

## The University of Reading

## **School of Plant Sciences**

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[STAFF: CHANGES AND NEWS | DARWIN INITIATIVES | ILDIS | LITCHI | NEW PhD STUDENTS |
DEGREE CONGRATULATONS FOR 1999 | OPTIMA ITER IX | SPECIMEN ACTIVITIES |
HERBARIUM VISITORS | THE HERBARIUM LIBRARY | SOME RECENT STAFF PUBLICATIONS |
EURO+MED | OBITUARY | ADVANCED COURSE IN MOLECULAR SYSTEMATICS |
TAXONOMY TODAY: DIVERSITY & THE TREE OF LIFE | STAFF TRAVEL | HARRIS GARDEN
OPEN DAYS | THE PERCIVAL SYMPOSIUM | PEOPLE]

It has been two years since I last wrote and edited *Herbarium News*. Many of you have written in, emailed or asked me directly why you had been taken off the mailing list: you hadn't. Please accept my apologies, but we have all been so very, very busy! Since the last issue we have obtained a new domain for our Herbarium web site: <a href="www.herbarium.reading.ac.uk">www.herbarium.reading.ac.uk</a> thankfully, much simpler to remember. Through Mr Rupert Wilson's efforts you can now access the data for almost 23,000 of our specimens presently entered in BRAHMS (our herbarium database – Botanical Research And Herbarium Management System developed by Dr Denis Filer at the University of Oxford). This not only allows you to see the details of the specimens collected in Morocco in recent years, but also to obtain a map of their location and some onward links to other relevant databases. We hope to develop this further shortly.

I would be pleased to receive your news and promise not to wait two years before producing the next *Herbarium News*. We send our best wishes for the Christmas Season, the New Year and New Millennium.

Dr Stephen L. Jury

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# STAFF: CHANGES AND NEWS | ITOP|

#### **Dr Julie Hawkins**

Dr Julie A. Hawkins joined the Reading Botany staff in October 1998. Julie's first degree was awarded from Kings College London in 1990. She went on to study for a MSc in Plant Genetic Resource Conservation and Utilisation at the University of Birmingham and a doctorate at the University of Oxford. Her doctoral studies on the systematics of *Parkinsonia* L. and *Cercidium* Tul. (Leguminosae: Caesalpinioideae) were supervised by Dr Stephen Harris, Dr Colin Hughes and Dr Robert Scotland. Julie remained in Oxford for a short post-doc. before relocating in September 1997 to the University of Cape Town, South Africa, where she worked with Professor Peter Linder. Her post-doctoral project comprised morphological and molecular phylogenetic studies of the largest genus endemic to the Cape Flora, *Aspalathus* L. (Leguminosae; Papilionoideae); Julie plans to continue with this work in Reading.

#### **Professor John Barnett**

Readers may not be aware that Dr John Barnett has been given a personal professorship from last October. We are delighted to offer our belated congratulations.

## **Professor Jeffrey Harborne**

Professor Harborne retired from the editorship of the journal *Phytochemistry* at the end of June after 28 years in the job. Dr Christine Williams and the other Associate Editors also retired after distinguished service. A one-day symposium was sponsored by Elsevier and organised by Christine at the Royal Botanic Gardens, Kew to mark and celebrate Jeffrey's distinguished editorial career. Thankfully, he continues to be seen working as usual in the School, though now only a four-day week!

## **Professor Michael Dick**

Michael is now working part-time and expects to retire at the end of September 2000. He has plans to live in Devon. He has recently had a letter published in *The Times*, supporting Professor David Hawkswoth's views on the need for mycology in Universities.

## Dr Barbara Pickersgill

Barbara is now President-Elect of the Society for Economic Botany (Congratulations!) and will become President at the annual meeting 2000 in Hawaii when she will have to preside. (If her travelling has been reduced these last years when her PhD students were all writing-up, she may well have the opportunity to do some catching up!)

### **Dr David Cutler**

We send our best wishes to Dr David Cutler, one of our visiting lecturers, who retired recently from the Royal Botanic Gardens, Kew. This event was marked by a symposium, *Under the Microscope*, held at the Linnean Society's rooms, 9<sup>th</sup>—10th September. The event proved to be a gathering of the world's plant anatomists! It was also a good opportunity to catch up with some news from Reading graduates with Emma Crowe, Peter Gasson, Simon Owens, Himansu Baijnath and Louis-Philippe Ronse Decraene all reading papers. David was back in Reading recently to deliver his plant anatomy course to our Masters students.

