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Association Européenne pour l'Amélioration des Plantes

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EUCARPIA aims at promoting scientific and technical co-operation in the field of plant breeding in order to foster its further development. To achieve this purpose, the Association arranges and sponsors meetings of its members to discuss general or specific problems. Each year, EUCARPIA organizes open conferences and colloquia throughout Europe. Founded at Wageningen (The Netherlands) in 1956 as a non-profit organization, EUCARPIA has made considerable contributions to improving international contacts in plant breeding research. EUCARPIA has 11 sections and a number of working groups active in specific fields of interest.

EUCARPIA has individual members (qualified scientists in the field of plant breeding) and corporate members (research institutes, breeding stations, associations, societies etc.). A corporate membership is a collective membership for at most 10 persons.

To become a member of EUCARPIA, visit our website www.eucarpia.org and register online.

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*to be confirmed by the General Assembly

PRESIDENTIAL ADDRESS

By the time we will get together for the 20th General Congress in 2016 in Zurich, Switzerland, EUCARPIA will be 60 years old. That is an age when people start thinking about retirement. Clearly, such thinking is far away from EUCARPIA's reality! The task of promoting scientific exchange in the field of plant breeding is more alive than ever. Technical opportunities and basic science keep evolving at a pace that can hardly be followed by a single individual. Although information technology has made it possible to search online for almost any kind of recently generated knowledge, putting such knowledge into work requires a vivid spirit of collaboration and exchange among scientists of different disciplines, as well as a strong will to transfer the knowledge to more applied researchers, breeders and finally to the commercial sector.

In plant breeding, academic research on the mechanisms of genetics and on the metabolism of plants needs a connection with practical plant breeding and field agronomy, which requires more than just passing on the recent findings. The connection processes have to be elaborated together, in order to match the most appropriate techniques with the most urgent requirements for successful cultivar development. There are no rules or dogmas in order to achieve this. Plant breeding has been put on a scientific basis no earlier than approximately 100 years ago. Breeding schemes have been developed to match the reproductive behaviour and the crop physiology of the different species. However, in applying these schemes, breeders always have to take decisions beyond just facts and figures. They have to use their "breeder's eye" during field selection and their intuition in planning their crosses. That is why plant breeding is considered both, a science and an art.

The present state in this second century of knowledge-based plant breeding shows no difference in that respect. Experience of past experimental approaches and feeling for the future opportunities offered by the rapidly evolving new techniques are necessary for their successful application. The Executive Committee of EUCARPIA has reasoned about this when deciding on a topic for the next General Congress in 2016. We finally came up with the following motto: "Plant breeding: the art of bringing science to life". I am sure that this topic will attract a large number of valuable contributions and reinforce EUCARPIA's scope to facilitate and promote exchange between disciplines to the benefit of plant varieties for a better life. I'm looking forward to seeing you all in August 2016 in Switzerland!



Beat Boller

EUCARPIA President

SECTION REPORTS

a. Potatoes

The 17th joint triennial meeting of Eucarpia Section Potatoes and the EAPR Breeding and Varietal Assessment Section was held in Hévíz, Hungary, from June 30th – July 4th 2013. The meeting was organised by Zsolt Polgár, Director of the Potato Research Centre at the University of Pannonia - Centre of Agricultural Sciences.

A total of 67 participants from 25 countries attended the meeting, with delegates travelling from as far away as Colombia and Japan. Eucarpia financial support for the meeting came in the form of a donation of €3000. Combined with similar support from EAPR, this allowed a €60 discount on registration for Eucarpia, EAPR and PAA members. These contributions also allowed the organisers to encourage the attendance of young scientists at the meeting through further reductions of €200 for 10 postgraduate students and early stage researchers.

The theme of the meeting was: ***"The challenges of improving both quality and resistance to biotic and abiotic stresses in potato"***. In a time when factors such as climate change, monoculture and ever more limited chemical control options for disease management are becoming increasingly problematic, how can potato breeders continue to improve the quality of their product while securing the ability of growers to respond to these sustainability issues? The answer is surely the acquisition of a detailed understanding of the biological basis of the traits in question, and equally importantly, finding ways to effectively utilise such knowledge in practical breeding scenarios.

The theme was framed by a series of five keynote presentations on the first day of the conference with our host Zsolt and Ewa Zimnoch-Guzowska covering breeding for biotic stresses. Zsolt also gave a very nice historical overview of the long running potato breeding programme at Keszthely (this was followed by an opportunity to visit the research centre and some of the trials during the excursions on the last day of the meeting). Zsófia Bánfalvi spoke about improving drought tolerance of potato while Richard Visser treated us to an overview of the multidisciplinary approach being adopted for studying abiotic stress resistance at Wageningen University. Exciting advances in the breeding process itself will also contribute to addressing the challenge posed in the theme, and Pim Lindhout updated the delegates on Solynta's progress in hybrid breeding of potato. The remainder of the meeting saw 27 offered presentations spread over five sessions covering biotic stresses, abiotic stresses, quality traits, genomics and finally pre-breeding and taxonomic studies.

I think that one of the most important roles of Eucarpia is to bring practical plant breeders together with plant scientists from a range of disciplines. On this front, it was gratifying to see that the meeting was well attended by representatives from commercial potato breeding companies, and I hope that the support of the breeding community for these meetings will continue into the future.

On behalf of Eucarpia Section Potatoes, I'd like to thank Zsolt and his organising committee for an enjoyable conference, and their warm hospitality throughout both the scientific and social parts of the meeting. Finally, Domenico Carputo, University of Naples Federico II, has been appointed by the EAPR/Eucarpia sections as organiser of the next section meeting, to be held in Italy – more information on the timing and location of that meeting will follow.



Delegates of the 17th joint triennial meeting of Eucarpia Section Potatoes and the EAPR Breeding and Varietal Assessment Section, Hotel Carbona, Hévíz, Hungary.

Dan Milbourne, Section Chairperson, dan.milbourne@teagasc.ie

b. Cereals

Section meeting 2014



EUCARPIA – ITMI (International Triticeae Mapping Initiative) joint conference entitled: **‘Cereals for Food, Feed and Fuel - Challenge for Global Improvement’**.

Sponsoring could be gathered from leading European breeding companies as well as other organisations. The topics of the Conference are as follows:

- Genetic resources
- Grain yield
- Quality for food
- Quality for industrial use
- Biotic stress resistance
- Abiotic stress tolerance
- Mapping, cloning and beyond

Confirmed Keynote Speakers are outstanding European scientists in the field of cereals plant breeding research such as:

- Zoltan Bedő, Hungary
- Andreas Graner, Germany
- Heinrich Grausgruber, Austria
- Frank Ordon, Germany
- Roberto Tuberosa, Italy

Detailed information (registration, abstract submission, etc.) can be found at:

[http://meetings.ipk-gatersleben.de/EUCARPIA ITMI 2014](http://meetings.ipk-gatersleben.de/EUCARPIA_ITMI_2014)

You also may contact: [EUCARPIA ITMI 2014@ipk-gatersleben.de](mailto:EUCARPIA_ITMI_2014@ipk-gatersleben.de)

Future meetings

From May 24 – 29, 2015 a joint EWAC (The European Cereals Genetics Co-operative) -EUCARPIA Cereals Section Conference will be held in Lublin, Poland. EWAC (standing for the former "European Wheat Aneuploid Co-operative") is a platform for researchers developing and using cereal stocks for genetic studies employing molecular techniques. EWAC co-ordinates and promotes the development of new precise genetic stocks as well as the exploitation of existing ones built up over five decades of research. Details about the Co-operative and the upcoming conference are accessible at the webpage www.ewac.eu.

Andreas Börner, Section Chairperson, boerner@ipk-gatersleben.de

c. Fodder Crops and Amenity Grasses

30th Meeting of the Section: Fodder Crops and Amenity Grasses, Vranjanka Banja, Serbia, 12-16 May 2013

The 30th meeting of the section “Fodder Crops and Amenity Grasses” was very kindly organized by the colleagues of the Institute for Fodder Crops in Krusevac, Serbia. The “Fodder Crops and Amenity Grasses” Section has two active working groups, one on crown rust, one on *Festulolium*. The *Festulolium* group had a successful meeting on 12 May, prior to the main conference. The crown rust working group is organizing its last round of testing a large series of varieties of perennial ryegrass in 22 European locations. There were 120 registered participants from 130 countries, 105 of them attended the meeting. The Meeting was organized in 4 sessions: (i) genetic variability in forage productivity and quality and its exploitation through breeding (ii) new biotechnology methods in sustainable breeding: strategies and implementation (iii) turf grass breeding (iv) breeding for new roles of multifunctional forage species. Presentations and posters were a good mix of the implementation and/or use of plant physiology and genetic resources in breeding, of progress in genomics, of breeding for specific and complex traits in forages and legumes and of turf grass breeding.

