



European Cooperative Programme for Plant Genetic Resources (ECPGR)

Phase VIII (2009–2013)
2012 Progress Report

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SUMMARY

The fourth year of Phase VIII was characterized by an intense activity of the Executive Committee (ExCo), jointly with the Secretariat, to continue the implementation process on decisions made with regard to the reorganization of ECPGR, initially triggered by the External Independent Review of ECPGR in July 2010 and subsequently agreed and set in motion during the 12th Steering Committee (SC) meeting in Bratislava (December 2010).

A Task Force was set up to propose a new operational structure and this resulted in a number of recommendations (June 2012), including the opening of a tender procedure for the hosting of the Secretariat and of EURISCO. The tender was organized under the responsibility of the ExCo and it was launched in October with a deadline of 22 November 2012. A Steering Committee meeting was then convened from 4 to 7 December 2012 in Vienna to discuss the results of the tender and to agree on a new operational structure, terms of reference, rules of procedure and budget for Phase IX of ECPGR. Several important decisions were made, although the final decision about the hosting of the Secretariat and EURISCO was postponed till March 2013.

The ExCo terms of reference were also revised during the aforementioned SC meeting in Vienna, with the decision that the ExCo should be composed of four National Coordinators and a Chair, selected on the basis of his/her personal capacity. To guarantee continuity to the work initiated by the current Committee, the SC invited G. Kleijer to continue in his function as ExCo Chair for two more years.

Regarding the initiative for 'A European Genebank Integrated System' (AEGIS), the most significant development during 2012 was the formal creation of the European Collection with the inclusion of its first 143 accessions. The proposal *Plant Gene Access*, submitted for funding to the European Union (EU) in November 2011, passed the threshold of eligibility, but it was not ranked highly enough to receive funds in the EU Seventh Framework Programme for Research (FP7). The membership in AEGIS increased from 30 to 33 countries and the Associate Member Agreements between National Coordinators and institutions holding *ex situ* accessions within their respective countries increased from 45 to 46. IPK, Germany, offered approximately 20 000 accessions of its crop collections, which had been identified as unique German accessions or Most Appropriate Accessions for consideration by the respective Working Groups for their inclusion in the European Collection.

All the final reports of five selected projects of the First Call of the AEGIS Competitive Grant Scheme were made available on the AEGIS Web site, together with two (out of five) reports of projects concluded as part of the Second Call.

The *Genebank Standards* for plant genetic resources for food and agriculture (PGRFA) prepared by FAO with the contribution of the ECPGR Networks and Working Groups (WGs), were eventually recommended by the Intergovernmental Technical Working Group on PGRFA for adoption by the FAO Commission, who will meet in April 2013. The ECPGR WGs have used these standards as a reference for adoption as part of the AEGIS Quality System. An *AEGIS Safety-duplication Policy* for the accessions to be included in the European Collection was circulated in November 2012 for approval by the SC.

Meetings were held by the WGs on Solanaceae (February, Turkey), *Malus/Pyrus* (March, Switzerland), Wheat (May, Slovakia), *Beta* (June, France) and *Vitis* (September, Germany). All WGs discussed their approach for the establishment of the European Collection and the crop-specific standards to be adopted. Lists of accessions suggested to become part of AEGIS were drafted and criteria for the selection of Most Appropriate Accessions were agreed, including timeframes for implementation. Agreement was generally reached on the adoption of the new draft FAO *Genebank Standards*, sometimes with a few additions. New guidelines were developed for the multiplication of *Aegilops* and wild cereals and were planned for the multiplication of *Beta nana*. The Wheat WG also focused its attention on the necessary steps to ensure long-term conservation of precise genetic stocks. The *Malus/Pyrus* WG completed and adopted a methodology for the identification of synonyms. This was successfully implemented on 3500 *Pyrus* accessions. The *Malus/Pyrus*, *Prunus* and *Vitis* WGs consolidated agreements on specific lists of simple sequence repeat (SSR) markers to be used for standardized molecular characterization. The *Vitis* WG strengthened its collaboration with the EU-funded COST Action on *East West collaboration for grapevine diversity for breeding* and endorsed its initiative to promote a simplified protocol for the phytosanitary treatment of *Vitis* germplasm imported from outside the EU for conservation purposes. The *Beta* WG made progress in the identification of priority genetic reserve sites.

The relationship between EURISCO and Central Crop Databases (CCDBs) was discussed by the WGs that had meetings in 2012. The WGs were looking forward to the further development of EURISCO, and requested clarification of responsibilities to ensure harmonization of data in the CCDBs and EURISCO, and enhancement of the links between the Documentation and Information Network and the CCDB Managers.

The *In situ* and On-farm conservation Network carried out activities within the framework of the EU FP7-funded 'PGR Secure' project, making significant progress in the development of national crop wild relative and landrace conservation strategies. The establishment of a 'PGR Secure' helpdesk provides conservation planning aids, data sources, Red List information, descriptors for information management, etc.

With the addition of Belgium, the EURISCO Catalogue now represents 43 National Inventories and 332 collection holdings. The total number of accessions reached 1 114 424 in December 2012. During 2012, the EURISCO Intranet was given priority for development, which was required in order to migrate information from the old unstable hardware to new hardware and to renew the software framework, thereby ensuring the possibility of adding new features, such as characterization and evaluation data.

1. INTRODUCTION

This is the fourth Annual Progress Report of Phase VIII (2009-2013), covering the period from 1 January to 31 December 2012.

This document aims to put on record all the relevant events which occurred during 2012 for the purpose of reporting on the progress made during Phase VIII so far to the Steering Committee and to the Implementing Agencies.

A technical and financial report covering the period January 2009–November 2012 was prepared for the 13th Steering Committee meeting held in Vienna, Austria, 4–7 December 2012. These are available among other background documents for the meeting at:

http://www.ecpgr.cgiar.org/steering_committee/13th_sc_meeting/background_documents.html

2. IMPLEMENTATION OF ECPGR PHASE VIII

By the end of December 2012, 39 countries had signed the Letter of Agreement for Phase VIII. Two other countries (France and Israel) had not signed the Letter of Agreement but had, nonetheless, paid annual contributions for Phase VIII. The remaining two members of ECPGR that had not joined Phase VIII are Armenia and Malta.

Activities of the Executive Committee (ExCo)

At the end of 2012, the ExCo was composed of Gert Kleijer (Chair), Alvina Avagyan, Zofia Bulińska-Radomska (replacing Silvia Sträjeru), Fernando Latorre, Jens Weibull (replacing Merja Veteläinen), and Lorenzo Maggioni (ex officio). The following activities were carried out:

- Finalization of the ECPGR Rules of Procedures
- Finalization of the ECPGR Operational Structure (involving a dedicated Task Force composed of Bert Visser (Chair), Külli Annamaa, Gordana Đurić and the ECPGR Secretariat)
- Finalization of the document on ECPGR's Legal Status (through a consultancy with Gerald Moore, Bioversity)
- Preparation of draft terms of reference for the Executive Secretary/Director
- Preparation of the tender for hosting the ECPGR Secretariat (meeting 8–9 August in Maccaresse between the ExCo Chair and the Secretariat)
- Evaluation of the bids of the Tender for hosting the ECPGR Secretariat and EURISCO (excluding the involvement of the Secretariat)
- Regular contacts with the Secretariat
- Regular contacts amongst the ExCo members
- Third meeting of the ExCo 26–28 September in Maccaresse (preparation of the 13th SC meeting)
- Fourth meeting of the ExCo on 3 December in Vienna (preparation of the 13th SC meeting, 4-7 December, Vienna).

The minutes of the ExCo meetings are available from:

http://www.ecpgr.cgiar.org/executive_committee.html

During the 13th SC meeting, the terms of reference of the ExCo and ExCo Chair were discussed and approved (see report of 13th SC meeting, Annexes I, II and III)

(http://www.ecpgr.cgiar.org/publications/publication/issue/report_of_the_steering_committee-2.html).

According to the new terms, the ExCo should be composed of four National Coordinators from the West, East, North and South subregions of Europe and with a Chair selected on the basis of his/her personal capacity. To guarantee continuity to the work initiated by the current ExCo until the new mode of operation of ECPGR is finalized, the SC invited G. Kleijer to continue in his function as ExCo Chair for two more years and agreed that this part-time activity should be compensated through an additional budget line.

3. THE THIRTEENTH STEERING COMMITTEE MEETING

The *Thirteenth Meeting of the ECPGR Steering Committee* (SC) took place 4–7 December 2012 in Vienna, Austria, hosted by the Federal Ministry of Agriculture, Forestry, Environment and Water Management. The decision to organize a SC meeting in 2012 came after the electronic approval by the

SC of some of the proposals made in June 2012 by the Task Force on the ECPGR Operational Structure. Specifically, the recommendation was accepted to open a tender procedure in which Bioversity International and other organizations in Europe could make an offer to host the ECPGR Secretariat in the next phase, through a well defined process.

The SC meeting was therefore convened with the objective of making important decisions for the transition of ECPGR from its Phase VIII (2009–2013) to a new Phase IX (2014–2018), defining new hosting arrangements, operational structure, mode of operation, objectives and external visibility of ECPGR. The proposed changes were triggered by the External Independent Review of ECPGR undertaken in 2010 and resulted from the process that was set in motion during the *Twelfth Meeting of the ECPGR Steering Committee* in Bratislava (December 2010).

The preparation for this meeting required the finalization of a number of background documents (available from http://www.ecpgr.cgiar.org/steering_committee/13th_sc_meeting.html).

The Secretary of the International Treaty on PGRFA, Mr Shakeel Bhatti, honoured the meeting with his presence, updated the SC on the latest developments and offered answers and clarification on numerous questions.

An account of activities carried out during Phase VIII of ECPGR was presented by the Secretariat, illustrating the major achievements obtained in each of the four priority areas, including the developments of AEGIS and EURISCO.