## **Dr Terry Hedderson**

Sadly for us, Terry's contract has now run its course and he is leaving for South Africa where he will be lecturing and researching in the Department of Botany of the University of Cape Town. Terry will be continuing his work on molecular systematics of the *Bryaceae*, as well as beginning a programme on the floristics and taxonomy of the Cape Bryoflora. Terry's last days in Reading will be before Christmas. We wish him all the very best for his future and hope to be able to collaborate with him in his new post. (We have already initiated a bryophyte exchange with Cape Town!)

## **Dr James Compton**

James has joined us as an Honorary Research Fellow, but has actually been employed recently on a series of short-term contracts. Since his work on *Actaea* and *Cimicifuga* (which caused a stir in horticultural circles since it sunk the latter genus containing popular garden plants), James has been re-assessing the taxonomy of other *Ranunculaceae* using molecular tools. *Beesia* with two Chinese species and *Eranthis* (the winter aconites) with eight Eurasian species have been shown to belong to the same tribe as *Actaea*.

#### **Professor Peter Crane**

We welcome and congratulate Peter on his recent appointment as Director of the Royal Botanic Gardens, Kew. Peter originally graduated at Reading with a first class honours degree in botany and stayed on to undertake research for a PhD in palaeobotany supervised by the late Dr Peter Barnard. Fortuitously, at the end of this Professor Vernon Heywood was appointed Dean of the Faculty of Science and was able to appoint an extra member of staff. After a very open competition, Peter was the successful candidate who

won unanimous approval. At the end of this three years, Peter took up a post at the Field Museum in Chicago. It was an especial pleasure to welcome him back to the School for a seminar on angiosperm evolution. Peter is now one of our Visiting Professors.

#### **Professor Sir Ghillean Prance**

After his retirement from Kew, the University of Reading has awarded a continuation of the Visiting Professorship to Sir Ghillean. He has also taken residence in an office, room 166, in Plant Science Laboratories and is now appearing fairly regularly in the building. The small backlog of mounting some Brasilian specimens has been given a new and higher priority!

## **Professor Stephen Blackmore**

Stephen is now installed as the new Regius Keeper at the Royal Botanic Garden, Edinburgh, and we send him our best wishes for his new job.

#### Dr Michael Maunder

We are delighted to report that Dr Michael Maunder of the Royal Botanic Gardens, Kew has been appointed an Honorary Lecturer.

# DARWIN INITIATIVES | [TOP]

#### Morocco

Dr Stephen Jury was recently successful in gaining a Darwin Initiative award from the U.K. Department of the Environment, Transport and the Regions. This is to work for two years with Professor Mohamed Rejdali (Institut Agronomique et Vétérinaire Hassan II, Rabat, herbarium IAV) and Professor Mohamed Fennane (Institut Scientifique, Rabat, RAB) to repatriate data on Moroccan specimens collected by Reading staff on collaborative Moroccan expeditions. This project will involve Dr Stephen Jury and Mr Rupert Wilson visiting Rabat early next year and three Moroccan staff visiting Reading in March. It is hoped that all three herbaria will be able to develop BRAHMS for their use and include extra material of illustrations, conservation data, synonyms, etc. In the second year attention will be paid to adding more data and using BRAHMS to help analyze the specimens and flora. The award is worth just over £26,000.

#### Lebanon

Dr Stephen Jury is also contracted to work with Dr Michael Maunder of the Royal Botanic Gardens, Kew in a second Darwin Initiative to assess the coastal vegetation of Lebanon in a conservation project. This is in conjunction with Dr Salma Talhouk, other staff and students of the American University of Beirut. The first visit in June was highly successful and got most of the planning done, but somewhat traumatic as the city was bombed by the Israelis while they were there. However, a memorable excursion was

made to the cedars near Bcharré. A second visit was made 16—25<sup>th</sup> October when a series of field excursions were made to start a collecting programme and study the autumn flora. This was especially successful with a significant number of bulbous species found: *Muscari parviflora*, *Scilla autumnalis*, *Colchicum* spp., *Cyclamen persicum*, *Pancratium maritimum*, the related Amaryllid *Vagaria parviflora* and *Uginea/Drimia maritima*. *Lactuca triquetra* in both white and blue variants was an interesting find on calcareous rocks, though not now considered endemic, as well as *Ludwigia stolonifera* in the river forming the border with Syria, a naturalized alien.

It is planned to add the new specimens to the existing 'Post Herbarium' collections and revive this important Middle Eastern herbarium. Although based on the specimens of George E. Post (author of *Flora of Syria, Palestine and Sinai...*, Beirut, 1896), it contains many specimens amassed much later by Mrs Edgecombe, including a significant number from Europe and America.

