



# NEWSLETTER

*international society  
for seed science*

October 2009

<http://www.kew.org/iss>

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## message from the PRESIDENT

**M**y message for this edition of the newsletter is contained within my report for the AGM which you will find at the end of the newsletter. Instead, to open, I have a flowering conundrum for you.

*Calodendrum capense* (Balanitaceae), otherwise known as the Cape chestnut, flowering in late October into November, occurs naturally in forest, wooded ravines and riverine bush from sea level to about 2000 metres. There is a showy display of around a dozen *C. capense* trees along the South Ring Road of the Westville Campus of the University of KwaZulu-Natal, brightening up the

surroundings just as the students embark on their final exams of the academic year. However, not a single fruit has been seen to develop, and people whose gardens are graced by this beautiful tree, report the same thing. We examined all the trees on the campus almost daily last season in eager anticipation of seeds to include in our screening programme (to document seed post-shedding characteristics of indigenous South African species), but to no avail! One is led to wonder if a specific woodland-dwelling pollinator absent from open spaces, is the key to the mystery. Certainly, fruits are known and are illustrated



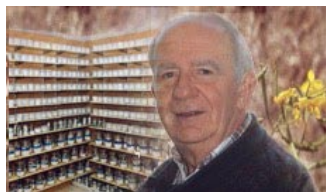
in our key reference work\*, which also records that “bees attend the flowers”. Whatever they may be doing, however, does not seem to result in pollination, which we might attempt to achieve via student assistants armed with artists’ fine paintbrushes this season!

\*Pooley, E. (1993) The complete field guide to trees of Natal, Zululand and the Transkei . Natal Flora Publications Trust, Durban, South Africa. (An updated edition of this indispensable book is due to be published early in 2010.)

*Pat Berjak*

## César GÓMEZ-CAMPO

**Torrelavega (Spain) 5th September, 1933 - Madrid (Spain) 5th September, 2009**



César Gómez-Campo, PhD in Agronomic Engineering and PhD in Biological Sciences,

directed the Department of Nuclear Energy Applications to Agriculture of the National Institute of Agricultural Research (INIA) for twelve years (1961-1973). From 1973 onwards, he dedicated his efforts exclusively to teaching and research activities in the Technical University of Madrid (UPM), where he became Head of the Department of Plant Organography and Physiology in 1975. After University restructuring in 1987 he became Head of the Plant Biology Department, UPM, until 1995. After retirement in 2003 he was appointed Emeritus Professor.

Prof. Gómez-Campo was a pioneer of seed banking to conserve wild species from endangered habitats: while others talked about the tasks, he got on and did it. He established the germplasm bank of the UPM (now BGV-UPM) in 1966, thus becoming the first bank in the world specialized in the preservation of wild flora. Since 1966 the BGV-UPM has sent seed samples to numerous researchers worldwide, and a remarkably high number of studies of diverse nature have been made possible thanks to the plant material stored under his initiative and guidance. Thanks to the successful seed conservation procedure that Prof. Gómez-Campo used and improved over the years, the first seed samples he stored in 1966 remained as alive as the first day a full 40 years later (2006). Based on these successes, he encouraged the establishment of many new seed banks, both in his country and worldwide.

He edited the first Red Book of Endangered Plants of the Iberian Peninsula and Balearic Islands and also the first Red Book of Endangered Plants of the Canary Islands, published in the 1980’s, in collaboration with approximately 130 experts. As many as 600 data sheets of Spanish species (rare, vulnerable or threatened with extinction) were put together in those two books, which were vital first steps towards an effective protection of the Spanish flora. Thanks to Prof. Gómez-Campo’s initiative and efforts, the BGV-UPM now stores 354 threatened Spanish species and subspecies, representing approximately 24% of the total endangered flora of the country.

His vast and incessant activity in the fields of plant

conservation and Brassicaceae biology and systematics has resulted in no less than 250 scientific papers and at least nine books. He belonged to numerous scientific societies and was member of several scientific and conservationist committees, both national and international, and was also President of Honour of the Ibero-Macaronesian Association of Botanical Gardens since 1996.