The mid-conference tour brought the delegates to the Institute for Fodder Crops in Krusevac, to a dairy farm in Blace and to the town of Krusevac.

A workshop focusing on “the partnership between public and private sector to boost innovation in forage and turf management” was a much appreciated new initiative. The proceedings of the meeting will be published as a book edited by Springer.

Roland Kölliker (CH) was elected as the new section secretary. A small permanent group (section chairman, a representative of field breeders and a representative of researchers with lab work as main activity) will take part in all coming scientific committees in order to guarantee a good equilibrium between high quality contributions of all kinds.

Unlike previous meetings, mostly organized at the end of the Summer, the Serbian meeting was organized in May because summer drought in central Serbia makes a summer organization less attractive. Since forage breeders are very busy in May, many of them were absent. Future meetings will be organized in a period allowing breeders to attend smoothly. Future organizers will be stimulated to be creative with all modern communication tools while designing the format of their meeting. The 31st meeting will be organized in September 2015 in Belgium.



30th Section Meeting, Vranjanka Banja, Serbia, 12-16 May 2013. Picture taken at the Institute for Fodder Crops, Krusevac

Dirk Reheul, Section Chairperson, dirk.reheul@UGent.be

h. Section Genetic Resources

During 2013 the 21st meeting of the Section was held in Alnarp, Sweden on June 10 - 13. The hosts of the meeting entitled *Pre-breeding – fishing in the gene pool* were NordGen and the Swedish University of Agricultural Sciences (SLU). During the meeting the role of gene banks, the conservation of germplasm in crops and crop wild relatives, how plant genetic resources serve multifunctional agriculture, how to ensure food and feed in the future and how genetic diversity contributes to human health and nutrition were presented and discussed. During a half day excursion to fields and greenhouses in Alnarp examples of how to conserve and regenerate plant genetic resources were shown.

The meeting gathered 180 scientists, breeders and people from the gene bank community from all around the world.

Presentations, posters and book of abstracts can be found at the website www.epgrc2013.nordgen.org



Meeting participants at the SLU campus in Alnarp, Sweden. Photo: Alfia Khairullina

Highlights of the meeting are presented in the publication “Fishing in the gene pool – how useful was the catch?” by Robert Koeber and Rodomiro Ortiz in *Plant Genetic Resources: Characterization and Utilization* (2013) 11(3); 283–287

Future meetings

The next meeting of the Genetic Resources Section will be a jointly organised conference together with the EU funded *PGR Secure* project. The conference entitled “ENHANCED GENEPOOL UTILIZATION - Capturing wild relative and landrace diversity for crop improvement” will be held in Cambridge, UK from June 16 – 20, 2014.

Conference programme and related information is found at <http://www.pgrsecure.org/conference>

Eva Thörn, Section Chairperson, eva.thorn@slu.se

i. Section Maize & Sorghum

Future meetings

It was agreed together with the EUCARPIA Executive Committee and the host INRA Montpellier that the next XXIII Maize and Sorghum Conference scheduled in 2014 will be held one year later, in June 2015. This delay gives us the opportunity to hold the section meeting as a joint meeting with the EU FP7 Project DROPS (Drought-Tolerant Yielding Plants). This conference will be hosted by INRA in Montpellier, France and will be co-organized by DROPS and the two EUCARPIA sections, “Cereals” and “Maize and Sorghum”. It is an excellent opportunity to exchange the recent knowledge on drought in monocot crops. Further information will be circulated soon. Details about the DROPS project can be found under “EU Projects” later in this brochure.

Contact: bedoz@mail.mgki.hu or claudewelcker@supagro.inra.fr

Domagoj Šimić, Section Chairperson, domagoj.simic@poljin.hr

j. Section Vegetables

In 2013, the Section Vegetables had the pleasure of one working group meeting: “The XV EUCARPIA Meeting on Genetics and Breeding of Capsicum and Eggplant” (http://e20.unito.it/XVth_EUCARPIA/). Prof. Sergio Lanteri hosted this meeting and organized the scientific programme covering a wide range of topics related to the genetics and breeding. A detailed report is given below. I would like to heartily thank again Prof. Sergio Lanteri and his crew for the well-done job! By the end of the meeting, a working group committee was selected and approved by EUCARPIA members participating in the meeting, which will be responsible for the Meeting on Genetics and Breeding of Capsicum and Eggplant. Prof. Sergio Lanteri, the organizer of the current meeting is the chair, Dr Katalin Ertsey Peregi, the organizer of the next meeting is the co-chair and Prof. Jaime Prohens is the secretary. This committee will be in function for three years and a new committee will be assembled in the next Capsicum and Eggplant Meeting which will be held in 2016 in Hungary.



XV EUCARPIA Capsicum and Eggplant Working Group Meeting - Turin, 2-4 September 2013

From 22nd to 25th April 2014, the 18th EUCARPIA meeting of the tomato working group will be organised by Dr Mathilde Causse in Avignon, France. An attractive website is online now <https://colloque.inra.fr/eucarpia2014-tomato-avignon>. As we know, within the *Solanaceae* family, high-quality genome sequences of tomato, potato and pepper are currently available and we expect the genome sequences of eggplant to become available in the very near future. The available genome sequences open many ways to study virtually every aspect of functional and comparative genomics and will provide key information for breeders. The EUCARPIA working group meetings of our Section serve as a bridge to connect the basic science to vegetable breeding practices. Therefore, I look forward to participating in the 18th EUCARPIA meeting on the tomato working group and believe many old/new EUCARPIA members of the section will support Dr Mathilde Causse for a successful meeting.

In the coming years, more working group meetings of Section Vegetables are planned:

In 2015

The working group meeting on leafy vegetables will be chaired by Dr Maria Isabel Gil in Murcia, Spain.

In 2016

- a. The working group meeting on Cucurbitaceae will be chaired by Dr Elzbieta Kozik in Poland.
- b. The working group meeting on Capsicum and Eggplant will be chaired by Dr Katalin Ertsey Peregi in Hungary.

We are looking forward to these activities. Finally, I wish all members of the section a good and productive *EUCARPIA* year!

Yuling Bai, Section Chairperson, bai.yuling@wur.nl

EUCARPIA report of “the XV Meeting on Genetics and Breeding of Capsicum and Eggplant”

The XV EUCARPIA Meeting on Genetics and Breeding of Capsicum and Eggplant was held in Torino, Italy from the 2nd to the 4th September 2013 at the “Auditorium” of the Province of Turin. It was organized by the research groups led by Sergio Lanteri (DISAFA, University of Turin,) and Giuseppe Leonardo Rotino (Consiglio per la Ricerca e Sperimentazione in Agricoltura, CRA-ORL, Montanaso Lombardo -Lodi).

Both Beat Boller, President of Eucarpia, and Yuling Bai, Chair of the Eucarpia vegetable section participated to the Meeting which brought together about 200 participants coming from 33 countries. It is noteworthy the participation of a wide number extra-European researchers, particularly from South-America. As in the previous edition, held in Valencia and organized by Jaime Prohens and collaborators, a significant number of participants were representatives of Seed Companies, demonstrating the interest in the initiative also by the private sector.

It seems appropriate to point out that the first Meeting on "Genetics and breeding of Capsicum" was held in Santena, a small town a few kilometers from Torino, in September 1971, and was organized by Luciana Quagliotti. At that time the working group focused only on Capsicum and just in 1983 it was enlarged to eggplant. Approximately 60 people participated in that first meeting, while in the XV edition the number had more than tripled. This shows how increasingly active the worldwide research in Genetics and Breeding of Capsicum and Eggplant is.

The scientific programme included 130 contributions, of which 42 were assigned to oral presentation and 88 to posters, and was enriched by three invited lectures: ‘*In and out of the Solanaceae genomes: a quest for quality traits*’, held by Giovanni Giuliano; ‘*Lack of susceptibility factors: a novel breeding strategy for durable resistance*’ held by Yuling Bai and ‘*Pepper research and breeding at AVRDC – The World Vegetable Center*’ held by Sanjeet Kumar. Contributions presented were organized into the following four sessions: (i) Evaluation and release of breeding material/cultivars, and seed production; (ii) Molecular genetics and biotechnology tools; (iii) Genetic resources and (iv) Breeding strategies.

