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Cover illustration

A view in the Jardin Exotique, Monaco, April 2011 (*photo: David Hunt*)

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Message from the President

Now that the *Cactus d'Or* is presented to the recipient in Monaco, in the year following announcement of the award at an IOS Congress, this year's Inter-Congress was held in Monaco to coincide with the event. Thus a number of IOS members were able to witness the presentation to Myron Kimmach, and to congratulate him in person on his well-deserved award. Our thanks go to Jean-Marie Solichon, Director of the Jardin Exotique, for allowing us to join in the local society's convention "Monaco Expo Cactus". More details of the Inter-Congress will be seen on the following pages.

Myron was the sixteenth person to receive the *Cactus d'Or*, the first of which was presented to Werner Rauh in 1978. The CSSA's redoubtable historian, Chuck Staples, has compiled an illustrated history of the award, and has kindly given it to the IOS for display on our website. Chuck has made a great effort to obtain a photo of each awardee holding his/her trophy, and we admire his dogged persistence in trying to complete the record.

In spite of the rise of molecular taxonomy, now accounting for more and more publications on our plants, α -taxonomy still thrives. As the flow of new names continues, there is no sign that our *Repertorium Plantarum Succulentarum* will run out of entries. Although new plant names appear on the International Plant Names Index (IPNI) website, they are simply added to the total list, and so having new names of succulents in convenient annual lists is most useful. The added bibliography is also a valuable resource, as it includes smaller publications that might not be found on the Internet. We are grateful to Urs Eggli for continuing with the compilation on our behalf.

Some older succulentists, steeped in "traditional" taxonomy, may find some of the results of molecular taxonomy somewhat unpalatable. With an interest in the genus *Aloe* I now have to learn how to spell the family name Xanthorrhoeaceae. In another periodical, Gordon Rowley once commented that DNA stands for Damned Nasty Answers. Many researchers felt that by studying DNA, containing the blueprint of life, at last they have a truly objective way of sorting out phylogenetic relationships and coming up with a reliable system of classification. However, papers such as that of Nyffeler and Eggli, in last year's *Bradleya*, show that interpretation of the results of molecular work is controversial. With its diverse membership, the IOS embraces all points of view, and we do not "officially" favour one scheme over another.

Several times we have held a Congress in the New World – in Argentina, Brazil, Mexico and the United States. Next year we break new ground by holding our Congress in Cuba. The first circular was sent to members some months ago, and it can also be seen on our website. A second circular will be sent to those who responded to the first one. I understand that a good number of members have expressed an intention to attend, and so I hope to see many of you there.

Len Newton

9th IOS Inter-Congress, Monaco, 22–24 April 2011
*Held in conjunction with Monaco Expo Cactus and
the annual meeting of the Amis du Jardin Exotique de Monaco (AJEM)
by courtesy of the Mairie de Monaco and the Director of the Jardin Exotique,
Dr Jean Marie Solichon*

Programme

Friday 22 April

16:30–19:30 **Annual Meeting of the IOS Executive Board**

Saturday 23 April

10:00 **Opening of Monaco Expo Cactus by HSH Prince Albert of Monaco**

11:00 **Presentation of the *Cactus d'Or* to Myron Kinnach by the Mairie de Monaco**

14:30 **Monaco Expo Lectures**

14:30 **Round the World of Succulents in 50 minutes** *Myron Kinnach* (US)

16:00 **Les petits *Opuntia* sud-américains ou le genre *Tephrocactus* au sens large**
Philippe Corman (FR)

18:00 **The Cacti of the Marañon valley in northern Peru** *Graham Charles* (UK)

19:00 **Group dinner at Restaurant ‘La Chaumière’**

Sunday 24 April

10:00 **Monaco Expo Cactus and Jardin Exotique reference collections open**

14:00–18:00 **IOS Lectures**

Sorting out the Sansevierias *Len Newton*

**Recent insights in the evolution of epiphytic Cactaceae
from DNA sequence data** *Nadja Korotkova*

Cactaceous afterthoughts *Myron Kinnach*

The Development of the Huntington’s Desert Collections *John Trager*

**Experience with a privately owned Reserve Collection
devoted to *ex situ* Conservation** *Andrea Cattabriga*

On some new *Gymnocalycium*-findings (Cactaceae) *Massimo Meregalli*

Images of Cacti from the coastal valleys of Southern Ecuador *Graham Charles*

**Notes on *Maihue niopsis* (Cactaceae-Opuntioideae)
in southern Argentina** *David Hunt*

Inter-Congress Participants

Dr Thomas Bolliger (CH)

Dr Andrea Cattabriga (IT)

Dr Jean-Marc Chalet (CH)

Graham Charles (UK)

Dr Elmar Cullmann (*guest*)

Laura Guglielmo (IT)

Dr David Hunt (UK)

Myron Kinnach (US)

Nadja Korotkova (DE)

Joël Lodé (ES)

Rainer & Ingrid Mecklenburg (DE)

Dr Massimo Meregalli (IT)

Professor Len Newton (KE)

Dr Jean Marie Solichon (MC)

Marc Teissier (FR)

John Trager (US)



HSH Prince Albert of Monaco and his fiancée in conversation with the Director of the Jardin Exotique, Dr Jean Marie Solichon (*left*) during the couple's tour of Monaco Expo Cactus, 23 April 2011.

Myron Kimmach at the Jardin Exotique, 23 April 2011, delighted recipient of the *Cactus d'Or* 2010.

(photos: Ingrid Mecklenburg)



Inter-Congress participants and guests at the Jardin Exotique, Monaco, 24 April 2011. Standing (from left): Myron Kimmach, Elmar Cullmann, Len Newton, Guadalupe Franco, Jean-Marc Chalet, Thomas Bolliger, Graham Charles, Massimo Meregalli, Laura Guglianone, David Hunt. Kneeling: Toni Hofer, Rainer Mecklenburg, Jean-Marie Solichon, Andrea Cattabriga, Alessandra and Lorena Bolliger, Nadja Korotkova, Ingrid Mecklenburg. Reclining: John Trager.

(photo: Ada Damiani)

Abstracts and Transcripts

Sorting out the *Sansevierias*

Len Newton

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The genus *Sansevieria* (Asparagaceae) has been largely shunned by taxonomists, and the 1915 monograph by N.E. Brown has still not been superseded. This is partly because many species were described from cultivated material of unknown origin. Field and cultivation studies of species with prominent erect stems, occurring at low altitudes in Kenya, Somalia and Tanzania, revealed that there are at least seven distinct taxa, but with only four published names available. Three new species are recognized as a result of this study, and descriptions have now been published (*Bradleya* 27: 153-158, 2009; 28: 19-26, 2010). The prominently caulescent species of *Sansevieria* now comprise: *S. arborescens* Gérôme & Labroy (1903), *S. bagamoyensis* N.E. Brown (1913), *S. caulescens* N.E. Brown (1915), *S. powellii* N.E. Brown (1915), *S. dumetescens* L.E. Newton (2009), *S. ascendens* L.E. Newton (2010), *S. powysii* L.E. Newton (2010).

Recent insights in the evolution of epiphytic Cactaceae from DNA sequence data

Nadja Korotkova¹, Thomas Borsch², Nigel P. Taylor³, Dietmar Quandt¹, Kai F. Müller⁴, Wilhelm Barthlott¹

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Background

Our research is part of a project dealing with the evolution of the epiphytic cacti. Using fast evolving regions from the chloroplast genome (*trnK/matK*, *psbA-trnH*, *trnQ-rps16*, *rpl16*, *trnS-G* spacer, *trnG* intron and *rbcL*) we are studying the phylogenetic relationships in the group.

1. The genus *Pfeiffera*

Background and aims: Prior to our study, three tribes containing epiphytic genera were accepted in Cactaceae. The two largest groups are the Rhipsalideae and the predominantly Mesoamerican Hylocereeae. After the first phylogenetic study of the Cactaceae, a part of *Lepismium* was found to be an independent lineage from either Rhipsalideae or Hylocereeae (Nyffeler 2002, Amer. J. Bot.). As a consequence, the genus *Pfeiffera* was reinstated in the New Cactus Lexicon (Hunt 2006) with 9 species of epiphytic, terrestrial and epilithic cacti. But only 3 of the species had been included in Nyffeler's analysis. So our aim was to redefine the circumscription of *Pfeiffera*.