Prof. Gómez-Campo loved teaching, and had the gift of changing the most complex concepts or the most boring data into pleasant and interesting talks that immediately captivated his entire audience. In the last three years of his life, already seriously ill, his admirable vigor and unbeatable tenacity enabled him to teach as many as 47 workshops on Efficient Long Term Seed Preservation in 17 countries, from Bolivia to China.

From the very beginning of his career, he received several national and international awards. The Spanish National Environment Award in 1994, the FONDENA (Spanish Foundation for Nature Protection) Award in 1997, the “in recognition” plaque from the XIII Crucifer Genetics Workshop, in Davis (California) in 2002 and the Silver Leaf Award Planta Europa in 2004 are among the most important ones.

Indefatigable, Prof. Gómez-Campo kept on working, collaborating with colleagues and planning ahead. He was a true pionner in plant conservation, a teacher of botanists, a renowned expert in Crucifer systematics, and the happy owner of an inveterate optimism which he readily transmitted to everybody around him. He was a generous, sincere, independent and highly-dedicated scientist. His legacy will live on in the work of his seed bank but also in the many others worldwide whose staff have benefitted from his clear advice. He passed away the day he was turning 76 years of age, at home and accompanied by the love and warmth of his family. He will always be remembered as a great scientist, a stimulating teacher, a guiding light, and a friend.

*M.Elena González-Benito  
Juan B. Martínez-Laborde  
Jesús M. Ortiz-Marcide  
Félix Pérez-García*

## meeting REPORTS

**2009. June 8-11. 4th International Plant Dormancy Symposium. Fargo, North Dakota USA.**

SSS members Xin g-You Gu (left) and Gerhard Leubner-Metzger presented plenary lectures on Seed Dormancy in Rice and Cross-Species Approaches to Seed Dormancy and Germination, respectively.



## upcoming MEETINGS

### 2010. June 16-18. ISTA Seed Symposium 2010. Application and improvement of established and advanced technologies in seed testing. Cologne, Germany.

The symposium will be made up of five oral sessions (see below) and two poster sessions, each of 2 hours, covering the same topics. Each oral session will be chaired by a lead speaker who is well known in the field of seed science and technology.

Session 1: Technologies for improved seed supply

Chair and lead speaker: PK Agrawal (International Seed Consultant), India

Session 2: Aspects of purity: genetic, technical and physical  
Chair and lead speaker: E Noli (University of Bologna), Italy

Session 3: Basic approaches to physiological processes in seeds. (ISSS collaborative session)

Chair and lead speaker: G Leubner (University of Freiburg), Germany

Session 4: Approaches to the evaluation and improvement of germination

Chair and lead speaker: J Léchappé (GEVES), France

Session 5: Assessment and improvement of seed performance in practice

Chair and lead speaker: S Matthews (University of Aberdeen), United Kingdom

For more details [www.seedtest.org](http://www.seedtest.org)

### 2010. June 28-July 2. 20th International Plant Growth Substances Association (IPGSA) Conference. Tarragona, Spain.

The conference will feature the latest research on plant hormones. The chair of the local organizing committee is Montserrat Pages, CSIC, Barcelona. Information on the venue and scientific program will appear in due course on the IPGSA website. Until that time enquires can be sent to Valerie Sponsel (IPGSA Secretary) at <http://www.ipgsa.org/contact.htm>

For more details <http://www.ipgsa.org/meeting/index.htm>

### 2010. July 4-9. XVII Congress of the Federation of European Societies of Plant Biology (FESPB) Valencia, Spain.

The Congress is organised by the Sociedad Española de Fisiología Vegetal. The scientific programme of the FESPB 2010 will cover most aspects of modern plant biology. The aim is to offer a conference with the highest scientific quality in which novelty on multidisciplinary approaches including systems biology, genetics, molecular cell biology and biochemistry, and ecophysiology will be presented.

[http://www.geyseco.es/fespb/principal.php?seccion=welcome\(SEFV: http://www.sefv.net\)](http://www.geyseco.es/fespb/principal.php?seccion=welcome(SEFV: http://www.sefv.net)) on behalf of FESPB <http://www.fespb.org/>.

