



European Cooperative Programme for Plant Genetic Resources (ECPGR)

Phase VIII (2009–2013) 2013 Progress Report

CONTENTS

Summary	2
1. Introduction	3
2. Implementation of ECPGR Phase VIII	3
Follow up of Steering Committee decisions (13th SC meeting, Vienna, Austria, December 2012) ..	3
Activities of the Executive Committee (ExCo)	4
3. Activities carried out within the Networks	5
3.1. Cereals Network.....	5
3.2. Forages Network	7
3.3. Fruit Network	7
3.4. Oil and Protein Crops Network.....	8
3.5. Sugar, Starch and Fibre Crops Network	9
3.6. Vegetables Network	10
3.7. Documentation and Information Network.....	14
3.8. <i>In situ</i> and On-farm Conservation Network	14
3.9. Inter-regional Cooperation Network	16
4. AEGIS initiative for A European Genebank Integrated System	16
5. Links with other Networks and initiatives	17
6. Publications and public awareness	18
6.1. Publications produced in 2013	18
6.2. Publications in preparation in 2013	19
6.3. Presentations at national workshops and international meetings	19
7. ECPGR meetings held in 2013	19
8. Coordinating Secretariat and Bioversity International	20

SUMMARY

The fifth year of Phase VIII was characterized by intense activity by 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, and during the 13th SC meeting in Vienna, December 2012.

With regard to the tender for the hosting of the Secretariat and EURISCO, decisions were made in March 2013 to accept the offers from the Leibniz Institute of Plant Genetics and Crop Plant Research (IPK) for hosting of EURISCO in Gatersleben, Germany and from the Global Crop Diversity Trust for hosting the Secretariat in Bonn, Germany. However, at the stage of finalizing the agreement with the Trust regarding the hosting arrangements, a number of issues were raised which complicated the process and eventually the Trust decided to withdraw its offer in November 2013. A solution for the hosting of the Secretariat was then found in agreement with Bioversity International, with the decision to continue the hosting arrangements with Bioversity during Phase IX (eventually formalized in 2014). As Bioversity was eventually reconfirmed to be the legal personality for the ECPGR Secretariat, a formal agreement was drafted between Bioversity (on behalf of ECPGR) and IPK to define the terms for the management and operation of EURISCO by IPK. The agreement was eventually signed in 2014. As a consequence of the above-mentioned lengthy and complex events, the actual transfer of EURISCO to IPK was delayed until 2014. A final budget for Phase IX could also not be conclusively defined until early 2014, owing to the uncertainties related to the actual host of the ECPGR Secretariat and the related costs and conditions.

As far as possible, given the elements of uncertainty described above, planning for Phase IX continued with the drafting of the new Terms of Reference for the operational bodies of ECPGR during Phase IX, including a proposal for a country quota mechanism for the sharing of Working Group (WG) activities' funds among the members (this document was eventually approved in 2014).

Regarding the number and scope of the WGs, it was decided in the early part of the year to maintain all the existing WGs for Phase IX and to convert the Documentation and Information Network into a WG. Therefore, 18 Crop WG and 3 Thematic WGs remained in operation.

Two Task Forces (TFs) were established as mandated by the SC and made progress in the drafting of concepts on 'In situ conservation of crop wild relatives' and on 'On-farm management and conservation of landraces'. A third TF was also set up to consider how the engagement of users in ECPGR activities could be enhanced. A fourth TF worked on the completion of the ECPGR objectives for Phase IX and provided to the ExCo a logframe table containing six objectives, each elaborated into outputs, activities, responsibility, indicators and assumptions.

The Executive Committee held its fifth meeting in November 2013 in Maccaresse. Alvina Avagyan, Armenia, left her position as ExCo member at the end of the year and Gordana Đuric, Bosnia and Herzegovina, was selected as a new ExCo member, starting in 2014.

Meetings were held by the WGs on Grain Legumes (May, Serbia), Umbellifer Crops (June, Russian Federation) and Leafy Vegetables (October, Slovenia). All WGs discussed their involvement in the establishment of the AEGIS European Collection and the AEGIS Quality System.

An *ad hoc* meeting of the Chairs, Vice-Chairs and Central Crop Database Managers of the Solanaceae and Cucurbits WGs was held in April in Spain.

The following AEGIS documents were developed and finalized after several rounds of electronic consultation, and published on the AEGIS website: *Safety duplication Policy* [for the accessions to be included in the European Collection] (February 2013); *Revised simplified procedure for the selection and flagging of accessions for the European Collection* (December 2013); *Guidelines for distribution of material from the European Collection* (December 2013).

The European Collection increased its size with over 11 000 accessions flagged as part of AEGIS by the Czech Republic, Germany and the Netherlands.

Two AEGIS-funded projects were finalized, improving the analysis of the forage and rye collections in view of defining unique accessions. A third project on potato was nearly completed, with molecular fingerprinting of over 400 clones. ECPGR-funded projects contributed to the characterization of the *Brassica* and carrot collections. Priority descriptors for peach, carrot, pepino, groundcherry and tree tomato were agreed and published by the respective WGs. A common set of SSR markers for *Malus* characterization were also agreed by the *Malus/Pyrus* WG.

1. INTRODUCTION

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

This document aims to put on record all the relevant events which occurred during 2013 for the purpose of reporting on the progress made during Phase VIII to the Steering Committee and to the Implementing Agencies.

2. IMPLEMENTATION OF ECPGR PHASE VIII

By the end of December 2013, 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. A number of countries that signed the Letter of Agreement but never paid their contributions are included and accounted for in the 2013 financial report.

Follow up of Steering Committee decisions (13th SC meeting, Vienna, Austria, December 2012)

Hosting arrangements

At the end of the 13th SC meeting (December 2012), the ExCo was mandated to collect additional information from the bidders offering to host the Secretariat and EURISCO. The SC was then expected to take the final decision regarding the hosting arrangements for ECPGR by the end of March 2013, after an e-mail consultation with the SC members. This process was concluded with a decision to accept the offers from the Global Crop Diversity Trust to host the Secretariat in Bonn and from IPK to host EURISCO in Gatersleben, Germany.

A negotiation process then started, aimed at fine-tuning the implementation of these decisions and preparing for the move, mainly involving the ExCo Chair, the ECPGR Coordinator, the legal advisor for both parties Gerald Moore, the Trust, IPK and Bioversity management.

However, during this process, the Trust developed increasing uncertainty regarding their effective availability to host the ECPGR Secretariat, owing to their perception of embarking into a financial risk, as well as other logistic and political afterthoughts. Consequently, ECPGR was requested to improve its financial status, build a reserve fund and guarantee annual anticipated payments to the Trust during Phase IX. While ECPGR was attempting to accommodate these requests, in July the Trust asked to postpone by at least one year the actual transfer of the Secretariat to Bonn and in November they ultimately withdrew from their offer. Such a situation of emergency for ECPGR was overcome with different measures and decisions: 1) National Coordinators of countries with outstanding contributions were solicited to do their best efforts to pay their dues and this action was successful in a few critical cases, such as Belgium, France and Portugal; 2) A letter was sent in June to the National Coordinators asking for anticipated contributions for Phase IX and a few countries answered positively (Bulgaria, Latvia, the Netherlands, Norway, Slovakia, Sweden and Switzerland); 3) Expenditures related to a number of Network activities that had not been already firmly committed with Letters of Agreement were frozen or postponed; 4) Bioversity was approached in July with a request to continue hosting the Secretariat on a temporary basis and it was possible to establish an agreement for an additional two years; 5) Bioversity was again approached in November with a request to make an offer for hosting the Secretariat for the entire Phase IX. A mutually agreed arrangement was eventually concluded in 2014.

