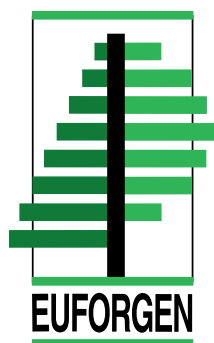




Conifers Network

Summary of the first meeting

Brdo / Kranj, Slovenia, 5-7 May 2000



European Forest Genetic Resources Programme (EUFORGEN)

Summary of the meeting and workplan

Opening of the meeting

The State Secretary for Forestry Mr Mohoric welcomed the participants and emphasized the importance of sustainable forest management and preservation of biodiversity in Slovenia. He also stressed the active role of his country in research and management of genetic resources of conifers.

Prof. Dr N. Torelli, Director of the Slovenian Forestry Institute, welcomed the participants on behalf of the Institute.

The Head of the Silviculture Department from the Slovenian Forest Service, Mr Grecs, welcomed the participants and underlined the importance of natural forest in Slovenia (88%), and of natural regeneration in these forests.

The Vice-Chair of the Forestry Department of the Biotechnical Faculty of the University of Ljubljana, Dr Hladnik, pointed out the importance of collaboration with the Slovenian Forest Institute (SFI) and EUFORGEN.

Prof. V. Koski on behalf of the EUFORGEN *Picea abies* Network thanked the local organizers for the excellent organization and for their participation, which shows the importance of the collaborative work on forest genetic resources in Europe. He briefly described the background of this first meeting of the EUFORGEN Conifers Network. The previous EUFORGEN *Picea abies* (Norway spruce) Network started its activities in 1995. Following the outputs provided and on the basis of the interest expressed by countries, the last Steering Committee meeting recommended that the scope of this Network be widened to encompass other conifer species.¹

J. Turok welcomed the participating countries (25) and thanked the National Coordinator H. Kraigher and the Network member G. Bozic for the preparations and the Slovenian Government for hosting the meeting. He then gave a brief introduction on Phase II of EUFORGEN, a brief summary of the results of the recent, sixth *Populus nigra* meeting, and highlights on upcoming meetings and activities in progress in the Programme.

The agenda of the meeting was adopted.

Highlights on progress made in gene conservation of Norway spruce (*Picea abies*) in Europe

Four members of the *Picea abies* Network were invited to make presentations to highlight the progress made in gene conservation of the species in Europe during recent years.

G. G. Vendramin focused on the genetic research carried out in Italy. A range of molecular markers were developed and used for the analysis of genetic diversity in Norway spruce throughout its distribution area in Europe during recent years. The main results and their possible implications for gene conservation and breeding strategies were reviewed.

T. Skrøppa provided a summary of the developments in Norway's national programme, including a new conservation and breeding strategy for Norway spruce, which has been based on new knowledge and information.

An overview of the concept and activities of Germany's programme on the conservation of forest genetic resources was presented by A. König. The progress made in the practical gene conservation and breeding of Norway spruce was demonstrated.

¹International collaboration on forest genetic resources: the role of Europe. Proceedings of the Second EUFORGEN Steering Committee meeting, 26–29 November 1998, Vienna, Austria. International Plant Genetic Resources Institute, Rome, Italy.

Cs. Mátyás described the potential implications of climate instability on genetic resources of Norway spruce at the southern distribution limits of the species in Hungary and other countries.²

Outputs of the EUFORGEN *Picea abies* Network

The most recent outputs of the *P. abies* Network were presented by the Secretariat.

S. Borelli presented the new structure and contents of the Web page including the current version of the conifers sub-page. Participants expressed a need to strengthen the section on links by including Web sites of relevant institutes and international processes. The participants also agreed to test the page (http://www.ipgri.cgiar.org/networks/euforgen/euf_home.htm) and provide comments to the Secretariat.

J. Turok gave an on-line demonstration of the bibliographic database, which currently includes 320 references from 11 countries. Countries that have not yet contributed were encouraged to do so. The Secretariat will send out a message containing instructions and formats for update by **31 March 2000**.

The suggestion was put forward to provide links to existing international databases such as CABI and FAO databases.

J. Turok briefly presented the Technical Guidelines and its contents and asked for feedback from the participants. The participants actively discussed this point and the conclusion was that, in order to reach the forestry officers in the different countries, it is essential that the guidelines (or an adapted version of these) be translated into the national languages. It was also noted that some aspects of forest management were not covered or were not appropriate for all countries.

S. Borelli briefly presented the poster on *P. abies*, which is in print and will be distributed as soon as it becomes available.

Assessing priorities for the EUFORGEN Conifers Network

Veikko Koski presented an introductory paper on genetic diversity of European conifers, to help set the stage for the ensuing discussion on priorities for the Network.

J. Turok presented the results of the survey on priority species and activities and compared some of the results with those of the questionnaire circulated before the last meeting of the EUFORGEN Steering Committee (see Annex I).

After discussion on overall priorities, the participants agreed to divide into three groups (widely occurring; rare and threatened; exotic species). The groups had the task of answering questions on common characteristics, current state of knowledge, needs and priorities, main constraints and conservation strategies to be used.