The framework for a new operational structure was defined for Phase IX, consisting of only Working Groups (number to be defined between 15 and 20), composed of pools of experts that will carry out activities in small groups, generally not larger than 12 selected individuals. Activities will be selected among those decided by the SC or proposed by the WGs, based on a selection process and on expressions of interest and commitment made by the individual WG members. All activities will need to contribute to the implementation of the agreed objectives of ECPGR for Phase IX. These have been re-affirmed along six outcomes:

1. AEGIS is operational and accessions in AEGIS are characterized and evaluated.
2. The functionality of EURISCO meets users' expectations and quantity and quality of data in EURISCO are increased, including *in situ* and on-farm data.
3. *In situ* and on-farm conservation and management concepts are agreed.
4. Commitment and regular resources of national governments are sustained or increased and commitments and resources of the European Commission, as well as of other potential donors of ECPGR, are increased.
5. Relations with users of germplasm are strengthened.
6. Organizational structure and secretarial support are adequate to effectively sustain the operations of ECPGR.

Specific outputs and activities should be defined in the course of 2013.

New rules of procedure for ECPGR have been agreed in order to better regulate, among others, membership to the ECPGR Programme and the decision-making procedures.

One recommendation by the External Independent Review was that ECPGR should enhance its visibility and possibly acquire its own legal status. However, owing to the complexity and the anticipated costs of the necessary steps to reach such legal status and to the expectation that ECPGR will remain hosted by an international organization offering its legal umbrella, the conclusion was that ECPGR will not seek to obtain its own legal status for the moment. On the other hand, a new arrangement should be established with the host institution to increase the independency and visibility of the ECPGR Secretariat.

A request to tender for the hosting of the ECPGR Secretariat and EURISCO was launched by the ExCo in October 2012, with the expectation of reaching a decision at the 13th SC meeting in Vienna. Two bids (Global Crop Diversity Trust and Bioversity International) were received for hosting the Secretariat and three bids for hosting EURISCO (Global Crop Diversity Trust, Bioversity and Leibniz Institute of Plant Genetics and Crop Plant Research, IPK). The evaluation by ExCo, based on the requested requirements and the detailed offer items, showed the high quality of all the bids and highlighted the differences between them and concluded that the overall scoring resulted in negligible differences between the bids. The SC felt that they lacked sufficient information about the bids for hosting the Secretariat and EURISCO to take a final decision during this meeting. Accordingly, following a transparent process to obtain additional information from the bidders on a number of agreed points to complement the earlier bids submitted, the ExCo was mandated by the SC to take the final decision by the end of March 2013 after electronic consultations with the SC members.

A strategy paper on the relationship between ECPGR and the EC/EU had been prepared by a Task Force of the SC. This document was adopted by the SC, including a number of recommendations that will need to be pursued in the following months to increase the potential impact of ECPGR on the involvement of the EU with plant genetic resources.

Owing to the current unfavourable economic situation in Europe, the National Coordinators could not agree to increase the budget of ECPGR, including an inflationary adjustment over the past five years. The budget was actually set at a reduced level (€ 510 000 per year) compared to Phase VIII (€ 552 000 per year). This decision, coupled with the increased costs that are foreseen whatever hosting arrangement scenario is concluded in March 2013, means that additional funds will need to be raised through voluntary contributions or other sources. The transition towards Phase IX and the continuation of a solid collaborative programme will therefore be critically affected by the need to reconfirm ECPGR's financial sustainability.

4. ACTIVITIES CARRIED OUT WITHIN THE NETWORKS

Planned meetings and activities and their dates are reflected and kept up to date in the Networks' budget plans (available online from each Network's Web page (<http://www.ecpgr.cgiar.org/networks.html>) and in the list of upcoming meetings (http://www.ecpgr.cgiar.org/meetings/future_meetings.html).

4.1. Cereals Network

Working Groups: *Avena*, Barley and Wheat.

The **Cereals Network Coordinating Group (NCG)** consisted of seven members: Helmut Knüpfper, Germany (Network Coordinator); François Balfourier, France, replacing Gert Kleijer, Switzerland as of May 2012; Iva Faberová, Czech Republic; Christoph Germeier, Germany; Marja Jalli, Finland; Andreas Katsiotis, Greece; and Marcin Zaczyński, Poland.

The *Third Meeting of the ECPGR Wheat Working Group* was held in Piešťany, Slovakia, 15-17 May 2012, involving 23 WG members and 7 observers. An inventory of precise genetic stock collections in Europe and their conservation status was prepared for the meeting. An ad hoc group on precise genetic stocks was then created, led by Mike Ambrose (UK), with the task of working on the definition of cereal genetic stocks, developing criteria to select valuable material for their long-term conservation, completing the inventory of materials, and developing specific descriptors or data fields that indicate the cereal genetic stocks' special characteristics.

The list of descriptors used for the ECPGR Wheat Database (EWDB) was revised and the members committed themselves to updating the database on an annual basis. The EWDB Manager, Iva Faberová (Czech Republic) informed members that she would progressively transfer responsibilities to her colleague Ludmila Papousková.

Regarding the relationship between EURISCO and Central Crop Databases, the WG was looking forward to the development of EURISCO as a reliable unique database that could and should serve all the current needs of the Working Groups. This would require the inclusion of standardized crop-specific characterization descriptors in EURISCO. The WG was looking forward to developments driven by the Documentation and Information Network and decisions of the Steering Committee.

The Wheat Working Group members agreed to provide data to be uploaded on the WG pages of the ECPGR Web site, covering studies on genebank material and other activities of interest carried out in their respective institutes (http://www.ecpgr.cgiar.org/networks/cereals/wheat/inventory_activities.html).

Criteria for the development of the European Collection and the related genebank standards were agreed (see below, AEGIS section).

The WG also discussed the status of other ECPGR cereal databases and took note that the *Secale* Database, maintained by the Plant Breeding and Acclimatization Institute (IHAR), Poland, was increasingly providing access to characterization and evaluation (C&E) data. The agreement was made that the Triticale Database, maintained by Agroscope, Switzerland, should include data for the same descriptors as the Wheat Database.

Gert Kleijer and Iva Faberová resigned from their current roles. François Balfourier, France and Külli Annamaa, Estonia were elected as new Chair and Vice-Chair, respectively.

After the meeting, the WG agreed on the definition and use of two new descriptors that were included in the EWDB: “Year of entry into common knowledge” and “Zeleny sedimentation test”.

Summary of AEGIS development status

Offers by countries

The following accessions were submitted to the attention of the Working Groups for their opinion on the suitability of their inclusion in the European Collection:

- IPK, Germany: *Avena* (137), barley (1595), maize (106) and wheat (1386)
- CGN, The Netherlands: *Avena* (75), barley (642), maize (195) and wheat (646).

Avena WG

The WG agreed that all wild species could be AEGIS accessions, as well as all the material that had been selected for the EU project ‘*Avena* genetic resources for quality in human consumption’ (AVEQ). The identification of a detailed list of AEGIS accessions was agreed to be the topic of an ad hoc meeting (expected in 2013). At this same meeting, an already established Task Force will be expected to report about draft protocols on regeneration of wild accessions.

Barley WG

An agreement remained pending on protocols for the species-specific maintenance of wild *Hordeum* species and cultivated barley, which were expected to be drafted by a Task Group.

Wheat WG

- European Collection: *Triticum* accessions held in the country of origin by Belarus (19) and Estonia (8) were recommended by the WG and expected to be flagged as European Accessions by the respective National Focal Points. Additional lists of *Triticum* and *Aegilops* accessions conserved in their country of origin were expected to be proposed by the DB Manager. WG members were invited to prepare by the end of 2012 additional lists of “genetically unique” material conserved in their genebanks. Criteria for the selection of accessions were the country of origin (same as holding country), safety duplication (either completed or in the process of being completed) and completeness of minimum documentation (mandatory descriptors were defined).
- AEGIS Quality System (AQUAS): The WG agreed that they did not need to elaborate crop-specific standards in addition to those proposed by FAO. A document summarizing the necessary genebank management knowledge for breaking dormancy, viability testing and multiplication of *Aegilops* and other wild cereals was prepared by A. Börner, Germany and H. Sela, Israel and posted on the WG Web site.

Other cereals

Criteria and the procedure for the selection of European **Rye** Accessions had been agreed, starting with landraces, wild *Secale* accessions and cultivars, whereas genetic stocks and breeders’ lines will follow thereafter. The search for duplicates will be focused on cultivars released after 1950. A proposed list of European Rye Accessions is expected in 2013 as a product of the AEGIS Grant Scheme-funded project.

The development of the first list of possible **Triticale** European Accessions was postponed until the Triticale DB has been updated. The approach proposed for wheat can then be adopted also for Triticale.

Outlook for 2013

A small project aiming at making progress with the inventory of precise cereal genetic stocks is planned to be undertaken by an ad hoc group.

An ad hoc meeting of the *Avena* WG to discuss the selection of candidate European Accessions and to discuss relevant details of the AEGIS Quality System for cereal crops is planned to be held in Cyprus during 2013.

4.2. Forages Network

Working Group: Forages.

The **Forages Network Coordinating Group** consisted of six members: Merja Veteläinen, Finland (Network Coordinator); Beat Boller, Switzerland; Petter Marum, Norway; Vladimir Meglič, Slovenia; Ian Thomas, United Kingdom and Evelin Willner, Germany.

The project '**Establishment of the European Forages Collection**' funded by the AEGIS Grant Scheme held a workshop in Tápiószele, Hungary from 30 January to 3 February 2012.

The ECPGR Forage Databases were updated in preparation for the above-mentioned workshop, including analysis of the data received in order to identify most original samples (MOS), holders of primary collection (PRIMCOLL) and potential forage accessions for the European Forage Collection (EFC).

Outcomes of the workshop are listed under the 'Summary of AEGIS development status' below.

The report of the workshop, entitled *Establishment of the European Forage Collection—To Age with AEGIS* is available online from the AEGIS and ECPGR Web sites.

The Forages WG is participating in a NordGen Public Private Partnership (PPP) project on pre-breeding in perennial ryegrass (*Lolium perenne* L.). This project screens diversity of 400 accessions for winter hardiness and will utilize information from the ECPGR *Lolium* Database.

The survey on *Storage conditions and status of safety duplication* was updated in April and posted on the Web site.

