

Inside this issue

EUFORGEN and EUFGIS	2-3
Who owns the genes of the forest trees?	4
Fruit diversity in Italy	5
ECPGR	6-8
CWR in Europe	9
Forthcoming meetings and announcements	12

About this Newsletter

Bioversity International is one of the 15 Centres of the Consultative Group on International Agricultural Research (CGIAR). Bioversity's vision is that: "People today and in the future enjoy greater well-being through increased incomes, sustainably improved food security and nutrition, and greater environmental health, made possible by conservation and the deployment of agricultural biodiversity on farms and in forests."

Bioversity's Regional Office for Europe provides the Coordination Secretariats for the European Cooperative Programme for Plant Genetic Resources (ECPGR) and for the European Forest Genetic Resources Programme (EUFORGEN).

From October 2010 Bioversity will publish regular online issues of the Newsletter for Europe. This Newsletter is intended to serve as an informal forum for the exchange of news and views, and to create closer ties within the genetic resources community in Europe. Previous issues are available from the Bioversity website: www.bioversityinternational.org

Articles for publication in the Newsletter: We invite you to send your ideas, feedback and written contributions to Bioversity's Regional Office for Europe by email to bioversity-europe@cgiar.org. Please submit all contributions for NL42 by **December 2010**.

DISCLAIMER: While every effort is made to ensure the accuracy of the information reported in the Newsletter for Europe, Bioversity cannot accept any responsibility for the consequences of the use of this information.

A period of transition



*An extensive diversity of local products is sold in the central market of Funchal, Portugal.
Photo: L. Frese, Julius Kühn-Institut (JKI), Quedlinburg, Germany*

Dear Reader,
This Bioversity Regional Newsletter has kept its readers informed of the overall developments in the CGIAR reform process. In this vein, it has recently been announced that the Consortium Board of the new Consultative Group on Agricultural research (CGIAR) will be based in Montpellier, France, headed by the newly selected CEO Mr. Lloyd Le Page.

Particularly relevant to the work of Bioversity is the news that the Consortium has Consortium Board of the new Consultative Group on Agricultural research (CGIAR) has commissioned a scoping study on how the CGIAR Centres should deal with agricultural biodiversity and in particular genetic resources as a system. The study will be finalized by the end of 2010. However, the CGIAR reform will not change the role of the well-established European Programmes, ECPGR and EUFORGEN, which will remain as foundation stones for Bioversity's work in Europe.

Since the previous issue of this Newsletter was published (July 2010), there have been significant and timely developments in both ECPGR and EUFORGEN.

The independent externally commissioned review of ECPGR has been completed and a short update is given on page 6 of this issue. The broader implications of the review's recommendations will be shared more widely once these have been considered, discussed and agreed upon by the ECPGR Steering Committee

at its next *ad hoc* meeting to be held in Bratislava, Slovakia on 14-16 December 2010.

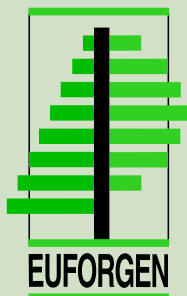
Under the EUFORGEN umbrella, the new EUFGIS Portal has been launched (see page 3) making available nationally gathered, geo-referenced and standardized data on European gene conservation units of forest trees. This supports the future work of EUFORGEN to develop pan-European gene conservation strategies for forest trees. The Portal is also a useful tool in the development of the State of Europe's Forest 2011 and the State of the World's Forest Genetic Resources (2013) reports.

It is interesting to observe that the ECPGR *In situ*/On-farm Conservation Network, at its meeting in Madeira (see page 8), discussed very similar issues to those addressed by EUFGIS. It is hoped that the experiences with EUFGIS can be used and built upon while developing an *in situ*/on-farm information management tool, possibly as part of EURISCO.

The final words of this editorial, words of recognition and appreciation, go to our colleague Olga Spellman who has so diligently edited and laid out the Regional Newsletter, since April 2004, and who now moves on to another position within Bioversity. Thank you Olga for your dedication and good luck with your career!

Jan Engels
Interim Regional Director

Seventh EUFORGEN Steering Committee meeting



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National Coordinators and observers from 25 countries participated in the seventh Steering Committee meeting of the European Forest Genetic Resources Programme (EUFORGEN), held in Vienna, Austria on 16-17 September 2010, following the launch of the new EUFGIS Portal (European Information System on Forest Genetic Resources) (see article on page 3). Representatives of Biodiversity International and the UN Food and Agriculture Organization (FAO) also attended the meeting, which was hosted by the Austrian Federal Research and Training Centre for Forests, Natural Hazards and Landscape (BFW).

The Steering Committee (SC) adopted the technical and financial reports for 2009 before discussing in detail future activities to be carried out during Phase IV (2010-2014). The Steering Committee recognized that some member countries are in the midst of financial difficulties but urged all countries with outstanding financial contributions to continue their support to the Programme. The Steering Committee noted that the KBBE call for proposals under the European Union's 7th framework programme for research offers opportunities for collaborative work on conservation of forest genetic resources in Europe. Furthermore, the Steering Committee expressed its wish that the European Commission continues to invest in conservation, characterization, collection and utilization of genetic resources in agriculture after the current AGR GEN RES programme of the DG Agriculture and Rural Development ends. In this regard, the Steering Committee requested the EUFORGEN Secretariat to liaise with the EC and established a small task force to identify future funding opportunities for the collaborative work on forest genetic resources.

As a follow-up to its sixth meeting in Greece in 2009, the Steering Committee then discussed activities to be carried out during Phase IV and developed a workplan



View of the BFW – the Federal Research and Training Centre for Forests, Natural Hazards and Landscape, and external field trials, where the meeting was held. Photo: B. Vinceti, Biodiversity International

for 2010-2012. The workplan includes the establishment of three working groups focusing on specific tasks, namely: 1) assessment of gene conservation status of forest trees in Europe and development of pan-European gene conservation strategies; 2) development of genetic monitoring methods for gene conservation units of forest trees; and 3) reviewing current knowledge and issues related to the use and transfer of forest reproductive material in the context of climate change and develop recommendations for further action. The Steering Committee acknowledged the newly launched EUFGIS Portal as a valuable tool especially for the first and second working groups.