### 2010. October 25-29. 12th International Symposium on Pre-Harvest Sprouting on Cereals. Red Deer, Alberta, Canada.

For further information / to express interest in attending, please contact Joseph Nyachiro: [joseph.nyachiro@gov.ab.ca](mailto:joseph.nyachiro@gov.ab.ca) [http://www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/fcd5615](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/fcd5615)



ISSS Mini-Symposium speakers. From left to right: Christophe Bailly, Kathryn Steadman, Tomasz Pawlowski, Kent Bradford, Kazumi Nakabayashi, Jan Kepczyński, Gerhard Leubner-Metzger, Bill Finch-Savage, and Michael Foley. ISSS President-Elect Bill Finch-Savage moderated the session.

### 2009. September 27-October 1. 5th International Symposium on seed, transplant and stand establishment of horticultural crops: Integrating methods for producing more with less. Murcia, Spain.

The meeting had 104 delegates from 25 countries to discuss new information around the topic of seed, transplant and stand establishment. The topics included were wide ranging under the theme of "integrating methods for producing more with less" and provided a good opportunity to see seed science in the context of horticultural practice. After all sessions there was time set aside for discussion and these resulted in a number of lively debates. ISSS sponsored a full day session which contained the majority of seed talks at the meeting.

There was a good relaxed feeling to the symposium which was held in the comfortable surroundings of a Golf complex. Despite the record breaking rainfall in the first days of the meeting there was a whole day trip to the huge sea of polyethylene structures that house the horticultural industry around Almeria. The meeting also had an excellent social programme which provided many opportunities for interaction between the delegates. The farewell dinner was a particularly good evening with excellent food followed by flamenco dancing, singing and guitar playing that continued well into the next morning. A highlight of the evening was a virtuoso solo performance from our own Hiro Nonogaki masquerading as one of the female troop of dancers.

*Bill Finch-Savage*



Key note and contributing lecturers to the ISSS sponsored session together with the Joint Conveners of the symposium. From left to right: Ada Linkies, Juan Jordano, Roberval Vieira, Hiro Nonogaki, Kent Bradford, Bill Finch-Savage, Francisco Pérez-Alfocea (convener), José Pascual (convener), Hemal Fonseca. Isabel Ordiz also spoke, but was not in the picture.



# 3<sup>rd</sup> Workshop on the Molecular Aspects of Seed Dormancy and Germination

July 18-22<sup>nd</sup> 2010

Venue: York Museum Gardens, York, UK

For further information see:

<http://www.york.ac.uk/org/cnap/meetings>

**Confirmed speakers  
include:**

Giltsu Choi  
Isabel Diaz  
Bill Finch-Savage  
Frank Gubler  
Mike Holdsworth  
Wim Soppe  
Camille Steber

..plus selected talks from abstracts



## news from around the WORLD

### Australia and New Zealand

**N**ative Seed Forum in Australia and Launch of the book 'Plant Germplasm Conservation in Australia'. The Australian Seed Conservation and Research (AuSCaR) network represents agencies involved in native seed conservation and research who are currently partners in the international seed conservation initiative of the Millennium Seed Bank Project (MSBP) at Kew. AuSCaR organised the recent Native Seed Forum from September 3-4th at the Royal Botanic Gardens, Melbourne in conjunction with the MSBP and the Australian Network for Plant Conservation (ANPC). This was a celebration of the achievements of the MSB project in Australia from 2001-2009.

Speakers at the meeting included representatives from every State and Territory program in Australia and also from the MSBP. Topics for the talks ranged from investigations on dormancy breaking and seed longevity to the application of biotechnologies such as cryopreservation for the storage of orchids and desiccation sensitive seed.

