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School of Plant Sciences

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Christmas and New Year Greetings

We send the Seasons' Greetings to all our readers and wish everybody the best for the forthcoming year. We are sorry that it is so long since the last issue was produced. Sadly, we have also lost many friends since the last News and obituaries are given.

Recent changes in the School have been Dr Mike Dennett taking over as Head of School from Professor John Barnett and Professor Nick Batty as Head of Research. The Finance Office have provided us with some very significant extra support. The new Biocentre building works continue with major building work throughout Plant Sciences. The Electron Microscope unit has moved to a central University facility in Physics with improved facilities and better microscopes. The Phytochemistry Unit has now moved downstairs and continues in the old EM Unit and is run by Jenny Greenham. This results in major refurbishment of areas for this new use and the upgrading of our teaching labs and Conference Room. Speculation continues about the use of the old Tate and Lyle building (The Lyle Tower). The University has now been awarded almost £7,000,000 to refurbish this and plans are being drawn up to ascertain exactly who will move into the building. Different plans involve the Herbarium (fantastic! – keep your fingers crossed), bioinformatics, the new University Super computer, Informatics.... Watch this space, as they say.

Herbarium activities

Specimens

These have centred on processing specimens: loans for research projects, sending out duplicate material and incoming material. This last has been substantial with the arrival of the herbarium of the old Weed Research Organisation herbarium (**WRO**, see below), mosses from Michael Fletcher (a celebrated local amateur naturalist who has moved to Wiltshire) and Fred Ambrose (former natural history bookseller and amateur bryologist of High Wycombe) and grasses from Ron Payne. An important historical collection (c. 400) has been received from the Institut Botànic, Barcelona of Spanish consisting of many of Font I Quer's specimens. Further duplicates of Dr Royce Longton's Malawi collections have recently been sorted and despatched. All the accessions received are all extremely well identified and will be a great help in our efforts to improve and develop our Plant Identification Service. The University of Reading Herbarium now contains in excess of 260,000 specimens.

Sue Rumsey has completed data entry into our Botanical Research and Herbarium Management System (BRAHMS) of the 2000-odd specimens collected by Ronnie Rutherford in Bulgaria in June 1999 and mounting of the specimens nears completion. Much of this was done by Dr Elspeth Beckett, a volunteer who came regularly from Oxford to help us. We are extremely grateful to Elspeth for all her assistance over the years and sorry she is no longer able to make the journey. Sue Rumsey, assisted by Sue Mott, has recently been entering specimen data into from the **WRO** collection into Brahms.

The Herbarium Website: www.herbarium.rdg.ac.uk

Our website contains a number of useful links that members of the School may appreciate for details on trains, airports, currency conversions, etc. We are pleased to note that we have received over 226,900 hits so far this year. A number of upgrades have recently been made to the Herbarium website. Recent additions to our BRAHMS database will also soon be available, making almost 33,000 records searchable (4000+ were also added last May). The chief upgrade has been to add details and images of the 970 paintings and drawings by Jill Smythies, see below. We expect to add more information soon on some of the collectors whose specimens are represented in our holdings. Mr Hassan Rankou, a visitor from Morocco, has compiled an Access database which is easily updated and is being made available on-line by Mr Tarik El Atechi. Hassan has scanned images of some of the specimens, photographs of them in the wild and of their habitats in Morocco and it is hoped that these can also be added to the website in the near future. Tarik visited Dr Denis Filer in Oxford for training and discussions on future BRAHMS developments earlier in the year. The database is expected to become linked to the BioCASE project run by Professor Walter Berendsohn in Berlin. This will allow specimen data to be gathered from a network of collections across Europe. We are always pleased to add new links and to make corrections and improvements. Please contact Dr Stephen Jury: s.l.jury@rdg.ac.uk