Summary of AEGIS development status

Offers by countries

The following forage accessions were submitted to the attention of the Working Groups for their opinion on the suitability of their inclusion in the European Collection:

- IPK, Germany: 5807
- CGN, The Netherlands: 852.

Forages WG

- European Collection (outcomes of the AEGIS project workshop):
 - * The procedure for the selection of candidate European Accessions was agreed.
 - * A tentative list of 10 485 candidate European Accessions of 10 forage species/groups was created; Database Managers to seek confirmations from the respective genebanks/collection holders. The selection of candidate accessions is a continuing process and the expected number of accessions to EFC can be 5-10 times the present number of candidates.
 - * A number of issues related to EURISCO were identified, requiring solution by ECPGR.
- AQUAS: Preferred and acceptable quality standards for regeneration have been agreed at the Working Group level.

Outlook for 2013

As part of the AEGIS Grant Scheme, a second workshop on the *Establishment of the European Forage Collection* will take place at NordGen, Alnarp, Sweden in April 2013, with the following objectives: confirmation of the EFC candidates for acceptance as AEGIS accessions, inclusion of C&E data in model central Forage Databases and improvement of the database management routines.

4.3. Fruit Network

Working Groups: *Malus/Pyrus*, *Prunus* and *Vitis*.

The **Fruit Network Coordinating Group** consisted of six members: Marc Lateur, Belgium (Network Coordinator); Daniela Giovannini, Italy; Stein Harald Hjeltnes, Norway; Erika Maul, Germany; Jesús Ortiz, Spain and Matthew Ordidge, United Kingdom.

***Malus/Pyrus* WG**

The *Fourth Meeting of the ECPGR Malus/Pyrus Working Group* took place from 6 to 9 March 2012 in Weggis, Switzerland, following two *ad hoc meetings on fruit synonyms* (5 March) and *on descriptors* (6 March). Twenty-two country representatives participated.

The ad hoc meeting on descriptors agreed draft lists of characterization and evaluation descriptors for apple and pear, including the methodology and protocols to be followed. The descriptors were then prioritized by the WG.

A list of 12 validated SSR markers for apple, cherry and pear, including the methodology to apply these markers, had been previously agreed during an ECPGR ad hoc meeting. The availability of information was discussed by the Working Group. References to publications detailing markers and protocols were added to the ECPGR Web site and a Task Force was set up to summarize the information across *Malus*, *Pyrus* and *Prunus*, for publication of a manual on the ECPGR Web site.

Procedures for the updating of the *Malus* and *Pyrus* Central Crop Databases (CCDBs) were agreed. The development of the *Pyrus* Database is closely linked to that of the *Prunus* Database (see below). The Working Group also discussed the perspectives of development of the *Malus* and *Pyrus* CCDBs in relation to EURISCO. The WG considered the roles of CCDBs in resolving crop-specific issues and providing access to essential technical knowledge of great importance, in particular for the development of the European Collection. The meeting recommended better coordination of activities and clarification of responsibilities to ensure harmonization of data in the CCDBs and EURISCO, and enhancement of the links between the Documentation and Information Network and the CCDB Managers.

A *Pomological reference list* under development was presented and the meeting agreed that it would be useful to enrich it and to integrate it into the *Malus* and *Pyrus* CCDBs to facilitate the referencing of cultivar names.

The ad hoc meeting on synonyms obtained the following outcomes: for pear, update of the synonym list, definition and adoption of a methodology successfully implemented on 3471 accessions of the *Pyrus* Database; for apple, presentation of a "name-checking tool" developed alongside the Brogdale Collection Database and to be used in the development of the ECPGR *Malus* Database. Detailed procedures to be followed for the implementation of these tools for the identification of synonyms in both the *Malus* and *Pyrus* DBs were agreed.

The meeting was the first opportunity of the WG to discuss AEGIS and the establishment of the European Collection. Selection criteria were discussed and it was agreed that candidate accessions should originate in the holding country, and be either true to type or genetically unique. In a first step, all WG members will be requested to identify within their respective collections a set of the most likely candidates. Regarding technical standards, the meeting agreed to use the final FAO *Field Genebank Standards* as a basis for deciding whether the development of crop-specific standards would be required.

Marc Lateur was reconfirmed as Chair of the WG and Dorota Ewa Kruczynska was nominated as Vice-Chair in replacement of Bronislovas Gelvonauskis.

***Prunus* WG**

Following the departure in August 2011 of the **European *Prunus* Database** (EPDB) Manager, Emilie Balsemin, the recruitment process for her replacement is still under way at the French National Institute for Agronomical Research (INRA). She however brought forward the planned improvement of the EPDB in collaboration with INRA-Bordeaux and with support from the EC project GenBerry and ECPGR funds. A new portal Web site gives access to five new *Prunus* crop databases (almond, apricot, cherry, peach and plum). An advanced search tool was developed for passport and characterization and evaluation data as well as for molecular data; photo upload and search tools were also developed. The database model was developed in consultation with the Walloon Agricultural Research Centre (CRA-W) of Gembloux (Belgium) with a view to deploying the same structure for the ECPGR *Pyrus* Database.

The module for direct update of the EPDB by contributors is not yet operational so the updates are to be carried out by the EPDB Manager. New data were provided to INRA by Italy, Latvia and UK.

A final draft descriptor list for peach was nearly finished.

Vitis WG

The Second Meeting of the ECPGR Vitis Working Group was held from 18 to 20 September 2012 at Siebeldingen, Germany. Eighteen country representatives participated.

Collaboration was strengthened with COST Action FA1003 on *East West collaboration for grapevine diversity exploration and mobilization of adaptive traits for breeding*, with an invitation to all *Vitis* WG members to join the Action and establish agreements with other COST partners who will be available to fingerprint a number of grapevine accessions free of charge. The initiative of the Action to promote a simplified protocol for the phytosanitary treatment of *Vitis* germplasm imported from outside the EU for genetic resource conservation purposes was endorsed.

The *European Catalogue of Nationally Registered Varieties* was acknowledged as currently the most reliable and up-to-date for the definition of synonyms of registered varieties in Europe.

The WG recommended using at least the nine SSRs agreed by the WG for the determination of the identity of an accession and the 48 descriptors of the recently concluded EC GrapeGen06 project for trueness-to-type testing.

The meeting was the first opportunity for the WG to discuss AEGIS and the establishment of the European Collection. A procedure for the selection of AEGIS accessions was agreed, focusing on minor and neglected cultivars of European countries. A preliminary list of autochthonous varieties to be proposed for inclusion in the European Collection was drawn up, including nearly 2500 accessions from 18 countries. The WG agreed with the draft *AEGIS Safety-duplication Policy* and endorsed the draft *FAO Generic Standards for Non-orthodox Seeds and Clonally Propagated Plants*, with the addition of a few *Vitis*-specific standards.

A mechanism was set up to help the WG to mobilize small funds to cover critical situations that would put the survival of important germplasm at risk.

Jesús Ortiz stepped down from his position of Chair and David Maghradze was elected to replace him, with Edi Maletić continuing as Vice-Chair.

The **European Vitis Database** (www.eu-vitis.de) will continue to be hosted and maintained by the Julius Kühn-Institut–Federal Research Centre for Cultivated Plants (JKI), Institute for Grapevine Breeding Geilweilerhof, Siebeldingen, Germany, as an in-kind contribution to ECPGR.

The 48 descriptors of the Organisation Internationale de la Vigne et du Vin (OIV) that are used for the European *Vitis* Database were translated into Russian and Turkish. They are now available in seven languages via the European *Vitis* Database.

A comprehensive list of national variety catalogues was posted on the ECPGR Web site.

Summary of AEGIS development status

Malus/Pyrus WG

- European Collection: In a first step, all WG members will be requested to identify within their respective collections a set of the most likely candidates of national interest, using a form to be provided by DB Managers. The exercise will start in 2013.
- AQUAS: The WG agreed to use the final version of the *FAO Field Genebank Standards* as a basis for deciding whether any crop-specific standards are needed.

Prunus WG

- European Collection: Following the identification in 2011 of 1116 unique cherry genotypes and 367 duplicate groups, the finalization of proposed lists of candidate European Accessions was put on hold, pending the nomination of a new EPDB Manager.
- AQUAS: The *Minimum Prunus-specific standards for genebank management* were revised in collaboration with the AEGIS Coordinator. It was agreed to harmonize them with FAO standards.

Vitis WG

- European Collection: A procedure for selecting European Accessions has been agreed and a tentative list of almost 2500 autochthonous accessions identified. The selection of candidate accessions by WG members is in progress. Twenty-one *Vitis* accessions conserved by IPK, Germany, have been designated as part of AEGIS.
- AQUAS: The draft *AEGIS Safety-duplication Policy* and the *FAO Standards for Non-orthodox Seeds and Clonally Propagated Plants* were agreed with a few additions.

Outlook for 2013

- Fruit Database development and maintenance: a log book will be implemented for the European *Vitis* Database.
- The *Malus* and *Pyrus* Databases will be updated with accession lists supplied by the WG members and using the EPDB database structure.
- Ad hoc meeting of the *Prunus* WG (AEGIS activities).

4.4. Oil and Protein Crops Network

Working Group: Grain Legumes.

The **Oil and Protein Crops Network Coordinating Group** consisted of three members after the retirement of Siyka Angelova, Bulgaria: Mike Ambrose, United Kingdom (Network Coordinator); Andrea Carboni, Italy and Gérard Duc, France.

Summary of AEGIS development status

Offers by countries

The following grain legume accessions were submitted to the attention of the Working Group for their opinion on the suitability of their inclusion in the European Collection:

- IPK, Germany: 3525
- CGN, The Netherlands: 421.

Grain Legumes WG

The WG has never had an opportunity to discuss AEGIS implementation (the last meeting was in 2006). The first opportunity will be at its fifth meeting in 2013. Following the conclusion of the AEGIS Grant Scheme supported project 'Towards comprehensive pea germplasm management for future use', coordinated by Agritec Plant Research, Czech Republic, a set of 36 core accessions of *Pisum sativum* from Czech Republic were recommended to be designated as AEGIS accessions.