The results from the working groups are summarized in Table 1.

²A related contribution was published in: Mátyás, Cs. 2000. Riding on a wave of anxious concern: genetic implications of expected climate instability at the southern forest limits. Pp. 44–46 in International collaboration on forest genetic resources: the role of Europe. Proceedings of the Second EUFORGEN Steering Committee meeting, 26–29 November 1998, Vienna, Austria. International Plant Genetic Resources Institute, Rome, Italy.

Workplan

Four main areas of involvement (information, policy and legal issues, technical guidelines and public awareness) were discussed in three working groups. Each working group proposed a set of activities. They provide the basis for this workplan, agreed during the final session of the meeting.

Information

Bibliographic database

It was agreed that the bibliographical database on Norway spruce should be further developed to include references leading to 'grey' literature on genetic resources of minor (rare and threatened) conifers before the next meeting. The Secretariat will circulate a note with instructions for submitting references before **31 March 2000** (see above). The progress made in compiling the database and its future development will be on the agenda of the Inter-Network Group of Chairs and Vice-Chairs of all five EUFORGEN Networks at their first meeting to be held **in autumn 2000**.

Information platform ('database of links')

It was suggested that the EUFORGEN Secretariat should establish a common information platform on forest genetic resources in Europe. The objective is to make available a summary profile on each national programme and to provide links to the further information existing at country level. The profile will include contacts (National Coordinator), networks of interest, institutions involved, policy information and links ('database of links'). The EUFORGEN Secretariat will set up an initial version of the database before **30 June 2000**. National Coordinators will be asked to verify the information and provide additional input.

Each country was encouraged to develop its own Web page on forest genetic resources, which would be linked to the common information platform. Information and data about conservation categories, gene conservation units, their location and availability, seed stands, seed zoning, provenance/progeny experiments, *ex situ* storage/genebanks/archives could be part of this source of information at the national level. The list of common descriptors and the glossary developed by the *Picea abies* Network and other EUFORGEN Networks, provide the standards for this information. To facilitate this development, the Secretariat will circulate a note with the descriptors developed for *in situ* conservation units (Noble Hardwoods, *Populus nigra*) and the list of relevant terms to all Network members before **31 March 2000**.

Maps of gene conservation units for individual species should be compiled at the European scale and made available electronically later (from the information platform and on CD-ROM), provided that the information is available.

Distribution maps

The importance of updated and detailed distribution maps as a tool supporting conservation strategies was recognized. An inventory (list of references) of relevant maps will be undertaken by all countries and the information provided to EUFORGEN Secretariat by **31 December 2000**. The Secretariat will report on results of the inventory at the next Network meeting.

Policy and legal issues

The need for inventory and analysis of policy/legal issues affecting the conservation and use of conifers genetic resources was recognized. This should be carried out at the national level and for the European Union. A project proposal on policy and legal systems affecting plant genetic

resources conservation and use in Europe was developed by IPGRI. Depending on the outcome, the Secretariat will inform Network members about the approach and activities before **30 June 2000**. Results of the analysis, including different options of policy/legal systems applied in different countries, should be provided to National Coordinators. They may communicate them to national authorities as needed and appropriate. Network members will liaise with National Coordinators for providing inputs into the inventory.

Integration and harmonization of genetic resources issues into ongoing international agreements and processes was considered as a high priority. These include the non-binding resolutions of Ministerial Conferences on the Protection of Forests in Europe (MCPFE), including Strasbourg Resolution S2, the legally binding Convention on Biological Diversity (CBD) and others. The Network members were strongly encouraged to monitor the developments in their countries and to be proactive in contacting agencies responsible for the various agreements and processes. The new common information platform will include summary and links leading to the major relevant international processes.

Austria and the United Kingdom offered to present a case study on the experience with linking the various processes at the national level during the next Network meeting.

The need for and possible impact of raising awareness about populations/species that require emergency action was discussed. Information about such cases will be promptly circulated to Network members. The Network will express support as appropriate. The Inter-Network Group at its first meeting in autumn 2000 will discuss the broader involvement of EUFORGEN Networks in monitoring and responding to situations of immediate threat to genetic resources.

Experiments have been made with genetic transformations in several conifer species. The Network members will follow the development and use of genetically modified trees in their countries and the possible implications on genetic resources. The Secretariat and Network members from OECD member countries will follow the development of the revised OECD Scheme.

Technical guidelines for gene conservation of conifers in Europe

The objective is to provide a common set of recommendations for genetically sustainable management of conifers, which can then be adopted and adapted in each country. The guidelines should aim at reaching forest officers and agencies responsible for forest gene conservation in European countries, transferring results of the genetic research undertaken on conifers into forestry practice. They will be divided into chapters focusing on situations in which species are common, rare (scattered distribution patterns), and on exotics. An introductory chapter on basic principles of gene conservation will be added (including impact of human activities on genetic resources, mating systems, the importance of marginal populations etc.).