All contributions were reviewed by the Scientific Committee, composed by Paul Bosland, Marie-Christine Daunay, Anne Frary, Hiroyuki Fukuoka, Sergio Lanteri, Giuseppe Mennella, Katarzyna Niemirowicz-Szczytt, Alain Palloix, Ilan Paran, Ezio Portis, Jaime Prohens, Giuseppe Leonardo Rotino and Roeland Voorrips. The review process resulted in the book of Proceedings “Breakthroughs in the Genetics and Breeding of Capsicum and Eggplant” of 730 pages which was delivered to the participants.

During the first day of the Meeting a technical visit was carried out at the experimental fields near to Carmagnola, a small town close to Turin, where a germplasm collection of more than 170 accessions of both pepper (many of them supplied by the Association Pepperfriends) and eggplant was exhibited together with varieties and hybrids provided by Semiorto Sementi, Esasem, Nunhems and Rijk Zwaan. Afterwards, the participants visited the ‘Sagra del Peperone di Carmagnola’, a festival where local varieties of pepper grown in the surrounding area are sold and exhibited in an atmosphere livened up by local music, dances and singing, and warmly welcomed by the Mayor in the town hall.

The Meeting dinner, on 3rd September was organized at the ‘Museum of the Risorgimento’ downtown in Turin, headquarters of the Hall where the first meeting of the Italian Parliament took place in February 1861, and which is located in ‘Palazzo Carignano’, a charming historic building. Lastly, it was decided that the next Meeting, to be celebrated in 2016, will take place in Hungary and will be organized by Katalin Ertsey Peregi, Faculty of Horticultural Science of the Corvinus University of Budapest, to which all of you interested in the genetics and breeding of pepper and eggplant are invited to participate.

Sergio Lanteri & Giuseppe Leonardo Rotino

Conveners of the XV EUCARPIA Capsicum and Eggplant Working Group Meeting

k. Section Fruit

Future meetings

The XIV Symposium on Fruit Breeding and Genetics will be held in Bologna (Italy) in June 2015. The exact dates will be fixed soon. In 2013 the organizing committee started its activity to identify the best place to host the Symposium. The scientific committee was invited by the convener and all the colleagues enthusiastically accepted the invitation and started their activity by collaborating to identify the topics for the Symposium sessions.

Stefano Tartarini, Section Chairperson, stefano.tartarini@unibo.it

l. Section Ornamentals

The 24th International Symposium of the section Ornamentals of EUCARPIA was held in Warsaw, Poland from September 2-5, 2013. The theme was “Ornamentals Breeding Worldwide”. Almost 200 participants attended the meeting. The proceedings were published in Acta Horticulturae 953 (356 pages).



24th International Symposium Section Ornamentals of EUCARPIA Warsaw, Poland, September 2-5, 2013

The next, 25th meeting of the section ornamentals will be held in 2015 in Belgium: <http://www.eucarpiaornamentals2015.be/>.

The meeting will take place on 28 June – 2 July, 2015 at the Institute for Agricultural and Fisheries Research (ILVO) in Melle, Belgium, close to Ghent.

“Crossing borders”, the central theme of the symposium, expresses our intention to go beyond traditional ornamental plant breeding. Recent boosts in fundamental knowledge offers opportunities for ornamentals. Interaction and discussion between plant breeders and scientists create new ideas. The programme includes a range of general topics as well as crop specific sessions. We are excited that seven leading experts have already confirmed their participation to share the latest progress within their field. A post-congress tour gives you the opportunity to discover the dynamic and innovative ornamental plant breeding industry in Belgium.

The meeting is convened by Johan Van Huylbroeck

Jaap M. van Tuyl, Section Chairperson, Jaap.vantuyl@wur.nl

m. Oil and Protein Crops

This section has recently been reactivated with considerable efforts. Antonio de Ron (Spain) and Johann Vollmann (Austria) agreed to form a section board together with Bülent Uzun as chairman. Two working groups, one for Oil Crops and one for Protein Crops, have been formed. Both working group and entire section meetings are envisaged. Meetings are planned in Antalya (Turkey) and in Spain, but the dates have not been set yet.

Bulent Uzun, Section Chairperson, bulentuzun@akdeniz.edu.tr

n. Section Organic & Low-input Agriculture

This section addresses the issues that are relevant to breeding for organic and low-input agriculture.

Section meeting

September 24-26, 2013 the third section meeting was organised with some 120 participants in Göttingen-Germany. This conference focussed on the development of new crop breeding strategies to improve crop nutrient use efficiency, as one strategy to address the challenges for increased efficiency, sustainability and resilience of our agricultural production, while at the same time meeting the emerging challenges of ‘feeding the world’, ‘food versus fuel’, ‘biodiversity,’ and ‘climate change’.

The program included the first results of the NUE-CROPS project (Improving nutrient efficiency in major European food, feed and biofuel crops to reduce the negative environmental impact of crop production; EU-FP7 222-645). The conference closed with a panel discussion ‘Where do we go next with R & D into nutrient use efficiency?’

This excellent meeting was organised by Prof Heiko Becker and many of his co-workers of the Georg-August-University in Göttingen. Selected contributions have been submitted for peer-review to be included in a special issue for Euphytica to be published end of 2014. Presentations of this meeting can be found at: <http://www.uni-goettingen.de/de/415791.html>.



Breeding for Nutrient Efficiency conference in Göttingen, Germany, 24-26 September 2013

Section Board

During this Eucarpia Section meeting Breeding for Nutrient Efficiency a small section meeting was organised to look ahead to section matters for the coming years. Dr Beat Boller, as president of Eucarpia, was leading this meeting.

The first point was to form a group that takes the lead in this section Organic & Low-input Agriculture which is doing quite well since 2007 (ca 200 Eucarpia members on this section list). Edith Lammerts van Bueren started with Hanne Østergård (DK), but as Hanne has left the field of breeding, she is no longer part of Eucarpia. We have now formed a new group that can act as board to support future activities in this section: next to Prof Edith Lammerts van Bueren, also Prof Dr Gunter Backes/Uni Kassel-Witzenhausen, Dr Linda Legzdina/Priekuli Plant Breeding Institute, Latvia, and Dr Monika Messmer/FiBL will join the section board.

Future meetings

2015: a working group meeting on 'Breeding and plant-microbial interaction'. Monika Messmer will take the lead in the planning, to be held in Switzerland or Italy. For information: monika.messmer@fibl.org.

2018: a section meeting/conference on 'Breeding for diverse cropping systems: Plant-Plant interactions'. Gunter Backes and Maria Finckh will take the lead; to be organised in Germany. For information: gunter.backes@uni-kassel.de.

Edith Lammerts van Bueren, Section Chairperson, edith.lammertsvanbueren@wur.nl

EU PROJECTS



PGR SECURE

“Capturing wild relative and landrace diversity for crop improvement”

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Background

An introduction to the PGR Secure project (full title: *Novel characterization of crop wild relative and landrace resources as the basis for improved plant breeding*) was published in EUCARPIA Bulletin no. 39 in February 2012. The overarching goal of the project is to underpin European food security in the face of climate change by advancing crop wild relative (CWR) and landrace (LR) diversity conservation and use. To achieve this goal PGR Secure has four research themes: 1) novel characterization techniques, 2) CWR and LR conservation, 3) improved use of CWR and LR by breeders, and 4) informatics. The objectives of themes 1 and 3 are to improve breeders' use of conserved CWR and LR diversity by applying novel characterization techniques such as genomics, transcriptomics, metabolomics, high-throughput phenotyping and GIS-based predictive characterization. Clarity has been sought through dialogue of exactly what breeders need to bridge the conservation–use gap and to facilitate the flow of selected material and knowledge from the project to the plant breeding community. The objectives of themes 2 and 4 are to enhance CWR and LR species and genetic diversity conservation through the development of CWR and LR inventories and systematic conservation strategies, and to improve the management and accessibility of CWR and LR conservation and trait data.

The results of the project will be disseminated at the upcoming joint PGR Secure/EUCARPIA conference, *ENHANCED GENEPOOL UTILIZATION – Capturing wild relative and landrace diversity for crop improvement*, 16–20 June 2014 in Cambridge, UK (www.pgrsecure.org/conference). Please join us there to learn about what we have achieved and to share and discuss your own experience in and knowledge of the use of CWR and LR in crop improvement programmes.