Outlook for 2013

The *Fifth Meeting of the Grain Legumes Working Group* will be held 7-8 May 2013 in Novi Sad, Serbia, before the First Legume Society Conference.

4.5. Sugar, Starch and Fibre Crops Network

Working Groups: *Beta*; Fibre Crops (Flax and Hemp); Medicinal and Aromatic Plants (MAPs); Potato.

The **Sugar, Starch and Fibre Crops Network Coordinating Group** consisted of four members: Roel Hoekstra, The Netherlands (Network Coordinator); Ana Maria Barata, Portugal; Lothar Frese, Germany and Martin Pavelek, Czech Republic.

The *Fourth Joint Meeting of the ECPGR Beta Working Group and the World Beta Network* was held during 20–22 June 2012 in Cappelle-en-Pévèle, France. It was hosted by the company Florimond Desprez.

***Beta nana*:** Based on studies showing the diversity among the few existing populations, the establishment of a first genetic reserve on Mount Olympus, Greece was proposed together with further investigation of the distribution of genetic diversity within existing sites. The WG agreed to use funds to help the Greek Gene Bank (GGB) to complete monitoring and collecting of samples on Mount Olympus and the activity started with sampling of *Beta nana* plants at three sites during a preliminary survey in September 2012.

***Patellifolia*:** There was general agreement that genebanks should be able to offer taxonomically clearly defined standard accessions. WG funds were available to organize a meeting to set up a project proposal focusing on taxonomic aspects and genetic diversity of *Patellifolia* and *Beta* section *Corollinae*. However, no feedback was received from WG members and the project idea was put on hold.

Genetic reserves: As a result of the project 'An Integrated European *In Situ* Management Work Plan: Implementing Genetic Reserves and On Farm Concepts' (AEGRO), priority genetic reserve sites for *Beta* and *Patellifolia* species were identified and proposed for 26 locations. These were selected on

the basis of geographic, climatic and genetic data and they form the first components of species-specific networks of plant occurrences presumed to represent a significant part of intraspecific diversity of threatened wild beet species. The ECPGR WG members agreed to revise the proposed choice of genetic reserves and to expand the list beyond the EU territory; the representatives from Armenia, Azerbaijan, Georgia, Iran, Russian Federation and Turkey will apply the 4-step methodology developed in the AEGRO project and suggest sites for genetic reserves for species of the *Beta* section *Corollinae* by end 2013.

It was also agreed that WG members would ensure that *ex situ* samples be collected from each proposed genetic reserve site and deposited in the respective country genebank. These samples should also be proposed to the respective National Coordinators for inclusion into the European Collection and therefore be flagged in EURISCO as being part of AEGIS (see below).

Rhizomania resistance in *in situ* populations: A wild beet population growing nearby Kalundborg, Denmark, revealed its importance for resistance gene *Rz2*. The analysis, carried out by the Christian-Albrechts-University, Kiel, Germany, pointed at the need to extend the protection of the population and its Rhizomania resistance trait beyond the boundaries of the much smaller genetic reserve location suggested by the AEGRO project.

AKER project: A French research initiative for sustainable beet improvement has started as a private-public partnership led by Florimond Desprez and endowed with €20 million over eight years. Three thousand accessions have been requested from genebanks to start a breeding programme that will involve crossing wild material with elite lines. Extensive phenotyping and genotyping of hybrid lines will be carried out to identify improved material. The project was officially launched in September 2012. The GGB (Greece), the IPK (Germany) and the National Plant Germplasm System (NPGS, USA) provided the majority of the approximately 2600 accessions of which 2016 accessions will be investigated during the first phase of the project.

AEGIS (the meeting was the first opportunity of the *Beta* WG to discuss AEGIS implementation; its last meeting was in 2006):

- Determination of *Beta* accessions for the European Collection: the WG agreed to develop a list of candidate accessions using the *Beta* Core Collection, AKER collection and accessions of threatened species.
- To allow sorting out of accessions on the basis of their taxonomy, it was agreed that the taxonomies of the N.I. Vavilov Research Institute of Plant Industry, St. Petersburg, Russian Federation (VIR) and of the Germplasm Resources Information Network (GRIN) of the US Department of Agriculture, Agricultural Research Service (USDA-ARS) should be compared and a list of matching taxonomies compiled by the end of 2013.
- Regeneration guidelines: The WG agreed to check the validity of the existing protocols for regeneration and to request the preparation of guidelines for the multiplication of *B. nana* to Barbara Hellier (USDA-ARS).

Lothar Frese was reconfirmed as the Chair of the *Beta* Working Group. He agreed to act as the Chair until the end of 2013. Yasmina El Bahloul was elected as the new Chair of the World *Beta* Network.

Scientific papers presented by members of the WBN can be published in 2013 in the Julius-Kühn-Archiv (JKA).

The user interface of the International Database for *Beta* (IDBB, <http://idbb.jki.bund.de/idbb>) was redesigned by staff of JKI, Quedlinburg, Germany. This Internet site provides access to information systems suited to support the development of a complementary conservation programme for *Beta* and *Patellifolia*.

As part of Work Package 5 (Engaging the user community) of the EC 'PGR Secure' project (www.pgrsecure.org), JKI searched various genebank information systems in Europe and overseas and selected accessions with low to intermediate scores for disease susceptibility (Beet Yellow Virus, Beet Mild Yellowing Virus, *Rhizomania*, *Rhizoctonia solani*, *Cercospora beticola* and *Heterodera schachtii*). The objective is to stimulate the re-evaluation of the accessions, which in turn may result in a wider use of crop wild relatives, landraces and former breeders' varieties in breeding research and breeding. The list will be distributed to breeding companies and made available to any interested person on request.

A Newsletter entitled *Beta Short News* prepared by L. Frese and Yasmina El Bahloul was distributed to all WG members in December 2012 and posted on the ECPGR Web site.

Summary of AEGIS development status

Offers by countries

The following accessions were submitted to the attention of the Working Groups for their opinion on the suitability of their inclusion in the European Collection:

- IPK, Germany: *Beta* (394), flax (298), medicinal and aromatic plants (816) and *Solanum* sp. (excluding *S. melongena*) (1015)
- CGN, The Netherlands: flax (52) and potato (452).

Beta WG

- European Collection: At the end of 2012, the preparation of a list of candidate accessions to be included in the European Collection using the *Beta* Core Collection, AKER collection and accessions of threatened species was underway. The list will be checked by the WG members and submitted to the respective National Coordinators for approval.
- AQUAS: All *Beta* WG curators will check the validity of the seed increase protocol previously developed by the WG and the FAO *Genebank Standards for the Conservation of Orthodox Seeds* to confirm whether they can be adopted by the WG and proposed for approval as part of AQUAS. Guidelines for the multiplication of *B. nana* are planned to be developed in collaboration with USDA.

Fibre Crops (Flax and Hemp) WG

The WG has not reported any activities related to the implementation of AEGIS (see also 2011 report).

Medicinal and Aromatic Plants WG

In 2012, no significant progress was achieved concerning AEGIS implementation. However, in the previous years after the implementation of the 'Oregano project', it was proposed that the data collected within the project will contribute to the selection of oregano accessions to be included in the European Collection according to the AEGIS concept.

Potato WG

- European Collection: The project funded by the AEGIS Grant Scheme 'Identification of old potato clones having unreliable variety name by means of fingerprinting using microsatellite (SSR) markers to assist in setting up the AEGIS collection for potato cultivars' was extended by six months due to the late start of the project in the potato growing season and was completed in December 2012. A progress report (December 2011) is available online (http://aegis.cgiar.org/aegis_grant_scheme/second_call.html). Based on the fingerprinting of 500 old potato clones, the project was to identify mislabelling or confirm the genetic uniqueness of the clones and indicate which of the fingerprinted varieties will be the most appropriate for inclusion in the European Collection. The final report will be available soon.

Outlook for 2013

The Working Group on *Beta* is planning to set up a monitoring schema of a genetic reserve of *Beta patula*. The University of Madeira with the support of the Julius Kühn-Institute submitted a research proposal entitled '*Beta patula*: a model for conservation of an endangered wild species through use in plant breeding' to the German Academic Exchange Service in December 2012 to acquire the necessary funding.

The Working Group on *Beta* will send a list of candidate accessions to be included in the European Collection to the AEGIS team.

4.6. Vegetables Network

Working Groups: *Allium*, *Brassica*, Cucurbits, Leafy Vegetables, Solanaceae and Umbellifer Crops.

The **Vegetables Network Coordinating Group** consisted of ten members: Marie-Christine Daunay, France (Network Coordinator), Willem van Doonijeweert, The Netherlands (Vice-Coordinator);

Charlotte Allender, United Kingdom; Noor Bas, The Netherlands; Ferdinando Branca, Italy; Maria José Díez, Spain; Emmanuel Geoffriau, France; Joachim Keller, Germany; Teresa Kotlińska, Poland and Rob van Treuren, The Netherlands.

The Ad hoc Meeting of the Solanaceae Database Managers and First Meeting of the ECPGR Solanaceae Working Group were held 14-17 February 2012 in Menemen, Turkey, involving 17 WG members and 5 observers.

A recommendation was made that EURISCO should be improved in such a way as to serve for the identification of AEGIS candidate accessions. EURISCO should therefore host all the crop-specific data that are necessary to analyse the existing European collections, as well as the standardized minimum characterization data. Such an approach should eliminate the duplication of efforts currently dedicated to the CCDBs. It was proposed that CCDB Managers become responsible for checking the quality of a crop-specific part of the data in EURISCO. They could monitor these data for quality, consistency and gaps and seek that appropriate adjustments be made by the data providers in the original data and consequently in the National Inventories and in EURISCO. The Solanaceae Database Managers (Tomato, Eggplant, Pepper, Pepino, Groundcherry and Tree tomato) agreed to start operating as responsible for the monitoring of the respective crop data in EURISCO, contacting data providers and suggesting appropriate adjustments.

It was decided to convert the existing draft minimum descriptor lists for Groundcherry and Pepino into final versions, while the Tree tomato minimum descriptors drafted by the WG would be finalized upon publication of the *Bioversity Descriptors for Tree Tomato*.