The Chair and Vice-Chair will contact all Network members and ask for their contribution to the outline. First outline will be discussed during the next Network meeting in 2001. The development of this publication will be closely coordinated and harmonized with other EUFORGEN Networks, especially Noble Hardwoods, through the Inter-Network Group. The text should be very short and comprehensive, accompanied by illustrations and photographs. The printing of the guidelines is foreseen within 2–3 years. The EUFORGEN Secretariat will send a list of comments/suggestions received on the existing Technical Guidelines for Norway spruce to the group by **31 March 2000**. The outline of the guidelines will be circulated to all Network members one month before the next meeting.

Technical recommendations on seed/pollen storage are available for a number of plant species, including conifers. A Handbook was published by IPGRI. The EUFORGEN Secretariat

will extract and send the existing information on European conifers to all Network members before **31 July 2000**.

Public awareness

A collection of slides will be compiled on a Photo CD. B. Fady offered to take responsibility for this task. All Network members will provide relevant slides from their countries to him by **31 December 2000**. A list of items will be provided by the Secretariat in consultation with B. Fady by **30 April 2000**. The collection will be demonstrated and missing items identified at the next Network meeting. Once the collection is finalized, all Network members will receive a copy for their use in raising awareness about conifers genetic resources in each country.

The production of a short video on conifers genetic resources in Europe (different aspects of variability) was also mentioned. It was recognized that this requires professional advice and considerable financial resources. The Inter-Network Group will follow up the idea in relation with the other Networks. Malta offered to coordinate the video on behalf of the Network. The item will be discussed in detail during the next meeting.

Other possibilities were mentioned such as a screen-saver and computer games. The Secretariat will prepare a simple screen-saver using the slides from the collection and send it to all Network members.

A leaflet on transboundary gene conservation programmes on conifers will be produced using a case study in the Carpathian region. L. Paule and J. Matras will prepare and circulate a draft text by **31 October 2000**.

Development of plan and tools for communicating information

The development and use of publications/case studies on technical and policy issues, *ad hoc* workshops, presentations on relevant themes at Network meetings and at other fora, articles in journals and newspapers etc. were mentioned. It was proposed that a communication plan for EUFORGEN be discussed at the Inter-Network Group meeting. Joint messages for a variety of audiences could be developed by this group on broader issues (i.e. the importance of genetic diversity as part of biodiversity, the role of genetic diversity in sustainable forestry).

Seminar on mountain forests

S. Borelli introduced the theme and underlined the growing attention that the issue of mountain biodiversity is receiving in international and particularly European fora.

Z. Vardanyan presented an overview of the biodiversity of mountain forests in the Caucasus and indicated that there is currently no forest genetic resources conservation programme in Armenia.

M. Ulber made a presentation on the links that exist between management of mountain forests and conservation of genetic resources in Switzerland.

H. Kraigher illustrated the characteristics of mountain forests in Slovenia and provided highlights of the research currently being carried out.

T. Levanic from the Biotechnical Faculty in Ljubljana made a presentation on the contribution of dendrochronology to studies of conifers genetic resources. S. Zitnik from the Slovenian Forestry Institute gave an on-line demonstration of the plant genebank of Slovenia.

Meeting report

The issue of the format of the meeting report was discussed and a decision was made to prepare a printed version, particularly in view of the fact that this is the first meeting of the new enlarged Network. It will include highlights on *P. abies* Network, a brief overview of the outputs, the

results of the questionnaire, the discussion on priorities and activities of the new Network and the papers on conservation of mountain forests. All contributions will be sent to the Secretariat by **30 April 2000** (see guidelines circulated earlier).

Election of Chair and Vice-Chair

Both the Network members and the Secretariat expressed their sincere gratitude to V. Koski for his commitment and efforts in the implementation of the Strasbourg Resolution S2, in ensuring the success of the *P. abies* Network and its smooth transition to the Conifers Network. Csaba Mátyás was elected as Chair of the Conifers Network and Bruno Fady will act as Vice Chair. Cs. Mátyás briefly presented his vision for the future role and activities of the Network.

Date and venue of the next meeting

The next meeting of the Conifers Network will be held in Valsain, Spain in 2001. We would like to thank Malta for also expressing the wish to host the next meeting of this Network.

Adoption of the report

The report was adopted and distributed to the participants.