A summary of the project's achievements is provided below.

Theme 1: novel characterization techniques

The application of a novel high throughput method for phenotyping genebank accessions of *Brassica* spp. has led to the identification of resistance to the cabbage aphid and the cabbage whitefly in LR and CWR accessions of several different species and some novel sources of whitefly resistance that are interesting for breeding have been identified. Results of metabolomics experiments indicate that the difference between resistant and susceptible genotypes is most likely not due to metabolites. Quantitative trait loci (QTL) mapping in heading cabbage has been carried out to identify chromosomal regions involved in whitefly resistance and QTLs for oviposition and adult survival have been identified. Transcriptional profiling has begun on a subset of

material resistant and susceptible to cabbage aphid and whitefly and will provide indications of candidate genes for resistance. Next generation sequencing of the transcriptome has been carried out on plant materials used within the project and single nucleotide polymorphism (SNP) markers are being identified.

Using the predictive characterization method ‘Focussed Identification of Germplasm Strategy’ (FIGS), environmental profiles of the habitats of CWR and LR that are likely to favour selection for specific abiotic resistance traits have been described and specific variables have been identified as the most appropriate to describe environmental conditions that might favour development of the resistance traits. Data analyses have resulted in the identification of ‘best bet’ subsets of potentially interesting accessions or occurrences for *Avena*, *Beta* and *Brassica* CWR and LR. Guidelines for the broader application of FIGS are under preparation.

Theme 2: CWR and LR conservation

In September 2011, the workshop, ‘Conservation strategies for European crop wild relative and landrace diversity’ was convened to discuss and agree a strategic approach to European and national CWR and LR conservation. Attended by 101 delegates from 38 European countries, it comprised a review of the current state of the art of CWR and LR conservation in Europe, available approaches and methods for their conservation and discussion on their practical application. Participants shared knowledge on current national activities and agreed on the way forward. An online conservation Helpdesk has been developed (www.pgrsecure.org/helpdesk) and regular communication maintained with National PGR Programmes. The Helpdesk includes a review of progress in national CWR and LR conservation in each European country.

CWR conservation strategies have now been completed for the three project case study countries Finland, Italy and Spain (see www.pgrsecure.org/helpdesk_cwr) and significant progress has also been made in Albania, Bulgaria, the Czech Republic, Cyprus, Lithuania, Norway, Sweden, Turkey and the UK. LR conservation strategies are under development for the three project case study countries Finland, Italy and the UK, and data standards and a tool for recording LR data have been published

www.pgrsecure.bham.ac.uk/sites/default/files/documents/helpdesk/LRDESCRIPTORS_PGRSECURE.pdf

An integrated European CWR conservation strategy plan has been developed which combines national CWR conservation strategies and a regional CWR conservation strategy for priority taxa at European level (see www.pgrsecure.org/documents/Concept.pdf). A draft list of priority CWR species native to Europe in more than 30 economically important crop gene pools has been produced and is soon to be circulated to the user community for feedback. Meanwhile, data collation in preparation for diversity and gap analyses is underway.

Theme 3: improved use of CWR and LR by breeders

Understanding the needs of the CWR and LR user community, including gene banks, public research institutes, commercial plant breeding companies, agro-NGOs and government, is fundamental to improve the links between conserved CWR and LR resources and their use in plant breeding programmes for crop improvement. To this end, extensive semi-structured interviews have taken place in northern, central and southern Europe with representative organizations in each of the stakeholder groups with a view to a) gathering information on current availability and use of CWR and LR; b) identifying barriers to their utilization in plant breeding and crop production; and c) describing the interaction between stakeholder groups within a country or region. The results gave a first indication of the strengths and weaknesses of national PGR programmes and the external factors determining the conservation and utilization of PGR. They were used for a preliminary SWOT (Strengths, Opportunities, Weaknesses and Threats) analysis of national and regional PGR programmes and to inform the development of an online questionnaire to target the wider stakeholder community.

The online questionnaire was launched in 2012 to gather information for the completion of the SWOT analysis of European PGR conservation and use community needs, to promote CWR and LR use, and to generate a web-based map of stakeholders. The web-application PGR-COMNET (PGR Stakeholder Community Network – www.pgrsecure.org/pgt-comnet) has been developed and currently visualizes c. 400 stakeholders on a map. The application will facilitate stakeholders to establish contacts which in turn will promote the use of CWR and LR through improved cooperation. Detailed country/regional reports based on semi-structured interviews with PGR stakeholders in Europe were prepared and combined with the results of the questionnaire formed the basis of an input paper for a stakeholder workshop which took place in November 2013

www.nordgen.org/index.php/en/content/view/full/2481/.

A further activity under this theme was the screening of online databases for interesting accessions of *Avena* and *Beta* spp. for breeding/breeding research programmes and the circulation of the results to private breeders

and public researchers. At least one *Beta* researcher has ordered accessions from genebanks for further evaluation and another researcher has started to develop new project ideas.

Theme 4: informatics

A conceptualization framework for the web-based information system ‘Plant Genetic Resources Diversity Gateway for the conservation and use of crop wild relative and landrace traits’ (PGR Diversity Gateway) was developed with the input of the stakeholder community via meetings and an online user requirements survey which was formulated to understand what information breeders are looking for and how they look for it, and to provide an opportunity to gather breeders’ expectations of the TIP. Five priority services were identified, including the capacity to download data, the availability of information on taxonomy, georeferenced data and codes used for data checking, the need for mapping and analytical tools and the capacity to upload data. The ontology and infrastructure of the PGR Diversity Gateway has been developed and the system has been populated with passport, characterization and evaluation data from other information systems. Initial testing has been carried out and the beta version of the system was launched at the stakeholder workshop in November 2013 where it was available for testing by the workshop participants.

Impacts of the research

We expect the results of the PGR Secure project to lead to: a) better access to and wider take-up of CWR and LR resources in plant breeding programmes, leading to increased capacity and options for crop improvement to support European farming and back-stop food security; b) wider national level action on conservation of European CWR and LR resources; and c) improved knowledge to inform coherent planning of plant breeding and agrobiodiversity conservation policy in Europe—all of which will ultimately result in greater European food security. These results and impacts will benefit a range of stakeholders including: a) small and large plant breeding companies; b) scientists and policy-makers in public and private research institutes; c) farmers and others working in the agricultural sector; d) plant gene banks, protected areas and the broader conservation community; e) government agencies and non-governmental organizations involved in plant conservation, plant breeding and national or local nutrition and food supply issues; and f) the European Commission. However, it is the use of CWR and LR by plant breeders that will have potentially the greatest economic and social impact in Europe. A critical issue currently hindering the wider use of these resources was highlighted in FAO’s Second Report on the State of the World’s Plant Genetic Resources for Food and Agriculture (www.fao.org/agriculture/crops/core-themes/theme/seeds-pgr/sow/sow2/en/) which stated that: “Considerable opportunities exist for strengthening cooperation among those involved in the conservation and sustainable use of PGRFA, at all stages of the seed and food chain. Stronger links are needed, especially between plant breeders and those involved in the seed system, as well as between the public and private sectors”. Recognizing that the success of the initiative hinges on bridging the gap between the conservation and use communities, a key component of the project has been to work on strengthening these links by involving collaboration between European policy, conservation and breeding sectors throughout Europe.

For further information, visit the project website: www.pgrsecure.org or contact the Project Manager: s.kell@bham.ac.uk.

DROPS

EUCARPIA is associated with MGKI (Hungary) as a partner in the FP7 Project DROPS (DROught-tolerant yielding PlantS). We are involved in dissemination activities and in this context, a joint EUCARPIA-DROPS conference is planned in June 2015 in Montpellier, France. Contact bedoz@mail.mgk.hu or claud.welcker@supagro.inra.fr.



Generating plants resistant to drought

A major reason for crop losses worldwide is water shortage. An international initiative aims to develop new strategies for generating plants that can withstand long dry periods.

Water scarcity is a challenge faced by many countries around the world, especially during the summer season. Weather forecasts predict that climate change will probably exacerbate this phenomenon.

It would, therefore, be desirable to generate plants that could resist fluctuations in water levels and provide crops throughout the year. To this end, the EU-funded 'Drought-tolerant yielding plants' (DROPS) project is planning to identify plant genotypes that are resistant to drought.