The working groups will be established in December 2010 once all member countries have provided their nominations to the Secretariat to create a pool of experts. Each working group will consist of approximately ten experts, selected from the pool of experts, based on their expertise and the geographical coverage of the member countries. The working groups will be supported by the Secretariat and they will present their results during EUFORGEN workshops. The workshop on conservation on forest genetic resources has been scheduled for September 2012.

In 2010, EUFORGEN is expected to collect data on Indicator 4.6 (forest genetic resources) of the pan-European criteria and indicators for sustainable forest management. The data will be included in the next State of Europe's Forests report which will be released at the sixth Ministerial Conference of the Forest Europe process in Oslo on 14-16 June 2011. The Steering Committee encouraged all countries to provide data for this purpose and noted that the EUFGIS Portal will also be important for this reporting effort. The Secretariat will follow up on the data collection process with all National Coordinators or contact persons

in the case of non-member countries.

The FAO representative briefed the Steering Committee on the development of the State of the World's Forest Genetic Resources report and presented the country reporting guidelines. In May 2010, FAO invited all countries to nominate their focal points for the process but so far only a few European countries have done so. The report will be presented to the FAO Commission on Genetic Resources for Food and Agriculture in 2013. It will be an important milestone for future work on forest genetic resources at a global level. The SC was also informed that the first meeting of the new Intergovernmental Technical Working Group on Forest Genetic Resources is now scheduled for March 2011. This Working Group, which oversees the development of the report, has a total of 27 members, including five European countries (Finland, France, Italy, Norway and Spain).

The Steering Committee also discussed recent developments in the ongoing negotiation process under the Convention on Biological Diversity (CBD) to establish an international protocol on access to genetic resources and a related benefit sharing mechanism. This new protocol is expected to be adopted at the tenth Conference of Parties to the CBD in Nagoya, Japan on 18-29 October 2010. Several Steering Committee members raised concerns that such a protocol is likely to provide an increased administrative burden and create obstacles for exchanging forest genetic resources. As it is too early to analyze the potential implications of the protocol for the forest sector in Europe, the Steering Committee agreed that this issue deserves further discussion once the final wording of the protocol is known, assuming that the Parties reach agreement on several open issues at the Nagoya meeting.

More information on Phase IV is available on the EUFORGEN website (www.euforgen.org).

EUFGIS Portal is launched



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The EUFGIS Portal, a new tool for conservation of forest genetic resources, was unveiled on 15 September 2010 in Vienna, Austria. The Portal makes available, for the first time, geo-referenced and standardized data on gene conservation units across the entire distribution range of Europe's forest trees. Currently the Portal includes data on some 2300 gene conservation units and more than 100 tree species.

The Portal is a key product of the EUFGIS project (Establishment of a European Information System on Forest Genetic Resources) coordinated by Bioersity International and supported by the European Commission under Council Regulation (No 870/2004) on genetic resources in agriculture. The Portal was launched at the final project meeting, hosted by the Austrian Federal Research and Training Centre for Forests, Natural Hazards and Landscape (BFW). The meeting gathered together national focal points and other experts to share their experiences in compiling data for the Portal and to discuss how to further develop it.

The future of Europe's forests and forestry will depend on the long-term ability of trees to adapt to a changing climate. This cannot be achieved without active human intervention to maintain evolutionary processes and genetic diversity within tree populations. This approach is termed "dynamic gene conservation" and it is based on managing tree populations