www.collectionsgateway.org.uk

This is a new website set up to include details of local Berkshire collections. We have recently added some details of our Herbarium collections: 1. Vascular plants, 2. Bryophytes and Lichens, 3. Herbarium Library, 4. Jill Smythies paintings, 5. Percival wheat collection, 6. Percival and Helbæk archeological material, 7. Seeds and 8. Associated living collections. There are notes on the facilities available to visitors and students (with Sue Rumsey demonstrating the School Xerox machine!) and details of four research programmes. (This last was difficult to decide: almost 30 projects would have been possible. We finally decided on the Moroccan Darwin work, Euro+Med PlantBase, the Cyclamen taxonomy project and the taxonomy and Conservation of Abies in the Mediterranean, but plan to change these.) Further information on the each of the eight collections featured will be given as downloadable pdf files as and when they become available. So far more details of the Jill Smythies collection, the catalogue prepared by Wendy Carruthers for the Percival and Helbæk archaeological material and the Harris Garden guide and map are available. Again, the Curator was assisted in this work by Hassan and Tarik, to whom he is greatly indebted. Corrections, additions and suggestions for improvements are welcomed, please email: s.l.jury@rdg.ac.uk

The Jill Smythies Paintings

Some years ago, Bill Smythies, co-author of *Flowers of SW Europe*, presented the Herbarium with c. 970 paintings (and a few pencil drawings) of plants (mainly from Spain) by his late wife. These all contain collection locations and dates recorded on separate index cards and are scientifically valuable. They also show the development and maturation of a botanical artist from 1964 until 1973, when Jill suffered a disability and the use of her hand.

A student bursary from the University Joint Standing Committee on the Arts allowed Dr Stephen Jury to employ Kate Warner, a part II Botany Honours student, to start entering the data into the Herbarium Database, BRAHMS (Botanical Research And Herbarium Management System) and to scan some of the paintings. This large task was completed by Mr Greg King, a technician and Mr Abdellatif Ennasser, a Moroccan visitor from

Casablanca. Mr Tarik El Atechi then extracted the data to create an Access database and make this available to all via the Herbarium website, together with all the illustrations using the Centre for Plant Diversity and Systematics Server. It can be viewed at www.herbarium.reading.ac.uk/queries Further information on this collection and Jill is also available through this link.

Weeds

The weed herbarium of the Long Ashton Research Station (**WRO**) at Bristol, U.K. (though originally at Begbroke Hill, Oxford) was transferred to The University of Reading (**RNG**) earlier this year, following the recent closure of the Research Station. It is estimated to contain some 8000 specimens of weeds worldwide, but mainly tropical, with especially good collections of parasitic Scrophulariaceae, Cuscutaceae and Poaceae. These last number 1760 specimens and have already been entered in our BRAHMS database by Sue Mott and Sue Rumsey. The rest of the collection will be added before being incorporated. It will support the work of our weed scientists, especially in taxonomy and identification.

Hassan Rankou

Mr Hassan Rankou, an MSc graduate in crop production of the Institut Agronomique et Vétérinaire Hassan II, Rabat, Morocco, arrived in the School 14th February to work with Dr Stephen Jury on his Darwin Initiative and has continued his training in the Herbarium by assisting with several computer-based projects, including editing BRAHMS data. Hassan is interested in the use of databases in managing floristic and taxonomic data and displaying this over the internet. He was one of Tarik's contemporaries at University in Morocco and has the same facility for the rapid learning of English, promising to beat Dr Jury at Scrabble in the near future.

Euro+Med PlantBase

This EU-sponsored project is actively seeking funding to continue following the end of phase I last August. The Flora Europaea Trust Fund (now wound up) has paid its last monies to the University to employ Mr Tarik El Atechi for a further 12 months until September 2004. Dr Max Coleman has returned to Edinburgh. Mrs Judith Stephen (Née Heald) continues work on the database until Christmas. Euro+Med is creating an on-line plant information system for Europe and the Mediterranean and will deliver a new synonymic checklist of the plants of Europe, to be available both in printed form and over the internet (see www.euromed.org.uk). Co-ordination meetings of the partners were held 1—2 March in Paris at the Muséum d'Histoire Naturelle and 2—3 May at the Institute of Botany and Botanic Garden of the University of Vienna with the Reading team (Dr Max Coleman, Mr Tarik El Atechi, Ms Judith Heald, Dr Stephen Jury and Professor Vernon Heywood) attending en masse. Tarik is still talking about his encounter with French restaurant loos and that Messrs Heywood and Jury insisted on a visit to the Paris Mosque for lunch!