The consortium is focusing on four plant traits, namely seed abortion, maintenance of vegetative growth, root system architecture and transpiration efficiency. The experiments are concentrated on maize and durum wheat, plus bread wheat and sorghum.

Field experiments are combined with a newly developed crop model capable of estimating the effects of various alleles on crop growth, yield and efficiency of water usage. Novel methods are being used for high throughput and precise phenotyping of traits. The collected data will lead to the estimation of trait heritability within each species and correlations between traits.

Identification of genes and genomic regions involved in these traits will form the basis for future breeding programmes of specific genotypes, saving time and money. By understanding the physiology of plant responses to water stress, the DROPS project will improve crop breeding to generate plants better fitted to stressful climate conditions.

Using the APSIM modelling framework, DROPS partners are obtaining genotypic parameters and collecting information to simulate the position of the crop cycle (sowing, flowering and harvest dates) over Europe. Climatic data have been collected in 55 sites and simulations for climate changes have been included, thereby making it possible to estimate the consequences of genetic variability in current and future climates.

Dissemination of the DROPS project's deliverables will help breeders choose the appropriate phenotypic traits and genotypes depending on the European region. This is expected to significantly improve crop losses and benefit agriculture-based economy in the region.

This European project brings together 15 public and private partners in eight European countries, Australia, Turkey and the United States and is coordinated by INRA, France.

Scientific coordinator: ftardieu@supagro.inra.fr

BIOEXPLOIT

This FP6 project "Exploitation of natural plant biodiversity for the pesticide-free production of food" officially terminated in spring 2011. It was the first EU project in which EUCARPIA participated as a full partner. EUCARPIA's total expenditures were about 65'000 Euro, compared to a budget of 60'000 Euro. In December 2013, the EU commission approved our expenditures, except for the final external audit. We still wait for settlement of the dispute about eligibility of the audit costs before we will get the payment for the final project year of about 37'000 to 41'000 Euro, depending on whether or not they will approve the final audit cost.

This experience shows the financial risks for EUCARPIA when participating in EU projects. It may take very long until the costs are refunded, in this case at least three years after we incurred the costs. Careful planning will be necessary for future opportunities.

CONTACTS WITH OTHER SOCIETIES

NAPB

In 2012, Rita Mumm, then president of the American National Association of Plant Breeders, NAPB, was given the opportunity to present the association at the EUCARPIA General Congress in Budapest. In exchange, Beat Boller was invited to present EUCARPIA at their annual meeting in 2013.

The 2013 meeting of NAPB took place in Tampa, Florida from 2 to 5 June 2013 and had the motto “Positioning Plant Breeding for the Future”. This motto made clear that the aims of NAPB are not as much focused on the exchange and discussion of recent scientific findings and their application, as this is the case for EUCARPIA. NAPB sees its function just as much in bringing plant breeding issues to the attention of the public and of politics, a task they describe as “advocacy”. Moreover, NAPB has a strong will to promote education and training of plant breeders. NAPB is organized in a way that presidency changes each year and is co-localized with organization of the next annual meeting.

Beat Boller was given a nice opportunity to present the activities of EUCARPIA under the title “EUCARPIA in the century of plant breeding”. The presentation caught the interest of the audience and following the invitation to join EUCARPIA without a fee for the first year, 10 participants of the annual meeting handed in their application for individual membership.

It was agreed to stay in contact and to mutually exchange announcements of meetings and events for publication on the other association’s websites.

EPSO

José Vouillamoz has attended the 7th EPSO (European Plant Science Organisation) Conference, Sep 2nd, 2013, Porto Heli, Greece. The aim was to formalize the synergies with EPSO by meeting Karin Metzlauff (EPSO Director) in the presence of Lukas Bertschinger (Agroscope representative to the EPSO general meeting), François Laurens (INRA – EPSO individual member / EUCARPIA member). EPSO and EUCARPIA have agreed on:

- Putting their respective events and logos on the respective websites
- Providing names of 2-3 experts in each section who could participate to EU-projects
- Organising joint workshops at respective meetings with respective keynote speakers

NEWS FROM THE EUCARPIA SECRETARIAT

We are pleased to invite you to have a look at our new website: www.eucarpia.org and give us a feedback to eucarpia@agroscope.admin.ch. All the relevant contents of the old website (EUCARPIA events, publications, links to EUCARPIA Corporate members, etc.) have been transferred and are now presented in a modern, easily readable and intuitively accessible way. However this is still a work in progress and we're working on a new, protected "Member" zone with a number of new features that will be available for you in the coming weeks (you will be notified by email). Among other things, members will be able to update their personal data, to check when their membership expires, if their membership fee is still due, and to pay online. It will also be possible to browse the complete list of EUCARPIA members and to contact them by e-mail. Each member will receive an individual password protecting personal data.

Please don't hesitate to bring in your idea or expertise to make our website better!

The Secretariat is your entry point for any inquiries regarding your membership, address changes, section activities and benefits. Please use eucarpia@agroscope.admin.ch to contact us and don't hesitate to inform us about section news, meeting information, suggestions or comments so that we can keep the website up-to-date.

We communicate with the members as much as possible by e-mail. Using the member zone of the website will require a unique e-mail address for each member. We count on your help in keeping our database up-to-date, especially with regard to your e-mail address.

New Eucarpia members

The Executive Committee of EUCARPIA is pleased to welcome the following new members (January – December 2013) in our association:

New individual members

CROATIA	ZULJ MIHALJEVIC M.	SESVETE
FRANCE	LALLOUET F.	VALENCE
	TORRES M.	BELLEGARDE
GERMANY	QUENDT U.	DARCHAU
GHANA	FRANCISCO RIBEIRO P.	KUMASI
HUNGARY	HOFFMANN S.	KESZTHELY
	HOFFMANN B.	KESZTHELY
INDIA	SOOD S.	PLAMPUR
	BORA G.C.	ASSAM
	PALIYA N.	NEW DEHLI
ITALY	NANNIPIERI P.	FIRENZE
JAPAN	IWAMA K.	SAPPORO
NETHERLANDS	BRAAMS L.	KA DEN HOORN
	VAN DEN KNAAP K.	ROTTERDAM
	SZINAY D.	AM ERMELO
NORWAY	THOMSEN M.G.	KAPP
PAKISTAN	ALI KLASRA M.	LAHORE
POLAND	CZEMBOR E.	BLONIE
SERBIA	TERZIC S.	NOVI SAD
SOUTH KOREA	ALI A.	SEOUL
SPAIN	GISBERT C.	VALENCIA
SWEDEN	YNDGAARD F.	GENARP
	CARLSON-NILSSON U.	ALNARP
SWITZERLAND	RUEGG W.	BASEL
	KNAPP S.	ZÜRICH
	GRIEDER C.	ZÜRICH
TAIWAN	KUMAR S.	TAINAN
TURKEY	SOLMAZ I.	ADANA
USA	GASIC K.	CLEMSON
	VAN DEYNZE A.	DAVIS
	KUMSSA T.T.	LINCOLN
	KENNEDY C.	WIMAUMA
	JENKINS J.	MISSISSIPPI STATE
	GOFF S.	TUESON
	LIEDL B.	WEST VIRGINIA
	QUESENBERRY K.	GAINESVILLE
	CUESTA-MARCOS A.	CORVALLIS
	SINGH D.	ALBANY
	WIPFF J.	ALBANY

New corporate members

BULGARIA	Institute for plant genetic resources "K. Malkov"	Sadovo
LITHUANIA	Lithuanian research centre for agriculture and forestry	Akademi
SCOTLAND	Science and advice for Scottish agriculture (SASA)	Edinburgh
SWEDEN	Nordic genetic resource centre	Alnarp

Membership fees

You will be asked to renew your membership for 2014 by e-mail. The membership fee for individual members is €40 for members of Western Europe and developed countries from elsewhere outside Europe, €30 for EU members of Eastern Europe and €20 for members of other Eastern European countries (this special rate also applies to some developing countries outside geographical Europe). Members younger than 30 years or older than 65 years have 50% discount and pay €20 only (€15 and €10 for Eastern EU and developing countries, respectively). The fee of corporate members is €300, with proportionate discounts for developing countries. Corporate membership fee covers the fees of maximum 10 delegates.