Arrangements for the transfer of EURISCO from Bioversity to IPK were started in March 2013. A legal agreement was initially meant to be concluded between the Trust (on behalf of ECPGR) and IPK regarding the terms and conditions for the maintenance and development of EURISCO by IPK. However, after July it was necessary to revise partners and Bioversity became again the legal personality that should conclude the arrangement on behalf of ECPGR. The agreement had not been concluded at the end of 2013 (but was eventually signed by both Parties in April 2014).

ECPGR mode of operation

All existing and new Terms of Reference for the operational bodies of ECPGR were compiled by the Secretariat in a draft form, including a proposal for a country quota mechanism for the sharing of WG activity funds among the members as part of the Competitive ECPGR Grant Scheme. The document was not completed before the end of the year, owing to uncertainties regarding the final budget for

Phase IX and its consequent impact on the overall mode of operation (the document was eventually circulated early in 2014).

Number and scope of Working Groups

Following a consultation made by the ExCo with all National Coordinators in the early part of the year, it was decided to maintain all the existing WGs for Phase IX and to convert the Documentation and Information Network into a WG. Therefore, 18 Crop WG and 3 Thematic WGs remain in operation. The SC agreed to re-evaluate the effectiveness of this structure at the mid-term SC meeting of Phase IX, which is expected to be held in 2016.

Task Forces

The following Task Forces (TFs) were established as mandated by the SC and they made progress in carrying out their task as indicated below:

- **TF on 'In situ conservation of crop wild relatives' and TF on 'On-farm management and conservation of landraces'**
See below, Section 3.8
- **TF on 'Engagement of users in ECPGR activities'**
This Task Force was established on the basis of nominations provided by the SC, aiming to work as per the terms of reference that had been elaborated by a small working group (Jens Weibull, Béla Bartha, Pascal Coquin and Marc Lateur). The TF, composed of three members, Riccardo Bocci (Italy), Jan Nedelnik (Czech Republic) and Frank Ordon (Germany), due to their limited familiarity with ECPGR and their restricted representation of the overall users' community in Europe, had difficulties in getting started. In close consultation with the Secretariat they prepared three individual perspectives on how they would see a better engagement of users in ECPGR activities. It was noted that parallel activities were also going on in Europe with the same objective: 1) One of the PGR Secure project Work Packages deals with 'Engaging the user community'; 2) the European Commission's DG AGRI launched a call for Tender N°AGRI-2013-EVAL-07 'Preparatory action – EU plant and animal genetic resources in agriculture'; 3) The European Commission established an EIP-AGRI Focus Group on Genetic Resources, with the main task of analysing existing cooperation models and identifying bottlenecks that limit this cooperation. The ExCo assigned the Secretariat the task of elaborating a short framework report, taking into consideration both the TF proposals and other existing initiatives, aimed at proposing specific activities to be included in the ECPGR logframe (the report was provided by the Secretariat to the ExCo in early 2014).
- **TF on ECPGR objectives**
This TF under the leadership of Bert Visser, was composed of the AEGIS Coordinator, the ExCo (represented by Jens Weibull), the Coordinators of the *In situ* and On-Farm Conservation Network and of the Documentation and Information Network, the Secretariat and Marc Lateur. A logframe table containing six objectives, each elaborated into outputs, activities, responsibility, indicators and assumptions was provided to the ExCo in October 2013. The elaboration of the objective related to *in situ* and on-farm management was still preliminary, waiting for discussion of the respective TF concepts by the SC; therefore the entire document was not yet circulated by the ExCo for approval by the SC.

Activities of the Executive Committee (ExCo)

At the end of 2013, the ExCo was composed of Gert Kleijer (Chair), Alvina Avagyan, Zofia Bulińska-Radomska, Fernando Latorre, Jens Weibull, and Lorenzo Maggioni (ex officio).

A. Avagyan informed at the last ExCo meeting in November 2013 that she would leave her position as ExCo member at the end of 2013, according to the rule of rotating ExCo members. The SC selected Gordana Đuric who kindly agreed to replace Alvina as of 1 January 2014.

The following activities were carried out:

- Management of concluding steps for the selection of the winners of the bid for hosting arrangements
- Consultations with the Global Crop Diversity Trust regarding hosting agreement

- Consultations with Bioversity International regarding hosting arrangements
- Consultations with IPK regarding transfer of EURISCO and drafting Memorandum of Understanding (MoU)
- Supervision of restructuring of ECPGR: definition of list of Working Groups; Terms of Reference (ToRs) of ECPGR; new country quota mechanism, etc.
- Supervision of the establishment of the Task Forces on 'Engagement of users in ECPGR activities', 'In situ conservation of crop wild relatives' and 'On-farm management and conservation of landraces' and the respective Terms of Reference
- Regular contacts with the Secretariat
- Regular contacts amongst the ExCo members
- Gert Kleijer and Lorenzo Maggioni travelled to Bonn on 28–30 April 2013 to meet with the Trust (discussions regarding the hosting arrangements), and with IPK on 20–21 May 2013 in Gatersleben (discussions related to the transfer of EURISCO)
- Lorenzo Maggioni (and Jan Engels and Lidwina Koop) attended the official opening ceremony of the Trust offices in Bonn on 22 May 2013
- Gert Kleijer travelled to Maccarese on 5 July to discuss with Emile Frison (Bioversity DG) a possible extension of the hosting arrangements at Bioversity
- The fifth meeting of the ExCo was held 5–7 November 2013 in Maccarese (discussions on hosting arrangements and preparations for Phase IX)
- Preparation of a letter to the Trust in reply to their withdrawal from the hosting arrangement bid
- Supervision of negotiation with Bioversity regarding the cost of the transfer of EURISCO to IPK.

The minutes of the ExCo meetings are available from: http://www.ecpgr.cgiar.org/executive_committee.html

3. ACTIVITIES CARRIED OUT WITHIN THE NETWORKS

Meetings and activities planned and their dates are reflected and kept up-to-date in the Networks' budget plans (available online from each Network's webpage (http://www.ecpgr.cgiar.org/archive_phase_viii.html) and in the list of upcoming meetings (http://www.ecpgr.cgiar.org/meetings/future_meetings.html).

3.1. Cereals Network

Working Groups: *Avena*, Barley and Wheat.

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

No meetings of the Cereals Network and Working Groups were scheduled during 2013.

Avena WG

The Group was active in the preparation of a project proposal submitted under the EU Seventh Framework Programme (FP7) in February 2013. Unfortunately the proposal was unsuccessful and this delayed the preparation of a protocol on regeneration of wild accessions, which remains a task for the WG.

The Netherlands included 75 *Avena* accessions in the European Collection.

Barley WG

It was not possible to record much progress regarding the planned activities of this group during 2013, such as a planned survey of barley genetic stock collections and the development of protocols for the species-specific maintenance of wild *Hordeum* species.

It should be noted that a Public–Private Plant Breeding Barley project has been ongoing among the Nordic countries. In this context, a resistance (and other quality traits) database is under development and it already serves the Nordic plant breeding entities. However, due to the nature of the project, the database is currently open only for the project partners and cannot serve the larger WG.

The Netherlands included 642 *Hordeum* accessions in the European Collection.