AEGIS matters were extensively discussed (see below, 'Summary of AEGIS development status').

Willem van Dooijeweert, The Netherlands, and Marie-Christine Daunay, France, were reconfirmed as Chair and Vice-Chair respectively of the WG.

The International Society for Horticultural Science (ISHS) *Brassica 2012 Symposium*, organized by the Department of Agricultural and Food Science of the University of Catania, was held in Catania, Italy, 12–16 November 2012. This was the occasion to present the **Brassica Working Group**. With two posters prepared by Branca et al. (see Section 7.1), results were reported of the ECPGR-funded activities carried out by the University of Catania, the N.I. Vavilov Research Institute of Plant Industry (VIR), St. Petersburg, Russian Federation and the Institute of Sustainable Agriculture of Córdoba (CSIC), Spain. These activities were focused on taxonomic, morphological, chemical and molecular characterization of wild (n=9) *Brassica* and *B. rapa* accessions provided by European genebanks.

An AEGIS-granted project on '*Brassica* selection criteria for the identification of the Most Appropriate Accessions: relate to the *Brassica oleracea* of Iberian collection', coordinated by Banco Português de Germoplasma Vegetal–Instituto Nacional de Recursos Biológicos (BPGV–INRB), Portugal, was concluded. Accessions of *B. oleracea* vars. *acephala*, *capitata* and *costata* from Spain and Portugal were analysed with molecular markers. Two sets of markers (Internal transcribed sequences (ITS) and SSR) enabled more precise selection of accessions to be made rather than those based purely on passport data, and have allowed the identification of duplicate accessions. A total of 42 accessions (18 held at BPGV and 24 at Misión Biológica de Galicia (MBG)) were selected for inclusion in the European Collection.

With the help of the 'DuplicateFinder' software, developed by CGN through an AEGIS-granted project, the BrasEDB has been updated with the duplicate groups within *B. oleracea*, thus making it possible to generate a list of probable duplicate accessions.

Members of the **Umbellifer Crops WG** started trials for taxonomic identification or tolerance to diseases of wild relatives of umbellifers. Identification of 80 accessions selected through EURISCO has been done both at the plantlet stage and at the blooming stage in the field in summer 2012.

Detailed characterization was carried out by Poland (parsley, celery, dill and carrot), NordGen (*Angelica* and *Carum*), France (250 cultivated and 240 wild accessions, evaluation of 45 wild accessions for *Alternaria dauci* resistance, and 34 wild carrot populations from Corsica with SSR markers) and is in progress in UK (creation of a carrot diversity set for pre-breeding).

The **ECPGR Cucurbits Database** was improved with data from some countries, EURISCO and also from GRIN (USDA-ARS), since many accessions in European genebanks were obtained originally from USDA.

A new field (cultivar group name) was developed for the **ECPGR Umbellifer Database**, managed by the University of Warwick, UK, to facilitate the identification of accessions of the same or close cultivar(s).

The ECPGR *Allium* Database was successfully transferred from the University of Warwick, UK, to IPK, Gatersleben, Germany. The acronym in use for the database was revised into EALLDB, so that it would no longer be confused with the ECPGR *Avena* Database (EADB).

Summary of AEGIS development status

Offers by countries

The following accessions were submitted to the attention of the Working Groups for their opinion on the suitability of their inclusion in the European Collection:

- Bulgaria: Cucurbits (1064)
- IPK, Germany: *Allium* (98), Cruciferae (1638), Cucurbits (214) – accepted by the WG in December 2012), Leafy vegetables (725), Solanaceae (excluding *Solanum* sp., but including *S. melongena*) (744), Umbellifers (546)
- CGN, The Netherlands: *Allium* (151), Cruciferae (763), Cucurbits (256), Leafy vegetables (962), Solanaceae (excluding potato) (391).

Allium WG

- European Collection: As an outcome of the GENRES project 'Vegetative Allium, Europe's Core Collection, Safe and Sound' (EURALLIVEG), a first batch of 143 garlic accessions were flagged by Czech Republic and Germany as part of AEGIS. An additional 59 accessions were proposed to Poland for flagging. An updated, enlarged list of candidate garlic accessions will require molecular screening of the European garlic collection, which has not yet been successfully completed.

Considering that the genus *Allium* has about 700 species, the WG agreed to prioritize target taxa for the identification of candidate European Accessions. Proposed lists of priority crop wild relatives for the onion and the leek/garlic alliances and for minor *Allium* crops in use and under development were circulated to *Allium* WG members in March 2012.

The WG has established an agreed procedure to select seed-propagated wild accessions and landraces as well as cultivars.

- AQUAS: The WG has agreed recommendations for field maintenance of garlic and shallot accessions and protocols for *in vitro* medium-term storage and for cryopreservation of garlic. Two levels of phytosanitary standards were adopted, with or without virus elimination.

Brassica WG

- European Collection: As a result of an AEGIS-granted project on Iberian *B. oleracea* landraces, a total of 42 accessions (18 held at BPGV, Portugal and 24 at MBG, Spain) were selected as Most Appropriate Accessions (MAAs) to be included in the European Collection.

The 'DuplicateFinder' software was tested on the Bras-EDB, and in *B. oleracea* (total 11 374 accessions), 4429 accessions were assigned to 1570 duplication groups. In an earlier action on *B. rapa* (total 3769 accessions) a total of 1698 accessions were assigned to 545 duplication groups.

- AQUAS: A summary of present practices and the draft minimum standards have been completed.

Cucurbits WG

- European Collection: Following an update of the Cucurbits Database, preliminary lists of accessions of cucumber, wild *Cucumis*, *Cucurbita*, melon, watermelon and "other genera" were prepared by the Chair and groups of volunteers started analysing these lists.
- AQUAS: General guidelines for regeneration, processing and storage of Cucurbit species were agreed.

Leafy Vegetables WG

- European Collection: Preliminary lists of lettuce and spinach accessions were generated following an agreed procedure, including identifying duplicates through 'DuplicateFinder'. These should be discussed at the next meeting of the WG. The preparation of additional preliminary lists of chicory and minor leafy vegetables accessions is planned.
- AQUAS: Developing a list of suggested minimum genebank standards for leafy vegetables is part of the WG workplan. Information on genebank procedures has been collected for both lettuce and spinach.

Solanaceae WG

- European Collection: During the WG meeting, about 200 candidate Solanaceae accessions to be included in the European Collection were identified. Representatives from Germany, Hungary, The Netherlands, Poland and Slovakia expressed their willingness to include additional accessions in the European Collection. As at September 2012, the WG Chair identified a number of accessions from Germany, Hungary and The Netherlands and proposed to the respective countries their inclusion into AEGIS:
 - * *Capsicum* (pepper): 2506
 - * Tomato: 4756
 - * *Solanum* (eggplant): 696
 - * *Cyphomandra*: 4
 - * *Physalis*: 42.
- AQUAS: The WG adopted the draft FAO *Genebank Standards for the Conservation of Orthodox Seeds* and agreed that the genebanks should strive to follow them. No need was felt to develop more stringent crop-specific standards. It should be noted that the WG had agreed in 2004 on a *Standardized minimum protocol for seed regeneration and seed storage of Solanaceae*. The protocol includes disinfection of seeds, identification, number of plants regenerated, transplanting seedlings, isolation, harvest, seed cleaning, desiccation and storage.

Umbellifer Crops WG

- European Collection: The WG agreed on a methodology for selecting accessions for AEGIS, and 1415 carrot cultivar accessions were identified as potential European Accessions. The list was cross-checked, and a number of accessions from the list were given first priority. It is planned to extend the lists to landraces and wild relatives. A workplan was decided to extend the analysis to other Apiaceae.
- AQUAS: A proposal for minimum standards for regeneration and long-term conservation conditions was made. The standards still need to be formally agreed by the WG.

Outlook for 2013

The second meeting of the Leafy Vegetables WG is planned in Ljubljana, Slovenia, 8–9 October 2013. The agenda will include the further development of the European Collection and minimum crop-specific genebank standards for leafy vegetables.

The second meeting of the Umbellifer Crops WG is planned in St Petersburg, Russian Federation, 26–28 June 2013.

The Umbellifer Crops WG is organizing an ECPGR-funded collaborative project on umbellifer wild relatives, with a focus on endangered *in situ* populations, taxonomic misidentification of *ex situ* accessions or lack of characterization and knowledge.

A major update of the Umbellifers Database is planned for 2013, along with the addition of characterization data based on selected minimum descriptors.

New functionalities are planned to be implemented in the *Allium* Database by May 2013 (search on botanical names and all other passport data).

A joint ad hoc meeting of the Chairs and Database Managers of the Cucurbits and Solanaceae WGs is planned in Valencia, Spain, 11–12 April 2013. The main topics on the agenda are 1) a brainstorming session about the requirements, possibilities and constraints of transferring the CCDB functionalities to EURISCO; 2) projects for the next Phase of ECPGR and 3) continuation of the selection of European Accessions.

4.7. Documentation and Information Network

The **Documentation and Information Network Coordinating Group** consisted of eight members: Theo van Hintum, The Netherlands (Network Coordinator); Frank Begemann, Germany; Iva Faberová, Czech Republic; Idin Fazlic, Bosnia and Herzegovina (SEEDNet); Helmut Knüpffer, Germany; Jonas Nordling, Sweden (NordGen); Ahmet Semsettin Tan, Turkey and Ian Thomas, United Kingdom. Four additional ex officio representatives were Lorenzo Maggioni, ECPGR Secretariat; Sónia Dias (EURISCO Coordinator); Michael Mackay (until April 2012, then replaced by Richard Bruskiwich as of July 2012), Bioversity International, Rome and José Iriondo, Spain (*In situ* and On-farm Conservation Network representative).

The project “PGR DuplicateFinder’, a software package to assist in the identification of putative duplicates in germplasm databases”, was completed as part of the AEGIS Grant Scheme. The project, coordinated by the Centre for Genetic Resources (CGN), The Netherlands, provided a tool which is available online (<http://documents.plant.wur.nl/cgn/pgr/aegisdfl/>) and can support searches of databases for duplicates and Most Appropriate Accessions.