An additional celebration was held on September 4th for the launch of the new book 'Plant Germplasm Conservation in Australia: strategies and guidelines for developing, managing and utilising ex situ collections' edited by C.A. Offord and P. F. Meagher. This book is published by the ANPC in partnership with AuSCaR and has been written by Australia's foremost conservation experts, most of whom are part of the AuSCaR network. It places the conservation of Australia's unique and varied plant life in a national and international context, outlines the key conservation treaties and strategies and provides a practical knowledge-kit for programs requiring germplasm collection, storage, research and utilisation. The book is written as a guide for a range of users, including conservation agencies, scientists, students and anyone interested in plant biology. The foreword by Professor Stephen Hopper, Director of the Royal Botanic Gardens, Kew states that 'this book provides a mine of information on recent advances in plant germplasm conservation in Australia and beyond....I cannot think of a better text to recommend on this subject'.

The book was launched by Professor Lesley Hughes, Professorial Fellow at the Department of Biological Sciences at Macquarie University; and the Australian Representative on the United Nations Convention on Biological Diversity Ad Hoc Technical Expert Group on Biodiversity and Climate Change. The launch included the cutting of a magnificent cake in the shape of an Acacia seed. Copies of the book are available through ANPC ([www.anbg.gov.au/anpc](http://www.anbg.gov.au/anpc)).

*Sarah Ashmore*

### Eastern Europe and Russia

**F**ollowing last year's conference in Olsztyn a new project has been established, entitled "Physiological, biochemical and cytogenetic peculiarities of dormancy and germination of castor beans (*Ricinus communis* L.) as a feedstock for biodiesel production in temperate zones". It is funded by the Belarusian Republican Foundation for Fundamental Research. The project leader

is Dr. Halina Alekseichuk from the Institute of Experimental Botany of National Academy of Sciences of Belarus (Minsk, Belarus) and the project also involves the Laboratory of Molecular Biology and Cytometry, University of Technology and Life Science in Bydgoszcz (Poland; Dr. Elwira Sliwinska) and Cornell University, Geneva (NY, USA; Dr. Alan Taylor). At the moment Yulia Zadornova from Belarus performs flow cytometric experiments in the laboratory in Bydgoszcz, Poland.

*Elwira Sliwinska*

### Western Europe and Scandinavia

**T**he virtual seed: Combined mathematical, engineering and post-genomics comparative biology to model the systems biology of seed dormancy, after-ripening and germination (vSEED).

The European Research Area (ERA-NET) in Plant Genomics is a network of ministries, funding agencies and national research councils that aims to provide researchers around and beyond Europe an opportunity to create and extend synergies between new and established research teams. The vSEED project was one of 12 that received funding for commencement in 2009. Please visit the ERA-PG website [www.erapg.org](http://www.erapg.org) to view the complete list of selected projects.

The aim of the vSEED project is to provide a dynamic mathematical description of seed dormancy, after-ripening and germination focussing on the key seed compartments the radicle and endosperm. This interdisciplinary project will analyse the comparative biology of the closely related Brassicaceae species *Arabidopsis thaliana* and *Lepidium sativum*, using engineering, imaging, modelling and post-genomics approaches to develop a virtual germinating seed. We propose that germination is an ideal exemplar for the integration of new technologies and for developing molecular plant biomechanics in conjunction with dynamic mathematical modelling.

Project collaborators: Michael Holdsworth (leader), Nicola Everitt, John King, and Andy Wood (University of Nottingham, UK); Gerhard Leubner and Thomas Speck (Albert-Ludwigs-University Freiburg, Germany); Leonie Bentsink and Sjef Smeeckens (Utrecht University, Netherlands); Paul Knox (University of Leeds, UK).

Funding: The German Research Foundation (DFG), Netherlands Genomics Initiative / Netherlands Organisation for Scientific Research, and the UK Biotechnological and Biological Sciences Research Council. Total granted budget: € 1,709,497.

*Mike Holdsworth*



**E**NSCONET Germination Workshop. A good number of ISSS members were among forty three delegates at a workshop on germination held at the National Botanic Garden of Belgium, at Meise on the outskirts of Brussels, from 15 to 17 September this year. The venue was the historic and beautiful Bouchout Castle, set in the botanic gardens grounds; and Dr Sandrine Godefroid led the local organising committee, on behalf of the European Native Seed Conservation (ENSCONET: <http://www.ensconet.com>).