# ILDIS | TOP

The ILDIS *World Database of Legumes* has gone ahead strongly during 1999 with Judith Heald, Sue Brandt, Grace Barter and Frank Bisby both operating the ILDIS co-ordinating Centre and working with many legume specialists on enhancing the Database. A new website and edition of the World Database were released in July, prior to the International Botanical Congress. This is the first edition to contain either all or some species from every known genus of legumes. Edition 4 was released in November in time to be included in the next prototype Annual Checklist being created by the Species 2000 Project. To see the ILDIS checklist choose *LegumeWeb* at www.ildis.org. The plan is to release a complete edition encompassing all species of legumes worldwide ahead of the International Legume Conference in 2001.

# LITCHI | TOP

LITCHI is a joint project between the Universities of Reading, Southampton and Cardiff, funded by the Bioinformatics Initiative of the UK Research Councils, BBSRC & EPSRC with a grant of £88638 to both Cardiff and Reading over two years. Staff: Frank Bisby and Sue Brandt at Reading, Richard White and John Robinson at Southampton, Andrew Jones, Iain Sutherland, Suzanne Embury and Alex Gray at Cardiff. The Litchi project (http://litchi.biol.soton.ac.uk/) is producing 'taxonomically intelligent' software as a tool for the merging of species diversity databases and checklists. It can also be used to detect errors, and taxonomic inconsistencies within a single checklist, or to list the conflicts between two checklists.

Merging of checklists is semi-automated. Litchi can detect events such as generic transfer, the splitting or merging of taxa (to reflect a 'lumpers' or 'splitters' view of the taxonomy of the group), or cases where there is a difference in opinion as to the accepted/valid name for a species. The user chooses whether to follow the taxonomic treatment in the first or the second checklist, and then Litchi automatically merges taxa

appearing in both lists under the relevant accepted/valid names. Errors and remaining inconsistencies are resolved by the user who is guided by a series of relevant questions requiring a require yes/no answer, or minimal editing of the data

The detection of conflicts within a single checklist is also of use. Litchi checks every name in a checklist against every other name to find taxonomic errors and inconsistencies. Without automation, such a process could take several weeks for some of the larger taxonomic databases.

At present, Litchi is based on rules that reflect the International Code of Botanical Nomenclature, and observed practice in taxonomic databases. It could be easily adapted to reflect the rules of zoological nomenclature. Further research could widen the scope of Litchi to handle additional data attached to taxa (such as distribution, ecological notes), or to provide real-time interrelation of species names in information sources on the Internet. This would allow direct links between information on the same species, not only when information was located in different web sites, but also even when different taxonomic treatments were used to create the different information sources.

## NEW PhD STUDENTS | [TOP]

## **Peter Boyce**

Peter is now a registered part-time student, 'working away' at the Royal Botanic Gardens, Kew and supervised by Dr Barbara Pickersgill and Dr David Simpson at Kew. His title is: 'Systematics of the *Araceae* tribe *Pothoeae*'.

## Dylan De Silva

Investigation into the potential features which may account for the explosive radiation of the Macaronesian *Echium* by comparison of island with mainland species within a phylogenetic framework.

## **Elspeth Haston**

Elspeth Haston, a graduate of our MSc in Pure and Applied Plant and Fungal Taxonomy, returned to the Department to start work on a molecular and morphological study of the *Peltophorum* group (Leguminosae; Caesalpinioideae). Elspeth is supervised by Dr Julie Hawkins and Dr Gwilym Lewis (Kew).

### John Galey

John Galey, also a Reading student (graduating in Botany in 1997), is making a comparative study of the genetics of leaf development across the Leguminosae. John

Galey is supervised by Dr Julie Hawkins and Dr Nick Battey (Department of Horticulture, University of Reading).

### Neil Bell

Neil Bell is undertaking a study of higher level relationships in the mosses. His plan is to employ a phylogenetic analysis of taxa critical for the understanding of relationships and the evolution of morphological characters. Neil is supervised by Dr Angela Newton (Natural History Museum), but is registered at Reading, where Dr Julie Hawkins is his second supervisor.