Conclusions

B. Fady thanked the organizers and the participants for their contribution and declared the meeting closed.

Table 1. Summary of the results from the working groups

	Widely occurring species	Rare and threatened	Exotic species
Common characteristics	<p>Wide geographical distribution in at least parts of Europe.</p> <ul style="list-style-type: none"> • Continuous distribution • Non-continuous distribution 	<ul style="list-style-type: none"> • scattered distribution • isolated/reduced populations • autochthonous • rare at European level 	<ul style="list-style-type: none"> • Exotic for Europe (<i>Pseudotsuga menziesii</i>, <i>Larix kaempferi</i>, <i>Pinus contorta</i>, <i>P. radiata</i>, <i>Abies grandis</i>, <i>A. procera</i>, <i>Cedrus atlantica</i>, <i>Picea sitchensis</i>) • Exotic for the country (<i>Picea abies</i>, <i>Pinus sylvestris</i>, <i>P. nigra</i>, <i>P. pinaster</i>) • Current or potential economic or ecological importance
Current state of knowledge	<p>More is known of economically important and common species.</p> <p>More is known about distribution and ecology than genetic diversity.</p> <ul style="list-style-type: none"> • Adaptive traits: good knowledge e.g. <i>Picea abies</i> • Genetic markers: some knowledge for <i>Pinus pinaster</i>, <i>P. halepensis</i>, less for other species 	<p>Distribution is usually well known.</p> <p>Little is known of ecology and mostly at the local level.</p> <p>Some knowledge is available for adaptive traits and genetic markers.</p>	<p>Very good knowledge (including genetic diversity)</p> <ul style="list-style-type: none"> • adaptive traits – provenance experiments • molecular markers • prerequisite for their use outside of the area of origin
Priorities and needs	<p>Commercial species</p> <ul style="list-style-type: none"> • Gene conservation in sustainable managed forest • For intensively bred species (e.g. <i>Pinus pinaster</i>) representative samples of natural populations <p>Non-commercial species</p> <ul style="list-style-type: none"> • Representative samples of natural populations <i>in situ</i> • <i>Ex situ</i> seed storage for risk-exposed <i>in situ</i> sites (fire, avalanches etc.) 	<ul style="list-style-type: none"> • maintain reproductive abilities of populations • re-establish populations (ecological restoration approach) • increase state of knowledge (make literature available) 	<p>Genetic conservation for breeding programmes:</p> <ul style="list-style-type: none"> • safeguard native populations • development and monitoring of landraces • coordination among countries of origin and countries of use

Table 1 (continued)

<p>Main constraints</p>	<ul style="list-style-type: none"> • General lack of knowledge among decision-makers, both political as well as forest managers • Economical <ul style="list-style-type: none"> - Pressure to use gene resources - Cost <ul style="list-style-type: none"> - degree of restriction of <i>in situ</i> - ownership • Biological/ecological <ul style="list-style-type: none"> - Irregular seed crop - Seed storage - Browsing 	<p>Species-dependent</p> <ul style="list-style-type: none"> • biological • ecological • management <p>Country-dependent</p> <ul style="list-style-type: none"> • land use • policy • legal 	<ul style="list-style-type: none"> • lack of long term of institutional support • insufficient human resources • some conflict with nature conservation objectives • lack of consensus on traits to be conserved • changing sites conditions • risks related to pest and diseases • unwanted gene flow • natural hybridization • lack of reproductive ability
<p>Conservation strategies</p>	<p>In situations of economic crisis</p> <ul style="list-style-type: none"> • Show where and how to cut/protect (low cost measure) <p>In average situations</p> <ul style="list-style-type: none"> • Keep natural forest <ul style="list-style-type: none"> - <i>In situ</i> (marginal population special attention) - Sustainable forest management <p>In the best of worlds</p> <ul style="list-style-type: none"> • Inventories with molecular techniques and adaptive traits to find optimal manner for conservation 	<p>Species- and country-dependent</p> <ul style="list-style-type: none"> • inventory of existing conservation status/legislation • <i>in situ</i> conservation <ul style="list-style-type: none"> -emergency measures (fences, game management) -ecological restoration • <i>ex situ</i> conservation <ul style="list-style-type: none"> -all trees (rare species) -breeding lines 	<ul style="list-style-type: none"> • <i>in situ</i> conservation of best performing stands with natural regeneration (if possible) • <i>ex situ</i> conservation in conservation plantations • conservation as part of classical breeding programmes (archives, progeny tests, etc.) • long term seed storage

Annex I. Survey on priorities for gene conservation of conifers in Europe

Presentation of the survey

A survey was circulated to all participants prior to the Network meeting. The main objective was to provide the newly formed EUFORGEN Conifers Network with a basis for discussing the status of forest gene conservation in European conifers and for setting priorities for future activities. Twenty-four European countries (Austria, Armenia, Belgium, Bulgaria, Croatia, Czech Republic, France, Estonia, Germany, Hungary, Italy, Macedonia FYR, Malta, the Netherlands, Norway, Poland, Russian Federation, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom, Ukraine) and one Central Asian country (Uzbekistan) responded to the questionnaire.

The survey contained three sections:

- the **first section** asked participants to indicate the conifer species present in their country and the priorities for conservation
- the **second section** had the purpose of identifying the main constraints to the effective conservation and use of conifers in the respective countries
- the **third section** had the purpose of identifying the priority areas for future involvement of the EUFORGEN Conifers Network.

Results

Conifer species present and conservation priorities

Species

Based on the results of the questionnaire, the species indicated by countries can be roughly divided into three groups: (1) widely occurring species that are usually also economically important; (2) rare and threatened species that usually have a more ecological importance and also, in some cases, a strong cultural significance, and (3) exotic species that have become economically important in many European countries. The groups are as follows.