The preferred option of payment for individual members is to login to the new members zone of the homepage and click on Membership renewal. You will be able to choose between credit card (VISA or MasterCard) payment or an electronic bank transfer. If you do not have access to internet, you may transfer your payment to:

UBS AG, CH-8098 Zürich, Switzerland
IBAN: CH90 0022 8228 EU10 0387 6
BIC: UBSWCHZH80A

Please indicate your name and membership number in the transfer. Use the SEPA option or, if this is not available at your bank, choose "breakdown of costs". We do not accept cheques. Online payment by credit card without logging in is available on request at the Secretariat.

Membership privileges

Individual membership

EUCARPIA membership advantages include:

- Access to the members zone of the website with possibility to contact other EUCARPIA members
- Free publication of breeding related international events on the website (contact the Secretariat)
- Reduction (≥ 40 €) in the registration fee for events (General congress, symposia, meetings, etc.) organized by EUCARPIA.
- Participation in the EUCARPIA sections of your interest (or in all if you wish).
- Reception of the EUCARPIA Bulletin, with information on EUCARPIA activities, publications, dates and information of symposia, meetings and events related to plant breeding, etc.
- Facilitation of international cooperation, exchange of methods and plant material, etc.

Corporate membership

In addition to the advantages entitled to individuals, Corporate members (Institutes, Departments, Companies, Associations, Societies, etc.) advantages include:

- Possibility of enlisting up to 10 individual delegates associated to the corporate membership.
- A link to the web page of the Institution can be posted in the web page of EUCARPIA. This web page is visited mainly by breeders and receives many hits per day.
- Possibility to place breeding-related advertisements on the EUCARPIA website.

Discounts on journals and books

Discounts are available for EUCARPIA members for several book titles and journals. Members can access these discounts in the reserved member zone of the EUCARPIA website, www.eucarpia.org

Wiley

According to an agreement between Wiley and EUCARPIA, there is a 50 % reduced rate for personal subscriptions to the journal: Plant Breeding. Current rate for annual subscription is 95 Euro (print and online) for EUCARPIA members compared to regular 189 Euro. Subscriptions to the above journal can be made on the following web page, accessible also in the member zone of the EUCARPIA website:

<http://www.wiley.com/bw/journal.asp?ref=0179-9541>

Selected titles of Springer at a 25% discount

As a member of EUCARPIA you are entitled to a discount of 25% on all titles in the series "Handbook of Plant Breeding" (presently 8 titles), and on about 50 more English-language books in the area of plant sciences. The "Handbook of Plant Breeding" series is managed by former Eucarpia president Jaime Prohens and the individual titles are all edited by prominent EUCARPIA members.

You are invited to browse through the books on offer and order at the discounted rate. Take advantage of this special offer and visit the dedicated Springer website for EUCARPIA members, available in the member zone of the EUCARPIA website:

<http://www.springer.com/societies+%26+publishing+partners/eucarpia?SGWID=0-163902-0-0-0&token=EUCARPIA25>>

New book: Plant Genetic Resources and Climate Change

CABI Climate Change Series

Edited by Mike Jackson

December 2013 / Hardback / 312 Pages / 9781780641973 £85.00 / \$160.00 / €110.00

<http://bookshop.cabi.org/?page=2633&pid=2552&site=191>

EUCARPIA members can get 20% off when they order online at <http://bit.ly/1gRykCZ> and enter the code CCPGRCC20 at the online checkout!

EUCARPIA Bulletin

The EUCARPIA Bulletin No. 42 will be issued in February 2015. If you would like to publish information about congresses, meetings, publications, section news or any other information relevant to other members, please send in your contribution to the Secretariat by **December 1, 2014**.

MINUTES OF THE ONLINE MEETING OF THE EXECUTIVE COMMITTEE 2013

[Digest version]

Skype video group conference, 19 March 2013, 14:00-16:00

Present online: Beat Boller, President [BB]; José Vouillamoz, Secretary General [JV]; Richard Visser, Vice-president [RV]; Stefan van der Heijden, Treasurer [SH]

Excused : Zoltan Bedő [ZB], Past President; Evert Jacobsen [EJ], Scientific Secretary

Minutes: JV

1. Functioning of the Executive committee.

BB acknowledges the work done by colleagues of the Swiss Executive team with JV, Priska Gassmann and especially Carolin Luginbühl who have done an excellent job during his absence.

SH in turn acknowledges the remarkable commitment of Agroscope's colleagues and is satisfied that the continuity was guaranteed. The idea of an online group meeting is good but we have to meet in person at least once a year.

2. Hiring personnel for administrative support

Costs and stipends are high in Switzerland, and since EUCARPIA is legally registered in Switzerland, it is therefore possible to hire people. For this purpose, a "letter of support" states that Agroscope and EUCARPIA provide CHF 14'000.- and EUR 10'000.- respectively per year for hiring staff at Agroscope.

3. Congress 2016

Lausanne on Lake Geneva would be an ideal location in order to benefit from Lausanne-based Swiss Expo (<http://www.swiss-expo.com/en-US.aspx>), an important agricultural event taking place usually in mid-January, and from the proximity of the Ecole Polytechnique Fédérale de Lausanne (EPFL). BB officially asks SH and RV to be members of the Scientific Congress Committee (papers reviewers, chairmen, scientific program, etc.) and both do accept with pleasure. The main topic of the Congress will be discussed in the next meeting.

4. Bulletin

Given the high cost of the printed version, the board members are in favour of an electronic version of the Bulletin. They estimate that 95% of the members would prefer an e-version of the Bulletin, which is now made available on www.eucarpia.org the next year. The committee did not vote on the options printed vs. electronic bulletins but plans to take a decision at the next meeting. The possibility of an online access to a members' only area with special features is discussed, with the aim of grouping people with the same interest, taking example on <http://www.eapr.net/membership/>. JV will inquire about the cost of setting up such a feature on the website.

5. Membership

BB informs that a large number of members have not paid their membership fees 2012 and/or 2011 or earlier and measures to be taken have been discussed. SH suggests to seek advice from other organisations that have foreign members and different payment ways, possibly linking to a database showing who has paid or not.

6. Next Executive Committee Meetings

EUCARPIA's board has to meet in person once a year. We all agree on getting together in late afternoon, followed by a dinner, overnight, morning meeting, lunch, departure. Accepted schedule: 2013 in Switzerland, 2014 in Wageningen, and 2015 in Switzerland.

BB closes the meeting by greeting all the participants

Conthey, 2013.03.26

Beat Boller

José Vouillamoz

MINUTES OF THE EXECUTIVE COMMITTEE MEETING 2013

[Digest version]

Agroscope Reckenholz, Zürich, Switzerland
Thursday December 12th, 2013, 8:30 to 12:30

Present: Beat Boller, President [BB]; José Vouillamoz, Secretary General [JV]; Richard Visser, Vice-president [RV]; Stefan van der Heijden, Treasurer [SH]; Zoltan Bedő, Past President [ZB]; Evert Jacobsen, Scientific Secretary [EJ]; Carolin Luginbühl, Secretary [CL], Svetlana Ujfalusi, Secretary [SU]

Minutes: JV

1. Welcome, minutes of phone conference 19 March 2013

BB presents Agroscope to the participants. The agenda of the present meeting and the minutes of the previous online meeting are agreed.

2. Organisation of presidency and secretariat (Beat Boller, José Vouillamoz)

BB presents Carolin Luginbühl, technical assistant (financed by Eucarpia and Agroscope), and Svetlana Ujfalusi administrative assistant (until February 2014, partly financed by Eucarpia). JV, Secretary General, has a contract financed by Eucarpia and Agroscope. Priska Gassmann is accountant (financed by Agroscope).

3. Membership development (José Vouillamoz, Svetlana Ujfalusi)

The database must be cleaned regarding invalid emails as well as unpaid membership fees. It is decided to send an e-mail or letter to all those who have not paid their fees for 3 years in December 2013. They will be warned that their membership will be terminated unless they pay. The database should contain only actively paying members by the time the new fees for 2014 are invoiced.

4. Web page (José Vouillamoz, Beat Boller, Svetlana Ujfalusi)

Our aims are that:

- Members will get individual username and password (e-mail address=username).
- New members can subscribe online.
- Existing members can check and amend their profile, see their fee payment status and pay their fee online when necessary.
- Corporate members will get tokens to enable individual delegate membership
- The list of members will be visible for all members, possibility to contact any other member by e-mail

It is voted that everything is free of access on the website, with the exception of the Bulletins archives.