Results: Two unrelated groups containing species classified as *Pfeiffera* in the New Cactus Lexicon were found. *Pfeiffera* sensu Hunt (2006) is therefore polyphyletic. One group contains 6 species, including the type species *P. ianthothele* and 5 further species. The other group contains two *Pfeiffera* species and *Lepismium incachacatum* and is found to be the sister group of *Calymmanthium substerile*.

Conclusions: Our results justify generic status for this newly found group. Since it includes the type species of the earlier-proposed monotypic genus *Lymanbensonia*, we recently suggested the reinstatement of the latter in an amplified circumscription (Korotkova et al. 2010). Our results further support the establishment of a separate tribe *Lymanbensonieae* N. Korotkova & Barthlott, to contain *Lymanbensonia* and *Calymmanthium*. The results imply that epiphytism evolved more frequently in *Cactaceae* than hitherto assumed. There are four geographically distinct lineages containing epiphytic species: The Mesoamerican *Hylocereeae*, the predominantly Brazilian *Rhipsalideae*, the Bolivian/ Argentinian *Pfeiffera* and the newly found Peruvian/Bolivian *Lymanbensonia*.

Future work: The closest relatives of *Pfeiffera* are still not known with confidence and remain among the open questions in *Cactaceae* phylogenetics. Although *Corryocactus* (incl. *Erdisia*) and *Eulychnia* have been found putatively close to *Pfeiffera*, their exact position is unresolved and generic limits of *Corryocactus* also need further evaluation.

Reference: Korotkova, N., Zabel, L., Quandt, D., Barthlott, W. (2010). A phylogenetic analysis of *Pfeiffera* and the reinstatement of *Lymanbensonia* as an independently evolved lineage of epiphytic *Cactaceae* within a new tribe *Lymanbensonieae*. *Willdenowia* 40: 151–172. [A pdf of the article is available from N.K. upon request or can be freely downloaded at <http://www.ingentaconnect.com/content/bgbm/will/2010/00000040/00000002/art00001>]

II. Resolving relationships and identifying species in the Rhipsalideae

Background and aims: The tribe Rhipsalideae was the main focus of this study. The aim was to resolve relationships within the tribe, especially between the species. Our analysis included 51 of the 52 species currently accepted in the New Cactus Lexicon, including also all the subspecies and forms. The second aim was to evaluate whether species are monophyletic or not. For that purpose, we have included several accessions from the morphologically variable and widely distributed species, such as *Rhipsalis micrantha* or *R. baccifera*. So not only was the whole tribe sampled, the morphological variation was covered as well. We were especially interested in how well we could identify the species using sequence data. This relates to a new methodological approach termed DNA barcoding. It aims at identifying species using a DNA sequence – the DNA barcode. The relevance of that is that first, all Rhipsalideae are CITES-listed; therefore accurate species identification is actually desirable and relevant. And second, as DNA barcoding has not been yet attempted for the *Cactaceae*, we wanted to provide a first study of that kind. And finally, we wanted to compare how the different DNA regions would perform for the species identification – as DNA barcodes.

Results: We found the Rhipsalideae to be monophyletic. Also, the currently and traditionally recognized genera were found to be natural groups. The only exception is *Hatiora*: its two subgenera *Hatiora* and *Rhipsalidopsis* are not closely related. We therefore propose to recognise *Rhipsalidopsis* at generic level again. Unfortunately, we could not fully resolve the relationships between the genera. The subgenera of *Rhipsalis* were also found with maximal statistical support and largely correspond to the ones established by Barthlott & Taylor (1995, Bradleya). Only slight changes to the subgenera are suggested. Most important is that we were able to resolve the species level with very good statistical support. Then we found that all but two species and subspecies can also be identified using DNA sequences. Finally, we found that the markers used are variously successful in identifying the OTUs. It is remarkable that many of the morphologically variable and widely distributed species that are not easy to define morphologically are also not easy to define using sequence data.

Future work: This study is only based on chloroplast markers. But there may be hybrids, so the aim is to sequence nuclear markers as well. For those species where species-limits are less clear, population-level studies would be needed.

Reference: Korotkova, N., Borsch, T., Quandt, D., Taylor, N.P., Müller, K.F., Barthlott, W. (*in press*). How much does it take to resolve relationships and to identify species with molecular markers? An example from the epiphytic Rhipsalideae (Cactaceae). *Amer. J. Bot.*

Acknowledgements

These studies would not have been possible without the living collections of the Botanical Gardens Bonn, Berlin and Kew. We therefore especially thank those people who maintain these collections. Further material was kindly provided by G. Charles, U. Eggli and R. Bauer. This study also much benefitted from the past fieldwork of P. Ibisch (Eberswalde). We appreciate financial support from the Akademie der Wissenschaften und der Literatur, Mainz.

Cactaceous afterthoughts

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This talk concerns three plants I described that turned out to be not what I thought them to be. *Selenicereus innesii* was based on plants and data sent to the Huntington by the late Clive Innes who claimed to have discovered it not once but three times growing wild on the West Indian



Myron Kimnach and John Trager in a portion of Myron's *Echeveria* collection, 30 November 2005.
(photo: Karen Zimmerman)

island of St Vincent. Years later I visited Innes's old nursery and recognized an old unlabelled plant. The then owner, Terry Hewitt, found a duplicate plant that did have a label; it read '*Aporocactus* × *Weberocereus*'. It might have been an Innes hoax, but more likely poor record-keeping or a mix-up of labels. *Nopalxochia horichii* was not a result of mixed labels. Clarence Horich found it in Costa Rica growing on a tree with bromeliads and orchids. He sent the plant to me in 1971 while I was still working at the Huntington. Since I published it in 1984 I have been rethinking its status and I now believe that it is probably a hybrid that became established in the wild. The site was only several miles from the capital, San José, and something cultivated in the latter city could easily take root or germinate on a wild tree. The flower and thick stem remind me of *Epiphyllum crenatum*, except that the stems are even thicker and the petals are a rosy red. I suppose *Disocactus ackermannii* or an ally may be the other parent. Horich told me that there were no 'epis' [*Epiphyllum* etc hybrids] in Costa Rica until he brought some from Europe. Regrettably, *Epiphyllum floribundum*, which I described from a plant at the Huntington allegedly collected in Peru by Mildred Mathias, was another case of mixed-up labels. It proved to be yet another garden hybrid, probably involving *Disocactus macranthus*.

The Development of the Huntington's Desert Collections

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Myron Kinnach, Director Emeritus of the Huntington Botanical Gardens, was the awardee of the 2010 *Cactus d'Or* at the current IOS Inter-Congress in recognition of his contributions to the study of succulent plants. Among these contributions was the significant increase of the Huntington's collections into the world-renowned assemblage that it is today. In 1962 Myron succeeded William Hertrich as Superintendent of Buildings and Grounds at the Huntington Library in San Marino, California. Charged with maintaining Henry Huntington's horticultural legacy as implemented by Hertrich, Myron not only did that but developed the botanical division of the institution into a full-fledged botanical garden. He initiated a program of field expeditions as well as exchange with other institutions and collectors to develop a well-documented collection that could support scientific research. These efforts contributed to the already-established 10-acre Desert Garden but had an even greater impact on the expansion of the container-grown collection which, when Myron came to the Huntington, consisted of a single potted specimen, a mature *Pachypodium horombense* collected on a USDA-sponsored expedition to Madagascar by Swingle & Humbert in 1928. An accessioning system had been established with the assistance of Eric Walther in 1930 which numbered over 1500 taxa in the Desert Garden. Under Myron, accessions surpassed 70,000. Notable among these is accession number 1, *Agave mitis* ssp. *albidior* (originally accessioned under the synonym *A. albicans*), which still grows in the Desert Garden, and number 50,000, a specimen of *Alluaudia procera* that grows in the Desert Garden Conservatory. The latter 3000 sq. ft. glasshouse was opened in 1985 to display some of the potted succulent collection. Under Myron's regime this grew to include a diverse representation of succulent taxa including several hundred in each of the major succulent families: Agavaceae, Aizoaceae, Aloaceae, Asclepiadaceae, Cactaceae, Crassulaceae and Euphorbiaceae. Collections were especially rich in two areas that reflected Myron's research focusses: Epiphytic cacti and New World Crassulaceae.

Experience with a privately owned Reserve Collection devoted to *ex situ* Conservation

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Everybody knows the importance of well-referenced collections for study and *ex situ* conservation of threatened species. Important collections can be the opportunity to spread knowledge of rare plants, and sources of propagules and seeds, whose availability reduces the pressure on collection of plants from the wild. I joined the IOS Reserve Collections Initiative when it began in 1988. At that time I was already the owner of a fine collection of endangered cacti, belonging to the slow-growing kinds, like *Ariocarpus* ssp., *Turhinicarpus* ssp. and allied ones, started by seeds early in the 1980s, when I was only 15. I was able to do this because of the Italian climate and a series of lucky coincidences, which allowed me to use more or less suitable greenhouses and allowed the collection to expand.