At present, the data is being converted from Richard Pankhurst's Pandora to the Botanic Garden Berlin Model with an internet editing system designed for Euro+Med and created by the Computer team there under Professor Walter Berendsohn. Further editing will then take place to complete the work. Tarik visited Berlin for a demonstration and training in the use of this new system, 12—15 November.

In January, Dr Stephen Jury attended a meeting of the Dutch project SynBioSys at the European Topic Centre for Biodiversity and Nature Conservation, Paris. This project, led by Dr Joop Schaminee of Wageningen, has a database of European vegetation and landscape and will develop links with Euro+Med.

PGR-Forum

Dr Stephen Jury and Professor Vernon Heywood have been appointed Advisors to this new EU Framework V Thematic Network concerning the conservation of the wild relatives of crop plants co-ordinated by Dr Nigel Maxted at the University of Birmingham. Earlier this year Stephen attended workshops held near Thessaloniki and in Prague, and Dr Nigel Maxted and his team visited Reading. Euro+Med will supply data on the

taxonomy of the wild relatives and liaise with Dr Helmut Knupffer at the Institut für Pflanzengenetik und Kulturpflanzenforschung (IPK), Gaterslaben, Germany on taxonomic matters concerning crop plants.

Checklist of the Plants of Northern Morocco

The long-awaited synonymic checklist (with identification keys in French and English) has recently been published in Spain by C.S.I.C. This two-volume work covers the plants found north of the Rabat – Oujda road (including the bandit country of the hashish growing Rif Mountains), plus the Tazzeka National Park. It is the final result of Dr Stephen Jury's former EU-project work on the Floristic Biodiversity of Northern Morocco. The work edited by Messrs Valdés, Rejdali, Achhal, Jury & Montserrat has some 75 contributors, including Mr Ronnie Rutherford and Mr Sid Linnegar, as well as another ten Reading graduates. The forward is by Professor Vernon Heywood. Valdés, B., Rejdali, M., Achhal El Kadmiri, A., Jury, S. L. & Montserrat, J. .M. (Eds), *Catalogue des plantes vasculaires du nord du Maroc, incluant des clés d'identification* (Checklist of vascular plants of N Morocco with identification keys), 2 vols: xii, 1—492, vi; xii, 493—1008pp. Paperback. Madrid, C.S.I.C.

Retirements

Christine Williams

Christine retired on 30th September having been one of Plant Sciences longest-serving staff members, having joined the Department of Botany in 1968. The occasion was marked by a reception and presentation in the Blue Room. The following is taken from Professor John Barnett's address.

Christine came from Newport (where her father still lives) and went to read Botany at Royal Holloway College, graduating in 1960 before going to the British Paper and Board Industry Research Association to work as a mycologist, 1960-62. She then joined the John Innes Institute where she met Jeffrey Harborne, an event which was to set her future career. Jeffrey was instrumental in her obtaining a post with Tony Swain in Cambridge in 1964. From there, Christine moved to Liverpool as Assistant to the Head of the Department of Botany and worked with Martin Hurst on humic acid. Martin left to go to the U.S., leaving Christine to start working with Jeffrey.

When Vernon Heywood recruited Jeffrey in 1968, his own assistant did not want to move south, so Christine came to Reading instead. She worked on the Umbelliferae, then began a study of flavonoids in monocotyledons which resulted in her PhD thesis in 1974 entitled "Flavonoid Patterns in Some Monocotyledonous Families" in which she covered the Arecaceae, Poaceae, Juncaceae and Liliaceae (sensu lato), an enormous amount of work.

Her long professional association with Professor Jeffrey Harborne and their prodigious output of high quality scientific papers was a very important feature of her career. This should not be allowed to obscure the fact that she has been an excellent researcher in her own right. She made a significant contribution to the use of phytochemistry in taxonomy and in her career authored or co-authored more than 100 papers in top refereed journals.

She collaborated with many workers, including internationally, has been an Assistant Editor for Phytochemistry, while she has entertained the many visitors to her laboratory. She helped to supervise many PhD and MSc students: her contributions witnessed by the acknowledgements in the numerous theses.

Christine intends to spend more time gardening in her retirement and her colleagues presented her with a garden hose and a contribution towards the cost of a garden shed.

We wish her a long and very happy retirement.