Members of the NCG contributed to the ‘information management’ section of the report of the Joint PGR Secure/ECPGR workshop on *Conservation strategies for European crop wild relative and landrace diversity*, 7–9 September 2011, Palanga, Lithuania. Following this meeting, the members participated in the discussion about the *in situ*/on-farm descriptor list.

EURISCO in 2012

After the addition of the National Inventory from Belgium in 2012, the EURISCO Catalogue now represents 43 National Inventories and 332 collection holdings. The total number of accessions increased from 1 096 182 accessions in December 2011 to 1 114 424 in December 2012. These accessions were listed as wild/weedy species (9%), landraces (25%), advanced cultivars (19%), breeding/research material (15%), other (1%). The status of the remaining 31% is unknown. The registration of Multilateral System (MLS) accessions in 2012 was 23% of the total number of accessions recorded in EURISCO. At the end of 2012, there were 143 AEGIS accessions flagged in EURISCO (garlic accessions from Czech Republic and Germany).

During 2012, the EURISCO Intranet (so-called ‘staging area’) has been the target for development. This work has been initiated for two major reasons: 1) to migrate from old unstable hardware to new hardware; 2) to renew the software framework, thereby ensuring the possibility of adding new features, such as characterization and evaluation data. Consequently, the portal has been developed using the Symphony 2 framework (<http://symfony.com>), which provides stability for all components in an open-source environment.

The credentials system has been redesigned. The following roles will be available:

- **National Inventory Focal Point**: as before, this provider can upload passport data and is the only one allowed to update the public portal.
- **Institute**: National Inventory Focal Points can delegate the upload, validation and data quality checks to specific institute data providers, who will be able to upload passport datasets and consult validation and quality reports. They will only be able to see their institute data and will not be able to update the public portal.
- **Dataset provider**: this type of provider is not linked to any specific inventory or institute. He/she will only be able to upload characterization and evaluation datasets for accessions for which the system already hosts the passport data.
- **Curator**: institutes or National Inventory Focal Points may delegate the task of curating taxonomy or geo-reference data to other experts in order to improve the quality of the data. The specific privileges of this kind of expert have not yet been fully determined; only its role has been reserved in the system.
- **Ontology Curator**: this expert, who may overlap with any of the above roles, is responsible for creating and maintaining ontologies.

The ontology management system has been implemented. It will be used to link all dataset data elements to metadata definitions, so that the data dictionary of the system will be shaped by the design of the ontology, rather than the data being shaped into a fixed structure.

Over 20 Data Sharing Agreements have been concluded between Bioversity and EURISCO member countries. A number of agreements are therefore missing and need to be urgently concluded.

Following the release by FAO/Bioversity of a new version of the list of *Multi-Crop Passport Descriptors* (MCPD V.2), the ECPGR Documentation and Information Network Coordinating Group has started a discussion on the process for the adoption of this new MCPD version.

EURISCO was represented at the EU Global Biodiversity Information Facility (GBIF) Nodes Meeting held 27–29 March 2012 in Berlin, Germany. A presentation was made, covering the EURISCO status and the data sharing with GBIF.

An intern, Anna Hausmann, was hired by Bioversity for a short period to help in a data comparative analysis between EURISCO, the FAO World Information and Early Warning System (WIEWS) and the Central Crop Databases (CCDBs). At the end of 2012 the final report was being compiled.

To facilitate the tendering process for EURISCO (and the ECPGR Secretariat) the Chair of the Network formulated, on request of the ECPGR ExCo, and with support of the EURISCO staff, the technical description and requirements of EURISCO and the required support.

Outlook for 2013

Various ECPGR Working Groups have requested the possibility to discuss the relationship between EURISCO and CCDBs in a meeting with National Inventory Focal Points and Database Managers to agree on a common vision for the future. The Steering Committee has supported the suggestion to have such a meeting, devoted to EURISCO, the European CCDBs, and related topics. The Secretariat will try to secure specific funding to hold a meeting where 35–40 people could be invited, on the basis of their specific knowledge and experience related to defining the future role and functions of EURISCO (and the CCDBs). The agenda will focus on the future role of EURISCO (and the CCDBs). Topics should include: added value of CCDBs, Crop Portals, C&E data, EURISCO's role in relation to GENESYS, AEGIS and MLS, but also topics such as *in situ* documentation, molecular markers and sequencing data, geographic information system (GIS).

4.8. *In situ* and On-farm Conservation Network

Working Groups: On-farm Conservation and Management; Wild Species Conservation in Genetic Reserves.

The ***In situ* and On-farm Conservation Network Coordinating Group** consisted of seven members: Nigel Maxted, United Kingdom (Network Coordinator); Lothar Frese, Germany; Paul Freudenthaler, Austria; José Iriondo, Spain; Valeria Negri, Italy; Zdeněk Stehno, Czech Republic; and Jens Weibull, Sweden.

Planned activities of the Network were primarily carried out within the framework of the EC FP7-funded 'PGR Secure project' (www.pgrsecure.org)¹. The project has made significant progress in the development of national crop wild relative (CWR) conservation strategies in Albania, Cyprus, the Czech Republic, Finland, Italy, Norway, Spain and the United Kingdom. CWR conservation strategy development is also underway in Belarus, Bulgaria, Greece and Turkey as a direct result of training and technical support provided by the PGR Secure project. Independently, Sweden has taken concrete steps in preparing a national conservation strategy for CWRs. Good progress has also been made in national landrace (LR) conservation strategy planning in Finland, Italy and the United Kingdom.

¹ Project duration: March 2011–August 2014.

In addition to the training provided to national programmes in September 2011 at the joint PGR Secure/ECPGR workshop, *Conservation strategies for European crop wild relative and landrace diversity* (see www.pgrsecure.org/palanga_workshop), the 'PGR Secure' project provides a helpdesk (online and via direct email/Skype contact) (www.pgrsecure.org/helpdesk) and a specific 'PGR Secure' Web site for Spanish CWR has been created (<http://pgrsecurSpain.weebly.com/index.html>). The content of the 'PGR Secure' helpdesk Web pages includes conservation planning aids, data sources, Red List information and descriptors for information management, as well as useful publications, networks, Web sites and resources associated with past conferences and workshops. The project has also provided one-to-one technical assistance through in-country visits and the provision of researcher support.

A review of progress in national CWR and LR conservation in each European country was made available online (www.pgrsecure.bham.ac.uk/sites/default/files/documents/helpdesk/Progress_national_CWR_and_LR_conservation_Europe.pdf). The review was originally based on results of a horizon scanning exercise initiated at the Symposium *Towards the establishment of genetic reserves for crop wild relatives and landraces in Europe* in September 2011 (see www3.uma.pt/cem/aegro.ecpgr.symp/index.html) and is updated on a regular basis following communications with national programmes.

Issue 8 of the serial *Crop wild relative* was published in April 2012 with 'PGR Secure' project funding (www.pgrsecure.bham.ac.uk/sites/default/files/documents/newsletters/CWR_Issue_8.pdf) and includes contributions from several ECPGR WG members. *Crop wild relative* serves to highlight the importance of CWR as critical resources for the improvement of crops. It provides a medium to publicize information about the conservation and use of CWRs, including updates on CWR conservation project activities, national CWR conservation strategies, and the use of CWRs in crop improvement.

The inaugural issue of *Landraces* was also published with PGR Secure project funding in October 2012 (www.pgrsecure.bham.ac.uk/sites/default/files/documents/newsletters/Landraces_Issue_1.pdf) and includes contributions from several ECPGR WG members. *Landraces* is a medium to publicize various initiatives to protect landraces and to provide information on research activities focused on them.

Other publications produced by the Network in 2012 include the report of the Joint PGR Secure/ECPGR workshop, *Conservation strategies for European crop wild relative and landrace diversity* (Kell et al. 2012) and the *Descriptors for Web-enabled National In Situ Landrace Inventories* (Negri et al. 2012). (full citations in Section 7.1, under 'Other publications (selective list)').

The latter publication includes the different types of information that were discussed at the workshop *Conservation strategies for European crop wild relative and landrace diversity* by the *in situ* National Inventory Focal Points, the ECPGR Documentation and Information Network members and the 'PGR Secure' team working on landraces, as well as the contributions of the ECPGR Secretariat and of Bioversity International, Rome.

As part of the Sixth European Botanic Gardens Congress (EUROGARD VI), *European Botanic Gardens in a Changing World*, held on Chios Island, Greece, from 28 May to 2 June 2012, the Coordinator of the *In situ* and On-farm Conservation Network, Nigel Maxted, organized a workshop on *Wild Species Conservation in Genetic Reserves* (Maxted and Kell 2012; full citation in Section 7.1 as above). The report is also published on the European Botanic Gardens Consortium Web site (www.botanicgardens.eu/eurogardwkskps.htm#wkshp5).

Outlook for 2013

Based on terms of reference developed by the Steering Committee (SC), two Task Forces will be set up to develop concepts for "*In situ* conservation of crop wild relatives" and "On-farm management and conservation of landraces". These concepts should be finalized by the end of 2013 and the SC will offer them to the European Commission for its consideration when developing a future EU *strategy for the conservation of genetic resources in food, agriculture and forestry*. The concepts will also be the basis for the conservation strategy of ECPGR for *in situ* conservation and on-farm management and will be offered to the European countries if they wish to use them for their relevant national strategies.

4.9. Inter-regional Cooperation Network

The **Inter-regional Cooperation Network Coordinating Group** consisted of four members: Frank Begemann, Germany (Network Coordinator); Petra Engel, Italy; Silvia Străjeru, Romania; and Ayfer Tan, Turkey. After changing job, Merja Veteläinen, Finland left the Group at the beginning of 2012.

Despite a number of interactions between ECPGR and the Treaty Secretariat during 2012, opportunities were not identified for joint workshops between ECPGR and other regional networks.