In 2002 the Town Council expropriated the piece of land where my rented greenhouse was, and I had to leave suddenly. I tried to save the situation by offering my collection to the town in order to build a living museum dedicated to biodiversity. The Council answered positively and made an agreement with a nursery where I could keep the plants while waiting for the new greenhouse to be built. After that I began a long relationship with politicians. In 2006 they suggested I organize a cactus show called 'La Festa del Cactus' to support the project. Today the show has become the most important cactus-show in Italy.

The official presentation of the working project called 'Green Visions' was approved by the Town Council in 2008, with the patronage of the Bologna Province and the Emilia-Romagna Region. Then, it decided where to realize the project and found some resources to build the greenhouse. Now the Council has invited me to join a meeting at the end of this month [April 2011], in order to take the final decisions on the incipient Green Vision project.

A small museum and a big nursery?

When I originally presented the project for a museum of succulent plants, I asked for a large heated greenhouse area in which to house almost all existing succulent kinds, totalling 4500 sq. metres and subdivided in different greenhouses to be realized stage by stage. The project included a landscaped area with plants grown in beds with explanatory labels, a small library and a laboratory for education and with courses in order to obtain an income to make the project self-supporting.

Year after year the size of the building has been substantially reduced by the Council and, at the moment, funds are just enough to build a greenhouse of 250 sq. metres, and no resources are available to cover general maintenance expenses (heating, water, electricity). With a structure of this small size it would be difficult to realize a noteworthy collection and raise sufficient income from sales to make it self-sustainable. So I must face the need to save just a small portion of the existing collection, say 1–3 specimens per taxon, while the rest of the plants would be sold to start a commercial nursery very close to the museum.

Inventory of the collection

As of 1 April 2011, the collection database included 26,450 accessions, representing 2333

genera, 1,622 species, 122 subspecies, 478 varieties 33 hybrids and 15 cultivars

Postscript

Soon after the Inter-Congress I met officials at the Municipality in Bologna and they told me that, yes, they will build a Botanic Garden with a greenhouse where part of my collection could in be hosted. A considerable part of my plants will not fit the new accommodation, however, so I have decided to start a nursery to house them and to sell new productions in accordance with CITES regulations. I hope this will let me self-finance the maintenance and enlargement of the reserve collection. I would be grateful if IOS and BGCI could give me some institutional support for this project.

On some new *Gymnocalycium*-findings (Cactaceae)

Massimo Meregalli

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Four recent discoveries of Argentinian *Gymnocalycium*, currently under study, are presented. On the southern part of the Sierra de Comechingones, province of Córdoba, along the road between Santa Cruz and Merlo, plants belonging to the subgenus *Gymnocalycium* were found. These show 1 to 4 thin, erect central spines and were compared with plants of the same subgenus living in the same region, e.g. *G. andreae*, *G. bruchii*, *G. papschii*. The newly discovered taxon shows some morphologic resemblance with *G. papschii*, but differs in the very short, completely white, peculiar flower.

In the province of Catamarca, north of Fiambala, two clearly differentiated forms of *Gymnocalycium* belonging to the subgenus *Microsemineum* live about 20 km from each other, yet they differ significantly in morphology of body, spines and flower. One of these is apparently similar to *G. catamarcense*, while the other has some resemblance with *G. spegazzinii*. However, the seed shape clearly indicates that affinities with *G. spegazzinii* can be excluded.

A third interesting *Gymnocalycium* was discovered in the hills between La Falda and Candalaria, in the central part of the Sierras de Córdoba. The plants have morphology intermediate between *G. mostii* (subgenus *Microsemineum*) and *G. capillaense* (subgenus *Gymnocalycium*), flower and seed resembling more to *G. capillaense* and body morphology being quite variable, but in many specimens resembling more to *G. mostii*. This last is sympatric with the newly discovered form, whereas *G. capillaense* is diffused more east, in the La Falda area and north of it. Considering the relatively broad range and the uniformity of the characters throughout the range, it is suggested that the recently found taxon could be a species that originated by hybridogenesis between *G. capillaense* and *G. mostii*.

A species whose origin by hybridogenesis was documented is *G. esperanzae* Repka & Kulhanek, recently described for a *Gymnocalycium* found in the hills south of the Sierra de Ulapes, in the province La Rioja. The body morphology of this species is rather similar to *G. bodenbenderianum* (subgenus *Trichomosemineum*) but its seed is perfectly referable to *G. castellanosii*. In a molecular analysis based on chloroplast markers *G. esperanzae* clustered together with *G. bodenbenderianum*. This indicates that the new species has a hybrid origin, with *G. bodenbenderianum* being the female ancestor and *G. castellanosii* the male.

Images of Cacti from the coastal valleys of Southern Ecuador

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The cactus flora of these valleys is a natural extension of that found in the adjacent valleys further south in Peru. The valleys are relatively dry compared to the higher land between them and to the east, becoming progressively less arid towards the north. The terrestrial cacti are largely confined to steep slopes or rock outcrops where competition from other plants is reduced, but even here they are often associated with dense growth of bushes and trees, especially in the rainy season. The three principal valleys from south to north are the Catamayo, the Rio León and the Rio Jubones.

The type locality of *Borzicactus icosagonus* is at Narbón, near to the Rio León where the plants differ from the commonly-cultivated form (from further south in Peru) by their finer spination, more upright habit and widely-opening pink flowers. The form of this species from the Catamayo valley is very similar to cultivated specimens of *Akersia roseiflora* Buining, originally said to come from Chala in Southern Peru. The climate of Chala would appear to be unsuitable, therefore I suggest that the Catamayo Valley is where the plant was actually originally collected.

The genus *Espostoa* is also present in these valleys, the plants becoming less tall in the north. In the south *Espostoa lanata* is a tall branched plant with a trunk, similar to the Peruvian plants but often with a red flower (var. *roseiflora*) rather than the usual white. The plants in the Rio Jubones Valley were described by Jens Madsen as *Espostoa frutescens* and differ from typical *E. lanata* by their low wide-spreading habit lacking a trunk and their white fruits (rather than pink).

The valleys also have a confusing assortment of *Armatocereus* plants which have been attributed to various species. The appearance of the plants is so variable that one is tempted to suggest that they are hybrids of *A. laetus*, *A. cartwrightianus* and perhaps others. The whole genus is poorly understood and it is difficult to know which characters to use to distinguish the species.

Notes on *Maihueniopsis* (Cactaceae-Opuntioideae) in southern Argentina

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Thanks to the troubled taxonomic and nomenclatural history of the genus, summarized at the commencement of this talk, the treatment of *Maihueniopsis* in the *New Cactus Lexicon* was very tentative. As part of the project on Andean Opuntioideae initiated at the IOS Inter-Congress at Bonn in 2009, various taxa of *Maihueniopsis* were included in the DNA survey by Dr Christiane Ritz. Her results indicate that the genus is monophyletic (though at least one species is misplaced!), but that further sampling would be desirable, supplemented if possible by cytological data.

During the course of the work in Germany, Dr Laura Las Peñas, a cytogeneticist at the University of Córdoba, Argentina, who is working on cacti in collaboration with Dr Roberto Kiesling, joined IOS. The possibility that she might collaborate with us was suggested and subsequently agreed. Partly to provide material for the projected cytogenetic studies, and partly to gain personal field-knowledge of the so-called *M. glomerata* group and their distribution, I travelled to southern Argentina earlier this year. During my itinerary in the provinces of Chubut, Neuquén and Mendoza, samples from some fifteen populations of *Maihueniopsis* were collected. These gave the impression that several distinct and perhaps allopatric taxa might be represented, based on differences in habit and spination. In one locality, two distinct taxa were found growing sympatrically.

The collected material was then delivered to Dr Peñas at Córdoba. Formal arrangements with her department provide that she will not only use it for cytogenetic studies, such as determining ploidy levels, but also, since legal exportation of live material from Argentina to Europe is now virtually impossible, arrange for the DNA to be extracted from a duplicate set of the samples and sent to Dr Ritz in Germany for sequencing.