Wheat WG

The initiative to develop an inventory of precise genetic stocks did not make further progress, due to the freezing of available funds from ECPGR.

Passport data were sent from Israel to the Wheat Database Manager and these were included in the European Wheat Database (EWDB) (altogether 12 397 new records, which are not included in EURISCO).

Data were provided by Switzerland for the “inventory of activities carried out by members and partners in Europe on genebank material”:

http://www.ecpgr.cgiar.org/archive_phase_viii/cereals/wheat/inventory_activities.html

A request was made to the Secretariat by Kamut Enterprises of Europe, bvba (based in Belgium) and Kamut International, Ltd. (based in the USA) regarding their finding of the listing of the registered trademark ‘KAMUT’ as the ‘accession name’ for species *Triticum turanicum* Jakubz and *Triticum* sp. in the EWDB. As the ‘KAMUT®’ trademark was registered both in the United States and in some countries in Europe, a request was made to replace the word ‘kamut’ with the generic name ‘khorasan wheat’ in the database. The request was forwarded to the Wheat Database Manager and the relevant collection holders for appropriate follow up.

Regarding selection of wheat accessions for the European Collection, the WG had decided in its meeting in 2012 that each WG member should propose accessions from a list provided by the Database Manager on the basis of agreed criteria. Unfortunately there was very little follow up by WG members to this initiative. Subsequently, the revised procedure for the selection of AEGIS accessions somehow derailed the efforts of the WG Chair and Database Manager who were trying to promote a guided selection of appropriate accessions. The Database Manager partially analysed an initial offer of accessions made by Germany and by the Netherlands and she noted a generally low quality of the data, which created a number of questions related to the uniqueness and true origin of the accessions. Eventually, only the Netherlands included 646 *Triticum* accessions in the European Collection (mainly from Pakistan and from the Netherlands).

Other cereals

- **Rye**

The AEGIS-supported project ‘**Improving the prerequisites for a European rye collection**’ was concluded and the final report was submitted in July 2013. Based on a survey and a workshop that involved the main rye collection holders in Europe, the project produced a draft of rye germplasm conservation procedures, a draft characterization descriptor list for cultivated rye and a provisional list of *Secale* candidate European Accessions. The descriptor list was revised and finalized in December 2013.

The final report and its annexes are available online from the ECPGR and AEGIS websites:

http://www.ecpgr.cgiar.org/news_area/european_rye_collection.html

http://aegis.cgiar.org/aegis_grant_scheme/second_call.html

- **Triticale**

The [Triticale Database](#) was redesigned and reorganized in June 2013 (improvement of search and display functions). The Database Manager sent the lists of triticale accessions to the Wheat WG members, requesting updated data, which were received from a number of countries.

3.2. 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.

A second workshop on the *Establishment of the European Forages Collection* took place at NordGen, Alnarp, Sweden, 9–11 April 2013 as part of the AEGIS Grant Scheme. The attending forage Database Managers checked data, discussed open questions and data errors, and sought confirmations for AEGIS candidates and AEGIS accessions. In all, 8966 accessions were confirmed to fulfil the demand that there are safety duplicates preserved and seed available. In addition, the collection holders approved assuming the responsibility to act as the primary holders of the accessions. Formal approval of the European Accessions was consequently expected to be made by the National Coordinators concerned. An additional 14 051 ‘AEGIS candidate accessions’ were confirmed. These were considered MOS (most original accessions) by the WG and the holding genebanks agreed to act as the primary holders of these accessions. However, until the requirements for safety duplication and seed availability are fulfilled, the accessions remain as AEGIS candidates.

One of the workshop goals was to enhance the inclusion of characterization and evaluation (C&E) data in the Central Forage Databases as a means of providing the data to EURISCO. Both IPK and NordGen Database Managers gave a practical presentation on how C&E data had been included in their information system and acted as references to discuss technical solutions with other Database Managers.

The [final report of the workshop](#) is available from the AEGIS website and from the Forages WG webpage.

The Netherlands included the following accessions in the European Collection: *Agrostis* (11), *Dactylis* (25), *Festuca* (67), *Lolium* (290), *Phleum* (90), *Poa* (132) and *Trifolium* (237). Germany included a small number of accessions of minor forage grasses and minor forage legumes.

3.3. 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; David Maghradze, Georgia; Erika Maul, Germany and Matthew Ordidge, United Kingdom.

No meetings of the Fruit Network and Working Groups were scheduled during 2013.

***Malus/Pyrus* WG**

A common set of 12 agreed SSR markers for *Malus* characterization was included as an annex to the report of the Fourth Meeting of the WG. Work was continued in an attempt to develop an overarching set of recommendations for fingerprinting protocols for *Malus* and *Pyrus*. A draft document has been developed (led by Henryk Flachowsky with input from other members) but a few remaining technical points remain to be resolved before agreeing and publishing as a recommended protocol.

An expertise table related to *Malus/Pyrus* was updated in March 2013 and included as a further annex to the above-mentioned report.

***Prunus* WG**

The following working documents were produced and published online:

- [General protocols for using the ECPGR descriptors for *Prunus* spp.](#) (July 2013)
- [ECPGR priority descriptors for peach \[*Prunus persica* \(L.\) Batsch\]](#) (Draft 1, August 2013)

A paper authored by two members of the WG (Daniela Benediková and Daniela Giovannini) was published in the *Proceedings of the Second Balkan Symposium on Fruit Growing, 5–7 September 2011, Pitesti, Romania*:

- Benediková D, Giovannini D. 2013. [Review on genetic resources in the ECPGR Prunus Working Group](#). Acta Hort. (ISHS) 981:43-51.

Regarding the status of the European *Prunus* Database (EPDB), INRA-Bordeaux hired a person who should progressively take responsibility for the EPDB, effective in 2014.

New Italian data (>3000 acc. of *Prunus* spp.) were sent to EURISCO and uploaded in April 2013.

Several members of the WG have joined the [COST Action FA1104 'Sustainable production of high-quality cherries for the European market'](#) for activities devoted to cherry germplasm conservation, phenotyping and genotyping, and dissemination.

Vitis WG

The ECPGR Fruit Network supported the creation of a log book for the [European Vitis Database](#), documenting the import and modification of data. The administrator and partners of the European *Vitis* Database can now trace back actions carried out. This is indispensable in case of database corruption in order to restore data content.

A close link exists between the ECPGR *Vitis* WG and the [COST action FA1003 'GRAPENET, East-West Collaboration for Grapevine Diversity, Exploration and Mobilization of Adaptive Traits for Breeding'](#). Within this context, activities are planned for sustainable germplasm conservation. Joint meetings were held on [Development of phenotyping methodologies](#) (26–27 February 2013, El Encin - Alcalá de Henares, Madrid, Spain) and on [Progress in germplasm identification and genotyping methods](#) (10–11 June 2013, Bucharest, Romania). The ECPGR Coordinator attended the Core group meeting held in Paris, France, on 30 October 2013, where the organization of a joint final dissemination meeting in 2014 was discussed.

The Czech Republic designated 3 accessions of *Vitis vinifera* as part of the European Collection.

3.4. Oil and Protein Crops Network

Working Group: Grain Legumes.