Professor Chris Payne

Staff and postgraduates gathered together for a tea party in the School on 25 September to wish Professor Chris Payne, the Professor of Horticulture well for his forthcoming early retirement. Chris is looking forward to spending his garden centre/book tokens and to possibly writing a novel with his new pen!

Sami Rabei

Plant Sciences welcomed Professor Mohamed El Demerdash, Dean of Student Affairs at the University of Mansoura, New Damietta, Egypt, on a supervisory visit to his a PhD student, Mr Sami Rabei, who has been working in Reading under Dr Stephen Jury's supervision, but who now has returned to Egypt. Sami has been based in Lab. 103 where he was working on computer assisted identification of Egyptian Umbelliferae. We congratulate Sami and his wife on the recent birth of their second son.

Congratulations to the new PhDs

This time we are pleased to congratulate a long list of recent PhD graduates since our last News, including:

Prashant Mishra, Liz Kungu, Roger Kanton, Hossam Saleh, Josephene Tooley, Mathew Grant, Melpomeni Skoula (Mrs Chris Johnson), Riffat Malik, Hanan Tahir, Mark Spencer, Dana Jawdat, Sarah Bearchell, Nadia Haider, Wilbert Phillips, Elspeth Haston, Ian Keary, Ali Al Khatib, Mohammed Munir and Habibah Al-Menai.

This December sees The School of Plant Sciences with largest number of PhD graduates of any school!

Dr Liz Kungu is now working at the Royal Botanic Gardens, Edinburgh and will soon be joined by Dr Elspeth Haston who will be a Sibbald Fellow working on the floral ontogeny of the Gesneriaceae.

WEDDINGS

Congratulations to Judith Heald on her marriage on November 1st to Tim Stephen in Sevenoaks. The reception was held in Tonbridge Wells. Judith has returned from her honeymoon and is again working for Euro+Med until Christmas on Professor Frank Bisby's grant. Judith works mainly from her home in Biggleswade.

Congratulations to Louise Dyga who married Adrian Cross in Meare, Somerset on the 8th November before a honeymoon in Barbados.

GBIF

The Electronic Catalogue subcommittee of the Global Biodiversity Information Facility recently met in Reading in Black Horse House. They were treated to six presentations on our bioinformatics projects in Lab 106 and downstairs in the Lab A Bioinformatics Room: EuroCat, Euro+Med, Biodiversity World, Peter Brewer's PhD project, ILDIS and Species 2000. GBIF seemed impressed by our activities and hosted a dinner at the Highwayman for some of the Centre for Plant Diversity and Systematics. It was good to meet some friends on this committee and welcome them to Reading, including Dr Karen Wilson (Sydney).

Congratulations to Julie Hawkins

Julie visited South Africa last Easter for two weeks as part of an on-going collaboration with Mr Anton Pauw at the University of Capetown on orchid pollination biology. They discussed an application for a grant from the Leverhume Academic Network scheme with colleagues at NCBI Kirstenbosch. This has subsequently been successful and Julie will have a post-doctoral research fellow coming shortly.

Obituaries

Catharine Olver (1935—2003)

Catherine died at home of a brain tumour on the 4th October.

She joined the University Library staff in 1960, becoming a sub-librarian in charge of Life Sciences until her retirement when she registered for our taxonomy MSc course. This was to support her great interest in trees. She founded the Reading Tree Club and organised the speakers, visits and the extensive tours where she recce'd, organised accommodation, food, transport and finances, enabling members to see some great trees and estates in the U.K., Ireland, Belgium and Holland. She supported the Friends of our Harris Garden and so a specimen of *Tilia oliveri* and a *Betula potaninii* were planted there by the Tree Club and Friends on Sunday 7th December before a recital in the Music Department and afternoon tea. Catherine wished that the *Betula potaninii* be removed from her front garden and planted in the Harris Garden as it is so very rare. It was given to her by the Head Gardener at Castle Howard who had collected it in China. It is planted in one of the Heather beds.

Hani Daraghma (Hani Abu Sbaih)

Many of you will remember Hani, a graduate from our MSc in Pure and Applied Plant & Fungal Taxonomy who then obtained a PhD for his studies on the taxonomy of Orobanche species. Sadly, he was fatally injured in a car accident in Syria and died on November 29th after three weeks in a Jordanian hospital surrounded by his family. His funeral took place in Palestine in his home town of Tubas where his dear parents and brother Fayad reside.