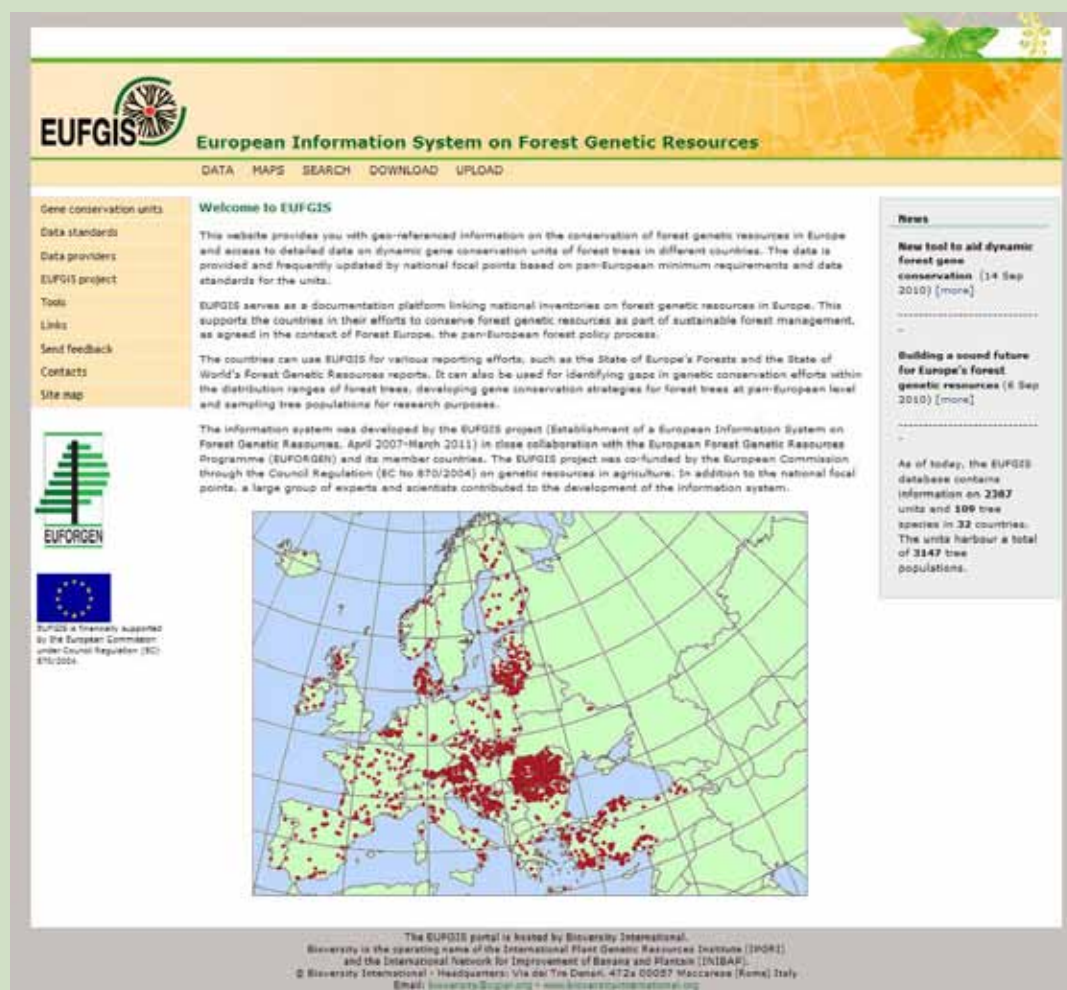


Image: EUFGIS Portal entrypage: <http://portal.eufgis.org>

at their natural sites, within the environment to which they are adapted (*in situ*), or artificial but dynamically evolving tree populations elsewhere (*ex situ*). Based on this approach, pan-European minimum requirements for dynamic gene conservation units of forest trees were developed as part of the project.

The data available in the EUFGIS Portal meets the pan-European minimum requirements and is uploaded by the national focal points following common data standards. This makes the Portal a valuable source of information for improving the conservation of forest genetic resources both at national and regional levels. The minimum requirements also explain how the units should be managed so that they contribute

to dynamic gene conservation.

Case studies presented during the meeting demonstrated how the data can be used for comprehensive assessments of genetic conservation efforts and for developing truly pan-European gene conservation strategies for forest trees. Furthermore, European countries can use the Portal for international reporting efforts, such as the development of the State of Europe's Forest 2011 report, to be released at the next Ministerial Conference in Oslo, and the State of the World's Forest Genetic Resources report, prepared by FAO for 2013.

The data screening process has continued after the launch and the national focal points have been notified for possible

errors occurring during the uploading process. In several countries, data continues to be uploaded into the Portal. End-users will be able to download data for further analyses once the data providers have signed a data sharing agreement which was adopted by the EUFORGEN Steering Committee on 17 September 2010. The project partners are now finalizing the case studies and they will also prepare guidelines for countries to carry out the documentation work. The project will end on 31 March 2011, after which the Portal will be maintained as part of the EUFORGEN activities.

Further information is available on the EUFGIS Portal (portal.eufgis.org) and the project website (www.eufgis.org).

Who owns the genes of the forest trees?

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There is great ecological, economic and social value within forest genetic resources – that is a fact. But so far, the true legal status of this resource has not been defined.

This was the background for a meeting held in Vienna on 13 September 2010 which assembled forest and legal experts to discuss preliminary outputs from a NordGen project (2009-2010), initiated by representatives from Denmark, Finland, Norway and Sweden.

One of the crucial questions is how we define property rights and ownership beyond biological material. Is it the owner of the tree, the owner of the land or perhaps the finder of the propagating material who gains the ownership right? This varies between the Nordic countries, depending on national legislation in the field, such as the “Everyman’s Right” which secures unrestricted access to most recreational areas, including forests.

Although patent law might be applicable to trees in the areas of novel breeding methods or for short rotation crops for biomass, a key obstacle is the long rotation time of forest trees, way beyond the 20 year protection afforded by patents. The relevance of patents and plant variety protection is also determined by commercial imperatives. In other words, there must be a market, as pointed out by Morten W. Tvedt at The Fridtjof Nansen Institute.

Under climate change, where natural adaptation may become insufficient, there will probably be an increased need for transfer of forest genetic resources between countries. With this growing demand, emerging access regulations associated with the Convention on Biological Diversity (CBD) might prove a barrier, so there is a need to ensure that any new bureaucratic procedures are streamlined and practical. But the feasibility of ensuring this remains open to question.

The Vienna meeting heard from two European projects where successful cooperation and contractual arrangements on the movement of forest genetic resources have been achieved. In the EVOLTREE project, Silvia Fluch at the Austrian Institute of Technology explained how standard agreements have proved effective in moving material in and out of a DNA repository centre in Austria. Similar success is set to be achieved in the TREEBREDEX project, as reported by Sven de Vries of Wageningen University and Research Centre who is currently examining three possible ways forward. The big question though is can such “gentlemen’s agreements” be applied to the cut and thrust of real commerce? More likely, commercial exchange will be subject to an access and benefit sharing regime drawn up by the CBD, whenever it comes into force.

All parties involved in the debate are well aware that their discussions are highly topical and timely. In Nagoya, Japan in



Wind-borne Norway spruce pollen grains. Destination is open and ownership is essentially undefined. Photo: Ragnar Jonskås, Norwegian Forest Seed Centre, Hamar, Norway

October this year the CBD is expected to deliver new protocols on access and benefit sharing in genetic resources. Forest resources are set to be included.

Carl Gustav Thornström of the Swedish University of Agricultural Sciences warned that we are moving towards too much political correctness on this whole genetic resources issue without proper regard for practicality. He doubts that Nagoya will deliver a workable framework for forests or other areas when basic building blocks and definitions, such as what really is a plant variety, still have to be set in stone. He made a plea for far better training of people in the interface between law and genetics so that perhaps new thinking could be applied to resolving these forest genetic conundrums.

The legal aspects of forest genetic resources were also discussed during the consecutive Steering Committee meeting of EUFORGEN (see page 2), which has now entered into its fourth phase. The Steering Committee agreed that EUFORGEN should closely follow the negotiation process on access and benefit sharing and come back to the issue as needed, as it has potentially strong implications for the exchange and use of forest genetic resources in the future.