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

The *Fifth Meeting of the Working Group on Grain Legumes* was held 7–8 May 2013 in Novi Sad, Serbia, involving 22 WG members and 3 observers. It was organized in collaboration with the Institute of Field and Vegetable Crops, Novi Sad. The meeting focussed on: the AEGIS Quality System, the genebank standards, the Central Crop Databases and the issue of sustaining the WG's momentum in the absence of future group meetings, which are not foreseen by the new mode of operation of ECPGR. Regarding AEGIS, tasks were split among the Database Managers of *Lens*, *Lupinus*, *Phaseolus*, *Pisum* and *Vigna*, who agreed to start identifying candidate accessions for inclusion in the European Collection, based on the criteria 'Country of origin', 'Sample status' and 'Accession name'.

The *FAO Genebank Standards for Plant Genetic Resources for Food and Agriculture* were presented and accepted by the Group as suitable for the AEGIS Quality System to be applied to grain legumes. It was suggested that more detailed standards be developed by the WG regarding the appropriate distance between plots during regeneration of self- and cross-pollinated grain legumes and the requirement that evaluations be carried out under low nitrogen conditions.

Progress of the Central Crop Databases was reported. It was shown that in some cases the databases have an added value that is not offered by the EURISCO catalogue, such as a larger amount of data, including characterization data and pictures of the accessions.

The future management of the WG was discussed with plans to involve a larger number of WG members to help share the responsibilities of maintaining a vibrant grain legume PGR focus within ECPGR and the wider community. Interest groups were created around the topics 'Use of grain legumes in sustainable agricultural systems', 'Exchange of germplasm for evaluation in different environments and 'AEGIS Quality System development'. Crop-specific groups of interest were also established, with elected leaders who will coordinate future WG activities crop by crop for *Arachis*,

Cicer, *Glycine*, *Lathyrus*, *Lens*, *Lupinus*, *Pisum*, *Phaseolus*, *Vicia faba* and *Vigna* with the support and guidance of the Chair and Vice-Chair. The WG plans to develop the WG webpages to include more information about members, institutes and genebanks and will also explore more social media outlets.

The Group welcomed the offer made by Mike Ambrose, UK, to continue to chair the group for a brief transitional period, with the intention of mentoring the potential successors during the upcoming transition phase during which ECPGR will change its mode of operation, while the WG will need to maintain its cohesion even without regular meetings. Gérard Duc, France, was reconfirmed as Vice-Chair.

The [report of the meeting](#) is available online.

The Netherlands included in the European Collection accessions of *Lupinus* (25), *Pisum* (300) and *Vicia faba* (96).

3.5. 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.

No meetings of the Sugar, Starch and Fibre Crops Network and Working Groups were scheduled during 2013.

Beta WG

Following the agreement of WG members to assist in the compilation of *Beta* and *Patellifolia* Most Appropriate Accessions (MAAs), it was proposed to use for this purpose a list of accessions suggested by the IPK genebank and a list of accessions sent by several genebanks to the French company Florimond Desprez in 2012. The latter accessions became part of the working collection of the French project AKER, a research initiative for sustainable improvement of sugar beet. Collection curators were asked by the WG Chair to accept or reject the MAA candidate status of each accession. However, WG members were not responsive to this initiative.

Monitoring and sampling of *Beta nana* on Mount Olympus was continued by the Greek Gene Bank. However, it was not possible to support this activity with ECPGR funds, as previously agreed, due to administrative difficulties from the Greek end.

The WG Chair supported the submission of a proposal on *Beta patula* to the DAAD (German Academic Exchange Service) by a partner (University of Madeira). The proposal was not selected by the DAAD for funding.

The WG Chair, after consultation with several WG members, prepared a COST proposal entitled 'European infrastructure components for research on conservation and utilization of sugar beet genetic resources' in 2013. The proposal was rejected, but the comments of the evaluators were encouraging and therefore the Institute for Breeding Research on Agricultural Crops of the JKI planned to submit a revised COST proposal in 2014, with the aim of acquiring funds for the *Beta* WG activities.

Fibre Crops (Flax and Hemp) WG

The Netherlands included 52 *Linum* accessions in the European Collection.

Medicinal and Aromatic Plants WG

Among the priority species selected by the WG, the European Collection contains 3 accessions of *Artemisia* conserved in Germany.

The following relevant articles were published by WG members:

- Barata AM, Rocha F, Lopes VR. 2013. [Wild harvesting business of medicinal and aromatic plants \(BWH\) – Portugal](#). Presentation at the [4th Grundtvig Plant Wild meeting on MAPs businesses of wild harvesting, 9-10 May 2013, Kilis, Turkey](#).

- Radušienė J, Karpavičienė B. 2013. [Wild harvesting business of medicinal and aromatic plants in Lithuania](#). Presentation at the [4th Grundtvig Plant Wild meeting on MAPs businesses of wild harvesting, 9-10 May 2013, Kilis, Turkey](#).

Potato WG

The final report of 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' has still not been received by the Secretariat. Based on the fingerprinting of 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. Results from the study can be anticipated as follows: SASA genotyped 379 clones from 8 European potato collections with 12 SSR markers. Additionally, the UK and Ireland donated 24 and 30 fingerprints of heritage varieties. The 433 accessions show 398 different profiles. The 26 duplication groups contain between 2 and 6 accessions. The largest group consists of blue-coloured varieties. In the case of the duplicate group Fortuna/Morgane_1985, it is unclear which one has been mislabelled. Profiles of crossing parents and/or offspring might resolve this issue. A complicating factor is that the Potato Pedigree Database (www.plantbreeding.wur.nl/potatopedigree/) indicates for the name Fortuna four different varieties.

The European Collection includes 625 *Solanum tuberosum* accessions (438 conserved in Germany, 141 in Czech Republic and 46 in the Netherlands) and 1030 wild *Solanum* sp. accessions (523 conserved in Germany and 507 in the Netherlands).

3.6. 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 Dooijeweert, 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.

Allium WG

New functionalities were implemented in the [European Allium Database](#). The database is now searchable on botanical names and all other passport data, including all EURISCO fields and some additional specific fields.

Ongoing activities of the WG, such as a survey on the status of landrace conservation, prioritization of the wild relatives of the crop species within the genus *Allium* and selection of accessions worth being flagged as European accessions did not make significant progress.

The European Collection includes 387 accessions conserved by Czech Republic (82), Germany (154) and the Netherlands (151).

Brassica WG

The *Brassica* WG concluded the following two projects:

1. 'Identification of unknown accessions from European genebanks', carried out at VIR, St. Petersburg, Russian Federation (ECPGR contribution to this project was € 3000): 57 "unknown" *Brassica rapa* L. accessions conserved in European genebanks were identified and assigned to the respective *B. rapa* crop types. A few accessions turned out to be mixtures of different *Brassica* species. Three accessions were identified as *B. napus* and nine as *B. juncea*. Additionally, biochemical analysis was carried out on leaves, roots and heads, measuring content of dry matter, proteins, sugars, ascorbic acid, carotenoids, carotenes, chlorophylls, organic acids, amino acids, fatty acids, phenol compounds, spirits, and others compounds; valuable sources of high level of ascorbic acid and carotene were found. Twenty-six *B. rapa* accessions were proposed for inclusion in AEGIS.

2. 'Glucosinolate analysis of a collection of European accessions of wild *Brassica* and *Brassica rapa*', carried out at the Consejo Superior de Investigaciones Científica (CSIC), Córdoba, Spain (ECPGR contribution to this project was € 1845). A collection of 83 *Brassica* accessions (including wild *Brassica*, *B. juncea*, *B. rapa* and *B. napus*), obtained from several European genebanks, were analysed for their glucosinolate content. Very high glucoraphanin content was found in two *B. rupestris* accessions.

