the items 1-6 proposed by the EUFORGEN Steering Committee for Phase III. The items were first discussed and then prioritized. The following list indicates the order of priority. The group identified "Increasing awareness" and "Improving the Web site" as the items of highest priority.

**Activity 1: Increasing awareness:**

Each participant indicated the level of awareness on FGR in the three different groups (policy makers, forestry professionals and the general public) in their countries. In general, the awareness of policy makers and the general public was found to be poor while among the professional foresters' group it is higher, indicating better communication channels and a better level of pre-existing knowledge. Within policy makers, there are distinct levels of awareness. National policy makers are often quite aware of FGR issues while at local level, a better perception and new ways of addressing local policy makers are needed. Examples and possible actions were given:

- Translation: A high priority was given to tackle the problem of translating the various EUFORGEN publications (technical guidelines, posters, etc) into national languages. Therefore, the Secretariat is requested to provide the templates, including graphics and photos, together with technical support on their use.
- Austria, Germany and Hungary, for example, have identified a "tree of the year" and promoted it in various media to raise awareness especially among the general public. A similar event is the "day of the tree" in Spain where school children are engaged in tree plantings. The group recommended linking up with such efforts.
- "open days", "the week of the forest"
- technical meetings in forest education centres
- the use of CD-ROMs for promoting priority species
- linking with other organisations like national parks, nature reserves, etc.

Increasing public awareness was seen as requiring continuous efforts by EUFORGEN at all levels.

**Activity 5: The Web site**

The feeling of the group was that currently the Web site is very much targeted at the EUFORGEN members. Its improvement is necessary, especially because the general public can access it and should benefit from it as well. The following suggestions were made:

- Provide simple summaries of the most important contents of the Web page
- Use a tab system with attractive front pages and informative ones on the tabs
- Make the Web site more easily identified by search machines
- Make summaries of country reports available in national languages, adding the different contact points for each country
- Make available national highlights that give good examples for the general public

- Interlink national Web pages with the EUFORGEN Web page
- Provide attractive illustrations and make maps, easy-to-view and easy-to-print documents available.
- Include information on recent project developments

#### Activity 2: Geo-referenced data

This was seen as a third priority. A lot of data already exists, both on paper and in digital format, but these are not always in a suitable format for broader use (map production etc.). This is related to the gene conservation units, which are not yet declared formally. The Network stated its members were happy to provide information on the gene conservation units for a centralized effort, but not to lead this effort. The Network endorsed the idea of harmonizing various information standards among different Networks. Recommended action for the Network and the Information Working Group include:

- Definition of the database structure and the software to be used
- Harmonization of data sets
- Identify the gaps in the data

It was noted that the acceptance of projects like EUFGIS, POPGIS, ElmPops etc would accelerate this process considerably.

#### Activity 6: Facilitate information exchange among countries

The group considered primarily bilateral and sub-regional arrangements (e.g. visits) for this purpose. In addition, setting aside some time for bilateral discussions during Network meetings would be extremely helpful.

- It was suggested that the Secretariat identifies possible funding sources and provides supporting documentation.
- Contact points should be made available in each country, preferably on the Web site.

#### Activity 4: Publishing reports on the state of FGRs

This activity is linked to the public awareness item so printed material is needed in addition to the Web site. Providing necessary information to National Coordinators is a task for individuals, not for the Network. Highlights, however, should be provided on a yearly basis because the new four-year time frame of national reports is considered rather long. Such highlights could include case studies demonstrating areas where real progress has been made. These highlights should be made available on the Programme Website. The Secretariat should send out periodic reminders to receive such highlights.

Activity 3: The development of position papers was not seen as a network task.

During the wrap-up session on the last meeting day, the outputs of the working groups were discussed by all participants and endorsed as indicated above.

## **Conservation of forest genetic resources in Denmark**

A. Søndergaard Larsen provided an overview to the status of *Malus sylvestris* in Denmark and presented some results of a study on hybridization and genetic variation within Danish populations of *M. sylvestris*. The study showed that there is large variation within populations and low variation between populations. It also indicated that small populations are susceptible to introgression from cultivars.

J. S. Jensen presented gene conservation activities carried out for trees and shrubs in Denmark. He also provided information on the Danish tree and bush improvement programme, which is financed from hunters' license fees. The programme is focusing on 34 species from oaks to roses and its objectives are to describe genetic resources, collect reproductive material, increased seed production, carry out research and disseminate information to promote the use of various species.

During the last meeting day, the participants made a field excursion to see how gene conservation efforts are put into practice in Denmark.

## **Any other business**

It was agreed that J. Koskela will circulate the presentations on the EVOLTREE proposal and the IPGRI-IUFRO workshop on climate change by email after the meeting because there was not time left to deliver these as was scheduled in the agenda. The two presentations are summarized below

The EVOLTREE proposal (EVolution of TREES as drivers of terrestrial biodiversity) was submitted to the European Commission under the 6<sup>th</sup> framework programme in March 2005. The development of the proposal was coordinated by Antoine Kremer (INRA, France) and the project is a consortium of 25 partner institutes located in 15 European countries.