Pomona Botanical Conservatory's fight for survival

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Far left: Paolo Belloni accompanies Vandana Shiva on a tour of the Pomona gardens in 2008. Photo: Enzo Arnone/Botanical Gardens Cisternino, Italy. Above: the Pomona gardens on a misty morning and a selection of fig varieties grown at Pomona. Photos: Paolo Belloni, Cisternino (BR), Italy

Located at the centre point between three Italian provinces (Bari, Brindisi and Taranto), in the Apulia region, in the heart of the Valle d'Itria, also known as Valle dei Trulli, lies the ten hectare botanical conservatory, the "Pomona" gardens. The conservatory is named after Pomona, the Latin goddess, protector of orchards and gardens, depicted in classical and neoclassical iconography holding an olive branch in one hand, a vine in the other and a cornucopia brimming with fruit resting at her feet.

The conservatory was established by Paolo Belloni, a photographer who, in 1993 abandoned his profession, travelling 20 000 kms across Italy, contacting Institutes and agronomy faculties, to ascertain the viability of establishing a national association/network to safeguard fruit tree diversity. In November 1993 he founded Pomona onlus – a national association for the valorization of biodiversity and in June 2004 established the Pomona gardens, which currently hold approximately 800 cultivars of fruit trees, following an organic farming method and traditional row planting system, using rain water for irrigation collected in cisterns located in every field.

The conservatory also prides itself in conserving the genetic diversity of some extremely rare and antique varieties of sour cherry, fig and apple. The main collection

holds more than 220 accessions of *Ficus carica* and can probably be considered the most extensive collection in Italy, and among the largest of those in the Mediterranean basin. The rarest variety of fig in the collection is "Luv", an ancient main-crop-only variety of black fig from the Piacenza province in Italy, of which very few trees remain in the whole of Italy. Among others are the Fico Fetifero, a green- and black-skinned, bell-shaped fig with a smaller fig embryo encased among its inner flesh, Albo, Brogiotto, Gentile, Monaco, Paradiso, Pissalutto, Portoghese, Troiano, Regina Bianco, Regina Nero, Verdone and Dottato.

The botanical conservatory also holds traditional apple and pear collections, as well as apricot, sweet and sour cherry, plum, peach, ornamental and fruit pomegranates and minor fruits such as walnut and hazelnut, some tropical varieties (guava, feijoa, avocado, pecan nut and lichi, and a collection of citrus fruit trees that are unprotected in winter for frost resistance evaluation. There are also a few varieties of *Vitis vinifera*, for wine and some varieties of table grape traditionally grown in the area. The conservatory houses a vast variety of aromatic plants, including varieties of rosemary, sage, oregano, thyme, hyssop and mint, as well as horseradish, rhubarb, lemon grass, liquorish and camphor.

Among the rarer cherry varieties is *Prunus cerasus visciola* (known as "ciliegio progressiflora" in Italy), a sour cherry that has the unusual characteristic of flowering during full fruit maturation. First depicted/drawn in 1826 in Genoa, Italy, by Domenico Del Pino for the "Pomona Italiana" by Giorgio Gallesio, considered by many to be the most beautiful of Italian botany plates ever produced, the *P. cerasus visciola* is a late flowering plant, depending on altitude, flowering between April and August, but the last fruits can still be picked towards the end of September. It was believed to be extinct, until a specimen was found growing on the river Pesio (Cuneo, Italy) by Raffaele

Bassi in the early 1990s. The tree had been conserved by fishermen who used its fruits as fish bait for chub fishing.

Among the 30 or so varieties of pear and apple held by the conservatory is the Api étoilé (star lady) variety, ancient and curious in nature, said to have belonged to the ancient roman Appi family; it is aesthetically beautiful, with its intense yellow skin and fire-red blush where the fruit is exposed to full sun. The fruit is star-shaped, due to its five prominent ribs and its rather oblate, flattened shape and is aromatic with sufficient acid and a sweet, fruity taste. It was reintroduced into Italy, from the Gap Botanical conservatory collection, in France. The variety had been present in Italy until the end of the 1800s but had become extinct thereafter.

The Pomona conservatory is open to the public and hosts various activities aimed at promoting a love and understanding of plant biodiversity. All of the varieties growing at Pomona have been photographed and saved to CDrom and will be catalogued in collaboration with the University of Salento Botanical gardens. It is a humbly run family activity with no public funding, which is finding it hard to maintain the vast collection conserved. Local teachers, scientists and friends have also contributed to the development and study of the Pomona collection. A recent project proposal to the Apulia region to fund the maintenance of the collection through a refurbishment of the typical local "trulli" (traditional Apulian stone dwellings with a conical roof), which would attract tourism and thus promote sustainable development of this local jewel of biodiversity, was sadly not approved for funding. Two years ago, visiting Indian scientist and ecologist, Vandana Shiva, praised the conservatory for its recovery and conservation of rare and extensive plant diversity for local healthy and diverse nutrition. Such praise can only inspire the Belloni family to seek other avenues to ensure the long-term continuity of this haven of biodiversity.

Second meeting of the Working Group on Fibre Crops (Flax and Hemp)



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The Second meeting of the ECPGR Working Group on Fibre Crops (Flax and Hemp) was held on 7-9 July 2010 in Velké Losiny, near Šumperk, Czech Republic. Participants from Czech Republic, Italy, Latvia, Portugal, Russian Federation and Turkey reported on the status of their national collections of flax and hemp and discussed the progress made by the Working Group since the first meeting in 2006 (see NL 33, p.4).

The International Flax Database (IFDB) managed by Martin Pavelek (AGRITEC, Czech Republic), is currently composed of two data sets. A total of 2903 records follow the format agreed at the first meeting and will become the base of the new IFDB. The previous data (7934 records) will be revised and adjusted as much as possible to the latest IFDB structure. The proposal submitted to the ECPGR Steering Committee (SC) for financial support to develop the IFDB was not accepted (decision of the Tenth SC meeting, September 2006) and this hindered its progress, since AGRITEC does not have sufficient resources to carry out the work. Alternative funding should be sought, especially to make the IFDB available online. The need to check the flax data currently recorded in EURISCO was also underlined.