Additionally, the project 'Bio-morphological and genetic characterization of the *Brassica* Working Group collection', funded by ECPGR in the framework of Phase VIII was nearly completed (ECPGR contribution to this project was € 3000). All biometric and genetic data acquired from the 26 accessions analysed will be inserted in the *Brassica* European Database (Bras-EDB) in 2014. The collection field, established at the experimental farm of The University of Catania, permitted collection of leaf samples for each accession, which were freeze-dried and sent to CSIC Córdoba for analysis of their glucosinolate content.

Two posters co-authored by *Brassica* WG members were presented at the EUCARPIA Genetic Resources section meeting *Pre-breeding – fishing in the gene pool* held 11–13 June 2013 at NordGen, Alnarp, Sweden:

- Maggioni L, Bas N, Poulsen G, Branca F, Ralli P, von Bothmer R, Lipman E. 2013. Availability of wild *Brassica* sect. *Brassica* accessions in genebanks.
- Poulsen G, Maggioni L, Smolka A, von Bothmer R, Bagger Jørgensen R. 2013. Molecular markers for botanic identification among *Brassica* species.

The proceedings of the 6th *ISHS Symposium Brassica 2012* and 18th *Crucifer Genetic Workshop* were published at the end of September, containing the following articles supported by the ECPGR *Brassica* WG and mainly devoted to *Brassica* wild species (n=9) and to the genetic profiles and gene flow between wild and cultivated species:

- Branca F, Bas N, Artemyeva A, De Haro A, Maggioni L. 2013. In progress activities of the *Brassica* Working Group of the European Cooperative Programme for Plant Genetic Resources (ECPGR). *Acta Horticulturae* 1005:149-156.
- Branca F, Ragusa L, Tribulato A, Poulsen G, Maggioni L, von Bothmer R. 2013. Diversity of kale growing in Europe as a basis for crop improvement. *Acta Horticulturae* 1005:141-148.
- Branca F, Chiarenza G L, Ragusa L, Argento S. 2013. Morphological characterization of the ECPGR wild *Brassica* species collection. *Acta Horticulturae* 1005:157-164.
- Maggioni L, Jørgensen R B, von Bothmer R, Poulsen G, Branca F. 2013. Signs of inter-crossing between Leafy Kale Landraces and *Brassica rupestris* in South Italy. *Acta Horticulturae* 1005:165-172.
- Branca F, Ragusa L, Tribulato A, Bagatta M, Lo Scalzo R, Picchi V. 2013. Evaluation of Sicilian wild *Brassica* species (n=9) for glucosinolate profile and antioxidant compounds. *Acta Horticulturae* 1005:181-188.
- Branca F, Ragusa L, Tribulato A, Di Gaetano C, Calì F. 2013. Genetic relationships of *Brassica* vegetables and wild relatives in southern Italy determined by five SSR. *Acta Horticulturae* 1005:189-196.
- Branca F, Ragusa L, Tribulato A, Velasco P, Cartea M E. 2013. Glucosinolate profile in different Mediterranean *Brassica* species (n=9). *Acta Horticulturae* 1005:279-284.

(see also section 6.3)

The European Collection includes 673 accessions conserved by the Netherlands.

Cucurbits WG

An *Ad hoc meeting of the Chairs, Vice-Chairs and Central Crop Database Managers of the Solanaceae and Cucurbits Working Groups* was held in Valencia, Spain, 11–12 April 2013. The scope of this 2-day ad hoc meeting was to explore the possibility of abandoning Central Crop Databases (CCDBs) and focussing instead on EURISCO, in order to avoid duplication of data and working efforts. The main functionalities of both systems were discussed. Current progress concerning the selection of Most Appropriate Accessions (MAAs) was reviewed for Solanaceae and Cucurbits and possible plans for

the new phase of ECPGR (Phase IX, 2014–2018) were discussed. The [report of the meeting](#) is available online.

The Manager of the Cucurbits Database attempted to use the database to select candidate European Accessions. Unfortunately this time-consuming exercise was not successful: although some countries agreed on the sets of selected accessions, no additional accessions were eventually flagged in EURISCO.

The European Collection contains a total of 2109 Cucurbits accessions, representing 1173 *Cucumis*, 745 *Cucurbita* and 191 *Citrullus* accessions conserved by Germany (1853) and the Netherlands (256).

Leafy Vegetables WG

The *Second Meeting of the Working Group on Leafy Vegetables* was held during 8–9 October 2013 in Ljubljana, Slovenia. It was organized in collaboration with the Agricultural Institute of Slovenia and was attended by participants from 13 countries, who presented the status of conservation of leafy vegetables in their respective countries.

European Collection of leafy vegetables. The AEGIS European Collection already includes nearly 1500 leafy vegetable accessions (mainly *Lactuca*), conserved in Germany and in the Netherlands. Other countries are at different stages in the process of proposing candidate accessions. The Group agreed on the latest procedure proposed by the ECPGR Secretariat to emphasize the primary role of the individual countries in the selection of AEGIS accessions. The main role of the WG will be the analysis of gaps and duplicates in the Collection, once established, and the planning for its management on a regional scale. A survey of regeneration and safety duplication needs of the WG genebanks was planned.

Genebank standards for leafy vegetables. Starting from the analysis of the *Genebank Standards* endorsed by the FAO Commission on PGRFA in April 2013, the WG discussed specific items requiring lettuce- and spinach-specific guidelines. While the FAO standards were generally accepted, a few specific deviations or precisions were suggested. The WG made plans to inventory the mode of operation of the various members for the conservation of chicory and other minor leafy vegetables. Specific guidelines would then be agreed also for these crops.

International leafy vegetable databases. Mainly thanks to the support of an EC-funded project, the WG developed international databases for lettuce, spinach, chicory and other leafy vegetables. These online databases offer various useful functionalities that are not available from EURISCO (notably characterization and evaluation data). However, the managing institutions have not had the resources to update and further develop the databases after the expiration of the EC project. Therefore, the Group decided not to make further investments in these databases, but rather support the future development of EURISCO, in the understanding that the European catalogue will link to characterization and evaluation data and will further improve its functionalities, such as provision of genebank curators' details, ordering tools, links to additional data on institutional websites, etc.

Towards Phase IX of ECPGR. The Group was informed about expected changes in the mode of operation of ECPGR. Potential areas of interest for WG members were mentioned: 1) Collecting of *Lactuca* wild relatives belonging to the primary genepool and currently missing from the genebanks; 2) Use of diversity in genebank accessions for introduction or re-introduction into cultivation, in collaboration with non-governmental organizations (NGOs) and farmers.

The Group reconfirmed as Chair Rob van Treuren (the Netherlands) and as Vice-Chair Ulrike Lohwasser (Germany).

Shortly after the meeting, an updated overview of the status of the Leafy Vegetable collections was published on the WG webpage.

The European Collection includes a total of 1406 Leafy Vegetables accessions, representing 1127 *Lactuca*, 169 *Spinacia* and 110 *Cichorium* accessions, overall conserved by Germany (458) and the Netherlands (948).

Solanaceae WG

An *Ad hoc meeting of the Chairs, Vice-Chairs and Central Crop Database Managers of the Solanaceae and Cucurbits Working Groups* was held in Valencia, Spain, 11–12 April 2013 (see above, Cucurbits WG).

The [Minimum descriptors for Pepino, Groundcherry and Tree Tomato](#) were finalized and published online.

The European Collection includes a total of 731 Solanaceae accessions, representing 411 tomato, 268 *Capsicum* sp. and 52 eggplant accessions conserved by Germany (441) and the Netherlands (290).