Outlook for 2013

The Near East and North Africa (NENA) Plant Genetic Resources Network planned a PGR Workshop on the *Implementation of the Regional/Near East North Africa Plant Genetic Resources Network Strategy: National, Regional and Global Roles* in Muscat, Oman from 18 to 20 February 2013. ECPGR was invited with the request to make a presentation on *Experiences of ECPGR with EURISCO as a Regional Platform for PGR Information Management* and to discuss opportunities for future collaboration, including a capacity building workshop, tentatively planned for the last quarter of 2013.

5. AEGIS INITIATIVE FOR “A EUROPEAN GENE BANK INTEGRATED SYSTEM”

Possibly the most significant development during 2012 was the formal creation of the European Collection with the inclusion of 143 garlic accessions maintained by Germany and the Czech Republic. The proposal *Plant Gene Access*, submitted in November 2011, passed the threshold of the European Union but was not ranked highly enough to receive funds in the Framework Programme VII Research Infrastructure scheme. Despite this disappointing news, a number of activities were undertaken towards the development and implementation of AEGIS and these as well as major achievements during 2012 are summarized below:

• AEGIS Membership

By the end of December 2012 the 33 countries listed below had returned their signed MoU to Bioversity International, compared to 30 in 2011. A total of 46 AEGIS Associate Membership Agreements between institutions holding *ex situ* accessions and the respective National Coordinators were concluded in 19 AEGIS member countries, compared to 30 Associate Members and 18 countries respectively in 2011. The numbers in brackets behind the corresponding member countries below indicate the number of Associate Members in those countries:

Albania (0), Austria (0), Azerbaijan (2), Belarus (9), Belgium (1), Bosnia and Herzegovina (0), Bulgaria (1), Croatia (1), Cyprus (1), Czech Republic (8), Denmark (0), Estonia (3), Finland (0), Georgia (1), Germany (3), Hungary (1), Iceland (0), Ireland (0), Latvia (0), Lithuania (0), Montenegro (0), The Netherlands (2), Norway (0), Poland (0), Portugal (0), Romania (1), Slovakia (1), Slovenia (5), Sweden (1), Switzerland (1), Turkey (1), Ukraine (0) and the United Kingdom (3).

• European Collection

- a. Based on the simplified procedure for the selection of European Accessions that was proposed in 2011, several Working Groups produced candidate lists of European Collection accessions.
- b. The first 143 (garlic) accessions were included in the European Collection in 2011–2012 through the acceptance of the conditions for their long-term conservation and continued availability by the German and Czech National Coordinators. These accessions have been flagged in EURISCO as the first European Accessions.
- c. IPK, Germany, offered approximately 20 000 accessions of its crop collections that had been identified as unique German accessions or Most Appropriate Accessions maintained at IPK for consideration by the respective Working Groups for their inclusion in the European Collection. Also CGN, The Netherlands, indicated their intention to take a similar approach in early 2013.

• AEGIS Competitive Grant Scheme

The outstanding final reports of two out of five selected projects of the First Call of the AEGIS Competitive Grant Scheme were received and placed on the AEGIS Web site. From the Second Call, which was published at the end of 2010, five proposals were selected and funded. Two projects were

concluded, their final reports received and placed on the AEGIS Web site. Two projects were granted a no-cost extension and will be concluded during 2013.

- **AQUAS (AEGIS Quality System)**

- a. The template for an operational genebank manual has been used so far by three AEGIS Associate Members (IPK and JKI, Germany, and CGN, The Netherlands), which have completed the manuals and made them available through the AEGIS Web site. Several others are in the process of finalizing their manual.
- b. As the process of revising the FAO *Genebank Standards* coincided with the AEGIS process, it was agreed with the SC to use, if possible, the revised FAO *Genebank Standards* rather than developing new standards. Thus, ECPGR experts and the Secretariat participated in the process (expert consultations and commenting on drafts) to revise and develop new standards for the following three components: 1) orthodox seed germplasm, 2) field genebank and 3) *in vitro* cultures and cryopreservation. This resulted in a final draft document *Revision of the draft genebank standards for PGRFA* which was discussed by the Intergovernmental Technical Working Group on PGRFA at its Sixth Session in November 2012 (<http://www.fao.org/agriculture/crops/core-themes/theme/seeds-pgr/itwg/6th/en/>). The Working Groups reviewed the document *Revision of the Draft Genebank Standards for Plant Genetic Resources for Food and Agriculture* and recommended that the Commission endorse the Draft *Genebank Standards for PGRFA (Draft Genebank Standards)*, as amended by the Working Group.
- c. Considering the fact that several Working Groups had already initiated the development of crop-specific standards prior to the revision of the general genebank standards, a harmonization process of the crop-specific and general standards has become necessary. This process is ongoing and a number of WGs have already decided to either accept the FAO standards as they are or to add a few crop-specific standards to the FAO list.
- d. The Secretariat drafted an *AEGIS Safety-duplication Policy* for the accessions that will be included in the European Collection, under the guidance of the AEGIS Advisory Committee. This was circulated in November 2012 for approval by the SC.

- **Web site**

The AEGIS Web site (<http://aegis.cgiar.org/home.html>) has been revised and kept up to date. The growth of the European Collection is displayed in real time, thanks to a routine which establishes an automatic connection with EURISCO.

- **Meetings attended**

The Secretariat attended several WG and other meetings, including Solanaceae, *Malus/Pyrus*, Wheat, *Beta* and *Vitis*, and made presentations on the concept and the status of the European Collection as well as on genebank standards. These presentations are available on the AEGIS Web site.

- **Publication**

Engels JMM, Maggioni L. 2012. AEGIS: A regionally based approach to PGR conservation. In: Maxted N, Dulloo ME, Ford-Lloyd BV, Frese L, Iriondo JM, Pinheiro de Carvalho MAA, editors. *Agrobiodiversity Conservation: Securing the Diversity of Crop Wild Relatives and Landraces*. CAB International, Wallingford, UK. pp. 321-326.

Outlook for 2013

As already done during 2012, also in 2013 special attention will be given to the further selection and designation of accessions for the European Collection. Efforts toward defining crop-specific standards and the preparation of genebank manuals by AEGIS Associate Member genebanks will be given due priority. Efforts to formulate the reporting and monitoring components of AQUAS will continue in 2013. After the successful conclusion of the *AEGIS Safety-duplication Policy* it has been decided to draft an *AEGIS Germplasm Distribution Policy* to facilitate a common approach by all genebanks participating in AEGIS.

6. LINKS WITH OTHER NETWORKS AND INITIATIVES

The following interactions between ECPGR and other networks and initiatives took place during 2012:

➤ **Global Crop Diversity Trust**

The Secretariat prepared a final report (2009–2011) of the project funded by the Global Crop Diversity Trust for the regeneration and safety duplication of regionally prioritized crop collections. The project, prepared by the ECPGR Cereals Network and the Oil and Protein Crops Network, involved 11 institutions from 10 European countries (Albania, Armenia, Azerbaijan, Belarus, Bulgaria, Georgia, Greece, Hungary, Israel and Portugal) and was granted nearly US\$ 130 000 from the Trust.

The actual number of regenerated accessions was 4138 out of a total of 5549 considered for regeneration. Non-viable accessions were 774, while 523 did not produce seed and 114 did not generate enough seed.

➤ **European Commission**

Following an invitation by the European Commission, Directorate-General for Agricultural and Rural Development, the ECPGR Secretariat participated in the online consultation on the *Community programme on the conservation, characterisation, collection and use of genetic resources in agriculture* (Council Regulation (EC) No. 870/2004). Responses to the online questionnaire were sent in January 2012 and they were in line with and complementary to the contributions provided to the Secretariat from Austria, Belarus, Estonia, Germany and Italy. Independent contributions were also submitted online by Austria, Estonia, Germany and Italy. A copy of the Secretariat's submission was sent to the Steering Committee at the end of January 2012.

The Independent Expert Evaluation of Council Regulation (EC) No. 870/2004 was released in June 2012, recommending a new Programme whose aim should be to deliver the best possible utilization of agricultural genetic resources in practice. End-users should be directly involved in the funded actions together with applied research organizations. The Expert Evaluation also reflected some of the recommendations from ECPGR, such as the need to reduce the administrative burden on coordinators, the importance of scientific research activities linked to conservation and utilization and the need for better coordination of relevant EC Programmes for genetic resources.

Differently from the expectation that the genetic resources networks (including ECPGR) would be invited to give a presentation during the 26th meeting of the Committee on the conservation, characterisation, collection and utilisation of genetic resources in agriculture, this opportunity was not confirmed. The meeting, held in Brussels on 13 June 2012, was nonetheless an opportunity for delegates of the Committee who are also members in ECPGR bodies to stress the role of ECPGR as an important component of the Community Programme, which was not mentioned in the evaluation report. The EU Commission informed the Committee about the plans to submit the evaluation report together with the Commission's comments by means of a Communication to the European Parliament, the Council and the European Economic and Social Committee in the second half of 2012.

The Task Force on EU matters, composed of Jan Engels, Paul Freudenthaler, Lars Landbo and Fernando Latorre was supported by staff of the German Federal Office of Agriculture and Food (Bundesanstalt für Landwirtschaft und Ernährung, BLE) (in particular Siegfried Harrer, Frank Begemann and Mathias Ziegler) for the preparation of a *Strategy Paper on the ECPGR relationship with the European Union/European Commission*. The *Strategy* was finalized after a meeting of the Task Force was hosted by BLE in Bonn, Germany, 31 May–1 June 2012. The *Strategy* recommends actions in five areas: 1) Policy framework for agrobiodiversity; 2) *In situ* conservation of PGRFA; 3) On-farm management of PGRFA; 4) *Ex situ* conservation, characterization and evaluation of PGRFA and 5) Research and was endorsed by the SC during its meeting in Vienna in December 2012

http://www.ecpgr.cgiar.org/fileadmin/www.ecpgr.cgiar.org/SC_2012_VIENNA/background_documents/Strategy_Paper_relationship_ECPGR-EU.pdf

➤ The International Treaty on PGRFA

The Secretary of the International Treaty, Shakeel Bhatti, was welcomed as a guest speaker at the SC meeting in Vienna, December 2012. This was an opportunity for the SC to be updated on the International Treaty, to summarize the areas of collaboration between the Treaty and ECPGR and to answer several questions from the National Coordinators (see report of Thirteenth SC meeting).