- **Widely occurring species**
 - *Abies alba*
 - *Juniperus communis*, *J. sabina*
 - *Larix decidua*
 - *Picea abies*
 - *Pinus sylvestris*, *P. cembra*, *P. halepensis*, *P. mugo*, *P. nigra*
 - *Taxus baccata*
- **Rare and threatened species** (the species in bold were indicated as endemic or were only indicated by one country). Many of these species are also included in the IUCN list of threatened conifers (see Box 1).
 - *Abies bornmuelleriana*, *A. cilicica*, ***A. nebrodensis***, ***A. nordmanniana***, ***A. pinsapo***
 - ***Cupressus sempervirens***
 - *Juniperus excelsa*, ***J. foetidissima***, *J. macrocarpa*, *J. nana*, *J. oxycedrus*, *J. phoenicea*, ***J. polycarpos***, *J. thurifera*
 - ***Larix decidua* var. *polonica***

- *Picea omorika*
- *Pinus brutia*, *P. heldreichii*, *P. leucodermis*, *P. pinaster*, *P. peuce*, *P. pinea*, *P. Sosnowskyi*, *P. uncinata*
- *Tetraclinis articulata*

- **Non-native species**

- *Abies grandis*, *A. procera* (Belgium)
- *Larix kaempferi* (Belgium, UK)
- *Picea sitchensis* (UK)
- *Pinus contorta* (Sweden)
- *Pseudotsuga menziesii* (Belgium)

Box 1. Conifers on the IUCN World list of threatened trees (1998)

<i>Abies cephalonica</i>	LR/nt
<i>Abies nebrodensis</i>	CR D1
<i>Abies nordmanniana</i> subsp. <i>equi-trojani</i>	LR/nt
<i>Abies pinsapo</i> var. <i>pinsapo</i>	VU D2
<i>Cupressus sempervirens</i>	LR/nt
<i>Juniperus brevifolia</i> (Azores)	EN B1+C2
<i>Juniperus cedrus</i> (Madeira, Canaries)	VU C1
<i>Larix decidua</i> var. <i>polonica</i>	VU B1+C2
<i>Picea omorika</i>	VU D2
<i>Pinus brutia</i> var. <i>eldarica</i>	DD
<i>Pinus nigra</i> subsp. <i>dalmatica</i>	VU B1+C2
<i>Pinus peuce</i>	LR/nt
<i>Tetraclinis articulata</i>	LR/nt

Legend: B1 = severely fragmented

C1 = decline of at least 10% in the next 10 years

C2 = continuing decline

CR = critically endangered

D1 = population of <50 individuals

D2 = restriction in area

DD = data deficient

EN = endangered

LR = lower risk

Nt = near threatened

VU = vulnerable

National priorities

As can be seen in Figs 1 and 2, the criteria for selection of priorities differed widely by country and were mostly based on the economic importance of the species or on the rarity/ecological importance of the species themselves. For example, 21 countries indicated that Scots pine (*Pinus sylvestris*) is a priority in their country and 5 of these put it as the first (highest) priority. Similarly, 19 countries indicated Norway spruce as a high priority (only 3 as the first priority). On the other hand, 19 countries indicated a strong interest in the conservation of yew (*Taxus baccata*) and in 6 of these it appears to be the highest priority. Of course, these indications were only intended to provide a starting point for the preparation of the workplan for the Network. It was agreed to develop common outputs in technical areas, which will be applicable to the different groups of species.

Fig. 1. Number of rare and threatened species indicated as priority for gene conservation per country.