Annual Meeting of the IOS Executive Board 2010

Held in the Library of the Nees-Institute for Plant Biodiversity, University of Bonn by kind permission of the Director, Professor Dr Wilhelm Barthlott. 19 October 2010, 09:30–12:00. *This meeting replaced the planned meeting at the same venue prior to the Congress in March 2010 that had to be abandoned as it was inquorate.*

Present: Hunt (Secretary), Mecklenburg (Asst. Secretary), Oldfield (Treasurer). Apologies: Newton (President), Hernández (Vice-President). The participants were greeted by Professor Barthlott, who briefly discussed arrangements for the afternoon seminar

1. *Report of previous meeting* (circulated 18 May 2009). Approved nem. con.

2. Matters arising

2.1. *IOS library.* On behalf of IOS, the Secretary and the then Acting Treasurer (Mr Supthut), at a meeting with the Acting Director of SSZ [Karin Hindenlang] at SSZ on 17 August 2009 agreed to relinquish whatever claims to ownership it might legally have had over items in the ZSS library and herbarium and to amend the relevant IOS Byelaw accordingly. [It had often been unclear whether plants, books, etc donated to SSZ were intended to be the property of IOS ‘on permanent loan’ or simply donated to ZSS, so it would be more or less impossible to compile an inventory. In any case, IOS had no wish to re-possess any of the books, specimens etc.]

2.2. *Golden Cactus 2010.* As announced at the Congress in Bonn, the recipient of this award, nominated by the IOS Board, would be Myron Kimmach.

3. IOS 31st Congress, Nees Institute for Plant Biodiversity, Bonn, 22–25 March 2010

The proceedings of the Congress have been compiled by the Secretary and published in the IOS Bulletin, circulated by e-mail to members with web access on 12 September 2010. Printed copies would be mailed with RPS 60, when published, to the c. 30 members who do not have web access.

4. Matters arising from the Congress

4.1. *Audit of IOS accounts for 2009.* Following the resignation of the Treasurer towards the end of 2009, a financial report and draft accounts had been presented to the Congress by the

Secretary and Mr Supthut's successor as interim Treasurer, Sara Oldfield (see IOS Bull. 15(3): 83–84. 2010). Having been appointed Auditor by the Congress, Graham Charles audited and approved the accounts on 8 October 2010 and a certificate signed by him to this effect was exhibited by the Secretary. [*For a summary of the accounts, see next page.*]

4.2. *Regional accounts versus a single account for payment of subscriptions.* The President and Secretary considered that the collection of members' subscriptions regionally had worked very well over many years, and there was no need to change it. In future it might be possible to arrange for all subscriptions to be paid directly to the main IOS account with HSBC but it was agreed to continue with present arrangements for the subscription period 2011–12. [In the recently issued Bulletin, the Secretary has offered a supplementary option for members to pay via PayPal.]

4.3. *Reimbursement of Jafet Nassar's travel/subsistence and other cancellation expenses resulting from the change of Congress venue*

Agreed that all claims for reimbursement received should be paid in full. The sums involved were: Hunt (Nassar's travel/subsistence): GBP 569.83, Mecklenburg (flight cancellation): Euros 190, Charles (flight cancellation): Euros 100.

4.4. *Other Congress expenses*

4.4.1. *Travel allowances for Board Members.* The President's submission was agreed that 'The current rate is just a token payment, in view of the actual costs involved in attending a meeting, but the arrangement should be continued.'

4.4.2 *Other reimbursements.* Claims by the Secretary for reimbursement of expenses for bottled water and soft-drinks for consumption during the Congress sessions (Euros 78.-) and a contribution to office expenses (telephone calls the Canary Isles and Bonn and printing the eventual programme for participants: GBP 40) were also agreed.

5. *Project funding*

5.1. *Discussion of general policy.* The President's submission that 'research grants should be limited to IOS members or to people associated with (supervised by or collaborating with) IOS members' was approved.

5.2. *Applications current or planned*

5.2.1 *Phylogeny of the Andean *Opuntioideae*.* To date, analyses for this study, carried out by our member Dr Christiane Ritz at the University of Giessen (with plant material donated by UK IOS members, has been funded by UK IOS members. This study has already produced significant results including an explanation of anomalous results in a recent US study. For an extension (under discussion) to the IOS-sponsored study, UK IOS members have agreed to provide plant material and are considering applying to IOS for funding, if necessary, to match their donations on a 50/50 basis.

5.2.2 *Cactaceae BIOMAPS project.* Following the two presentations on distribution mapping at the 2009 Inter-Congress (IOS Bull. 15(2): 45–47. 2009), Professor Barthlott suggested we (that is his BIOMAPS Unit and the group of IOS members collaborating on the production of distribution maps) should work together. This was agreed and he obtained a subvention of Euros 4000 from the Mainz Academy's "Biodiversity in Change" programme to meet the travel expenses of IOS group members attending project meetings. This money has been administered by the Secretary and spent *in toto*. Professor Barthlott has now negotiated a further subvention from the Mainz Academy towards the costs of publishing the maps.

5.2.3. *Funding request by Ing. Bárbara Larrain Barrios.* A request was received by e-mail on 17 March 2010 from Ms Barrios, Instituto de Biología, UNAM, Mexico, a [Chilean] student of Dr Héctor Hernández, for a grant of £1000 from IOS to support a programme "to serve as a formative project for the development of a MS thesis" was rejected as over-

IOS Accounts for the Year ending 31 December 2009

Central Reserve Fund

The central IOS reserve fund was transferred in December 2009 to a tax-exempt Sterling account held by Botanic Gardens Conservation International in London. The balance at 31 December 2009 was **GBP 45190.06**. Outgoing payments from the account require the prior authority in writing from the IOS Executive Board and will normally be made *via* one or other of the regional accounts. BGCI does not derive any benefit from the arrangement.

Regional currency accounts

Summary Statement of Income, Expenditure and Balances

Swiss Francs (Postcheck account; D. Supthut, Zürich)

Balance: CHF 925.69, plus cash in hand CHF 199.05 = CHF 1124.74 [= GBP 688.63]

Euros (Account holder: Dr R. Bauer, Offenburg)

Income	Euros	Expenditure	Euros
Subscriptions	1232.00	Bank charges	19.10
Akad. Wiss. Mainz	4000.00 [see note 1]	Univ. Giessen	1275.00 [2]
		Transfer to UK a/c	2000.00 [1]
<hr/>		<hr/>	
Total	5232.00	Total	3294.10

Notes: [1] Grant specifically to the BIOMAPS project (mainly expenses in connection with workshops at Bonn and in the UK); [2] Payment for services in connection with the Andean Opuntioideae project [subsequently met in full by donations by UK members]

	Euros
Balance brought forward 31/12/08	3883.26
Income – Expenditure 2009	1937.90
Balance carried forward 31/12/09	5821.16 [= GBP 5219.75]

US Dollars (Account holder: Dr R. Dorsch, Houston)

Income	US\$	Expenditure	US\$
Subscriptions	456.00	Travel grant (Nassar)	500.00
<hr/>		<hr/>	
Total	456.00	Total	500.00

	US\$
Balance brought forward 31/12/08	1887.00
Income – Expenditure 2009	(44.00)
Balance carried forward 31/12/09	1843.00 [= GBP 1233.34]

British Pounds (Account Holder: Dr D.R. Hunt)

Income	GBP	Expenditure	GBP
Subscriptions (14)	455.00	<i>Printing**</i>	
Research donations	400.00	Rep. Pl. Succ. 59	408.00
Other donations (3)	103.51	<i>Biomaps Project money</i>	
BIOMAPS grant (part)	1742.92	Travel Expenses	195.00
Bank interest	0.77	<hr/>	
<hr/>		Total	603.00
Total	2702.20		

	GBP
Balance brought forward 31/12/08	288.76
Income – Expenditure 2009	2099.20
Balance carried forward 31/12/09	2387.96

Other currencies (cash in hand transferred by Mr Supthut)

USD 379	= GBP	253.63
Euros 926.80	= GBP	847.52

***Note:* Payment of GBP 130 for digitally printed copies of IOS Bull. 15(2) was made in December 2009 but not debited to the account until January 2010. This amount and postage costs for both publications will be included in the accounts for 2010.

Auditor's statement

I have examined the accounts for the Swiss, UK, European and US branches of the IOS as well as the central fund held in the UK, and found them to be a true record of the financial status of the Organization. At the close of 2009, the total assets of the Organization were GBP 55,820.89 held in various currencies both as bank deposits and cash.

*Signed: Graham Charles
Hon. Auditor
8 October 2010*

ambitious, but would be reconsidered if Ms Barrios submitted a report on work done this year. This had not yet been received.