Germinating seed bank collections of at least some wild species can be a challenge, mostly due to dormancy or seed quality issues. If seeds cannot be germinated relatively easily, then using banked collections is difficult. Moreover, most seed banks use the germination test as a means of monitoring collection viability. The workshop was aimed at helping ENSCONET members to improve their germination testing, and to explore approaches to analysing and using the data obtained. It drew together experiences from across ENSCONET and sought to synthesise this into best practice, with the sharing of germination data across the network also discussed.

The meeting focused on the practicalities of germinating seeds rather than mechanisms; and each lead speaker was followed by ENSCONET members describing their own experiences, with all being encouraged to join in the lively discussions.

Delegates had the opportunity to visit the seed bank facilities at the gardens, as well as the impressive glass-house complex. Finally, no account of the proceedings would be complete without mention of the splendid 'high level' workshop dinner laid on at the restaurant of the 'Atomium' in Brussels (<http://www.atomium.be>).

*John Dickie*

**U**C Davis Establishes European Plant Breeding Academy. Building on the success of the Plant Breeding Academy (PBA) in the United States, the UC Davis Seed Biotechnology Center is partnering with European companies, institutions and associations to offer the European Plant Breeding Academy, scheduled to start in March 2010.

Like its U.S. counterpart, the European Plant Breeding Academy addresses the increased global demand for plant breeders by helping working professionals become

fully trained plant breeders. Participants will meet in five countries for six, six-day sessions over two years. The instructors are internationally recognized experts in plant breeding and seed technology. One of the lead instructors will be Idy van Leeuwen, the owner of the Dutch education company Breedwise, a highly respected plant breeding and seed technology instructor who works with private companies and institutions in The Netherlands and elsewhere in Europe.

The European sessions will be held in Enkhuizen, The Netherlands; Angers, France; Barcelona, Spain and Gatersleben, Germany. The first and last sessions will be held in Davis, California. Cooperating partners include the European Seed Association in Belgium; Vegepolys in France; Seed Valley and Naktuinbouw in The Netherlands; the Center for Research in Agricultural Genomics and the Spanish Plant Breeders Association in Spain; and the Leibniz Institute of Plant Genetics and Crop Plant Research and the German Plant Breeders Association in Germany.

More information and applications are available at <http://pba.ucdavis.edu>. You may also contact Joy Patterson: [jpatterson@ucdavis.edu](mailto:jpatterson@ucdavis.edu).

*Dolores Rodriguez*

#### North America

**M**arc Alan Cohn, professor in the Department of Plant Pathology & Crop Physiology, has received the 2009 Sedberry Graduate Teaching Award from the College of Agriculture at Louisiana State University. This award recognizes Cohn's outstanding record of excellence and achievement in teaching and mentoring of graduate students. Cohn has been a past recipient of the Seed Science Award from the Crop Science Society of America, a co-recipient of the Tipton Award from the LSU AgCenter, and the Distinguished Service Award from the Southern Division-American Society of Plant Biologists.



Attendees of the ENSCONET germination workshop.

# SEED SCIENCE RESEARCH

The official journal of the International Society for Seed Science (ISSS)

[journals.cambridge.org/ssr](http://journals.cambridge.org/ssr)



**Seed Science Research** is *the* leading international journal in the field, with the research emphasis on the physiology, biochemistry, molecular biology and ecology of seeds. Published quarterly, the journal provides a forum for the publication of high-quality original research papers and review articles on the fundamental aspects of seed science.

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# minutes of the ANNUAL GENERAL MEETING 19-25 October 2009

## Notification and Agenda

As there was no appropriate gathering of ISSS members during 2009, the AGM was held electronically, with the ISSS listserv ([iss@lists.kew.org](mailto:iss@lists.kew.org)) being open for this purpose between 19th and 25th October.

No amendments to the agenda were received in response to an earlier e-mail to members in August 2009, and thus it was considered approved. Nor were there any messages from members relating to any of the other agenda items, during the period of the meeting. The agenda is shown below, together with the officers' reports; these are also all posted on the ISSS website Governance page ([www.SeedSciSoc.org/governance.html](http://www.SeedSciSoc.org/governance.html)).