## DEGREE CONGRATULATONS FOR 1999 | TOP|

We offer congratulations to **Dr Jose Carvalho**, **Dr Deepthi Dissanayake**, **Dr Yusuf Menemen** and **Dr Nur Supardi Md. Noor** on being awarded their PhDs on Saturday 11th December from Lord Carrington. Belated congratulations to: **Dr Richard Akromah**, **Dr Dei-Wei Chen**, **Dr Wan-Pyo Hong**, **Dr Rosalba Gómez** and **Dr Abraham Muthama Muasya** who received their PhDs last July. Congratulations to **Ros Searle** whose PhD viva took place last week, but, sadly, not in time for Saturday's graduation; and, similarly, for **Abdisalam Hassan** whose M.Phil. will also have to wait until July.

Mr Bilgin Oguz graduated with an M.Phil. in Botanical Diversity at our recent Graduation Day. Mr Tegu Triono and Miss Himma Rustiami also graduated with MScs in Pure and Applied Plant Taxonomy and have now returned to Bogor. Other part-time candidates will graduate next year.

- Jose's thesis was on the genera *Digitalis* and *Isoplexis* and was supervised by Dr Alastair Culham.
- Deepthi undertook phylogenetic research on the *Chrysobalanaceae* supervised by Dr Cynthia Morton, then Dr James Compton, with, of course, a little help from Professor Prance. Deepthi has now returned to Sri Lanka to take up a Faculty Post in her old University.
- Yusuf researched on a group of genera of the Apiaceae, *Malabaila*, *Trigonosciadium*, *Pastinaca*, *Zozima* and *Stenotaenia* with Dr Stephen Jury. He has now returned to his University at Kirikkale, Turkey where he is helping set up a new department. He can be contacted by email <Y\_Menemen@hotmail.com>.
- Nur Supardi Md. Noor researched the selective logging on the biodiversity of palms in a lowland Dipterocarp forest in Malaysia, supervised by Dr Barbara Pickersgill.
- Chee Yen Chong worked on DNA polymorphisms in the study of relationships and evolution in *Capsicum*, again supervised by Dr Barbara Pickersgill.

- Dei-Wei Chen also took on the genus *Capsicum* with a thesis entitled 'Barriers to gene exchange between *Capsicum chacoense* and the *C. annuum* complex, supervised by Dr Barbara Pickersgill.
- Wan-Pyo is now undertaking a post-doctoral research programme at the University of Michigan, but not in systematics. Her thesis on the systematics of *Tricyrtis* was supervised by Dr Stephen Jury.
- Rosalba's thesis was supervised by Dr Alastair Culham and was on the systematics of the genus *Axonopus* (*Gramineae*).
- Muasya's thesis was on the systematics of the genus *Isolepis* and was supervised by Dr David Simpson at Kew and Dr Alastair Culham at Reading. Muasya has now returned to the National Museums of Kenya in Nairobi (NMK).
- Ros undertook two years research while working in Aarhus on Zingiberaceae, before returning and transferring to Reading. The work in Aarhus was part of the 'Botanical Diversity of the Indo-Pacific Region' an E.U. programme co-ordinated by Professor Peter Baas in Leiden. (The same network on which Joe Mullins has been working, but at our Reading node; Joe expects to submit his thesis early in 2000).
- Abdi completed a study on the genus *Ormocarpum* (*Leguminosae*) for his MPhil and is now working in London.



Doctors Menemen and Jury on Graduation Day, Saturday, 11<sup>th</sup> December 1999.

# OPTIMA ITER IX | TOP

This took place along the Black Sea Coast of Bulgaria,  $20^{th}$  May  $-9^{th}$  June 1999, led by Mr Dmitar Uzunov. (Dmitar worked with Dr Stephen Jury previously in Calabria, S. Italy, where many of the plans were drawn up!) Mr Ronald Rutherford was sponsored by the Department of Botany to participate on our behalf in this 12-person expedition to this species rich and relatively unknown area. Over 2500 collections were made with duplicate sets for the participating institutions (Berlin, Catania, Palermo, Reading, Sevilla and Sofia).

The Iter worked from the southern border to the 'steppe' near the Romanian border. The best/worst day was in the Strandja Mountains, right against the Turkish border, when the collections were so numerous that pressing only finished at 3 a.m! This area has a splendid flora including *Rhododendron ponticum*, *Daphne pontica*, *Ilex colchica*, *Prunus laurocerasus* and *Vaccinium arctostaphylos* as an understorey of *Fagus orientalis*. This Euxine element was mentioned by Oleg Polunin in his *Wild Flowers of Greece and the Balkans*, but has effectively been inaccessible being in a restricted area. (This was true when Dr Simon Thornton-Wood and Dr Stephen Jury visited the area some years ago to collect seed of *Achillea* species for Simon's PhD.)

All the specimens are presently being processed in Sofia and will be dispatched shortly. Great excitement is guaranteed on their arrival.