5. EUCARPIA Bulletin (José Vouillamoz, Carolin Luginbühl)

The cost to print the 2013 Bulletin was 2'860 Euro for 1500 copies (32pages) and the cost for post mailing was 3'920 Euro, amounting to a total of 6'780 Euro. Since it also requires 8 persons for 4 hours each to print and mail, it is questioned whether EUCARPIA should switch to an e-version of the Bulletin or not.

It is voted that from 2014, the Bulletin will be sent as an e-version and the printed letter will only mention the content of the Bulletin on one single page. Those members who want a printed copy can ask the Secretariat.

6. Financial situation (Beat Boller), future operation of EUCARPIA finances (Beat Boller, Stefan van der Heijden)

BB announces that EUCARPIA finances are solid. EUCARPIA gives Euros 3000 for a section symposium and Euros 1500 for working groups, but the organizers must ask for it and provide a reduced fee for EUCARPIA members. However, the annual fee for membership is charged Euros 50000 over all members, though only Euros 25-30000 are received as real income. It is therefore decided that we will send a reminder by email with only the IBAN data by the end of December. The February newsletter will only be sent to those who replied. The online payment is expected to be ready in February.

It is suggested to provide grants to offer travel and conference fees for young scientists at EUCARPIA section meetings. For the next committee meeting, JV will make a proposal and SH will make a budget.

Section and working group meetings

The members of the executive committee have attended several meetings in 2012 and 2013 (Table 1).

- Biometrics, Hohenheim, Germany 2012 (BB): Organised by one of the leading Biometrics groups in Hohenheim (Hans-Peter Piepho). There was a strong attendance from non-Eucarpia members coming from Europe and Australia. The scientific level was high. Hans-Peter Piepho should become the new section chairman after Fred von Euwjik will retire in 2016. We must discuss the timing for the General Congress, since they intend to hold their section meeting during the same period.
- Cucurbitaceae, Antalya, Turkey 2012 (Jaime Prohens): EUCARPIA was represented by former president Jaime Prohens who commented “it has been a huge meeting (more than 260 participants – many more than in many sections!); Prof. Sari did a great job in the organization and also in ensuring a high scientific level. Remarkably, around 30% of participants were from private companies. Amazingly, the second country (after Turkey) with more participants was China..., and many participants were from outside Europe, showing the interest of this Meeting at world wide level. (The same is also true of Capsicum Eggplant WG)”.
- Fodder Crops and Amenity Grasses, Vrnjacka Banja, Serbia 2013 (BB): after discussions with Serbian colleagues who were organising the 1st international Legume conference the same month, an agreement was reached to organise in time sequence with transport facilities (and BB participating in both events). The atmosphere of the meeting was excellent, the number of participants was average, the scientific quality was high with a strong support to the organisers from section board. The Section has scheduled the next meeting in Belgium in 2015 and got expressions of interest for 2017 (Lithuania).
- Genetic Resources, Alnarp, Sweden 2013 (JV): JV was given by organizer Eva Thörn the opportunity to make a 5’ PowerPoint presentation of Eucarpia at the opening of the conference on the first day. The attendance of ca. 180 exceeded expectations. The symposium was focused on genomics, food security, genetic diversity, climate change and crop wild relatives. The oral presentations can be downloaded from <http://epgrc2013.nordgen.org/>. The visit of Nordgen facilities was impressive. A joint EUCARPIA/PGR Secure conference, 'ENHANCED GENEPOOL UTILIZATION - Capturing wild relative and landrace diversity for crop improvement' will be convened in Cambridge, UK from 17-20 June 2014. INRA (France) is then willing to organize a meeting for this section in 2017. Eva Thörn intends to quit her position as section leader at the conference next year and she’s looking for someone to hand over the responsibility.
- Capsicum and Eggplant, Torino, Italy 2013 (BB): the attendance to this active and well-organised Working Group was > 200, which is comparable to the attendance to large Section Meetings. There was a good mix of invited and submitted papers. This WG is a good platform for young scientists to present their research. The tour programme included field visits and seasonal pepper festival. The working group core (chairman with vice and advisor) was formed.
- Organic and Low Input, Göttingen, Germany 2013 (BB): Heiko Becker and team have gathered around 100 participants but they expected more. The meeting was combined with EU NUE-CROPS project. The thematic focused on nutrient efficiency (more low-input than organic). The excursion was a visit of private breeding company (KWS) having an organic breeding programme. The replacement of Edith Lammerts as section chair was prepared, with Monika Messmer to become soon the new vice chair. The Working Group “Plant Microbe Interaction” was created. The next meetings will be 2015 WG Plant-Microbe-Interaction in Switzerland/Italy, and 2018/19 Section meeting in Germany.

Revitalisation of Oil and Protein Crops Section

The question of the revitalisation of Oil and Protein Crops Section is raised. The last activity was the 2007 meeting in Hungary, organized by Ferenc Viranyi who resigned as Section chairman. Since then, the position of Section chairman has been announced as «vacant» in Eucarpia Bulletin and website. Out of some responses, Bülent Uzun was suggested as new chairman by Cengiz Toker of Akdeniz University, Turkey. Section members were asked for their opinion by e-mail. Few but unanimously positive responses were received (with one critical remark). Johann Vollmann (A) and Antonio de Ron (E) agreed to be members of the section board. The plan developed by Bülent, Antonio and Johann is to create two working groups: oil crops and protein crops.

Participation in third party meetings (NAPB, EPSO, bisab)

- NAPB, National Association of Plant Breeders, BB, 2 to 5 June 2013, Tampa, USA (will be discussed under item 10.)
- EPSO, European Plant Science Organisation, JV, 1-4 September 2013, Porto Heli, Greece (will be discussed under item 10.)
- bisab - International Plant Breeding Conference, Beat Boller, 10-14 November 2013, Antalya, Turkey (BB): the topics and the format were similar to the General Congress of EUCARPIA. This international

event attracted a numerous attendance mainly from countries east and south of Turkey (less from «traditional» EUCARPIA audience). It was well organized with suitable facilities (large holiday resort) and with several parallel sessions, which caused some problems. The scientific quality was variable. All oral contributions were simultaneously translated into English, Turkish and Russian. The organizers of the next meeting wish to avoid coincidence with the General Congress of EUCARPIA in 2016.

7. EUCARPIA activities planned in 2014 and later (Beat Boller)

Future plans of the sections were discussed. Few meetings are planned in 2014, but a large number of meetings will take place in 2015, and it seems to be difficult to keep sections from organizing meetings in 2016, the year of the General Congress. Organizers will be asked to respect a gap of at least one month between their event and the congress.

8. Subsidies for Section and Working Group Meetings (José Vouillamoz)

EUCARPIA has supported several section meetings (3000 euros) and working groups meetings (1500) in 2012 and 2013 (Table 1).

Table 1. Subsidies given in 2012 and 2013

Section	Event	Amount (EUR)	Payment date
Potatoes	17th Joint Meeting of EUCARPIA Section Potatoes and EAPR Breeding and Varietal Assessment Section at Hévíz, Hungary, June 30 – July 4, 2013	3000	28.01.2013
Organic and Low-input	Section meeting, Göttingen, Germany, 24 – 26 September 2013	3000	27.09.2013
Vegetables	Capsicum and Eggplant group meeting, Torino, 2-3 September 2013	1500	09.11.2012
	Cucurbitaceae, Antalya, Turkey 2012 Working Group	1500	17.08.2012
Fodder Crops and Amenity Grasses	Section meeting in Vrnjacka Banja, Serbia 2013	3000	30.07.2012

9. Contacts with other organisations and EU projects

a. CIOPORA (Evert Jacobsen)

EJ indicates that there are no close relationships with CIOPORA, he was only invited to present breeders' rights. This means that we will remove CIOPORA from list of partners on the website

b. EPSO (José Vouillamoz)

JV has attended the 7th EPSO (European Plant Science Organisation) Conference, Sep 2nd, 2013, Porto Heli, Greece. The aim was to formalize the synergies with EPSO by meeting Karin Metzlauff (EPSO Director) in the presence of Lukas Bertschinger (Agroscope representative to the EPSO general meeting), François Laurens (INRA – EPSO individual member / EUCARPIA member). EPSO and EUCARPIA have agreed on:

- Putting their respective events and logos on the respective websites
- Providing names of 2-3 experts in each section who could participate to EU-projects
- Organising joint workshops at respective meetings with respective keynote speakers

c. NAPB (Beat Boller)

There is no formal collaboration with NAPB, but EUCARPIA wants to keep good relationships in order to be involved in academic research. BB participated to the annual meeting, 2 to 5 June 2013, Tampa, USA, which was a good opportunity to present EUCARPIA. NAPB has strong educational (Ph.D. Students) and political ("Advocacy" for breeding) components of activities.

d. FP6 Bioexploit (Beat Boller)

The project ended March 31st, 2011. An external audit was sent in April 2012 and was approved. We still expect payment of the refund of costs of the final project year.

e. FP7 DROPS (Zoltan Bedö)

DROPS invited Eucarpia to take part in the dissemination of the final conference. Dealing with drought research on maize and durum. ZB remains the Eucarpia contact with DROPS but it is good to involve BB as well.

f. FP7 PGR Secure (Zoltan Bedö, Beat Boller)

Project title: “Novel characterization of crop wild relative and landrace resources as a basis for improved crop breeding”. Coordinator: University of Birmingham UK. Role of EUCARPIA: partner associated with the U of B, involved in dissemination activities. A joint conference with EUCARPIA Genetic Resources Section is planned in Cambridge, UK from 17-20 June 2014, BB will possibly attend.