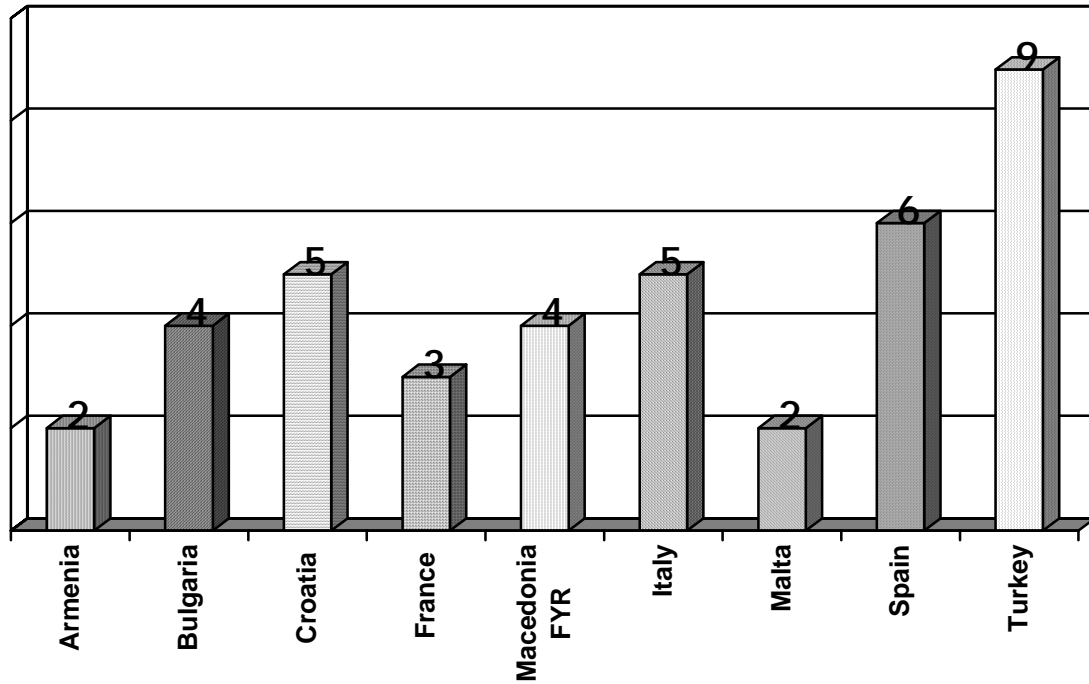
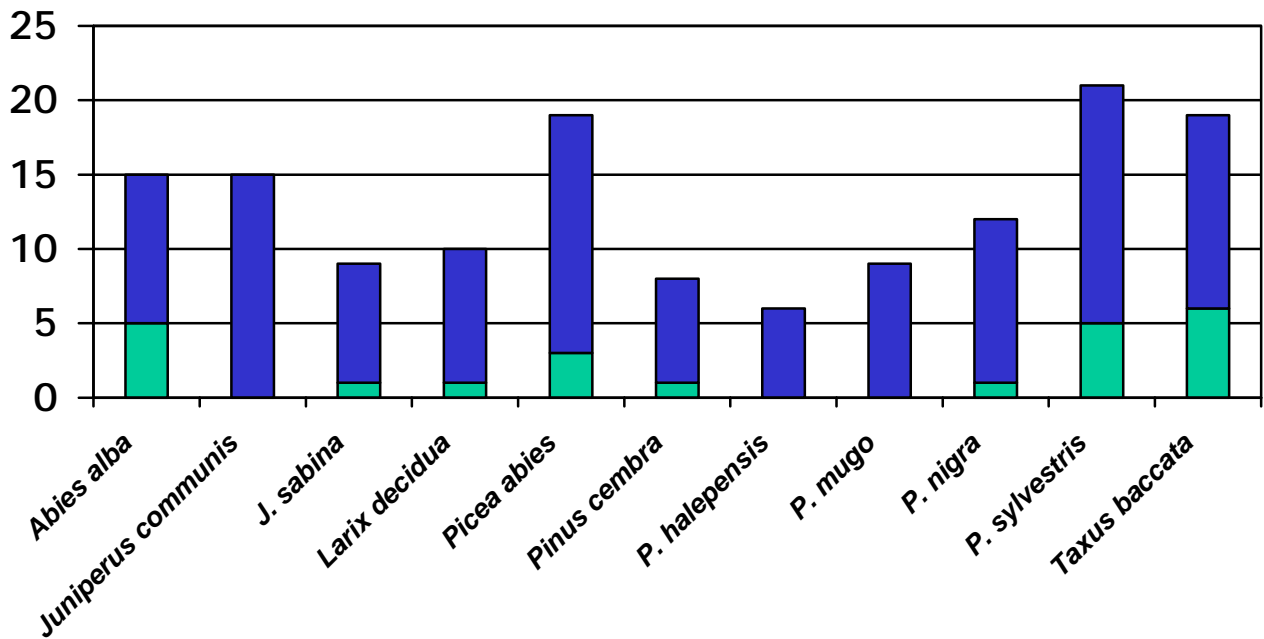


Fig. 2. Proportion of common species indicated (lower bar)/indicated as highest priority (upper bar) for gene conservation by countries.



Main constraints to the effective conservation and use of conifers genetic resources

Management-related issues, such as lack of incentives, appear to be among the most important constraints for the conservation of conifers.

Abiotic and biotic factors and the negative consequences of deforestation and clearcutting lead to forest decline and to an overall loss of diversity (both genetic and at the species level).

Table 1. Main constraints to the effective conservation and use of conifers genetic resources

Constraints	Total score	0	1	2	3
Lack of incentives in support of gene conservation as part of the routine silvicultural practice	52	1	3	11	9
Insufficient information/awareness about importance of genetic resources among decision-makers	48	0	5	14	5
Very high risks to the genetic resources due to abiotic and biotic factors (decline of species or declining population sizes, industrial emissions, repeated drought, pests and diseases etc.)	47	5	3	9	7
Use of reproductive material from inadequate or unknown sources	44	3	5	10	6
Lack of basic knowledge on species reproductive biology and overall genetic variation patterns	41	5	4	8	7
Lack of a national strategy or programme for the conservation of forest genetic resources	39	3	8	9	4
Problems with natural regeneration	39	4	8	7	5
Insufficient human resources	39	3	9	6	6
Insufficient communication or coordination between different actors (state forest service, forest owners, research, etc.) at the national level	38	4	6	10	4
Inadequate legal and economic policy instruments to design and implement gene conservation measures	37	2	10	6	6
Lack of economic interest in using certain species for timber and other forest products	35	8	5	7	4
Methodologies and techniques not available	31	5	9	8	2
Insufficient international cooperation in this area	22	5	11	7	1
Lack of knowledge on species' geographic range and distribution patterns	21	10	6	3	3

Legend:

0—is not a constraint

1—low

2—medium

3—key constraint

Priority areas for future involvement of the EUFORGEN Network on Conifers

As in other Networks, common strategies and guidelines appear to be among the major preoccupations of the participants and have in fact been included in the workplan. Information exchange and management were also indicated as important factors to be considered in the choice of future activities (see Workplan in this volume).