The main aim of the project is to support integration of work on forest genomics in Europe by developing common infrastructures and exchanging human resources. The project also includes jointly executed research activities and dissemination of research results and other relevant information. The research activities will focus on selected target genera of broadleaves (*Acer*, *Alnus*, *Betula*, *Carpinus*, *Corylus*, *Crataegus*, *Fagus*, *Fraxinus*, *Prunus*, *Salix*, *Sorbus*, *Tilia*, *Ulmus*) and conifers (*Picea*, *Abies*, *Larix*). In addition to trees, the scope of the project includes other species associated with forest trees (defoliating insects and mycorrhiza). The EUFORGEN Networks will have a special role in dissemination of the project outputs.

In April 2005, A. Kremer was informed by the EC that the EVOLTREE proposal was accepted for funding. The final negotiations are likely to start during the summer and the project might be able to start its activities before the end of the 2005. The project will last five years.

The IPGRI-IUFRO workshop on forest genetic diversity and climate change is one of the actions of the MCPFE Work Programme to implement Vienna Resolution 5 (Climate change and sustainable forest management in Europe). The purpose of the

workshop is to analyze the role of forest genetic diversity in mitigating the effects of climate change and maintaining sustainable forestry in Europe. It will also aim at providing recommendations to the MCPFE process based on current knowledge on this topic.

IPGRI and IUFRO are currently developing the agenda of the three-day workshop which will be held in France in March or April 2006 in collaboration with the French Ministry of Agriculture and the French Commission on genetic resources. FAO, the European Forest Institute (EFI) and several other international organizations have also indicated their interest to contribute to the workshop. The EUFORGEN Networks will have an opportunity to provide ideas for the agenda and also to be represented in the workshop. The exact dates of the workshop and other details will be announced by September 2005.

### **Date and place of next meeting**

Following the Steering Committee decisions, the species-oriented Networks can organize three meetings during Phase III. The timing of the remaining two meetings was discussed and it was agreed to organize the next meeting in autumn 2006.

The Netherlands offered to host the second meeting of the Scattered Broadleaves Network and B. Heinze thanked S. de Vries for the offer on behalf of the Network. It was agreed to organize the next meeting in the Netherlands in autumn 2006. More detailed information on the meeting dates and the venue will be provided later.

### **Adoption of the meeting decisions**

The meeting decisions were adopted and B. Heinze closed the meeting.

**Annex I. EUFORGEN objectives and Programme activities during Phase III.**

<b>Objectives</b>	<b>Activities</b>
<p>Promote practical implementation of gene conservation and appropriate use of genetic resources as an integral part of sustainable forest management.</p> <p><b>Group 1</b></p>	<ol style="list-style-type: none"> <li>1. Promote implementation of recommendations presented in the Technical Guidelines at national level, as needed or requested;</li> <li>2. Support integration of gene conservation and appropriate use of genetic resources into national forest programmes and policies;</li> <li>3. Collaborate with the MCPFE process and other relevant international, regional and national initiatives and processes;</li> <li>4. Provide advice to countries on issues related to forest genetic resources, if requested;</li> <li>5. Facilitate implementation of common action plans and use of best management practices;</li> <li>6. Develop protocols to evaluate genetic consequences of different management practices and identify genetically appropriate management practices in collaboration with forest managers and policy makers.</li> </ol>
<p>Facilitate further development of methods to conserve genetic diversity of European forests.</p> <p><b>Group 2</b></p>	<ol style="list-style-type: none"> <li>1. Develop common action plans as part of pan-European gene conservation strategies;</li> <li>2. Develop common methods for genetic monitoring;</li> <li>3. Revise Technical Guidelines and develop new ones, as needed;</li> <li>4. Highlight negative consequences of the use of inappropriate forest reproductive material;</li> <li>5. Develop methods to promote genetically sustainable regeneration;</li> <li>6. Improve collaboration between nature conservation and gene conservation efforts in Europe;</li> <li>7. Facilitate the expansion of the Programme to recruit non-participating countries to cover the entire distribution ranges of European tree species.</li> </ol>
<p>Collate and disseminate reliable information on forest genetic resources in Europe.</p> <p><b>Group 3</b></p>	<ol style="list-style-type: none"> <li>1. Increase awareness among policy makers, forestry professionals and the general public on the importance of forest genetic resources;</li> <li>2. Compile and make available geo-referenced data on gene conservation units in Europe;</li> <li>3. Develop EUFORGEN position papers (e.g. for the MCPFE process);</li> <li>4. Publish reports on the state of forest genetic resources in Europe and other relevant issues;</li> <li>5. Maintain the existing Web site and develop a new online information infrastructure, as needed;</li> <li>6. Facilitate exchange of information among countries.</li> </ol>



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