Gianpaolo Grassi (CRA-CIN, Italy), the new manager of the Hemp Database, presented his plans for the conversion of the data currently available according to the format agreed for the IFDB. He will contact



Top: Participants in the Second meeting of the Working Group on Fibre Crops (Flax and Hemp), visiting AGRITEC's field trials. Bottom: Hemp and flax trials of AGRITEC Research, Breeding and Services, Ltd., near Šumperk, Czech Republic. Photos: Elinor Lipman, Biodiversity International

other members holding hemp collections for inclusion of their data and will coordinate the hemp-related activities of the Working Group.

The participants received updated information about the status of AEGIS (A European Genebank Integrated System) and made preliminary recommendations for the implementation of AEGIS by the Fibre Crops Working Group: for the moment, selection of Most Appropriate Accessions (MAAs) for inclusion in the European Collection will focus on flax; the agreement on the procedure for the selection of these flax MAAs and the development of the list of selection criteria for

flax accessions will require the involvement of all members of the Working Group, under the coordination of the Chair.

At the end of the meeting Martin Pavelek was reconfirmed as Chair of the Working Group and Gianpaolo Grassi was selected as Vice-Chair.

The participants also enjoyed the visits to AGRITEC's flax and hemp field trials, displaying a wide diversity of traits.

The report of the meeting, related papers and presentations will be available at www.ecpgr.cgiar.org/Workgroups/Flax_Hemp/Presentations_2010.htm.

ECPGR Independent External Review completed

An Independent External Review of ECPGR, as requested by the ECPGR Steering Committee (SC) at its 11th meeting (2008) was completed in July 2010 at Biodiversity Headquarters in Maccarese, Rome. The Review Panel – consisting of Thomas Gass, Switzerland (Panel Chair), Marianne Lefort, France and Orlando de Ponti, The Netherlands, based its review on a Stakeholder's consultation (www.ecpgr.cgiar.org/Evaluation_Report_ECPGR_final.pdf), a Synthesis document prepared by the Secretariat (www.ecpgr.cgiar.org/Secretariat%20overview_finalcorr_280610.pdf), a series of interactions with Secretariat and Biodiversity staff and with stakeholders, as well as attendance of an ECPGR Working Group meeting. The Panel submitted its Review report to the Steering Committee, presenting its analysis, conclusions and recommendations.

An extraordinary *ad hoc* Steering Committee meeting has been planned for 14-16 December 2010 in Bratislava, Slovakia, where the Panel Chair will present the Panel's conclusions and recommendations for immediate discussion by the Steering Committee.

The Review Panel's report may represent a new starting point for ECPGR as it envisages a new role for the Programme which may include evolving towards a stronger institutionalization, enforced executive and decision-making power of the SC and a strengthened Secretariat. Revision of the Programme's overall objectives, resource mobilization and hosting arrangements are also considered in the Panel's recommendations.

Lorenzo Maggioni

Eighth meeting of the *Prunus* Working Group

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The Eighth meeting of the *Prunus* Working Group (WG) was held in Forlì, Italy, on 7-9 September 2010, organized by the Fruit Crop Research Unit of Forlì. The meeting was attended by participants from 22 countries. The Chair, Daniela Benediková, reported the results of a survey on the status of *Prunus* collections, compiled on the basis of 15 answers to a questionnaire. This sub-section of the total of *Prunus* collections revealed the presence in genebanks of 15 700 accessions, of which 10 700 of national origin. The main problems identified were the health status of the trees, lack of funds for the maintenance of the plants and curating staff, decreasing national budgets for activities such as identification, collecting, introduction, evaluation and regeneration; moreover, some very old field collections need urgent regeneration.

In response to the above problems, the need was identified to establish national networks of fruit tree conservation. Successful examples of existing national networks, such as in Germany, Sweden and Switzerland, will be described in documents to be circulated and uploaded on the Web, to serve as a model for other countries.

The ECPGR *Prunus* database underwent considerable development under the management of INRA, Bordeaux, France. A portal providing access to six distinct databases (Almond, Apricot, Cherry, Peach, Plum and Inter-specific hybrids,) will be ready by the end of 2010. The database can host passport, characterization and evaluation data, pictures of trees, fruits, flowers and leaves,

molecular markers and genotypes. Data owners will be able to directly upload their data. The EPDB model tool will also be tested by CRA-W Gembloux (Belgium) and possibly adopted by the *Pyrus* Working Group to serve the ECPGR *Pyrus* Database.

In order to standardize data input, the Group agreed on a number of minimum passport and characterization/evaluation descriptors, as well as to define crop-specific lists of SSR markers to be used when fingerprinting cherry, apple and pear accessions of European Collections, by the end of January 2011. Guidelines for taking photographs of the accessions were also presented and a document to be used by the Group is being finalized.

Regarding the Group's involvement in the development of the European Genebank Integration System (AEGIS), the selection criteria to be used for the choice of Most Appropriate Accessions (MAAs) were discussed, defining "Trueness-to-type" as the most important criterion (particularly relevant for perennial clonal crops in which synonyms and homonyms are frequent). The Group agreed to work towards the definition of a list of cherry MAA candidates for the (AEGIS) European Collection. *Prunus*-specific standards for conservation were also discussed and are expected to be finally approved by June 2011. An agreed methodology for safety duplication is also sought and a document will be prepared by December 2010 for circulation and approval by the Group.

Daniela Giovannini, Italy was elected as new Chair and Kristiina Antonius, Finland as Vice-Chair. All the presentations given at the meeting are available from: www.ecpgr.cgiar.org/workgroups/prunus/Presentations_Prunus_8.htm. The draft report will also be uploaded on the ECPGR *Prunus* WG website.



Above: Plum accessions, taken according to the standard guidelines. Photo: David Szalatnay, Agroscope, Switzerland; Below: A few *Prunus* WG meeting participants hard at work. Photos: L. Maggioni, Bioversity International



AEGIS Competitive Grant Scheme - Announcement and Second Call for Proposals

http://aegis.cgiar.org/about_aegis/latest_news/aegis_grant_2nd_call.htm



<http://aegis.cgiar.org>

On behalf of the ECPGR Steering Committee and the AEGIS Advisory Committee, the ECPGR Secretariat is pleased to announce the Second Call for Proposals of the AEGIS Competitive Grant Scheme. The deadline for applications is 31 December 2010.