Specimens (c. 2000) from the Optima Iter VIII to Calabria have now all been mounted, identified and incorporated for use at Reading. The collection data can be viewed through our Herbarium Homepage over the www, as mentioned earlier.



The party in the field with Mr Rutherford third from the right.

# SPECIMEN ACTIVITIES | [TOP]

The Herbarium has been presented with a collection of *c*. 1400 bryophytes by the University of Southampton (SPN). These were made by Mrs Jean Paton (mainly under her maiden name of Miss Jean Comins) while working at Southampton. They constitute a good, general collection of British bryophytes which we are especially pleased to receive as Jean Paton has recently become celebrated in bryological circles for publishing *The Liverwort Flora of the British Isles* (Harley Books, Colchester, 1999, ISBN 0 946589 60 7). This work was recently described by the late Eric Watson as "A landmark in the study of British liverworts". Work continues on incorporating these into our own holdings.

We have also gained nine herbarium cabinets containing the *Vicieae* collections built up by Professor Frank Bisby while at Southampton as part of his *Vicieae* Database Project. So far only some genera have been incorporated with our own material. To accommodate these, we have had the herbarium bench raised a few centimetres and purchased new chairs. (These last from moneys received from some of our commercial identification work.) In fact, the new bench height is proving to be better for the backs of the regular users!

In addition to the work on the Optima Iter VIII material mentioned above, the Herbarium has been presented by Dr John Richards with a valuable collection of c. 380 voucher specimens arising from a seed collecting expedition of the Alpine Garden Society to N. Greece this summer. These have yet to be entered in BRAHMS, although they have now been mounted, had their identities checked and laid away. We are in contact with Professor Arne Strid of Copenhagen and Professor Dimitrios Phitos of Patras concerning this material as they are actively working on the next volume of *Flora Hellenica*.

Dr Terry Hedderson has now worked through many of his bryological collections and the duplicates associated with these (several thousand) have been dispatched to other herbaria through our exchange programmes, or as gifts in recognition of support received.

Several other substantial exchanges have been received, principally from the Université de Liège, the Real Jardín Botánico Madrid, the University of Alicante and Curitiba, Brasil in the form of further Mediterranean (principally Moroccan) and Brasilian specimens. Most have now been incorporated into our collections.

The latest acquisitions are some 180 duplicates made in Lebanon as part of Dr Stephen Jury's involvement in a Darwin Initiative of the Royal Botanic Gardens, Kew, with the American University of Beirut. These specimens have not yet had their labels made (with BRAHMS) and are awaiting mounting and identification.

Specimens have also been dispatched (including five sets of 100 British bryophytes, many provided and identified by Eric Watson) to: ABH, BM, BOL, G, LG, LIV, MA, MARSSJ, MBM, MICH, NICE, PAL and SEV.

Mr Mark Spencer has recently entered 230-odd records into BRAHMS of the genus *Pythium* from the living aquatic Peronosporomycete culture collection. Additional records from the subclass *Saprolegniomycetidae* will also soon be entered.

# HERBARIUM VISITORS | [TOP]

The Herbarium welcomes visitors, Monday to Friday, 9 a.m. - 6p.m., by appointment; please contact the Curator at the address given on page one.

Recent visitors have included: David Tattersfield & Charles Aitchison (Moroccan flora and trip planning for a 2-week 'holiday' journey over the High Atlas - which included Mr Ronald Rutherford), John Akeroyd, Eric Clement, Ro FitzGerald, Tim Rich (various British genera), Mark Nesbitt (Turkish grasses), Melissa Spielman (seeds), Ana Maria Planchuelo (Argentinian grasses), Mary Dean, Paul Ashton Nigel Blackstock (*Carex flava* group), Dimitrina Boteva (Bulgarian flora), Professor Adil Güner (Turkish flora), Pablo Vargas (*Hedera, Iris* and Spanish flora) and Nigel Hurneyman (*Rumex*).

# THE HERBARIUM LIBRARY | [TOP]

The Herbarium Library continues to grow apace, and we are grateful for the generous presentations that we receive. Purchases and gifts include:

CASTROVIEJO, S. et al. (eds), 1998. Flora Iberica, 6. [Rosaceae.] Madrid: Real Jardín Botánico, CSIC.

CASTROVIEJO, S. et al. (eds), 1998. Flora Iberica, 7(1). [Leguminosae (part).] Madrid: Real Jardín Botánico, CSIC.

CRACKLES, E., 1990. Flora of the East Riding of Yorkshire. Hull: Hull University Press.