Umbellifer Crops WG

The *Second Meeting of the Working Group on Umbellifer Crops* was held 26–28 June 2013 at the N.I. Vavilov Research Institute of Plant Industry (VIR) in St. Petersburg, Russian Federation. Fifteen participants from eleven countries attended the meeting.

As a result of an AEGIS-funded project, the WG selected 1281 *Daucus carota* cultivar accessions to be proposed for inclusion in the European Collection. This number represents 43% of the eligible accessions analysed from the existing datasets. The AEGIS Associate Members holding the proposed accessions would be encouraged to actually include them in the European Collection. Additionally, each WG member agreed to prepare lists of accessions that their countries' genebanks were ready to conserve as part of the European Collection.

A minimum list of descriptors for characterization of carrot accessions was agreed and an illustrated table with scales and illustrations was made available from the ECPGR website and included in the meeting report. Minimum lists of descriptors were also under discussion for other Apiaceae. Crop-specific standards for conservation in genebanks were discussed and agreed, using as a baseline the FAO *Genebank Standards*.

The following progress was reported about the ECPGR-funded project on umbellifer wild relatives, which focussed on endangered *in situ* populations, taxonomic misidentification of *ex situ* accessions or lack of characterization and knowledge (ECPGR contribution to this project was € 7840):

- Exploration of wild carrot in France, taxonomic identification, collaborative characterization in agronomic conditions, morphometric and genetic structure analysis
- Morphological characterization of wild carrot from Nordic countries at the Nordic Genetic Resource Centre (NordGen)
- Characterization by flow cytometry of carrot wild relatives in the UK
- Morphological characterization of umbellifer wild relatives in the Czech Republic
- Plans for evaluation of 30 *Daucus carota* var. *carota* accessions from different European countries for alternaria resistance at the Julius Kühn-Institut (JKI), Quedlinburg, Germany
- Evaluation in France of *Daucus carota* var. *carota* for alternaria and other pathogens.

With the understanding that EURISCO will soon include characterization and evaluation data, the group is not planning any further major investment to develop the [European Umbellifer Database](#), which was updated prior to the meeting, and a proposal was made that it should become a tool of the WG rather than a database for germplasm users.

Five main tasks were identified for the future Phase and the coordination of future activities was delegated to specific WG members:

- Task 1: Analysis of the list of accessions of the European Collection for gaps related to missing countries and species
- Task 2: Improvement of the quality of the European Collection, monitoring adherence to crop standards and organizing shared efforts for regeneration and other actions needed
- Task 3: Inventorying existing data related to characterization and evaluation and data acquisition
- Task 4: Collecting landraces and adding value to on-farm initiatives
- Task 5: Inventory of existing accessions of wild relatives, collecting based on identified gaps in the primary genepool, taxonomic identification and phylogenetic study with molecular markers.

Charlotte Allender, United Kingdom was elected as Chair of the WG and Pavel Kopecký, Czech Republic, as Vice-Chair.

3.7. Documentation and Information Network

The **Documentation and Information (Doc&Info) 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); Richard Bruskiwich, Bioversity International, Rome and José Iriondo, Spain (*In situ* and On-farm Conservation Network representative).

Following the decision made by the Steering Committee to accept the offer of IPK to physically host **EURISCO** during Phase IX, this year was characterized by preparatory activities to implement the transition. IPK indicated that the role and functions of EURISCO Coordinator would be taken up during Phase IX by Stephan Weise, IPK. This choice was endorsed by the ExCo Chair and by the Chair of the Doc&Info Network. An agreement between Bioversity International, acting on behalf of ECPGR, and IPK, concerning the terms and conditions for the maintenance and development of EURISCO, was drafted and at the end of 2013 it was still under revision by the respective legal services (actually signed in April 2014).

Helmut Knüpffer and Stephan Weise of IPK visited Bioversity International on 7–10 October 2013 for a meeting with Bioversity staff regarding the transfer of EURISCO. The goal of the meeting was to identify the needs for the transfer of EURISCO to IPK in order to ensure a smooth transition of EURISCO (coordination, infrastructure and public website). Costs related to this transition were estimated and a plan was made to implement the transition during the first half of 2014, with the intention to ensure only the minimum necessary interruption to the services offered by EURISCO.

Preparation went on for an **ECPGR Documentation and Information Workshop to be held in 2014**, which is expected to influence the future direction of EURISCO, the European CCDBs and PGR documentation in Europe in general. About 50 participants will be invited including National Inventory Focal Points, Database Managers and other documentation experts. Funding was secured for this workshop, in agreement with the Steering Committee, using savings remaining from Phase VIII. The Chair of the Network and the ECPGR Secretariat started a survey on the status of the CCDBs and the Chair drafted and circulated two preparatory documents to the Network Coordinating Group (a discussion paper on PGR documentation and a report comparing data in EURISCO and in the CCDBs).

Research on *Comparative analysis between EURISCO and WIEWS and ECCDBs*, carried out by Anna Hausmann and Sónia Dias at Bioversity International, was completed and circulated to the Doc&Info Network Coordinating Group members. This research aimed at identifying gaps in EURISCO compared to WIEWS and to the ECCDBs. This work has been continued by the work done by the Chair of the Network in preparation for the previously mentioned workshop.

3.8. *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.

Establishment of Task Forces

Following the recommendations made by the Steering Committee during their last meeting in Vienna in December 2012, the following Task Forces were established. The Terms of Reference of the Task Forces are available from: www.ecpgr.cgiar.org/news_area/ecpgr_task_forces.html

- **Task Force on “*In situ* conservation of crop wild relatives”**

Mission: To develop agreed concepts at ECPGR level on *in situ* conservation of crop wild relatives (CWR).

Composition of the Task Force: Nigel Maxted (United Kingdom) (Chair), Alvina Avagyan (Armenia), Lothar Frese, (Germany), Alon Singer (Israel), Joana Magos Brehm (Portugal) and José Iriondo (Spain).

- **Task Force on “On-farm management and conservation of landraces”**

Mission: To develop agreed concepts at ECPGR level on on-farm management and conservation of landraces.

Composition of the Task Force: Valeria Negri (Italy) (Chair), Fuad Gasi (Bosnia and Herzegovina), Merja Veteläinen (Finland), Isabelle Goldringer (France), Rudi Vogel (Germany), Pedro Mendes-Moreira (Portugal) and Silvia Străjeru (Romania).

Before the end of the year, the Task Force CWR delivered a draft concept to the Secretariat, while the Task Force on landraces was still working on its draft, which required more time for consultation and negotiation in order to reach agreement over complex and controversial concepts. The two concepts, when both ready for further circulation in 2014, will be submitted to the Steering Committee for endorsement. The Steering Committee will be invited to undertake a national consultation before commenting on the draft concepts.

As part of the **PGR Secure project**, a collaborative project funded under the EU Seventh Framework Programme, THEME KBBE.2010.1.1-03, ‘Characterization of biodiversity resources for wild crop relatives to improve crops by breeding’, a workshop *On the conservation and sustainable use of plant genetic resources in Europe: a stakeholder analysis* was held in Wageningen, the Netherlands, 25–29 November 2013. Stakeholders representing the plant genetic resource (PGR) sector were invited to discuss the constraints in the conservation and use of PGR in Europe. The stakeholders came from public research institutes, breeding companies, governments, agricultural NGOs and genebanks. The goal of the workshop was to assist this community to develop a joint action plan aiming at the improvement of the PGR conservation and use situation in Europe. The workshop was attended by Jan Engels, on behalf of the ECPGR Secretariat.