The Grant has the objective of supporting activities that will be directly linked to the goals of AEGIS and thus contribute to the establishment and/or operation of AEGIS. Details on AEGIS can be obtained from its website (<http://aegis.cgiar.org/>), in particular from "A Strategic Framework for the Implementation of a European Genebank Integrated System (AEGIS) - a Policy Guide" (http://aegis.cgiar.org/about_aegis/latest_news/aegis_grant_2nd_call.html).

The initiative to develop a proposal can be taken by any individual or institution based within an ECPGR member country. The proposals are expected to be prepared according to the standard outline and submitted with an endorsement from the corresponding ECPGR Network Coordinator or Working Group Chair.

Specific documents outlining the details on the general requirements for the proposals, further details on the eligibility of the applicants, the implementation period and duration, selection and review procedures, the selection criteria and the implementation of the Grant, as well as funding perspectives (Announcement, Guidelines for preparation of project proposals and Application Form) can all be found at the above link.

For more information, please contact Jan Engels (j.engels@cgiar.org) or Lorenzo Maggioni (l.maggioni@cgiar.org).

First meeting of the Working Groups of the *In situ* and On-farm Conservation Network

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The first joint meeting of the “Wild species in genetic reserves” and “On-farm conservation and management” Working Groups, of the *In situ* and On-farm Conservation Network, was held in Funchal, Madeira, on 16 September 2010, at the end of the Symposium “Towards the establishment of genetic reserves for crop wild relatives and landraces in Europe”. Forty-one delegates from 31 countries attended the meeting. Among the observers, Olivier Diana, EC officer from Directorate General Agriculture and Rural Development also attended.

The aim of the Network is to promote the conservation and use of landraces and crop wild relative diversity on-farm and in genetic reserves across Europe. The results of the PGR Forum project (see <http://pgrforum.org/>) and AEGRO project (see article on page 9 and <http://aegro.bafz.de/>) were acknowledged to be useful in advancing progress towards the Network's objectives. These will also assist in carrying out the activities of the newly funded EC 7th Framework project PGR Secure (“Novel

characterization of crop wild relative and landrace resources as a basis for improved crop breeding”), starting in March 2011. PGR Secure broadly aims to improve breeders' use of conserved Crop Wild Relatives (CWR) / Landrace Resource (LR) diversity and enhance their availability through the systematic conservation of CWR and LR species and genetic diversity; this will include, *inter alia*, the establishment of Europe-wide national CWR and landraces checklists and consensus European inventories, as well as national and generic strategies for European CWR and landraces conservation actions.

The On-farm conservation and management WG reviewed the national experiences on landraces threats, inventories and promoting use. The opportunity to take advantage at national level of the EC support, deriving from the Rural Development Funds for the conservation of landraces on-farm, was stressed. Creating a clearing-house mechanism for landraces (i.e. a European inventory) will be facilitated by the availability of the draft standards prepared by the WG (see www.ecpgr.cgiar.org/Networks/Insitu_onfarm/Docs/OnfarmDescr) which represents a solid base for developing agreed standards and of a specific website (see www.sharinginformation.eu/) which can be used in reaching European stakeholders and Institutions aware of landraces maintained on farm. It was noted that this initiative will need to be jointly managed by the “*In situ*” and by the “Documentation and Information” Networks. The recent EC seed legislation directives were thought to be very variable in their impact, depending on the interpretation given by each country when adopting the directives. It was felt that an increased registration of conservation varieties was the ideal outcome of a successful implementation of the seed directives. The countries were encouraged

to prepare national guidelines for action to promote on-farm conservation.

The “Wild species in genetic reserves” WG surveyed the status of progress of National CWR conservation in each of the participant's countries by reviewing national progress towards the establishment of 11 specific indicators of CWR maintenance. The results presented indicate for the majority of European countries very few had made significant progress, except that the majority of countries had some *ex situ* samples of CWR germplasm in the genebank. This was useful in identifying the short-term priorities of the WG. It is hoped that many of the longer-term priorities will be achieved within the PGR Secure project. A Horizon Scanning (HS) exercise was carried out where all Network members were asked to suggest priority actions for the 15-30 years of Network activities. Although this HS exercise has yet to be completed, the sort of priorities the WG members suggested were: to establish a European network of CWR genetic reserves, ensuring that $\geq 50\%$ of European CWR are conserved reliably; establishment of an information network for CWR; to submit

IUCN Red List assessments of national endemic CWR to the global Red List; to develop a proposal to improve IUCN Red List criteria to take into account intraspecific genetic diversity; to establish genetic reserves for CWRs in “emergent ecosystems” (human disturbed areas as a consequence of the development of infrastructures: e.g., road and railroad banks); building a web-accessible central European database detailing where adaptively important genes or alleles from CWRs have been successfully transferred to crops, development of participatory management and monitoring models for CWRs and LRs conservation across Europe; and promotion of biodiversity friendly agriculture systems.

The “Wild species in genetic reserves” WG elected Nigel Maxted, UK, as its Chair and José Iriondo, Spain as Vice-Chair. The “On-farm conservation and management” WG elected Valeria Negri, Italy, as Chair and Pedro Moreira, Portugal, as Vice-Chair. The meeting presentations are available from www.ecpgr.cgiar.org/Networks/Insitu_onfarm/Presentations_Madeira_10.htm. A report of the meeting will be made available from the ECPGR *In situ*/On-farm Network website.