FISH, L., 1999. *Preparing Herbarium Specimens*. [Strelitzia, 7.] Pretoria: National Botanical Institute.

GOLIASOVÁ, K. (ed.), 1997. Flóra Slovenska, V/2. Bratislava: VEDA, Vydavatelstvo

Slovensky akadémie vied. [Scrophulariales and Plantaginales of Slovakia.]

KREUTZ, C.A.J., 1998. *Die Orcideen der Türkei*. Landgraaf / Raalte: Selbstverag, Boymans, Karel, Kreutz & Seckel.

LEWALLE, J. & MONTFORT, N., 1997. Fleurs Sauvages du Maroc. Rossdorf: TZ-

Verlagsgesellschaft mbH.

LORD, T. (ed.), 1999. RHS Plant Finder 1999-2000. London: Dorling Kindersley.

& Professional Version on CD.

METSGER, D. A. & BYERS, S. C. (eds), 1999. Managing the Modern Herbarium.

Washington: Society for the Preservation of Natural History Collections.

PRATT, K. & JEFFERSON-BROWN, M., 1997. *The Gardener's Guide to Growing Fritillaries*. Newton Abbott: David & Charles.

ROWLEY, G.D., 1999. Pachypodium *and* Adenium. [*The Cactus File Handbook no. 5.*] Southampton: Cirio Publishing Services Ltd.

TURNER, R., 1999. Euphorbias: A Gardeners' Guide. London: Batsford.

WIGGINGTON, M.J., 1999. *British Red Data Books. 1: Vascular Plants*. Peterborough: JNCC.

Recently, we organised a successful sale of duplicate books over the www. A few are still available, but the majority have been sold. This raises some extra useful finances for our book-purchasing budget. We shall continue to put surplus items on this sale page, so please keep looking: www.herbarium.rdg.ac.uk/booksale/

# SOME RECENT STAFF PUBLICATIONS | TOP|

BAKER, W. J., DRANSFIELD, J., HARLEY, M. M. & BRUNEAU, A., 1999.

Morphology and cladistic analysis of subfamily *Calamoideae* (*Palmae*).

Memoirs of the New York Botanical Garden, 83: 307--323.

BAKKER, F.T., CULHAM, A. & GIBBY, M., 1999. Phylogenetics and biogeography of *Pelargonium (Geraniaceae)*. In Gornall, R. & Hollingsworth, P. (eds), *Advances In Plant Molecular Systematics, Systematics Association special VOLUME*: 353-374.

BAKKER, F.T., CULHAM, A., DAUGHERTY, L. & GIBBY, M., 1999. A trnL-F based phylogeny for species of *Pelargonium* (*Geraniaceae*) with small chromosomes. *Plant Systematics and Evolution*, *216*: 309-324.

BAKKER, F.T., HELLBRUGGE, D., CULHAM, A. & GIBBY, M., 1998. Phylogenetic Relationships within *Pelargonium* sect. *Peristera* (*Geraniaceae*) inferred from

nrDNA and cPDNA sequence comparisons. *Plant Systematics and Evolution 211*: 273-287.

BAKKER, F. T., VASSILIADES, D. D., MORTON, C., SAVOLAINEN, V., 1998. Phylogenetic relationships of Biebersteinia Stephan (Geraniaceae) inferred from RbcL and atpB sequence comparisons. *Botanical Journal of the Linnean Society*, 127: 149-158.

BUNTING, H. & PICKERSGILL, B., 1996. What is a plant genetic resource? *Biologist*, 43: 227—230.

CASAS, A., PICKERSGILL, B., CABALLERO, J. & VALIENTE-BANUET, A., 1997. Ethnobotany and the process of domestication in the xoconochtli *Stenocereus*Stellatus (Cactaceae) in the Tehuacán Valley and La Mixteca Baja, Mexico.

Economic Botany, 51: 279—292.

COMPTON, J. A., CULHAM, A. & JURY, S. L., 1998. Reclassification of *Actaea* to include *Cimicifuga* and *Souliea* (*Ranunculaceae*): phylogeny inferred from morphology, nr DNA ITS, and cp DNA trnL-F sequence variation. *Taxon*, 47: 593—634.

HARBORNE, J. B., 1999. Classes and functions of secondary products from plants. In N. J. Walton & D. E. Brown (eds), *Chemicals From Plants*: 1—25. London: Imperial College Press.

HARBORNE, J. B., 1999. Plant Chemical Ecology. In K. Mori (ed.), *Comprehensive Natural Products Chemistry*: 137—196. Oxford: Elsevier.