5.2.4. *Funding request for BGCI-IOS Reserve Collections Initiative.* Financial support for this initiative is jointly proposed by the Treasurer and Secretary. Initially a grant of “seed money” of GBP 1000 from IOS to BGCI is requested to help fund the initial phase of a survey to establish a register of botanic gardens and IOS members having significant collections of cacti and/or other succulents and willing to collaborate with us in the interests *ex situ* conservation and research. (This request was supported by the Assistant Secretary, then referred to the President and Vice-President for their agreement, so that approval by the IOS Board may be seen as unanimous).

6. *Repertorium Plantarum Succulentarum.* A paper by Urs Eggli concerning the future of RPS was circulated in July. We are very much dependent on Eggli for continuation of the publication but there is no change in the arrangements for no. 60. We expect to proceed with electronic publication for IOS members from no. 61 but questions relating to “open access” need to be resolved at the next Board meeting if not before.

7. *IOS Website.* The Assistant Secretary gave an upbeat assessment of interest shown in the website but reminded us that the compilation of a Directory of Specialists had been a declared priority for several years and this was urgently needed. He would also like a brief article on the history of the CITES Checklists. Concerning the former, the Secretary suggested this would be a considerable undertaking and might best be initiated by listing the authors of papers etc listed in recent issues of the RPS Bibliographia section. As compiler of the CITES Cactaceae Checklist, the Secretary noted that its history was recorded in the Preamble to the two published editions, and that a proposed 3rd edition was “on hold” (see IOS Bull 5(3): 83. 2010).

8. *Web pages for special interest groups.* The President had requested this be discussed. How would coordinators of such groups go about posting items? Heidi Hartmann expressed interest in having such a facility for those studying mesems, but said that she had no idea how to use it. The Assistant Secretary reported that he had arranged to visit Heidi Hartmann (Hamburg) in the first half of November.

9. *Relationships with kindred organizations*

9.1. BCSS and CSSA have funds to support Research and Conservation and an IOS member of the BCSS Committee had suggested that BCSS and IOS might consider joint-sponsorship of selected projects. The IOS Board members present today were, however, disinclined to collaborate with national hobby societies in this way.

9.2. SLCCS, as an international group, could be judged to be the counterpart of IOS for Latin America, and we should therefore welcome its offer of regular space in its Bulletin for news of IOS and IOS projects, and support the organization of joint Workshops/Field trips as proposed by Dr Nassar at the recent IOS Congress (see below).

10. *Future Meetings*

10.1. *Annual Board Meeting and Inter-Congress 22–24 April 2011.* With the agreement of Jean Marie Solichon and the Mairie de Monaco, these dates were now confirmed. The Board Meeting would be held on 22 April 2011 (Good Friday) and would be followed on 23 April by presentation of the *Cactus d’Or* and lecture sessions in conjunction with the annual ‘EXPO’ meeting of the Friends of the Jardin Exotique. A private (members-only) IOS session is planned for the morning of 24 April, followed in the afternoon by a public session for which

IOS members would be invited to offer presentations. IOS members will be notified of these arrangements by e-mail a.s.a.p., and via the website. Those interested in attending will be asked to contact the Secretary for further details, but will be expected to make their own arrangements for travel and accommodation. The possibility of an excursion on 25 April is being considered.

10.2. *Possible SLCCS-IOS Workshop [Guatemala?] 2011*. Arrangements for this are in the hands of Dr Nassar, who is discussing details with the SLCCS representative in Guatemala, Dr Mario Veliz. The suggestion is that a small group of self-financing IOS members might participate in a Workshop and Fieldtrip organized for and by SLCCS members. Local sponsorship is being sought to cover local accommodation and transport expenses. The Secretary suggests that IOS might provide financial support for one or two IOS student members who could take part and be responsible for providing a report for the IOS Bulletin.

10.3. *IOS 32nd Congress, Havana, 2012*. Plans to hold this, probably in conjunction with SLCCS, are in the hands of Luis-Roberto González Torres (his e-mail to all of us 18 May 2010). Dr Nigel Taylor, who knows Luis-Roberto well, is confident that satisfactory arrangements will be made. No date for the meeting has yet been fixed or agreed, but settling this is becoming urgent in order minimize travel costs from Europe.

David Hunt
IOS Secretary
30 October 2010

Annual Meeting of the IOS Executive Board 2011

Held at the Hotel Capitulô, Beausoleil, France, 22 April 2011, 16:30–19:30

Present: Professor Len Newton (President, Chair), Dr David Hunt (Secretary); Rainer Mecklenburg (Assistant Secretary). *Apologies for absence:* Dr Héctor Hernández (Vice-President), Sara Oldfield (Treasurer).

1. *Inter-Congress* (organized in association with annual ‘EXPO’ meeting of the Friends of the Jardin Exotique de Monaco, AJEM at the invitation of Jean Marie Solichon and the Mairie de Monaco). Programme arrangements for the sessions on the following days were reviewed and approved. About 20 IOS members, including Myron Kimmach, who would be presented with the *Cactus d’Or* 2010, were expected to attend and about 80 members of AJEM. HSH Prince Albert of Monaco would open the ‘EXPO’ on Saturday morning 23 April at about 10:00 a.m.

2. *Matters arising* from the Secretary’s Report of the previous Board Meeting (Bonn, 9 October 2010), circulated 30 October 2010):

2.1. The grant to our conservation partner BGCI agreed by the Board had been paid. Its purpose is to help fund the initial phase of a survey undertaken by BGCI to establish a new register of botanic gardens and IOS members having significant collections of cacti and/or other succulents.

2.2. Repertorium Plantarum Succulentarum. A decision on electronic publication of future issues was needed. (see 4.2 below).

2.3. Proposed SLCCS-IOS Workshop in Guatemala. This could not go ahead as Dr Nassar had received a negative response from our contact in Guatemala.

3. *IOS website/web pages*. The Assistant Secretary listed several changes that had been made to the website since the previous Board Meeting:

3.1. The homepage is now available in four languages;

3.2. A *News* menu point was inserted in *Members only* to inform more promptly about important IOS matters. Relevant information will be uploaded as soon as it is made available to the Webmaster.

3.3. The *Conservatory* has been renamed *Forum* to avoid misunderstandings. The Forum will be structured into Categories and sub-levels as needed to stimulate its use as a discussion platform. So far 13 members have registered in the Forum;

3.4. In the list of members, links to individual homepages are being added as far as these are openly available on the Web.

3.5. Web pages for special interest groups have been suggested for several years. Dr Heidrun Hartmann (Hamburg) expressed interest in having such a facility for those studying Aizoaceae. Dr Hartmann and the Assistant Secretary have been discussing suitable and feasible solutions and intend to realize this project in cooperation with Prof. Dr Sigrid Liederschumann (University of Bayreuth) as soon as possible. Initially, it is intended to generate an Aizoaceae webpage for the public part. Concurrently, an enquiry could assess which IOS members would be interested to participate in an Aizoaceae group and take part in creating an expandable module for the IOS portal. The initiators hope to set an example for further special interest groups.

3.6. With regard to the website, concern has been expressed by several members about the overemphasis of Cactaceae and the perceived negligence of other succulents. The Aizoaceae project should help to offset the attention on cacti.

4. *IOS Finances*. As noted in the previous report [see p. 106] the Organization's accounts for 2009, prepared after the resignation of the former Treasurer and provisionally approved by the Congress in March 2010 had been audited in October 2010 [see p. 107]. The Assistant Secretary expressed his concern that the administration of our financial resources is not 'transparent' and proposed to draft a policy for spending IOS financial resources and cash auditing to be presented to the 32nd Congress.

5. *IOS publications*

5.1. *IOS Bulletin*. The Secretary had produced vol. 15(3) in September 2010 distributed it to members by e-mail as a pdf and to members lacking e-mail as digitally printed hard copy. He would undertake to produce this year's issue in a similar way.

5.2. *Repertorium Plantarum Succulentarum*. It was agreed that future issues should be available electronically free of charge ("open access") via the IOS website, also (with due acknowledgment to IOS) on the SSZ website if desired; and that printed copies in the existing format (with a slight reduction in size to A5) should continue to be available at cost on a "print to order" basis to subscribers requiring them.