Publications

As part of the PGR Secure project, the following publications were produced, including contributions from several ECPGR WG members:

- **Crop wild relative Issue 9**, October 2013. *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.
- **Landraces Issue 2**, October 2013. *Landraces* is a medium to publicize various initiatives to protect landraces and to provide information on research activities focused on them.
- Maxted N, Magos Brehm J, Kell SP. 2013. Resource book for preparation of national conservation plans for crop wild relatives and landraces. Commission on Genetic Resources for Food and Agriculture. Food and Agriculture Organization of the United Nations, Rome, Italy. 457 pp. <http://www.fao.org/agriculture/crops/thematic-sitemap/theme/seeds-pgr/resource-book/en/>
- Underwood E, Poláková J, Berman S, Dooley E, Freluh-Larsen A, Kretschmer B, Maxted N, McConville AJ, Naumann S, Sarteel M, Tostivint C. 2013. Options for feeding 10 billion people. Sustainable intensification of crop production: climate change and agriculture; biodiversity and agriculture. Report prepared for the STOA Panel of the European Parliament. Contract IP/A/STOA/FWC/2008-096/LOT3/C1/SC5, European Parliament Science and Technology Options Assessment STOA. <http://www.europarl.europa.eu/stoa/cms/studies>

The PGR Secure project has been organizing its final dissemination meeting as a PGR Secure–EUCARPIA joint conference that will be held 16–20 June 2014 at the National Institute of Agricultural Botany (NIAB) Innovation Farm, Cambridge, UK, with the title *Enhanced gene pool utilization – Capturing wild relative and landrace diversity for crop improvement*. The conference themes will be

characterization techniques, conservation strategies, facilitating CWR and landrace use and informatics development.

3.9. 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.

A workshop on the *Implementation of the Regional/Near East North Africa Plant Genetic Resources Network Strategy: National, Regional and Global Roles* was organized by the Near East and North Africa Plant Genetic Resources Network (NENA PGRN) and the Plant and Animal Genetic Resources Centre of Oman in Muscat, Oman from 18 to 20 February 2013.

Among other international organizations, ECPGR was invited with the request to make a presentation on [*Experience of ECPGR with EURISCO as a Regional Platform for PGR Information Management*](#).

Opportunities for future collaboration with ECPGR were identified, specifically to assist NENA PGRN with the development of its regional information management system.

Following the decision of the Steering Committee to cancel the Networks' structure during Phase IX, the Inter-regional Network was eliminated and no related specific activities were included among the future ECPGR objectives.

4. AEGIS INITIATIVE FOR A EUROPEAN GENE BANK INTEGRATED SYSTEM

• AEGIS Membership

By the end of December 2013 the 33 countries listed below had returned their signed MoU to Bioversity International. A total of 54 AEGIS Associate Membership Agreements between institutions holding *ex situ* accessions and the respective National Coordinators were concluded in 26 AEGIS member countries, compared to 46 Associate Members and 19 countries respectively in 2012. The number in brackets following the member country names below indicates the number of Associate Members in those countries:

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

• European Collection

The following AEGIS documents were developed and finalized after several rounds of electronic consultation between the Secretariat and the Steering Committee, and eventually published on the AEGIS website:

- *Safety duplication Policy* for the accessions to be included in the European Collection (February 2013)
- *Revised simplified procedure for the selection and flagging of accessions for the European Collection* (December 2013)
- *Guidelines for distribution of material from the European Collection* (December 2013)

Accessions included in the European Collection during 2013 were in total 11 381:

- The Netherlands: 5864
- Germany: 5373
- Czech Republic: 144

Together with 143 Czech and German accessions already included in 2012, the total at the end of 2013 was 11 524.

- **AEGIS Competitive Grant Scheme**

Two AEGIS-funded projects were finalized in 2013. Reports are published on the AEGIS and ECPGR websites:

- **'Establishment of the European Forages Collection'** (MTT AgriFood Research, Finland). A second workshop took place 9–11 April 2013 at NordGen, Alnarp, Sweden.
- **'Improving the prerequisites for a European rye collection'** (Nordic Genetic Resources Centre (NordGen), Sweden). The following material was provided: *Final report* (July 2013); *Appendixes: Maintenance; Characterization descriptors for Rye*, finalized December 2013; *AEGIS Rye list*.

The final report is still missing for one project:

- **'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'** (Centre for Genetic Resources (CGN), the Netherlands).

- **AQUAS (AEGIS Quality System)**

- a. Two institutes completed the template for an operational genebank manual in 2013: Bundessortenamt (Federal Plant Variety Office), Germany (May 2013) and AGROSCOPE Changins-Wädenswil (ACW), Switzerland (June 2013). The manuals are available from the [AEGIS website](#). Others in preparation: Crop Research Institute (CRI) Prague, Czech Republic; Estonian Crop Research Institute, Jõgeva, Estonia; John Innes Centre, Norwich, UK and Nordgen.
- b. As reported previously, ECPGR experts participated actively in the preparation of the international genebank standards. The draft *Genebank Standards for PGRFA* were adopted by FAO's Commission on Genetic Resources for Food and Agriculture at its Fourteenth Regular Session on Thursday 18 April 2013. These standards include the following components: 1) orthodox seed germplasm, 2) field genebank and 3) *in vitro* cultures and cryopreservation. They will help genebanks worldwide to conserve plant diversity in a more efficient and cost-effective manner. Based on a decision by the Steering Committee to complement these generic standards with crop-specific standards, the WGs were asked to assess the FAO standards and to propose any crop-specific additions in order to allow for more effective conservation. The following WGs have agreed on crop-specific standards that have been uploaded onto the AEGIS website: *Allium*, Leafy Vegetables, Umbellifer crops, *Vitis* and Wheat

- **Meetings attended**

The Secretariat attended several WG and other meetings, including Grain Legumes, Umbellifer Crops and Leafy Vegetables, 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 website and from the respective WG meeting webpages.

- **AEGIS Advisory Committee**

This Committee was originally set up in 2009 to provide strategic and technical oversight to the Secretariat over the establishment and operation of AEGIS. Its members were Anke van den Hurk, Dave Astley, Gert Poulsen, Ladislav Dotlačil and Vladimir Meglič. The ExCo agreed during its Fifth Meeting (November 2013) that the tasks so far assigned to the AEGIS Advisory Committee could be largely taken up by the ExCo itself, with the understanding that whenever specific tasks of a more technical nature should arise, the ExCo might decide to delegate these to a temporary ad hoc committee.

5. LINKS WITH OTHER NETWORKS AND INITIATIVES

The following interactions between ECPGR and other networks and initiatives took place during 2013:

➤ **Global Crop Diversity Trust**

Intense interactions with the Trust were focused on the expectation that the Secretariat would be hosted during Phase IX at the Trust's new headquarters in Bonn, Germany. Several meetings and other interactions went on between ECPGR and Trust staff in the attempt to finalize a formal agreement for hosting arrangements. In May, ECPGR Secretariat staff were invited to attend the inauguration of the Trust offices in Bonn, in the presence of German authorities. As indicated in

Section 2 above, plans for the transfer of the ECPGR office were cancelled in November. However, opportunities for collaboration on technical issues (e.g. integration of EURISCO into Genesys, improvement of *ex situ* collections, survey and use of crop wild relatives) remain evident and will be pursued in the future.