Programme

Saturday 4 March—arrival of participants

Sunday 5 March

- 8:30 Welcome (Host country and Chair of the *Picea abies* Network)
- 9:00 Introduction (IPGRI)
- 9:20 Adoption of the agenda and nomination of rapporteurs

Presentation of the history and main outputs of the *Picea abies* Network

- 9:30 Highlights on progress made in countries: selected examples
- 11:00 *Coffee break*
- 11:30 Technical Guidelines
- 12:00 Minimum descriptors
- 12:30 Poster and Web Page
- 13:00 *Lunch*

Assessing priorities for the Conifers Network

- 14:30 Genetic diversity of European Conifers (V. Koski)
- 15:00 Presentation of the results of the questionnaire
- 15:30 General discussion on needs and priorities
- 16:30 *Coffee break*
- 17:00 Working sessions on conservation strategies for different groups of conifers (widely occurring species, rare and threatened species, exotic species)

Monday 6 March

- 8:30 Presentation of results of the working groups on conservation strategies
- 9:30 Working sessions on the activities proposed for the workplan (e.g. information management, legal and policy issues, technical guidelines and methodologies, public awareness tools)
- 11:00 *Coffee break*
- 11:30 Presentation of results of the working groups
- 12:15 Development of a workplan
- 13:00 *Lunch*

14:30 Development of a workplan (continued)

16:00 *Coffee break*

Seminar: Conservation of conifers genetic resources in mountain forests

16:30 Forest biodiversity in the Caucasus Mountains (Z. Vardanyan)

16:50 Management of mountain forests in Switzerland and its effect on genetic resources (M. Ulber)

17:10 Management of mountain forest in Slovenia (G. Bozic)

17:30 Discussion

18:00 Links with international activities and initiatives on mountain forests

Tuesday 7 March

Field trip to Norway spruce stands (1/2 day)

15:00 Wrap-up session for the field trip: 'The contribution of dendroecology to studies of conifers genetic resources' (T. Levanic)

15:30 Election of Chair and Vice-Chair

15:45 Date and place of next meeting

16:00 *Coffee break*

16:30 Any other business

17:00 Adoption of the report

18:00 Conclusions and closure of the meeting

Wednesday 8 March—departure of participants

List of Participants

Mr Zhirayr Vardanyan
Institute of Botany
National Academy of Sciences
Avan 63
375063 Yerevan
Armenia
Tel: +374-2 621762
Email: frec@freenet.am

Mr Thomas Geburek
Institute of Forest Genetics
Federal Forest Research Centre
Hauptstrasse 7
1140 Vienna
Austria
Tel: +43-1 87838 2223
Fax: +43-1 87838 2250
Email: thomas.geburek@fbva.bmlf.gv.at

Mr Alphonse Nanson
Centre de Recherche de la Nature,
des Forêts et du Bois
Avenue Maréchal Juin 23
5030 Gembloux
Belgium
Tel: +32-81 626453
Fax: +32-81 615727
Email: a.nanson@mrw.wallonie.be

Mr Alexander H. Alexandrov
Dept of Forest Genetics, Breeding and
Physiology
Forest Research Institute
Kliment Ohridski Blvd. 132
1756 Sofia
Bulgaria
Tel: +359-2 9620442
Fax: +359-2 9620447
Email: forestin@bulnet.bg

Ms Marilena Idzajtich
Faculty of Forestry
University of Zagreb
Svetosimunska 25
10000 Zagreb
Croatia
Tel: +385-1 2352541
Fax: +385-1 2352505
Email: idzajtich@yahoo.com

Mr Josef Frýdl
Forestry and Game Management Research
Institute
Jiloviste - Strnady
15604 Praha 5 - Zbraslav
Czech Republic
Tel: +420-2 57921643
Fax: +420-2 57921444
Email: frydl@vulhm.cz

Mr Ülo Tamm
Forest Research Institute
Estonian Agricultural University
Kreutzwaldi 5
51014 Tartu
Estonia
Tel: +372-7 313168
Fax: +372-7 313153
Email: ytamm@eau.ee

Mr Veikko Koski
Forest Research Institute
PO Box 18
01301 Vantaa
Finland
Tel: +358-9 8570 51
Fax: +358-9 8570 5711
Email: veikko.koski@metla.fi

Mr Bruno Fady
Unité de Recherches Forestières
Méditerranéennes
INRA
Avenue A. Vivaldi
84000 Avignon
France
Tel: +33 490135910
Fax: +33 490135959
Email: fady@avignon.inra.fr

Mr Armin König
Institute for Forest Genetics and Forest Tree
Breeding (BFH)
Sieker Landstrasse 2
22927 Grosshansdorf
Germany
Tel: +49-4102 696147
Fax: +49-4102 696200
Email: koenig@holz.uni-hamburg.de