7. PUBLICATIONS AND PUBLIC AWARENESS

7.1. Publications produced in 2012

The following publications were produced in 2012 and are available in electronic format through the ECPGR Web site (<http://www.ecpgr.cgiar.org/homepage.html>).

Proceedings

- Report of a Working Group on Solanaceae. First Meeting of the Working Group and Ad hoc Meeting of the Database Managers, 14–17 February 2012, Menemen, Turkey.
- Report of a Working Group on Wheat. Third Meeting, 15–17 May 2012, Piešťany, Slovakia. Bioversity International, Rome, Italy.

Administrative and working documents

- ECPGR Technical report 2011 and Financial report 2011
- Minutes of the 3rd ECPGR Executive Committee meeting, Maccaresse, Italy, 26–28 September 2012
- Technical Report of ECPGR Phase VIII (January 2009–November 2012) (Prepared for the 13th Steering Committee meeting, 4–7 December 2012, Vienna, Austria).

Bioversity publications

- Issue 44 of Bioversity's *Regional Newsletter for Europe* was published in April 2012 with contributions and partial financial support from ECPGR. This was the last issue of the Newsletter.

Other publications (selective list)

- Aronsson M, Black-Samuelsson S, Edqvist M, Persson E, Ståhlberg D, Weibull J. 2012. Kulturväxtsläktingar - något att bry sig om [Crop Wild Relatives - something to care about]. *Crop Svensk Botanisk Tidskrift* 106(6):309-318 (in Swedish with English summary).
- Branca F, Bas N, Artemyeva A, De Haro A, Maggioni L. 2012. In Progress Activities of the *Brassica* Working Group of the European Cooperative Programme for Plant Genetic Resources (ECPGR). Poster presented at the 6th International Symposium on *Brassica* and 18th Crucifer Genetic Workshop, 12–16 November 2012, Catania (Sicily, Italy).
- Branca F, Chiarenza GL, Argento S, Ragusa L. 2012. Morphological characterization of the wild *Brassica* Working Group collection. Poster presented at the 6th International Symposium on *Brassica* and 18th Crucifer Genetic Workshop, 12–16 November 2012, Catania (Sicily, Italy).
- Daunay MC, van Dooijeweert W, Hoekstra R, Mueller LA. 2012. Towards a better interaction between European Solanaceae germplasm holders and Solanaceae Omics researchers. *SoL Newsletter* 34:7–11.
- Kell S, Negri V, Torricelli R, Maxted N, Maggioni L, Fielder H, compilers. 2012. Conservation strategies for European crop wild relative and landrace diversity. Report of the joint PGR Secure/ECPGR workshop, 7–9 September 2011, Palanga, Lithuania (www.pgrsecure.bham.ac.uk/sites/default/files/meetings/palanga/CWR_and_LR_Workshop_Report_FI_NAL.pdf).
- Maxted N. 2012. *Lathyrus belinensis*: a CWR discovered and almost lost. *Crop Wild Relative* 8:44.
- Maxted N, Dulloo ME, Ford-Lloyd BV, Frese L, Iriondo JM, Pinheiro de Carvalho MAA, editors. 2012. *Agrobiodiversity Conservation: Securing the Diversity of Crop Wild Relatives and Landraces*. CAB International, Wallingford, UK.
- Maxted N, Hargreaves S, Kell SP, Amri A, Street K, Shehadeh A, Piggin J, Konopka J. 2012. Temperate forage and pulse legume genetic gap analysis. *Bocconea* 24:5–36.

- Maxted, N, Kell S. 2012. A role for botanic gardens in crop wild relative conservation. Report of a workshop convened at EUROGARD VI: European Botanic Gardens in a Changing World, 28 May–02 June 2012, Chios, Greece (www.pgrsecure.bham.ac.uk/sites/default/files/meetings/others/EuroGard_VI_CWR_workshop_summary.pdf)
- Maxted N, Kell SP, Ford-Lloyd BV, Dulloo ME, Toledo A. 2012. Toward the systematic conservation of global crop wild relative diversity. *Crop Science* 52(2):774–785.
- Negri V. 2012. Policies supportive of on-farm conservation and their impact on custodian farmers in Italy. In: Padulosi S, Bergamini N, Lawrence T, editors. On-farm conservation of neglected and underutilized species: status, trends and novel approaches to cope with climate change. Proceedings of the International Conference, Frankfurt, 14–16 June 2011. Bioversity International, Rome. pp. 211-216.
- Negri V, Maxted N, Torricelli R, Heinonen M, Vetelainen M, Dias S. 2012. Descriptors for Web-enabled National *In Situ* Landrace Inventories. University of Perugia, Italy (www.pgrsecure.bham.ac.uk/sites/default/files/documents/helpdesk/LRDESCRIPTORS_PGRSECURE.pdf).
- Parra-Quijano M, Iriando JM, Torres E. 2012. Improving representativeness of genebank collections through species distribution models, gap analysis and ecogeographical maps. *Biodiversity and Conservation* 21:79–96.
- Parra-Quijano M, Iriando JM, Torres ME. 2012. A review of applications of ecogeography and geographic information systems in plant genetic resources. *Spanish Journal of Agricultural Research* 10(2):419–429.
- Torricelli R, Pauselli M, Cestola E, Falcinelli M. 2012. Phenotypic and qualitative evaluation of faba bean landraces in central Italy. *Landraces* 1:21–22.
- Torricelli R, Silveri DD, Ferradini N, Venora G, Veronesi F, Russi L. 2012. Characterization of the lentil landrace ‘Santo Stefano di Sessanio’ from Abruzzo, Italy. *Genetic Resources and Crop Evolution* 59:261–276.
- Torricelli R, Tiranti B, Spataro G, Castellini G, Albertini E, Falcinelli M, Negri V. 2012. Differentiation and structure of an Italian landrace of celery (*Apium graveolens* L.): inferences for on farm conservation. *Genetic Resources and Crop Evolution* DOI: 10.1007/s10722-012-9896-5.
- van Treuren R, Coquin P, Lohwasser U. 2012. Genetic resources collections of leafy vegetables (lettuce, spinach, chicory, artichoke, asparagus, lamb’s lettuce, rhubarb and rocket salad): composition and gaps. *Genetic Resources Crop Evolution* 59:981–997.
- Vincent H, von Bothmer R, Knüpfper H, Amri A, Maxted N. 2012. Genetic gap analysis of *Hordeum* taxa. *Plant Genetic Resources* 10(3):242–253.
- Vincent H, Wiersema J, Dobbie S, Kell S, Fielder H, Castenada N, Guarino L, Eastwood R, Maxted N. (*submitted*). A prioritized crop wild relative inventory to help underpin global food security. *Biodiversity and Conservation*.

ECPGR Web site (<http://www.ecpgr.cgiar.org>)

Summaries of WG meeting outcomes have been posted on the respective Web pages throughout the year, as well as updates of WG workplans. In the ‘News’ section, events and products generated by ECPGR have been frequently announced.

7.2. Publications in preparation in 2012

- Report of a Working Group on *Malus/Pyrus*. Fourth Meeting, 7–9 March 2012, Weggis, Switzerland (*first draft online January 2013*).
- Report of a Working Group on *Beta* and the World *Beta* Network. Fourth Joint Meeting, 20–22 June 2012, Cappelle-en-Pévèle, France. (*first draft online November 2012 – final published February 2013*).
- Report of a Working Group on *Vitis*. Second Meeting, 18–20 September 2012, Siebeldingen, Germany. B (*first draft online October 2012 – final published January 2013*).
- Report of the Thirteenth Steering Committee meeting, 4–7 December 2012, Vienna, Austria. (*revised draft circulated December 2012 – final published January 2013*).

7.3. Presentations at national workshops

The ECPGR Coordinator attended national workshops on PGR in Ireland (Galway, 9 February 2012) and in the UK (London, 21 March 2012), where he presented an update on the status and progress of ECPGR.

8. ECPGR MEETINGS HELD IN 2012

- First Meeting of the Working Group on Solanaceae, jointly with Database Managers, 15-17 February 2012, Menemen, Turkey.
- Fourth Meeting of the Working Group on *Malus/Pyrus*, jointly with Ad hoc Meetings on fruit synonyms and descriptors, 5–9 March 2012, Weggis, Switzerland.
- Meeting of the ECPGR Task Force on ECPGR Operational Structure, 9–11 May 2012, Maccarese, Italy.
- Third Meeting of the Working Group on Wheat, 15–17 May 2012, Piest'any, Slovakia.
- Fourth Joint Meeting of the ECPGR *Beta* Working Group and World *Beta* Network (WBN), 20-22 June 2012, Cappellet-en-Pévèle, France.
- Second Meeting of the Working Group on *Vitis*, 18–20 September 2012, Siebeldingen, Germany.
- Third Meeting of the ECPGR Executive Committee, 26–28 September 2012, Maccarese, Italy.
- Fourth Meeting of the ECPGR Executive Committee, 3 December 2012, Vienna, Austria.
- Thirteenth Meeting of the ECPGR Steering Committee, 4–7 December 2012, Vienna, Austria.

9. COORDINATING SECRETARIAT AND BIOVERSITY INTERNATIONAL

During 2012, the following staff have worked for the Coordinating Secretariat: Jan Engels (as half-time AEGIS Coordinator); Lidwina Koop (as ECPGR Programme Assistant, assisting in all administrative and financial matters and Web site maintenance); Elinor Lipman (as half-time Scientific Assistant, based in Montpellier, France, involved in the compilation and layout of ECPGR publications, Web site quality check and general support to the Secretariat activities); and Lorenzo Maggioni (ECPGR Coordinator).

The scientific and technical contributions, as well as management and administrative support provided by Bioversity International and its staff to the work of ECPGR are duly acknowledged. Bioversity also provided funding for the half-time EURISCO Coordinator (Sónia Dias).

★★★

Lorenzo Maggioni
ECPGR Coordinator

(with inputs from Sónia Dias, Jan Engels, Lidwina Koop, Elinor Lipman,
and from the ECPGR Network Coordinating Groups)

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