5.3. *Succulent Plant Research*. The Secretary recalled that the work of IOS members had been published under his editorship in this variously sponsored occasional series since the title had been proposed at the IOS Inter-Congress in Malta in 1993*. As further volumes were now in preparation to contain monographs and papers resulting from current collaborative projects involving IOS members (see IOS Bull. 15(3): 82. 2010) and future projects it might support, the Board was invited to consider adopting the title as a potential 'shop-window' for the

*References in IOS Bulletin: IOS Bull. 5: 190, 202–203 (1993); *ibid.* 270 (1994); *ibid.* 6: 2 (1995); *ibid.* 10: 35 (2002). Three "experimental" volumes were produced in 1994, two with sponsorship by IOS members and one funded by RBG Kew. Following the retirement of the chief proponents, Ted Anderson and David Hunt, however, the IOS Board seems to have lost interest in the idea, though a further volume was published by Hunt in 1995, and two more in 2000 and 2002. This last (*Studies in the Opuntioideae*) was in the nature of a symposium volume and was launched at the IOS Congress in Phoenix. All the principal contributors to the volumes published so far have been IOS members.

Organization, on the understanding that volume contents would be peer-reviewed and IOS would not be expected to provide significant finance to subsidize publication. The Board agreed in principle to the Secretary's suggestion of featuring the IOS logo alongside those of other sponsors on the cover of future volumes.

6. *IOS-associated projects and funding applications*

6.1. *Estudio Poblacional del Carapari (Neoraimondia herzogiana) en los Valle Interandinos de Bolivia*. Proposer: Luis Huaylla Limachi. The proposer had modified the scope and budget for this project in the light of comments from our reviewers with knowledge of conditions in Bolivia but it was felt the aims of the project could be achieved for much less cost. An initial grant of US\$ 500 was approved by the Board, with the possibility that further funding could be agreed on presentation of a progress report and expenditure account from Sr Limachi.

6.2. *Molecular systematics and phylogeny of the Andean Opuntioideae*. The Secretary reported that as results from the DNA sequencing survey carried out by Dr Christiane Ritz (now at Senckenberg Museum, Görlitz) and her assistants had proved very significant it was proposed to extend the survey. With the collaboration of professional colleagues in Argentina, further research material has been collected earlier this year and deposited with IOS member Dr Laura Las Peñas at the University of Córdoba. With the agreement of the Secretary of the University, Dr Las Peñas will arrange for the DNA to be extracted from a set of the material and sent to Dr Ritz for sequencing. Dr Las Peñas herself will undertake cytogenetic studies on an identical set of the material to determine ploidy levels and obtain other chromosome data. Modest financial support will be sought from IOS for this work and a budget has been received from Dr Las Peñas that would be submitted to the Board shortly.

6.3. *Molecular systematics and phylogeny of Opuntia series Armatae and Aurantiacae*. Research by the late Dr Beat Leuenberger on these groups has been cut short by his untimely death but it has also been an interest of the Secretary for many years and is continuing in collaboration with IOS member Fabián Font (Museo de Farmacobotánica, University of Buenos Aires) and researchers at UBA's Faculty of Sciences engaged on a similar programme to that on the Andean taxa mentioned above. An application for IOS membership from a second member of the Buenos Aires team, Dr Alexandra Gottlieb, and a request for funding support from IOS for this project was expected soon.

7. *32nd IOS Congress, Havana, July 2012*. Preliminary arrangements are in the hands of Luis Roberto Gonzalez Torres at the Jardín Botánico, Havana, and have been modified in response to comments from members of the Board. The programme is publicized on the IOS website. Towards the end of May (2011) the Secretary would contact all the members who have expressed interest in attending to ask them formally to Register.

8. *IOS Executive Board 2012–2014*. The composition of the Board for the next term was discussed.

8.1. It was observed that the down-sizing of the Board to five members from 2006, mainly to cut the budget for travelling expenses, had produced some difficulty in achieving a quorum for the Annual Board Meeting (Art. 10). Since much of the Board's business can now be dealt with by e-mail, the President suggested that Art. 10 might perhaps be modified to read that the Board should "preferably" meet in person at least once a year, in case a quorum was not possible.

8.2. The President informed the Board that as he had already served more than the customary two consecutive terms of office (Statutes, Art. 9), he proposed to retire in 2012. As usual,

nominations for all posts on the Executive Board would be invited in accordance with Art. 11. [see next page]

8.3. No change was currently envisaged to the token amounts Board Members are entitled to claim as expenses for attending the Annual Board Meeting.

David Hunt
IOS Secretary
8 May 2011

32nd Congress of the International Organization for Succulent Plant Study 3–6 July 2012 Havana, Cuba

Succulent plants in the XXI Century: systematics, ecology and conservation

Organized for IOS and BGCI by the National Botanic Garden, Cuba (JBN)

For full details please refer to the IOS website www.iosweb.org

The following summary is provided for members who do not have internet access

Congress venue: Hotel Ambos Mundos****, enjoying one of the most privileged locations in the Old Havana. The Del Monte meeting room can accommodate conferences for as many as 100 people. It was the hotel where Hemingway stayed and wrote one of his novels. (<http://www.hotelambosmundos-cuba.com/>)

Programme

2 July (Monday) IOS Board Meeting
3 July Welcome; lecture session & welcome dinner
4 July Lecture session
5 July Mid-conference field trip to National Bot. Garden
6 July Lecture session, poster session & farewell ceremony
7–11 July (Saturday–Wednesday) Post-congress field trips

Registration fees

Developed countries fee 300 CUC* = 260 EUR

Developing countries fee 250 CUC* = 218 EUR

Special fee for students will be available (on presentation of valid student card)

* Cuban convertible peso exchange rate: 1.15 CUC = 1 EUR (21/01/2011)

Fee includes Congress box (bag, programme and abstract book, T-shirt, notebook, pen); welcome dinner & cultural entertaining; coffee breaks and tea breaks; visit to the National Botanic Garden (includes dinner & music entertaining); mid-congress field trip to serpentine thicket and tropical dry forest (includes take off snack and lunch at Varadero beach); farewell dinner & cultural entertaining; conference facilities.

Accompanying person fee

150 CUC* = 130 EUR. Fee includes all the above except notebook and pen, coffee and tea during Congress sessions.

Hotels and rates

The Conference venue (Hotel Ambos Mundos) is quite near to all those listed here: 5-star: (Santa Isabel, double 332 CUC (290 EUR), single room 508 CUC (442 EUR); 4-star: (Florida, Prado Ameno, Condes de Villanueva, Ambos Mundos) double 232 CUC (202 EUR), single 352 CUC (306 EUR); 3-star (Los Frailes, Comendador); double 214 CUC (186 EUR), single 304 CUC (265 EUR); 2-star (Park View), double 178 CUC (155 EUR), single 250 CUC (218 EUR).

Lunch at Congress venue

50 CUC = 44 EUR (This price includes 3 full meals)

Post- Congress field trips

5 days field trip. This all-around trip will cover most of Cuban plant communities from the coast to the mountains, from the very wet communities to the driest ones Some succulents you will see: *Agave brittoniana*, *Consolea millspaughii*, *Cylindropuntia hystrix*, *Escobaria cubensis*, *Leptocereus maxonii*, *L. santamarinae*, *Mammillaria prolifera*, *Melocactus acunae*, *M. harlowii*, *M. holguinensis*, *Pilosocereus millspaughii* and *Stenocereus fimbriatus*.
Fee 770 CUC = 670 EUR (minimum 10 persons)

Fee includes: Bus transfer Havana-Cayo, Santa María-Holguín-Baracoa-Santiago de Cuba; airfare Santiago de Cuba-Havana & transfer to the hotels; city tours; accommodation (Single rooms) & meals; touristic & scientific guides; permits for accessing natural areas & for photo & video recording (not collecting); visit to National Park Alejandro de Humboldt, the most important centre of biodiversity of the Caribbean Hotspot; visit to Holguín & Santiago de Cuba Botanical Gardens.

2 days field trip. Visits to two of the richest plant communities of Cuba: the serpentine thicket and the dry tropical forest. Both of them are plenty of xeric endemic plants including: *Agave legrelliana*, *A. offoyana*, *Dendrocereus nudiflorus*, *Harrisia eriophora*, *Melocactus matanzanus*, *Opuntia dillenii*, *Pilosocereus robinii* and *Selenicereus grandiflorus*.