All who knew Hani in recent years will remember the great passion he had for his work for the UNDP and great devotion to the Arab region and his endless support to his colleagues in this field. Noha Hatata, his p.a. writes that: "Everyone who was fortunate to know Hani knew what a special person he was and that his loss is a great loss to this world". How true. We send our condolences to his widow, Amani and children Mohamed, Lamia and Younes.

Lynda Bonner

It is with great sadness that we have to record the death of Dr Lynda Bonner. Lynda came to Plant Sciences in 1978 when she joined the Department of Agricultural Botany as an undergraduate. She graduated in 1982 and obtained her PhD in 1988, working under the supervision of Professor Hugh Dickinson on pollination biology of tomato. Her thesis is still regarded as the last word on the topic and meticulous approach to her work enabled her to produce numerous beautiful electron micrographs. Her interest in electron microscopy was such that rather than pursue a research career, she applied for and was appointed to the post of electron microscope technician in the Plant Science Laboratories.

Lynda had a smile for everyone and is fondly remembered by the many students she taught to prepare specimens and use the electron microscopes. Whenever microscopy was involved in a report, thesis or publication, the high quality of the results was always a direct result of Lynda's input. Her contribution is acknowledged in a high proportion of the theses produced in the School during her time here.

She had great consideration for the beliefs and feelings of others, which helped to make everyone her friend. I

cannot count the times I have heard her referred to as a lovely person. It was this aspect of her character that explains why she constantly played down the seriousness of her battle with ill health. She just didn't want her friends to be concerned and upset. For this reason, many people were taken by surprise by the news of her death.

She was outwardly always cheerful and her greatest joy was in the birth of her son Luke and in the time she was able to spend with him. The sympathy of everyone in the School goes out to him, and to the other members of her family. She will be sadly missed. John Barnett

André Maurício Vieira de Carvalho (1951—2002)

André died in his sleep of tuberculosis on 16 November 2002. He was one of ten children of a cocoa farmer in Portal, Ilhéus.

Andre gained his PhD under the guidance of Professor David Moore for his thesis on Systematic studies on the genus *Dalbergia* L. f. in Brazil in 1989. He returned to Brazil to continue as Curator of the Herbarium of the Centro de Pesquisas do Cacau (CEPEC) of the Comissão Executiva do Plano da Lavoura Cacaueira (CEPLAC). He was a prolific plant collector (over 7200 numbers) depositing his specimens in CEPEC and duplicates in RB, NY, K and ALCB. His legacy is a wonderful large herbarium in NE Brazil, now named the Herbario André Maurício de Carvalho in his honour.

See the full obituary by Wayt Thomas & André Amorin in *Taxon*, 52: 147—148 (2003) for further information.

Carol Hora (1915—2003)

Carol Hora was passionate for plants. Many BSBI members will have been made well aware over the years of her campaigning spirit and desire to do something positive to help the natural world: letters to magazines and the press, questions at meetings, sponsorship work, etc.

She was an only child, born Carol Joan Annis on Christmas Day. She went up to read botany at Oxford where she was to meet her future husband, Dr Bayard Hora, then a researcher on the flora of Tanganyika, later to become a well-known lecturer at The University of Reading. Like most women of the time, she sacrificed her own botanical career in order to support that of Bayard. She did undertake some teaching (she had qualified with a Dip. Ed. at Hughes Hall, Cambridge), though a good many more happy years were spent working for the BBC at the Caversham Park Monitoring Station.

One recent botanical passion was Irish botany. She was a fan of the works of Charles Nelson which she thought of as real scholarship. She loved both The Burren and Sherkin Island. She went to Sherkin Island with Dr John Akeroyd and myself, later to make several journeys back to Matt Murphy's Marine Station. She admired the way he ran such a valued resource on enthusiasm, without any real support. Her last visit was in 1996 when she was shown round by Matt and Leander Wolstenholme. This trip gave her especial pleasure and details were frequently recounted.

Carol supported the botanical activities of The University of Reading's School of Plant Sciences whenever she could, especially the Friends of the Harris Garden. She regularly attended meetings and events.