HARBORNE, J.B. & BAXTER, H., 1999. *The Handbook of Natural Flavonoids*.2 vols. Chichester: J. Wiley. [Another monumental definitive reference from the J.B.H.

HARBORNE, J.B. & WILLIAMS, C.A., 1998. Anthocyanins & other flavonoids. *Natural Product Reports*, *15*(*6*): 533--704.

HAWKINS, J. A. & HARRIS, S. A., 1998. RAPD markers and the characterisation of putative hybrids: two cases studied in neotropical legumes. *Plant Systematics and Evolution*, *213*: 43-55.

HAWKINS, J. A., WHITE, L., HUGHES, C. E., CONTRERAS-JIMENEZ, J. L. & MERCADO, P., 1999. The investigation and documentation of hybridisation between *Parkinsonia aculeata* and *Cercidium praecox* (Leguminosae; Caesalpinioideae). *Plant Systematics and Evolution*, *216*: 49-68.

HONG, W.-P., GREENHAM, J., JURY, S. L. & WILLIAMS, C. A., 1999. Leaf flavonoid patterns in the genus *Tricyrtis* (*Tricyrtidaceae sensu stricto*, *Liliaceae sensu lato*). *Botanical Journal of the Linnean Society*, *130*: 261--266.

JURY, S.L. & REJDALI, M., 1999. Spanish plants of interest in Morocco. *Acta Botanica Fennica*, *162*: 119-123.

KARAMURA, D. & PICKERSGILL, B., 1999. A classification of the clones of East African Highland bananas (*Musa*) found in Uganda. *Plant Genetic Resources*Newsletter, 119: 1-6.

MAUNDER, M. & CULHAM, A., 1999. Plant diversity - distribution, measurement and conservation. In B. G. Bowes (ed.), *A colour Atlas of Plant Propagation and Conservation*. London: Manson Publishing.

MAUNDER, M., CULHAM, A., BORDEU, A., ALLAINGUILLAUME, J. & WILKINSON, M., 1999. Genetic diversity and a pedigree for *Sophora toromiro* (*Leguminosae*): a tree extinct in the wild. *Molecular Ecology*, 8: 725—738.

MAUNDER, M., CULHAM, A. & HANKAMER, C., 1998. Picking up the pieces: Botanical conservation on degraded oceanic islands. In P. L. Fiedler & P. M. Kareiva (eds), *Conservation Biology for the coming decade*. New York: Chapman & Hall.

PICKERSGILL, B., 1997. Genetic resources and breeding of *Capsicum* spp. *Euphytica*, 96: 129-133.

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# EURO+MED | TOP

This is the short name of a project submitted to the E.U. by Dr Stephen Jury for an international consortium of botanists which has received positive reviewing. Contracts are at present being negotiated (which includes the monies available) with Brussels. It is expected that Reading, Sevilla, Berlin, Madrid, Palermo, Bern, Helsinki, Edinburgh, Bratislava, Sofia and Patras will each receive staff and funding. I hope that I shall be able to present you with the details in the next *Herbarium News*.

You will be aware that *Flora Europaea* is now severely out of date, having stimulated a great deal of taxonomic research. This has resulted in a loss of taxonomic consensus. After Dr John Akeroyd's efforts at revising volume one, it is clear that a thorough job is needed, but one involving botanists throughout the area (the *F.E.* 'Regional Advisors') to gain complete European approval. The published volumes of *MedChecklist* edited by W. Greuter, H. Burdet and D. Long have shown that it is also very necessary to include extra territory if nomenclatural stability is to be achieved. The new project will aim to do this and will cover Europe, the rest of the Mediterranean, the Caucasus and the Macaronesian Islands in the west. It is also clear that any system must now be an electronic one available over the www. It must also be one that will contain the data to produce hard copy, if that is required and is a viable option at the time. Watch this space!

## **OBITUARY** | [TOP]

#### Eric Vernon Watson 1914-1999

Dr Eric Watson died recently at his home in Goring. He had been his usual self and in the University during the summer. Although he found lately that he had been getting very tired, he had kept up his bryology in his study at home, almost to the last. He had been suffering unknowingly from Leukemia, only diagnosed during a recent spell in hospital.