## Agenda

1. Adoption of the agenda
2. Approval of minutes of last Annual General Meeting (10th July, 2008, Olsztyn). Published in the August 2008 ISSS Newsletter No. 13: online at <http://www.SeedSciSoc.org/>
3. President's Report
4. Secretary's Report
5. Treasurer's Report
6. Report from the Editor of Seed Science Research
7. Any other business

## President's Report

In retrospect. The highlight of 2008 for the ISSS was the 9<sup>th</sup> ISSS Conference on Seed Biology held in Olsztyn, Poland, in July. Over 250 participants attended this conference, which is an indication of the important position occupied by our major triennial meeting. This was the first time the meeting was officially constituted as a conference, as previously these were designated as workshops, having their origins in relatively small gatherings initially in Jerusalem (1980) followed by Wageningen (1985) and then in Williamsburg, USA (1989). The first really sizeable meeting in the series was that held in Angers in 1992, where the number of participants and contributions started the change in the nature of the meeting from a workshop to a conference, although the descriptor, workshop, continued to be used up to the 2005 meeting in Brisbane. There the ISSS Executive decided that our triennial meetings would henceforth be called Conferences, and that the 8<sup>th</sup> Workshop would be followed by the 9<sup>th</sup> Conference on Seeds. After much debate, another decision was that we would cease publishing the proceedings in book form.

Formation of the ISSS was formalised at the 1999 Workshop in Merida, Mexico, where the nascent Society also adopted Seed Science Research (first published in 1991) as its official journal. This excerpt amended from the ISSS Website sums up the Society, and its aims and activities:

"The International Society for Seed Science (ISSS) is a professional organisation of seed scientists committed to fostering and promoting research, education and communication in the scientific understanding of seeds by:

- Publication of scientific research on seed biology in Seed Science Research, [as] the official journal of the ISSS.
- Co-ordination and organisation of conferences, workshops and more specialised meetings related to seed science.
- Publication of a Newsletter.
- Support for educational activities in seed biology, including courses, slide exchanges, web sites, etc.
- Establishment of prizes and honours for meritorious work in seed biology.
- Networking of members through e-mail groups such as the Seed Biology Electronic Mailing List.
- Posting of job listings.
- Involvement in political and public relations activities affecting seed research and utilisation.

The ISSS is governed by an Executive Committee consisting of Elected and Appointed Trustees [and represented globally by corporate, organisational and regional representatives]. More information about the ISSS can be found in our Membership Brochure and in the ISSS Members' Handbook."

Since Olsztyn. It is ISSS policy to sponsor selected meetings having a theme of direct interest to seed scientists – or at least a major session dedicated to an aspect or aspects of seed science. As a society, we offer more than one level of sponsorship, depending on the prominence of seed science at various meetings. Sponsorship and its level is approved (or not) via application by the meeting organiser to the ISSS Executive. Hence, since mid-2008, we have sponsored:

- The 4th International Plant Dormancy Symposium was held in Fargo, N. Dakota, in June 2009. We were officially represented by our President-Elect, Bill Finch-Savage, who presided over an ISSS mini-symposium focused on seed dormancy and its release in evolutionary, molecular and physiological frameworks.
- From September 27th to October 1st 2009, the ISSS sponsored a mini-symposium at the 5th International Symposium on Seed, Transplant and Stand Establishment of Horticultural Crops: Integrating Methods for Producing More with Less. This meeting was held in Murcia-Almeia in Spain, and several ISSS members made presentations.



- In addition to sponsorships noted in the Minutes of the 2008 AGM, we have agreed to support an interesting aspect of seed micro-ecology at an ISHS meeting to be held in Lisbon next year: this will be a 'seminar'/mini-symposium entitled, Molecular profiling of microbial communities associated with seeds.