Fee: 250 CUC = 218 EUR (minimum 10 persons)

Fee includes: Bus transfer Havana-Pinar del Río (Viñales)-Havana; City tour; accommodation (single rooms) & meals; touristic & scientific guides; permits for accessing natural areas & for photo & video recording (not collecting); visit to Reserve Biosfere Sierra del Rosario, Viñales National Park & Cajalbana serpentine ticket Reserve (the most important centre of biodiversity of West Cuba); visit to Soroa Ochidearium Botanical Garden

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IOS Statutes and Byelaws

Version ratified by the Congress August 2008 and amended by the Congress 2010

STATUTES

Art. 1: Name

The name of the Organization is ‘International Organization for Succulent Plant Study’ (‘Internationale Organisation für Sukkulenten-Forschung’; ‘Organisation Internationale de Recherches sur les Plantes Succulentes’; ‘Organización Internacional para el Estudio de Plantas Suculentas’)

Art. 2: Objects

The objects of IOS shall be to promote the study and conservation of succulent and allied plants and to encourage international collaboration amongst those interested in them.

The objects of IOS will be achieved by the following means:

- a. congresses;
- b. publication and distribution of information, reports and other scientific publications;
- c. promotion of all possible collaboration between members;
- d. facilitation and support of the work of appropriate organizations and individuals;
- e. organization and support of Reserve Collections of living plants, herbaria, reference libraries and the exchange and introduction of plant material.

Art. 3: Status

IOS is a member of the International Union for Biological Sciences (IUBS).

Art. 4: Membership

IOS consists of:

1. Personal Members
 - a. Ordinary Members
 - b. Student Members
 - c. Honorary Members
 - d. Retired (*Emeritus*) Members
 - e. Regional/National Representatives
2. Institutional Members

Art. 5: Admission

Applications for Personal Membership shall be submitted on an official form provided by the Secretary or downloaded from the IOS website. All applications shall be considered by the Executive Board, at whose discretion admission shall be granted

Applications for Student Membership shall be approved and countersigned by the student’s Supervisor.

Student Membership shall be for two years in the first instance, renewable on request for a further two years only. Student Members shall have the same privileges as other Personal Members but shall not be required to pay the biennial subscription and shall not have voting rights.

Honorary Membership may be conferred on individuals who have rendered the IOS services or to IOS members who have excelled in succulent plant activities. Nominations shall be submitted to the Secretary at least three months before a Congress. Nominations approved by the Executive Board shall be ratified by the Congress.

Application for Institutional Membership may be made by any recognized Institution or Organization wishing to support the objectives of IOS, receive its publications and/or participate in its activities. Applicants are requested provide the name(s) and postal and e-mail address(es) of persons to whom IOS should send its publications and other communications including subscription renewal invoices.

If the partner of an IOS Ordinary or Emeritus Member wishes to participate in IOS activities they may do so, and be included in the membership list, without applying for personal membership or paying the subscription, but will not be entitled to vote at the General Meeting.

Art. 6: Withdrawal of membership

Membership of IOS may be terminated by resignation, by non-payment of the subscription, or by decision of the Executive Board when the member no longer fulfils the conditions stipulated in these Statutes or acts against the interest of IOS, subject to appeal at the next Congress.

Art. 7: Management

The management of IOS shall be vested in an Executive Board consisting of the President, Vice-President, Secretary, Assistant Secretary and Treasurer

The Executive Board shall be responsible for putting into effect the decisions of the Congress, for preparing the Organization's budget and carrying out its provisions, and shall assist the President in every activity that furthers the aims of the Organization. The Executive Board shall have the power to make, amend or delete bye-laws to assist the operation of the Statutes. Bye-laws may also be deleted by a simple majority vote at the Congress. It is desirable that the Executive Board should be composed of members of different nationalities.

Art. 8: Vacancies

Vacancies in the Executive Board occurring between Congresses shall be filled by nomination from the Executive Board.

Art. 9: Tenure

All members of the Executive Board shall hold office between two consecutive Congresses. The officers shall be eligible for re-election, but the President and Vice-President shall not normally serve more than two consecutive terms of office.

Art. 10: Board Meetings

The Executive Board shall meet in person at least once per year. The quorum for a meeting shall be three members.

Art. 11: Election of Executive Board

Written nominations, proposed and seconded by members of IOS and bearing the consent of the member nominated, shall be invited prior to each Congress for the posts of President, Vice-President, Secretary, Assistant Secretary and Treasurer. Nominations in writing must be in the hands of the Secretary not less than three months before a Congress. If more than one nomina-

tion is received for any post, there shall be a postal ballot of all members, to be decided by a simple majority.

Art. 12: Finance

The activities of IOS shall be financed by the subscriptions of members and by donations, bequests and such other income as may be available. The amount of the subscription for the succeeding two years shall be fixed by the Congress.

Art. 13. Exemptions

Honorary and Student members shall not be required to pay the subscription. Members who have been fully paid-up members for at least ten years and have attained 70 years of age, and who wish actively to continue supporting the IOS, may apply for exemption from payment of the subscription when renewing their membership.

Art. 14: Congresses

Congresses shall be held (so far as is possible) biennially.

Art. 15: Congress Venue and Organization

The venue for the Congress shall be chosen by the Executive Board taking account of the wishes of members. A Local Organizer shall be appointed to act in liaison with the Executive Board. All financial and programme arrangements shall be subject to the agreement of the Executive Board.

Art. 16: General Meeting

A General Meeting of members shall be held at each Congress for the transaction of the following business: Presentation, discussion and ratification of the Organization's reports and accounts for the preceding inter-Congress period and plans for the future, with the appropriate budget; election of Honorary Members; election of the Executive Board for the ensuing inter-Congress period; election of auditors; fixing of the subscription for the following two years; discussion of other matters raised by or submitted to the Executive Board prior to the Congress.

All Members except Student Members shall have one vote. The chairman of the Meeting shall have the casting vote.

Art. 17: Amendments to Statutes

Amendments to these statutes may be proposed by the Executive Board or in writing by at least four members. Proposals must be in the hands of the Secretary at least three months prior to a Congress. To be adopted, any proposal involving a change to the Statutes, or the dissolution of the Organization, must be supported by two-thirds of the members present at the General Meeting.

Art. 18: Disposal of Assets and Properties

In the event of the dissolution of the Organization, the Executive Board shall be empowered to dispose of the Organization's assets and properties to one or more kindred organizations.

BYELAWS

1. *Language.* The official language of IOS is English, but contributions in other major scientific languages are acceptable, and it is desirable that a translation should be given of important notices and other communications.

2. *Subscription.* The biennial subscription is due on 1 January following a Congress, payable in Swiss currency or the full equivalent amount in other currencies. All bank charges, commission etc are payable by the subscriber.

3. *Publications.* The Organization's official publications are IOS Bulletin and Repertorium Plantarum Succulentarum, which shall be issued annually and normally free of charge to members. Members wishing to receive printed copies of publications distributed to the majority of members electronically may be asked to contribute to the cost of printing and mailing in addition to the basic biennial subscription.

4. *Research material.* Members are recommended to donate type material of succulent plant taxa described by them, along with complete documentation and relevant publications, to the Zurich Succulent Collection (Zürich Sukkulenten-Sammlung) and/or other major botanical institutions associated with IOS.'

5. *Reserve Collections.* IOS, in association with Botanic Gardens Conservation International (BGCI), will promote the establishment of a network of 'Reserve Collections' of living cacti and other succulent plants and measures to assess and enhance the potential of these collections as a resource for research and conservation.

6. *IOS Research Fund.* The IOS Research Fund shall be administered by the Executive Board assisted by external assessors as necessary. Application for grants may be made at any time to the Secretary, but at least four months before funds are required. Applications should include a Project Plan, timetable and budget, names of collaborators, institutional contacts, other actual or potential sources of funding, and names of referees. Successful applicants will be expected to present a written report and/or oral presentation at an IOS Congress and part of their grant may be allocated as a contribution to travel expenses incurred in presenting the report to an IOS Congress.

NOTICE TO IOS MEMBERS

Election of IOS Executive Board 2012–2014

In accordance with IOS Statutes Art. 11, written nominations, proposed and seconded by members of IOS and bearing the consent of the member nominated, are invited prior to the Congress for the posts of President, Vice-President, Secretary, Assistant Secretary and Treasurer. Nominations must be in the hands of the IOS Secretary not less than three months before the Congress, that is, not later than 2 April 2012. If more than one nomination is received for any post, there shall be a postal ballot of all members, to be decided by a simple majority.

Members' attention is also drawn to Art. 17 (Amendments to Statutes) and reminded that proposals to amend the Statutes must also be in the hands of the IOS Secretary not less than three months before the Congress, that is, not later than 2 April 2012.

David Hunt, IOS Secretary

Membership Matters

Have you paid your subscription for 2011-2012?