A colourful composition of plant varieties on display at the Botanical Gardens in Madeira, Portugal. Photo: L. Maggioni, Biodiversity International

Towards the establishment of genetic reserves for crop wild relatives and landraces in Europe

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Participants of the Symposium and the ECPGR In situ and On-farm Conservation Network meeting, University of Madeira, Funchal, Portugal.
Photo: University of Madeira, Funchal, Portugal

A symposium on Crop Wild Relatives (CWRs) and Landraces in Europe was organized by the ECPGR *In situ* and On-farm Conservation Network and the EU project AGRI GENRES 057 (AEGRO) project team. The joint meeting took place at the University of Madeira in Funchal on 12-16 September 2010. The symposium was attended by 84 participants from 38 countries, including non-European countries such as China, Syria and USA. Thanks to the excellent meeting facilities and a team of engaged local organizers, the symposium was valued by all participants as an informative and very inspiring meeting.

The scientific programme aimed at the update of ongoing research in the field of *in situ* and on-farm conservation and the discussion of interim results of the AEGRO project (10/2007 to 03/2011) with the expert community.

The strategic framework for *in situ* management of crop wild relatives was outlined in the first session, focusing on the four-step methodology developed by AEGRO. This methodology is a component of the CWR *In Situ* Strategy Helpdesk which is available on-line at <http://aegro.bafz.de>. It assists the systematic identification of candidate genetic reserve sites. The methodology was successfully tested by the crop case studies work package partners. The wider use of the methodology within our PGR community would lead to a step-wise establishment of a network of genetic reserves in Europe. Crop-specific PGR interest groups such as the ECPGR Working Groups will be the main drivers of this process.

The session dealing with on-farm conservation of landraces could also have

had the heading "alternative plant breeding approaches". The symposium discussions highlighted the fact that conservation of landraces in their cultural context is to be understood as a dynamic process managed by individual home gardeners, farmers, local communities or a network of farmers managed, for example, by research centres.

Any plant genetic resources management decisions should be based on rational grounds. Molecular markers are powerful tools for the investigation of the structure and distribution of genetic diversity within crop gene pools. Results of population genetic analysis guide the decision making process. The application of these tools was explained in several inspiring lectures presented in the session on priority setting and threat assessment.

A wide range of papers on data management were presented. They all illustrated the progress made in this field, as well as the urgent need for even more progress in Europe. The next step will consist in a better integration of the Population Level Information System (PLIS) into the Crop Wild Relative Information System (CWRIS) and to building a European inventory of landraces. The PGR Secure project "Novel characterization of crop wild relative and landrace resources as a basis for improved crop breeding", funded under the EU 7th Framework Programme, coordinated by the University of Birmingham, UK, will keep the ball rolling.

Deficits in the PGR data management sector not only hamper the wider application of the genetic reserve conservation technique, the identification of regions in Europe having a high geographic density of landraces, the identification of

multi-species sites with the objective of improving the cost-value relation of the genetic reserve concept, but also the use of plant genetic resources in plant breeding. How the use of CWR and landrace resources can be improved, for example through the application of the Focused Identification of Germplasm Strategy (FIGS), will be investigated in the PGR Secure project.

The final session addressed aspects of (agro)biodiversity policy, recognizing that progress in all fields of genetic resources management and use requires more political recognition of our common work performed so far. Progress also requires programmes for funding adequate permanent infrastructures for genetic resources management, as well as project funding for solving temporal problems in agricultural production by means of plant breeding.

The participants were all pleased that a representative of the European Commission attended the meeting. It was a unique opportunity for exchange of information, assessments and opinions between our expert community and the EC – and for presenting our long wish list. The meeting also facilitated communication between the ECPGR Programme and the EC. What seems to be a small note at the end of this report hopefully will develop into closer cooperation between both institutions in Europe.

Keywords of the closing speeches: dense programme, excellent organization, participants very dedicated to the subject, enthusiasm, friendship - high praise in recognition of the excellent work of the organizing team.

Italy: a report on national *ex situ* conservation of plant biodiversity

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Top: Labs in the Sardinian Centre for the Conservation of Biodiversity-CCB. Photo: Efisio Mattana, CCB, Cagliari, Italy; Bottom: The Italian National Centre for the Study and Conservation of Forest Biodiversity-CNBF, Peri, Verona. Photo: Nicola Montebelli, CNBF, Peri, Verona, Italy

As a contribution to the International Year of Biodiversity, more than 235 researchers in Italy have worked together to assess and describe Italian *ex situ* biodiversity conservation of wild and cultivated plants, including crop wild relatives. The results of the work have been published in a 200 page report, available online.

The status of germplasm collections and germplasm banks (or other facilities for conserving plant species) were considered in the document, together with topical items like biodiversity and climate change, biodiversity and food, biodiversity and invasive species and costs of biodiversity conservation. State of the art technology, constraints and actions needed were reported for each subject considered.

The paper shows that, in most cases, critical situations are quite specific: for example the need for national legislation to preserve native plants; the incomplete implementation of existing legislation to better protect the forest sector; the lack of cryopreservation techniques for parts of the plant other than seeds, for species under threat of extinction; the lack of floristic surveys referred to psammophile plants (plants that thrive in sandy soils); the financial constraints in the field of germplasm conservation or the scarce

attention paid to conservation of marine phanerogams (flowering plants). On the other hand, a number of problems are common to all sectors: lack of funds, insufficient coordination of activities and programmes within institutions, the need for shared protocols in many basic activities like germplasm collection, germination tests, seed storage, data management, etc.

Even though a National Biodiversity Strategy has been launched this year in May, a National Biodiversity Plan, according to the Convention on Biological Diversity (CBD), is strongly expected as it is believed to be a more incisive tool.

The Institute for Environmental Protection and Research, ISPRA (Istituto superiore per la protezione e la ricerca ambientale), has coordinated this effort and has published the results in a document entitled: "La conservazione *ex situ* della biodiversità delle specie vegetali spontanee e coltivate in Italia", which can be downloaded from the ISPRA website (www.isprambiente.it/site/it-IT/Pubblicazioni/Manuali_e_linee_guida/Documenti/manuale_54_2010.html).

The report has also been posted on the CBD website, on the 2010 International Year of Biodiversity page: www.cbd.int/2010/prints.