More on meetings. At the Fargo meeting a suggestion was made to Bill Finch-Savage about merging future Plant Dormancy Symposia (which are not connected with any umbrella organisation) with the ISSS. However, when this suggestion was referred back to the Executive, there was consensus that we need to keep our focus on seeds and not diversify into other structures like buds and a spectrum of dormant animal and microbial organisms (which has been suggested in the dormancy arena). Other ISSS-sponsored meetings like the Symposium in Fargo, exemplified by the Workshops on Desiccation-sensitivity and -tolerance, have very specific foci, although they span vegetative tissues and perhaps also non-plants. Furthermore, the ISSS Conferences invariably include sessions appropriate for such specialised interests, but provide a far wider arena for interaction among seed scientists – and (it is planned) scientific aspects of seed technology and the interplay between the scientists and the seed industry.

The 2011 10th ISSS Conference. I was hoping to be able to present the finalised arrangements for, and costs of, the 2011 Conference to be held in Brasil. However, although quite advanced, the plans and financial implications are still a matter for discussion between the Executive and the Conference Organiser, Renato de Castro. For various 'seasonality reasons' – i.e. prior to the onset of the rainy season; avoidance of 'high season' for travel – Renato favours April or very early May, and also seeks to avoid a clash with the 17th Brazilian Seed Congress, around August/September. As soon as consensus has been reached, we will alert ISSS members via e-mail to the details on our Website.

Seed Science Research. Our new Editor-in-Chief, Henk Hilhorst, has a firm hold on the reins of SSR, and has acted to broaden the scope of the journal. His Report is provided as a document for this e-AGM. We continue to negotiate with the publishers, Cambridge University Press, about a discounted subscription to SSR for members of ISSS. However, no finality has been reached – but the negotiations will continue.

Sad news. By now, many ISSS members may be aware of the death of our colleague, César Gómez Campo (late of Universidad Politécnica de Madrid), who was well-known in long-term seed preservation circles. He was instrumental in setting up a seed bank some 40 years ago in Spain, specialising particularly in preservation of seeds of forest species. Members involved in the long-term preservation of plant genetic resources as seeds, will have noted the emphasis by César Gómez Campo about the role of inappropriate storage containers in the deterioration of dry seeds. A tribute to César Gómez Campo will be included in the next issue of the ISSS Newsletter.

In conclusion. May I remind members whose subscriptions to ISSS are about to expire – or have actually expired, please to renew, via our Treasurer, Ken Thompson ([ken.thompson@sheffield.ac.uk](mailto:ken.thompson@sheffield.ac.uk)).

*Pat Berjak*

### Secretary's Report, including Membership Report

The number of ISSS members stands at 255, a very modest increase over the 250 reported for 24 June, 2008 in last year's Secretary's report; but, that hides a substantial, but short-lived 'blip'. As predicted by Karen in last year's report, there was a large increase in membership associated with the Olzstyn conference, with a peak of 383 members in 2008, after the meeting, where they could join on registration. However, 82 members joining in 2008 failed to renew in 2009, which together with underlying turnover (including a further loss of 54 members who had joined in previous years) brings current membership to the almost stable level of around 240-260 shown for the last few years. Of the current membership, 172 who were members in 2007 are still members in 2009; and this might represent a 'core' membership, with the balance being more or less ephemeral. Total numbers of members vs. year are shown in the table below.

Year	Membership (no.)	Event
2001	159	
2002	219	ISSS Salamanca
2003	193	
2004	204	Seed Ecol 1 (Rhodes)
2005	274	ISSS Brisbane
2006	243	
2007	269	Seed Ecol 2 (Perth)
2008	383 (250, part year)	ISSS Olzstyn
2009	255	

The short-lived increases arising from the triennial ISSS workshops/conferences can be seen clearly, along with more modest peaks associated with the Seed Ecology meetings. A modest increase in total membership might be expected from the Seed Ecology 3 meeting in Utah in 2010; with probably a much bigger one (largely from South America, and total exceeding 400?) after registration is complete for the ISSS Conference in Brazil in 2011.

Some idea of underlying stability in the membership is given in the following table, which shows how many, and what percentage of the current 255 individual members have been members continuously for 1, 2, ..., 8 years respectively.