Mr Csaba Mátyás
Institute of Environmental Sciences
Faculty of Forestry
University of West Hungary
PO Box 132
9401 Sopron
Hungary
Tel: +36-99 518395
Fax: +36-99 329840
Email: cm@efe.hu

Mr Raffaello Giannini
Forest Tree Breeding Institute
CNR
Via A. Vannucci 13
50134 Firenze
Italy
Tel: +39 055461071
Fax: +39 055486604
Email: giannini@imgpf.fi.cnr.it

Mr Vlatko Andonovski
Faculty of Forestry
PO Box 235
91000 Skopje
Macedonia, F.Y.R.
Tel: +389-91 135033
Fax: +389-91 381813
Email: silva@mkinter.net

Mr Eman Calleja
Micropropagation Centre
Annibale Preca Street
BZN 04 Lija
Malta
Tel: +356 435898
Fax: +356 433112
Email: emanc@orbit.net.mt

Mr Tore Skrøppa
Norwegian Forest Research Institute
Hogskoleveien 12
1432 As
Norway
Tel: +47-64 949067
Fax: +47-64 942980
Email: tore.skrøppa@nisk.no

Mr Jan Matras
Department of Genetics and Physiology of
Woody Plants
Forest Research Institute
Bitwy Warszawskiej 1920 roku 3
00 973 Warsaw
Poland
Tel: +48-22 7150478
Fax: +48-22 7150313
Email: matrasj@las.ibles.waw.pl

Mr. Andrey Prokazin
Russian Tree Breeding Centre
Nadsonovskaya 13
141200 Pushkino (Moscow)
Russian Federation
Tel: +7-095 5843407
Fax: +7-096 5326662
Email: andrey@lessem.msk.ru

Mr Gregor Bozic
Slovenian Forestry Institute
Vecna pot 2
1000 Ljubljana
Slovenia
Tel: +386-61 2007821
Fax: +386-61 273589
Email: gregor.bozic@gozdis.si

Ms Hojka Kraigher
Slovenian Forestry Institute
Vecna pot 2
1000 Ljubljana
Slovenia
Tel: +386-61 2007820
Fax: +386-61 273589
Email: hojka.kraigher@gozdis.si

Mr Ladislav Paule
Faculty of Forestry
Technical University
Masarykova 24
960 53 Zvolen
Slovakia
Tel: +421-45 5206221
Fax: +421-45 5350608
Email: paule@vsld.tuzvo.sk

Mr Ricardo Alía
Depto. de Mejora Genetica y Biotecnologia
CIFOR-INIA
Apdo 8111
28080 Madrid
Spain
Tel: +34-91 3476857
Fax: +34-91 3572293
Email: alia@inia.es

Mr Lennart Ackzell
National Board of Forestry
Vallgatan 8
553 38 Jönköping
Sweden
Tel: +46-36 155706
Fax: +46-36 166170
Email: lennart.ackzell@svo.se

Mr Marcus Ulber
Federal Research Institute for Forest, Snow
and Landscape (WSL)
Zürcherstr. 111
8903 Birmensdorf
Switzerland
Tel: +41-1 7392597
Fax: +41-1 7392215
Email: marcus.ulber@wsl.ch

Ms Hacer Semerci
Forest Tree Seeds and Tree Breeding
Research Directorate
PO Box 11
06560 Gazi
Ankara
Turkey
Tel: +90-312 2126519
Fax: +90-312 2123960
Email: ortohum@superonline.com

Mr G. Ian Forrest
Forest Research
Northern Research Station
Roslin, Midlothian EH25 9SY
United Kingdom
Tel: +44-0131 4456930
Fax: +44-0131 4455124
Email: ian.forrest@forestry.gov.uk

Mr Roman Volosyanchuk
Laboratory of Breeding, Seed Growing and
Introduction of Tree Species
Ukrainian Research Institute of Forestry and
Forest Melioration
Vul. Pushkinska, 86
Kharkiv 61024
Ukraine
Tel: +380-572 431549
Fax: +380-572 432520
Email: volrom@u-fri.kharkov.com

IPGRI

Mr Jozef Turok
Regional Office for Europe
Via delle Sette Chiese 142
00145 Rome
Italy
Tel: +39 0651892250
Fax: +39 065750309
Email: j.turok@cgiar.org

Mr Simone Borelli
Regional Office for Europe
Via delle Sette Chiese 142
00145 Rome
Italy
Tel: +39 0651892221
Fax: +39 065750309
Email: s.borelli@cgiar.org

Observers

Mr Giuseppe G. Vendramin
Forest Tree Breeding Institute
CNR
Via A. Vannucci 13
50134 Firenze
Italy
Tel: +39 055461071
Fax: +39 055486604
Email: vendramin@imgpf.fi.cnr.it

Unable to attend

Ms Maria Carolina Varela
Estação Florestal Nacional
PROCALFER
Quinta do Marquês
2784-505 Oeiras
Portugal
Tel: +351-21 4415763
Fax: +351-21 4415660
Email: mcarolina@mail.telepac.pt