The Hora house was always open and welcoming. It was always especially pleasing to have been part of a botanical community now sadly lost, that was such stimulating company, full of vitality and founded on scholarship. Carol lived life to the full. We remember these things with gratitude and pleasure, rather than her sad loss of sight and disabilities suffered so bravely at the end.

Jeffrey Barry Harborne, FRS (1928—2002)

Although interested in all areas of plant chemistry, his fame was for in secondary plant products, especially the flavonoids, on which he published five books. His research provided valuable data for plant systematics and had no small impact on the way taxonomists classified plants. Jeffrey was fascinated by how plants and animals interact and researched the reactions of plants to insect and disease attack—including how plants bite back by producing phytoalexins. Much of his research was at the interface of chemistry and ecology. An Introduction to Ecological Biochemistry was developed out of one of his popular lecture courses and ran to four editions. Phytochemical Methods (1973) ran to three editions and enabled hundreds of students around the world to undertake phytochemical research.

Jeffrey was born in Bristol in 1928 and educated at Wycliffe College and the University of Bristol, from where he graduated with a BSc in Chemistry, followed by a PhD in organic chemistry in 1953. Whilst still a student he published several papers on flavonoids. He was awarded a two-year Eli Lilly post-doctoral research fellowship at the University of California in Los Angeles to work on plant pigments with Professor T. Geissman before returning to the U.K. to take up a post at the John Innes Research Institute in 1955. He moved to Liverpool in 1965 where he joined Professor Vernon Heywood's team working on a multidisciplinary approach to the classification of carrots and their relatives. When Heywood transferred to Reading in 1968, Jeffrey Harborne and Christine Williams followed in the same year. He was appointed to a personal chair in 1976 and succeeded to the established chair of botany in 1988. He was appointed visiting professor at the Universities of Rio de Janeiro, Texas at Austin, California at Santa Barbara and Illinois at Urbana-Champaign

Jeffrey Harborne was a quiet, unassuming man, a likeable father-figure around the School of Plant Sciences, always prepared to help and never bearing grudges. He will be remembered in the Reading School of Plant Sciences as a very great teacher. This is remarkable, as at the John Innes Institute he was too nervous to even give lectures, something he forced himself to overcome. He was happiest in his white lab coat. At Reading Jeffrey Harborne developed a phenomenal research output, made possible by the very successful partnership with his distinguished colleague, Dr Christine Williams. He published over 40 scientific books and authored over 270 review articles and research papers. He founded the journal *Phytochemical Analysis* and was executive editor of the journal *Phytochemistry* since 1972 and its editor-in-chief 1986—1999. The Linnean Society of London awarded him their Gold Medal for Botany in 1985. He was awarded the first silver medal of The Phytochemical Society of Europe in 1986 (he had been their secretary 1967—1972). The tenth silver medal of the International Society of Chemical Ecology in 1993 and the Pergammon Phytochemistry Prize in 1993. His outstanding research was crowned by him being elected a Fellow of the Royal Society in March 1995.

Jeffrey was also a devout Anglican and great servant of his local community, being churchwarden at Christchurch for many years, sometime member of the Deanery Synod and Foundation Governor of the local church school, something most people knew nothing about.

Royal Horticultural Society

We offer our congratulations to Dr David Grey, formerly Head of Horticulture Research International, East Malling and Wye, on being appointed the Director of Horticulture, following the retirement of Joyce Stewart.

The RHS is funding a studentship to enable a student to study our MSc in Plant Diversity in autumn 2004. The award will provide financial support while inspiring students to contribute much needed research into the identification, classification and conservation of garden-worthy plants. The student will work with botanists at Wisley and Reading and will be provided with a choice of research project, which will form part of their course. Further details are available at www.rhs.org.uk/research and for course enquiries, write to Dr Alastair Culham at the address at the end of this News. Dr Stephen L. Jury, the Curator has been reappointed for a further term of five years to the RHS Science and Horticultural Advice Committee.

Meetings



**Implementing the Global Strategy for Plant Conservation A conference to facilitate and support the contribution of PlantNet members to the Global Strategy. 7-8 January 2004
School of Plant Sciences, University of Reading**

The conference will bring together those working in botanic gardens, historic gardens, universities and other conservation organisations to consider how they can use their expertise in plant diversity and cultivation to contribute to implementation of the Global Strategy for Plant Conservation.