EVA II sprints off the starting line

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Within the framework of a Public-Private Partnership (PPP) programme called EVA II, 22 public research institutes or private breeding companies, located in different parts of Germany, are evaluating genetic resources of cereals on disease resistance. Until recently the Julius Kühn Institute (JKI, Quedlinburg) coordinated the evaluation work, data acquisition and processing, while the Information and Coordination Center for Biological Diversity (BLE-IBV, Bonn) published the results via a freely accessible web-based information system. In 2008 JKI agreed to implement a second version of the information system with additional functionalities and to operate it in future. EVA II is therefore up and running.

The kick-off meeting of this software development project funded, through the economic stimulus package of the Federal Government of Germany with €400 000

took place at the Julius Kühn Institute on 5 October 2010. "EVA" is therefore up and running. Although the PPP programme currently focuses on cereals, it was actually launched as an organizational platform open to other crop breeding research communities. Accordingly, the new information system should be able to cope readily with any changes in the EVA II programme structure. The new system will be built on modelling approaches developed for the European Central Crop Databases already operated by JKI within the ECPGR Programme. Open source technologies will be applied and modules made available to the genetic resources community for re-use, adaptation to specific needs and improvements. JKI was able to engage a leading international software company in model-driven and automated open

source software development. It will be a new and exciting experience for JKI staff to collaborate closely with the German commercial IT-partner itemis AG.

Being a research institution, software development within the JKI is a dynamic process requiring intimate knowledge and capabilities in the technologies used. We see the new system as the first component of an Information System for Characterization and Evaluation Data on Plant Genetic Resources in Germany which is urgently needed to document the extensive valuable data on plant genetic resources being generated by German breeding research institutes. Training of the JKI IT staff is therefore part of the contract, which ends in June 2011. By then the new EVA II information system will be sprinting towards the home stretch and available online.

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Forthcoming meetings

31 Oct - 05 Nov 2010

The Hague Conference on
Agriculture, Food Security
and Climate Change.
The Hague, The
Netherlands.
agriculture2010@minlnv.nl

29 Nov - 10 Dec 2010

16th Conference of the
Parties (COP 16) United
Nations Framework
Convention on Climate

Change (UNFCCC) .
Mexico City, Mexico.
<http://unfccc.int>

1-2 December 2010

Second Meeting of the
Ad Hoc Working Group on
Compliance (International
Treaty on Plant Genetic
Resources for Food and
Agriculture).
Rome, Italy.
www.planttreaty.org

29-31 December 2010

International Conference
on Bioscience and
Bioinformatics (ICBB'10).
Athens, Greece.
www.euroference.org/2010/07/international-conference-on-bioscience.html

Vavilov-Frankel Award Fellows 2010

The Bioversity International Board of Trustees awarded the 2010 Vavilov Frankel Fellowships to Feysal Bushira Mustefa, a researcher at Haramaya University in Ethiopia, and Li Ling, a pea breeder at the Liaoning Institute of Cash Crop in China.

Safflower (*Carthamus tinctorius*) is a very old crop that has been almost completely neglected by science. It is grown primarily for the seeds, which contain useful oil and are also exported for use in birdseed mixes. The flowers are sold fresh and dried and are used as a source of yellow dye. One of safflower's great benefits for poor farmers is that it is well-adapted to drought, and so can be grown on the residual moisture that remains after a crop of cereals has been harvested. Despite its advantages, in Ethiopia a single variety has been registered or recommended to farmers by researchers.

Mustefa will look at 81 different safflower accessions collected from diverse growing areas and those kept in the genebank of the National Biodiversity Conservation Institute in Addis Ababa. The varieties will be grown out in trial plots and characterized for important agronomic traits and for molecular markers. Mustefa will then use the characterization detail to identify varieties offering the greatest potential benefit to breeding programmes aimed at improving the safflower crop, to "eventually improve household incomes and living conditions of small-scale safflower producing farmers". Mustefa's fellowship is supported by Pioneer Hi-Bred International Inc and will be carried out partly at the USDA Western Regional Plant Introduction Station at Washington State University in the United States.



Li is Coordinator of the Chinese Edible Beans Industry Technical System. Her research is aimed at a better understanding of the environmental background of China's collection of roughly 1400 pea varieties. China and Australia have previously shared pea diversity to boost their breeding programmes, but many of the Chinese accessions would be more useful if location data could be used to infer responses to biotic and abiotic stresses. Li intends to convert existing information for collecting sites to geographic coordinates, combining this with climate and soil data for the various sites, enabling breeders to narrow the search for varieties that, for example, are adapted to less than 200 mm of rain and are reasonably frost tolerant.



The immediate beneficiaries of Li's research will be breeders in China and Australia, with the expectation that farmers, especially poor farmers in China, will get new, more productive varieties that will contribute to improved incomes and nutrition. Li will be working in the Biosciences Research Division of the Department of Primary Industries in Victoria, Australia, and her fellowship is supported by the Grains Research and Development Corporation in Australia <http://www.grdc.com.au/>.

Farewell...

At the end of October 2010, the Europe Regional team bids farewell to Olga Spellman, Editing and layout Programme Specialist. Olga has been responsible for the editing and graphic layout of the Newsletter for Europe, managing the entire production process, for the last six years.

Olga joined the Europe team in May 1996, as temporary Programme Assistant to the Regional Director. Her role as Programme Assistant continued to assisting the Networking Programmes, ECPGR, EUFORGEN and UMB (Underutilized Mediterranean Species), until she took over the production of the Newsletter for Europe, in April 2004. Under Olga's responsibility, the Newsletter evolved from a printed 12-page, black and white issue, to a 20-page full colour issue, improving layout quality, while ensuring more environmentally friendly, cost-effective paper issues. Olga has also edited and assisted the Europe staff in the submission of EU project proposals, scientific papers, donor reports and formal correspondence. Olga has been a very active member of the Europe team and has contributed to the wider institutional agenda over the years, as well as collaborating extensively with internal and external colleagues in her work.

Olga completes this last issue of the Newsletter and moves on to join Bioversity's Understanding and Managing Biodiversity Programme, in the role of Science Writer/Process Manager. We wish her well in her new professional endeavour and thank her for her contribution to the Europe Regional office for the last 14 years.