If your name is on the list below, all is well, your membership of IOS is valid until the end of 2012.

If your name is *not* on the list, and you are an Ordinary (i.e. subscribing) member, it seems we have no record of a subscription payment from you for 2011–12; please pay your subscription now and do not wait for a Final Reminder!

If your name is *not* on the list, and you are a retired (*Emeritus*) member, you are excused payment, but you are requested to send the Secretary a short message by e-mail, fax or letter to confirm you wish to remain a member.

IOS membership status codes: [E] = Emeritus [H] = Honorary [I] = Institutional
[L] = Life [O] = Ordinary [S] = Student

Albesiano[S]	Font[O]	Krahn.....[O]	Rausch[E]
Amerhauser[O]	Fitz Maurice[E]	Kümmel.....[O]	Rodda[S]
Barad[E]	Gertel[O]	Las Peñas[S]	Rowley.....[E]
Barmon[O]	Glätzle[O]	Lavranos[E]	Solichon[O]
Bolliger[L]	Gottlieb[O]	Liede-Schumann[O]	Supthut[H]
Burstedde[S]	Guerrero[S]	Lowry[O]	Swales[E]
Butterworth[O]	Guglielmone.....[O]	Machado[S]	Taylor[O]
Calderon[S]	Hart[E]	Mak[O]	Till[E]
Carter Holmes[E]	Hinton.....[O]	Marnier-Lapostolle ..[H]	Trujillo[E]
Cattabriga[O]	Hofacker[O]	Mays[E]	Uebelmann[E]
Charles[O]	Hofer[O]	Mecklenburg[O]	Vliet[E]
Clark[O]	Hoffmann[E]	Meregalli[O]	Wabuyele[O]
Cole[E]	Hoxey[O]	Moreno[S]	Walker[O]
Crook[E]	Hunt[H]	Mottram.....[O]	Wittner[O]
Diers[O]	Ihlenfeldt[O]	Nassar[O]	Wolf[E]
Donikyan.....[O]	Iliff[E]	Newton[L]	
Donkelaar H.[E]	Kabiesz[E]	Ostolaza[O]	BG Amsterdam[I]
Dorsch[O]	Kattermann[E]	Pallanca[E]	British C&SS[I]
Downs[E]	Kimberley[E]	Pinkava[E]	Desert BG[I]
Eggli[O]	Kimnach[E]	Pritchard[E]	The Huntington[I]
Engel[O]	Korotkova[S]	Quispe[S]	Succulenta[I]

How to pay your subscription

Payments in Euros via Dr Ralf Bauer

Please send your payment (**30 Euros**) to Dr Bauer's IOS account as follows:

For bank transfers within Germany: Volksbank Offenburg 66490000 Konto Nr.: 9043020

For transfers from elsewhere in the Euro zone the international codes are:

BIC: GENODE61OG1 IBAN: DE20 6649 0000 0009 0430 20

Payments in US dollars (\$40) via Dr E.R. Dorsch (e-mail: cubuff8@aol.com)

Please make checks payable to: 'Ernst R. Dorsch' (*NOT* to IOS) and mail to him at:

13011 So. Jennywood, Cypress, TX 77429-2273, USA

NB: Checks must be drawn on a clearing bank in the USA

Payments in British Pounds (£25 GBP) via Dr D.R. Hunt

Please make cheques payable to: Dr D.R. Hunt (IOS account) and send to him at:

The Manse, Chapel Lane, Milborne Port, Sherborne, DT9 5DL, UK

NB Cheques or money orders must be drawn on a London clearing bank

Payments in Swiss Francs (CHF) to the IOS PostCheck account, Zürich

Payment may now be made to the following account only:

IOS PostCheck account no.: PC 80-8960-7 (IOS, 8002 Zürich)

When paying by bank transfer, don't forget to give your name and address for identification!

Payments (any currency) by PayPal or with Credit Card via PayPal: If you wish to pay electronically by this method, please contact the Secretary (secretary@iosweb.org) for information on the amount to be paid, which will include a supplement to cover PayPal's commission and negotiation charges.

Membership changes

Listed here are changes to the Membership List printed in the previous *Bulletin*, pp. 87–90.

New members 2011

Christof Nikolaus Schröder [O]
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Fabián Font [O]
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Natalia Moreno [S]
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Instituto de Biología UNAM
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Reinstated member

Harry Chi-King Mak [O]
20 Walsingham Avenue
Alkington, Middleton
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M24 1SR
harrymak@tiscali.co.uk

Change of address

Dr Nadja Korotkova
c/o Bot. Gart. & Museum Berlin Dahlem
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14195 Berlin
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New e-mail addresses

Dr Thomas Engel
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Dr David Hunt
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secretary@iosweb.org

Prof. Dr Gideon F. Smith
G.Smith@sanbi.org.za

Helmut Walter
helmut_walter1@hotmail.com

IOS Membership as of 14 August 2011 (including members whose subscription for 2011–12 is overdue) totalled 167, made up as follows: Ordinary [O] 116; Emeritus [E] 25; Student [S] 10; Institutional [I] 9; Honorary [H] 5; Life [L] 2.

Membership by countries (29) : Germany [DE] 34; Great Britain [GB] 27; Switzerland [CH] 17; United States of America SA [US] 17; Austria [AT] 11; Italy [IT] 10; Argentina [AR] 6; France [FR] 6; Netherlands [NL] 5; Mexico [MX] 5; South Africa [ZA] 3; Brazil [BR] 2; Spain [ES] 2; Chile [CL] 2; Kenya [KE] 2; New Zealand [NZ] 2; Peru [PE] 2; Poland [PL] 2; Venezuela [VE] 2; Belgium [BE] 1; Bolivia [BO] 1; Canada [CA] 1; Monaco [MC] 1; Malta [MT] 1; Norway [NO] 1; Portugal [PT] 1; Russia [RU] 1; Sweden [SE] 1; Zimbabwe [1].

Forthcoming publications

Repertorium Plantarum Succulentarum 61 (for 2010) is expected to be published in October. It will be available “open access” on the IOS website and also from the IOS Secretary (secretary@iosweb.org) in digitally-printed A5 format on a “print-to-order” basis, price Euros 10/GBP 9/US\$15 + postage.

Cactaceae Systematics Initiatives no. 25. With the *New Cactus Lexicon* now virtually out-of-print, work has begun on a 2nd edition (‘NCL2’). *Cactaceae Systematics Initiatives* is the Bulletin of the International Cactaceae Systematics Group (formerly the IOS Cactaceae Working Party) and is used for rapid circulation and discussion of new data and other updates prior to their inclusion in NCL2. After an interval of three years, while the dust has been settling, CSI will resume publication shortly. To join or re-join the mailing list, please contact David Hunt (dh@newcactuslexicon.org).

Mapping the Cacti of Mexico. This, the seventh volume in the *Succulent Plant Research* series, will be available in September. By IOS Vice-President Héctor Hernández and his colleague Carlos Gómez-Hinostrosa at the Instituto de Biología, UNAM, it is the first in a projected series detailing the geographical distribution of all the cacti of Mexico. It contains a general introduction to the project and the methodology employed, followed by comments and ArcGis dot maps in colour (53 in all) covering 34 genera and 114 species, plus a colour photo of an example of each genus. [Softback, 128 pp+cover, 170 × 245 mm. ISBN 978-0-9538134-8-3] The normal price will be Euros 20/GBP 18/US\$30 + carriage) but it will be available to IOS members at a discount. If ordered at the same time, members will also be able to obtain copies of one or both the previous SPR volumes (no. 5 Barthlott & Hunt: *Seed-diversity in the Cactaceae (subfam. Cactoideae)* and no. 6 Hunt & Taylor eds: *Studies in the Opuntioideae*) for little more than the cost of carriage. Enquiries to David Hunt (e-mail above).

Work is also progressing on Professor Barthlott’s projected volume on the *Biogeography and Biodiversity of Cacti*, which is expected to be published in the *Succulent Plant Research* series, and on the *Ritter’s Cacti in Colour* volume which will re-publish in colour the available Kodachromes etc for Ritter’s *Kakteen in Südamerika*. To limit the cost, Ritter had been forced to publish these in black-and-white. The format of the new volume will be similar to that of the NCL ‘Atlas’ volume, and it will probably be offered, along with the second edition of the NCL text volume, at a pre-publication subscription discount. Preparation of the projected 3rd edition of the *CITES Cactaceae Checklist* (originally requested but then postponed by CITES prior to the 2010 Conference of the Parties to the Convention) may continue later this year, if funding becomes available.