➤ **European Commission**

A number of relevant initiatives and calls for proposals and initiatives with relevance for plant genetic resources were launched by the European Commission and the ECPGR Networks were involved in various ways:

- Directorate-General for Agriculture and Rural Development launched a call for tenders to award a public contract for a 'Preparatory action – EU plant and animal genetic resources in agriculture'. The deadline to submit a tender was 4 November 2013. This preparatory action should, within 24 months, carry out a comprehensive review and analysis of the state of the art of genetic resource-related activities within the EU and provide comprehensive recommendations for future EC investment in this area. The ECPGR Secretariat signed a letter of intent in support of a Consortium led by Arcadia International and including CGN, the Netherlands, who submitted a proposal related to this call. The intention is to cooperate on the data collection process during the course of the study, should the proposal be successful.
- Directorate-General for Agriculture and Rural Development established a European Innovation Partnership Focus Group on 'Genetic Resources – cooperation models. The tasks of this Focus Group include the identification and analysis of the different types of agreements between the stakeholders in the field and the successful factors in existing cooperation, proposal of models, and strategies to motivate public and private stakeholders to engage in cooperation models. Gap analysis indicating where new solutions for cooperation models need to be found should be prepared and priorities should be identified for further research actions. Members of this Focus Group, which is operating during 2014, include a few members or close partners of ECPGR WGs (Charlotte Allender, Ahmed Jahoor, Maria José Suso and Merja Veteläinen).
- As part of the EU Research and Innovation programme Horizon 2020, various relevant calls for proposals were launched in December 2013, in particular call SFS-7-2014/2015 Genetic resources and agricultural diversity for food security, productivity and resilience, Part A, 'Traditional resources for agricultural diversity and the food chain' with deadline in March 2014, and Part B, 'Management and sustainable use of genetic resources', with deadline in February 2015. Additionally, call topic INFRAIA-1-2014/2015 'Integrating and opening existing national and regional research infrastructures of European interest, included a specific theme on 'Plant and forestry material resources', with deadline in September 2014. Various consortia involving ECPGR members are being set up to respond to these calls.

➤ **EUCARPIA**

The EUCARPIA Genetic Resources section meeting *Pre-breeding – fishing in the gene pool* was held 11-13 June 2013 at NordGen, Alnarp, Sweden. Many ECPGR members attended the meeting and several presentations referred to ECPGR. All oral presentations and posters are available from the meeting's website (<http://epgrc2013.nordgen.org/>).

6. PUBLICATIONS AND PUBLIC AWARENESS

6.1. Publications produced in 2013

The following publications were produced in 2013 and are available in electronic format through the ECPGR website (<http://www.ecpgr.cgiar.org/homepage.html>).

Proceedings

- [Report of the Thirteenth Steering Committee meeting, 4–7 December 2012, Vienna, Austria](#)
- [Report of a Working Group on Malus/Pyrus. Fourth Meeting, 7–9 March 2012, Weggis, Switzerland](#)
- [Report of an Ad hoc meeting of the Chairs, Vice-Chairs and Central Crop Database Managers of the Solanaceae and Cucurbits Working Groups, 11–12 April 2013, Valencia, Spain](#)
- [ECPGR/AEGIS Forage work shop 2 - 9-11.4.2013, NordGen, Alnarp, Sweden](#) (Second Workshop connected to the AEGIS Project on Establishment of the European Forage Collection')
- [Report of a Working Group on Grain Legumes. Fifth Meeting, 7-8 May 2013, Novi Sad, Serbia](#)

- [Report of a Working Group on Beta and the World Beta Network. Fourth Joint Meeting, 20–22 June 2012, Cappelle-en-Pévèle, France](#)
- [Report of a Working Group on Vitis. Second Meeting, 18–20 September 2012, Siebeldingen, Germany](#)

Administrative documents

- ECPGR Technical Report 2012 and Financial Report 2012
- Minutes of the 5th ECPGR Executive Committee meeting, Maccaresse, Italy, 5–7 November 2013.

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

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

A new functionality was added to the website: 'Email Distribution List buttons', which allows messages to be sent to all members of a given group (Focal Points, WG members, etc.). The lists are available from the webpage [Contacts in ECPGR](#).

6.2. Publications in preparation in 2013

- Report of a Working Group on Umbellifer Crops. Second Meeting, 26–28 June 2013, St. Petersburg, Russian Federation. (*revised draft online November 2013 – final published February 2014*).
- Report of a Working Group on Leafy Vegetables. Second Meeting, 8–9 October 2013, Ljubljana, Slovenia. (*first draft online November 2013 – final published January 2014*).

6.3. Presentations at national workshops and international meetings

The AEGIS Coordinator attended the PGR Secure Workshop entitled *On the conservation and sustainable use of plant genetic resources in Europe: a stakeholder analysis* held in Wageningen, the Netherlands, 26–28 November 2013 where he presented a poster 'To establish functional platforms with relevant stakeholders at national and regional level on the management of germplasm to facilitate use' and participated in the working group on policy issues related to the access and use of plant genetic resources.

The ECPGR Coordinator attended the workshop on *Networks for the conservation and use of Plant Genetic Resources* at INIAV, Elvas, Portugal, 23 April 2013, where he gave a presentation on *Atualização e perspectivas do programa ECPGR [Implementation and perspectives of the ECPGR Programme]*. This workshop was organized within the framework of the project RITECA (Rede de Investigacion Transfronteriza de Extremadura, Centro y Alentejo), co-funded by the EU and the governments of Spain and Portugal and consisting of a collaboration between agricultural research centres across the border.

Three members of the ECPGR Secretariat attended the *EUCARPIA Genetic Resources section meeting Pre-breeding – fishing in the gene pool* held 11–13 June 2013 at NordGen, Alnarp, Sweden. A poster produced by the ECPGR Secretariat in collaboration with several members of the ECPGR Brassica WG was presented:

Maggioni L, Bas N, Poulsen G, Branca F, Ralli P, von Bothmer R, Lipman E. 2013. Availability of wild *Brassica* sect. *Brassica* accessions in genebanks.

The full programme of the meeting, posters and presentations are available from the [meeting website](#). Many ECPGR members attended the meeting and several presentations referred to ECPGR. The posters relevant to ECPGR WGs are listed on the respective WG's pages ([list available here](#)).

7. ECPGR MEETINGS HELD IN 2013

- ECPGR/AEGIS Forage workshop 2, 9–11 April 2013, NordGen, Alnarp, Sweden
- Ad hoc meeting of the Chairs, Vice-Chairs and Central Crop Database Managers of the Solanaceae and Cucurbits Working Groups, 11–12 April, Valencia, Spain
- Fifth Meeting of the Working Group on Grain Legumes, 7–8 May 2013, Novi Sad, Serbia
- Second Meeting of the Working Group on Umbellifer Crops, 26–28 June 2013, St Petersburg, Russian Federation

- Second Meeting of the Working Group on Leafy Vegetables, 8–9 October 2013, Ljubljana, Slovenia
- Fifth Meeting of the ECPGR Executive Committee, 5–7 November 2013, Maccarese, Italy.

8. COORDINATING SECRETARIAT AND BIOVERSITY INTERNATIONAL

During 2013, 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 website maintenance); Elinor Lipman (as half-time Scientific Assistant, based in Montpellier, France, involved in the compilation and layout of ECPGR publications, website 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.

★★★

Lorenzo Maggioni
ECPGR Coordinator

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

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