10. Status of preparations for General Congress 2016 (Beat Boller, José Vouillamoz)

Planned location: ETH Zürich, Switzerland. Provisional date: 22-26 August 2016

Our partners in the congress organization at ETH Zürich, Institute of Agricultural Sciences (Department of Environmental Systems Science):

Chair of Crop Science, Prof. Achim Walter, Dr. Andreas Hund

Chair of Forage Crop Genetics, Prof. Bruno Studer

Link to professional congress organizing office of ETH

Link to Zürich-Basel Plant Science Center

11. Miscellaneous, next meeting (Wageningen 2014?)

BB closes the meeting at 14:07.

The members of the executive committee have then visited the Auditorium Maximum at the ETH Zurich where the General Congress will take place.

Conthey, 2013.12.26

Beat Boller

José Vouillamoz

EUCARPIA MEETING CALENDAR FOR 2014 AND LATER

More information and updates on these meetings can be found on the web page of EUCARPIA (<http://www.eucarpia.org>)

XXth EUCARPIA General Congress

“Plant breeding: The art of bringing science to life”

Scheduled for: August 29 – September 2, 2016, Zurich, Switzerland

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| a. Potatoes | To be held in Italy – more information on the timing and location later |
| b. Cereals | <p>XV Meeting of EUCARPIA Cereals Section– I T M I Joint Conference
"Cereals for Food, Feed and Fuel Challenge for Global Improvement", Wernigerode, Germany, June 29 - July 4, 2014
http://meetings.ipk-gatersleben.de/EUCARPIA_ITMI_2014
Info: Andreas Börner / Ulrike Lohwasser
Email: EUCARPIA_ITMI_2014@ipk-gatersleben.de</p> <p>Joint EWAC (The European Cereals Genetics Co-operative) -EUCARPIA Cereals Section Conference, Lublin, Poland, May 24-29, 2015.
www.ewac.eu</p> <p>Joint DROPS (Drought-Tolerant Yielding Plants) – EUCARPIA Maize and Sorghum Section – EUCARPIA Cereals Section Conference to be held in Montpellier, France, June, 2015</p> |
| c. Fodder Crops and Amenity Grasses | <p>The 31st meeting, “Breeding in a world of scarcity”
13th – 17th September 2015
Gent, Belgium</p> |
| d. Biometrics in Plant Breeding | The next meeting is planned for 2016 in The Netherlands |
| h. Genetic Resources | <p>EUCARPIA Genetic Resources Section and PGR Secure joint Conference
“ENHANCED GENEPOOL UTILIZATION - Capturing wild relative and landrace diversity for crop improvement” Cambridge, UK
June 16-20, 2014.
http://www.pgrsecure.bham.ac.uk/sites/default/files/documents/public/PGR_Secure_FDC_announcement_FINAL.pdf
http://www.pgrsecure.org/conference</p> |
| i. Maize and Sorghum | <p>Joint DROPS (Drought-Tolerant Yielding Plants) – EUCARPIA Maize and Sorghum Section – EUCARPIA Cereals Section Conference to be held in Montpellier, France, June, 2015</p> |

- j. Vegetables** XVIII EUCARPIA Meeting of the Tomato Working Group, Avignon, France, April 22 – 25, 2014.
<https://colloque.inra.fr/eucarpia2014-tomato-avignon>
 Info: Mathilde Causse
 Email: mathilde.causse@avignon.inra.fr
- The VIII EUCARPIA Meeting of the Leafy Vegetables Working Group will be held in Murcia, Spain in 2015 at a date to be announced later.
 Info: Maria Isabel Gil
 Email: migil@cebas.csic.es
- The working group meeting on Cucurbitaceae will be chaired by Dr Elzbieta Kozik in Poland in 2016
- The working group meeting on Capsicum and Eggplant will be chaired by Dr Katalin Ertsey Peregi in Hungary in 2016
- k. Fruit** The XIV Symposium on Fruit Breeding and Genetics will be held in Bologna, Italy in 2015 at a date to be announced later.
 Info: Stefano Tartarini
 Email: startari@agrsci.unibo.it
- l. Ornamentals** The XXV Meeting of the Ornamentals Section will be held in Belgium in 2015 at a date to be announced later.
 Info: Jaap M. van Tuyl
 e-mail: Jaap.vantuyl@wur.nl
- m. Oil and Protein Crops** A Working Group and/or Section meeting is planned for 2015 but no final decisions about timing and location have been taken
- n. Organic & Low-Input Agriculture** Working group meeting on ‘Breeding and plant-microbial interaction’ will be organised by Monika Messmer in Switzerland or Italy in 2015. For information: monika.messmer@fibl.org
- A section meeting/conference on ‘Breeding for diverse cropping systems: Plant-Plant interactions’ will be organised by Gunter Backes and Maria Finckh in Germany in 2018. For information: gunter.backes@uni-kassel.de

OTHER MEETINGS AND EVENTS

International Workshop on Barley Leaf Diseases – IWBLD, Salsomaggiore Terme (Italy) 3-6 June 2014.

RECENT EUCARPIA PUBLICATIONS

a. Potatoes	The challenges of improving both quality and resistance to biotic and abiotic stresses in potato 17th Joint Meeting of EUCARPIA Section Potatoes and EAPR Breeding and Varietal Assessment Section June 30 – July 4, 2013 Hévíz, Hungary Pdf available at www.eucarpia.org
c. Fodder Crops and Amenity Grasses	Quantitative traits breeding for multifunctional grassland and turf 30th EUCARPIA Fodder Crops and Amenity Grasses Section Meeting Book of Abstracts May 12-16, 2013 Vrnjacka Banja, Serbia PDF available at www.eucarpia.org
d. Biometrics in Plant Breeding	XVth EUCARPIA Biometrics in Plant Breeding Meeting Programme, Information, Abstracts September 5-7, 2012 Stuttgart – Hohenheim, Germany University of Hohenheim Presentations available at https://eucarpia-biometrics-2012.uni-hohenheim.de/91484
h. Genetic Resources	Pre-breeding – fishing in the gene pool European Plant Genetic Resources Conference Book of Abstract June 10-13, 2013 NordGen, SLU, Alnarp, Sweden Book of Abstract available at http://www.nordgen.org/ngdoc/nordgen/Eucarpia/abstracts_workbook.pdf
j. Vegetables	Breakthroughs in the Genetics and Breedings of Capsium and Eggplant XV EUCARPIA Meeting on Genetics and Breeding of Capsium and Eggplant Proceedings September 2-4, 2013 Torino, Italy Editors: S. Lanteri and G.L. Rotino ISBN: 978-88-79239-16-1 Proceedings available at http://www.alice.cnptia.embrapa.br/bitstream/doc/981497/1/digitalizar0097.pdf
l. Ornamentals	"Ornamentals Breeding Worldwide" XXIV International Eucarpia Symposium Section Ornamentals September 2-5, 2012 Warsaw, Poland Proceedings published in Acta Horticulturae 953: http://www.actahort.org/books/953/
n. Organic and Low-Input Agriculture	Breeding for Nutrient Efficiency Joint Meeting of EUCARPIA Section Organic & Low input Agriculture and EU NUE-CROPS Project Conference Booklet September 24-26, 2013 Göttingen, Germany Georg-August-Universität Göttingen ISBN: 978-3-9815926-3-4