Through talks, discussion and displays, the conference will seek to · provide information on the Global Strategy and plans · compile a list of practical suggestions so that all can work together to attain the targets · facilitate collaboration between botanic gardens and other conservation organisations.

Talks will include responses to the Global Strategy in the UK and Ireland, CITES, the Convention on Biological Diversity, species databases, early introductions and historic collections, the role of horticulture in the Global Strategy, cultivar conservation, public awareness of plant conservation, and plans for conservation work in botanic gardens.

Display of related information and examples of conservation projects in botanic gardens in Britain and Ireland.

Please visit: www.plantsci.rdg.ac.uk/GSPD.html

Details and booking forms from Judith Cheney, PlantNet Administrator, c/o University Computing Service, New Museums Site, Pembroke Street, Cambridge CB2 3QH Tel 01223 763901, email jc151@cam.ac.uk

Molecular Systematics Intensive Course 23th March - 2nd April 2004

The Centre for Plant Diversity and Systematics at The University of Reading is offering an intensive Short Course in Molecular Systematics for the sixth time. The course provides in-depth coverage of the latest techniques in molecular systematics and comparative sequence analysis. The treatment of theoretical issues in formal lectures is coupled with practical workshops and seminars in four main areas:

- 1 Practical issues of DNA extraction, PCR and sequencing are introduced. The handling of difficult material is discussed in a troubleshooting workshop.
- 2 Skills in computer based sequence assembly, alignment and analysis are taught. The acquisition of DNA sequence from databases is introduced.
- 3 Phylogeny reconstruction using distance, parsimony and likelihood approaches including Bayesian inference are introduced and skills developed through workshops.
- 4 The interpretation of phylogeny to address biological questions is emphasised.

The 2004 programme (view in [HTML](#) or [PDF](#) format) brings together a range of experts in the field of molecular systematics. Contributors include:

Dr Daniel Barker (School of Animal and Microbial Sciences, University of Reading), **Professor Richard Bateman** (Department of Botany, Natural History Museum, London), **Dr Neil Caithness** (Department of Botany, Natural History Museum, London), **Dr James Cotton** (Department of Zoology, Natural History Museum, London), **Dr Alastair Culham** (Course Organiser -School of Plant Sciences, University of Reading), **Professor Jim Dunwell** (Department of Agricultural Botany, University of Reading), **Ms Ruth Eastwood** (Department of Plant Sciences, University of Oxford), **Dr Peter Foster** (Department of Zoology, Natural History Museum, London), **Mr George Gibbings** (School of Plant Sciences, University of Reading), **Dr Julie Hawkins** (Course Organiser - School of Plant Sciences, University of Reading), **Dr Robert Hirt** (Department of Zoology, Natural History Museum, London, to be confirmed), **Dr Andrew Meade** (School of Animal and Microbial Sciences, University of Reading), **Professor Mark Pagel** (School of Animal and Microbial Sciences, University of Reading), **Dr Vincent Savolainen** (Royal Botanic Gardens, Kew), **Dr Mark Wilkinson** (Department of Zoology, Natural History Museum, London, to be confirmed).

The practical element of this course includes guided project work involving the downloading and editing of DNA sequence, sequence alignment, analysis and interpretation of data. This work is assessed through a presentation for those wishing to gain credits (10 ECTS, 20 credits for Reading students).

Please email molecular.systematics@reading.ac.uk to be added to our short course mailing list, or for more information. The fee for the course is £550 including lunch, tea and coffee. Accommodation is available separately.

Bookings for the course are now open. Please send enquiries to:
molecular.systematics@reading.ac.uk

The Herbarium and Plant Identification Service Contacts

Please visit www.herbarium.reading.ac.uk or: www.collectionsgateway.org.uk

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Access to the collections is available by appointment and specimens can be loaned to other institutions (private individuals only by special arrangement). A seed exchange scheme is operated for research and teaching purposes, accessible from the Herbarium website. There is a reference library of Floras, monographs and systematic botany literature available for consultation in the Herbarium. Use of Macintosh computers for sequence alignment is also available.