Years continuous membership	No. of members	Percent 'surviving'
1 (since '08)	247	97
2 (since '07)	172	67
3 (since '06)	139	55
4 (since '05)	122	48
5 (since '04)	99	39
6 (since '03)	84	33
7 (since '02)	74	29
8 (since '01)	63	25

At least initially, decline appears roughly exponential. The apparent membership 'half life' of 4 years may reflect in part the 4 for 4-for-3 year subscription deal, though this has not been available for the whole life of the society.

A major benefit of ISSS membership used to be reduced subscription prices for *Seed Science Research*, the official journal of the society, now published by Cambridge University Press. Frustratingly there has been little real progress on this since the 2008 AGM, and it has still not been possible to finalise a satisfactory deal with CUP. Within the last month the Editor in Chief of Seed Science Research, the Treasurer and the President Elect visited CUP to discuss other matters, but were able to raise this as well. While little substantive negotiation was possible on the day, the ball is now firmly in CUP's court, and we expect them to make their position clear in the near future.

On the positive side, another benefit of ISSS membership is a 20% discount on books published by CABI; and following correspondence with them earlier in the year, they appear to have relaxed their need for ISSS members to quote a member reference number when ordering by phone or email. CABI Customer Services Department say that members will now only need to let them know that they are ISSS members and they will receive a 20% discount right away. More details on these offers can be found on the ISSS website on the 'Membership' page.

*John Dickie*

### Treasurer's Report for 2008-2009

Income and expenditure for the period 01 April 2008 to 31 March 2009

INCOME	£	EXPENDITURE	£
Subscriptions	7266.47	USDA Plant Dormancy Symposium, Fargo ND	1000.00
Royalties on <i>Seeds: Biology Development and Ecology</i>	1795.83	Credit card and other bank charges	104.20
Interest	309.06		
 Total income	 9371.36	 Total expenditure	 1104.2
Excess income over expenditure	8267.16		
Brought forward from previous year	26372.77		
 <b>Balance carried forward 31 March 2009</b>	 <b>34639.93</b>		

Compared with 2007-08, subscription income was up, partly because of the many new members recruited at the Olsztyn Symposium, and there was some book royalty income. We also made fewer charitable payments than last year, and both these factors contributed to a large increase in our balance over the year.

Our income from bank interest was lower this year, and looking forward we can expect this income to be very low next year, owing to the collapse in bank interest rates. Our bank charges will also be substantially higher next year; the paper-based credit card processing we have used hitherto is now obsolete and has been replaced by a web-based system, which is more expensive.

*Ken Thompson*

### **From the Editor's desk of Seed Science Research**

It is now almost a year since I took over from Marc Cohn and you may have noticed a number of changes related to our journal. In the first place, the appearance of the printed journal has changed. The cover is more attractive with some seed pictures, the format is somewhat different, but the familiar orange color persists.

Apart from these cosmetic changes, a number of actions have been undertaken to upgrade the journal to meet the challenges of the next decade of seed research. First of all, there has been consensus among the editors and publisher (Cambridge University Press) to adjust the Aims and Scope of the journal to the many new developments in the seed community. We agreed on a broader scope to include aspects of seed research related to seeds as commodity. The official Aims and Scope of Seed Science Research is now:

“Seed Science Research is an international journal that publishes original papers, as well as reviews and opinion papers, dealing primarily with the fundamentals of seed research with emphasis on the physiology, biochemistry, molecular biology and ecology of seed development, dormancy and germination. The importance of seeds to propagation, food, biofuel and biodiversity is of increasing interest and therefore submissions on seed genetics, seed biotechnology, seed treatment and seedling establishment are especially encouraged if they are novel and ‘seed driven’.”

Secondly, we have implemented Editorial Manager, as an electronic means of submission and reviewing of manuscripts, as well as the centre of editorial activities. Editorial Manager will considerably shorten the processing time of manuscripts. Papers accepted for publication will be published on-line ahead of allocation to a printed issue of SSR and may then be cited by doi (digital object identifier).

Finally, I would like to ask all ISSS members to advertise for our journal as much as possible, particularly now with the broadened scope. Since SSR is a specialty journal it will never attain very high impact factors, but it has a solid reputation of publishing high quality papers that are well cited.

*Henk Hilhorst*

### **Any other Business**

None.