He joined the staff of the Department of Botany in 1946 as Lecturer, later becoming Senior Lecturer before his retirement in 1979. He was very well-known in bryophyte circles, especially for his books (*The Structure and Life of Bryophytes*, Hutchinson Universal Library, London, 3 eds and *British Mosses and Liverworts*, Cambridge University Press, 3 eds). These were particularly successful in getting students of all ages interested in and able to understand and know bryophytes. He had amassed a considerable bryophyte herbarium, putting specimens in both the University collection and his own private one. (This has been left to the Royal Botanic Garden, Edinburgh; The University of Edinburgh was his old *alma mater*.) However, it must be said that in fact he was an excellent all-round botanist and knew the British flora well. He had also helped with the annual student field courses to Cader Idris and later Brittany.

I remember vividly 'demonstrating' to students in his anatomy classes in the 1970s, when the class was expected to trace the vascular tissues through a plant node by making a

series of sections and interpreting the results as a 3-D drawing. All the examples (*Vicia*, *Lamium* and strawberry runners) came from his garden. His teaching abilities were such that most students were inspired to work incredibly hard to do the most difficult example (*Vicia*, the stipules complicate the structure enormously).



Dr Eric Watson on a bryophyte foray on the 6<sup>th</sup> March,1983, near his home in Goring.



Dr Watson at the start of a bryophyte foray in his garden with (L to R) Dr Chris Preston (BRC, Monks Wood), Dr David Goyder (R.B.G., Kew), Dr Sarah Webster (DETR, Bristol) and Dr Angela Newton (The Natural History Museum, London).

His tutees were regularly invited out to his house for supper and a slide show. He held regular moss forays starting with morning coffee at his house and ending back for afternoon tea. These invariably started with the garden bryophytes and over the years they resulted in a considerable list of species being found. Generations of students will remember him with affection and many had kept in touch with him. (He was a great letter writer.) His pastoral care of students was outstanding. He would have scored full marks in the forthcoming Teaching Quality Assessment, though he did not approve of the associated bureaucracy!

Dr Watson was a keen natural historian, accomplished ornithologist (and founder member of Reading Bird Club after the war), gardener, artist (watercolours; he was a leading member of Reading Guild of Artists), golfer and earlier a very good tennis player. Taking part in so many local societies and activities made him well-known locally.

He will be greatly missed. We send his widow Joyce and family our condolences.

Stephen L. Jury

# ADVANCED COURSE IN MOLECULAR SYSTEMATICS | [TOP]

Our Centre for Plant Diversity and Systematics in the School of Plant Sciences, as part of the NERC Taxonomy Initiative at the University of Reading, is running an Advanced Course in Molecular Systematics, 3rd—13th April 2000. This is a repeat of the successful course run in 1998. It is sponsored by NERC and will provide 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 three main areas:

- 1. Practical issues of DNA extraction, PCR and sequencing.
- 2. Skills in computer-based sequence assembly, alignment and assembly, etc.
- 3. Phylogeny reconstruction
- 4. Interpretation of phylogeny to answer biological questions.

website: www.rdg.ac.uk/AcaDepts/sb/Courses/courses-short/molsys.html

Contact: Dr G. Hewitt, School of Plant Sciences, Whiteknights, Reading RG6 6AS, UK

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# TAXONOMY TODAY: DIVERSITY & THE TREE OF LIFE | ITOP|

First notice is given of an International Conference, sponsored by NERC as part of the NERC Taxonomy Initiative and hosted by the Centre for Plant Diversity and Systematics at the University of Reading, 3rd--5th July, 2000. There will be three symposium sessions:

- 1. Key innovations: past and present
- 2. Rate and time in phylogenetics
- 3. The Catalogue of Life: discovery, classification and information systems
- 4. Taxonomy for tomorrow: a policy forum.

Book the date!

website: www.rdg.ac.uk/AcaDepts/sb/cpds/taxonomy today.html

Contact: Dr G. Hewitt, School of Plant Sciences, Whiteknights, Reading RG6 6AS, UK

Tel.+44 (0)118 931 8294 Fax: +44 (0)118 975 0630 email: <h.g.hewitt@reading.ac.uk>

# STAFF TRAVEL | ITOP|

In addition to travels mentioned elsewhere, **Dr Royce Longton** attended the XVI International Botanical Congress at St Louis, Missouri, 1<sup>st</sup>—7th August, giving an invited paper, 'Rarity in bryophytes: the phylogenetic perspective'. This was jointly with Dr Terry Hedderson who, sadly, was unable to go as his passport was with the South African visa authorities. Royce also presented a poster jointly with **Esme Roads** on 'Spore dispersal and establishment in annual shuttle mosses'.

**Dr Royce Longton** and **Dr Terry Hedderson** attended 'The Third Symposium on Conservation of Bryophytes in Europe' held at Trondheim in September 1998, giving the following papers to be published in *Lindbergia*: LONGTON, R.E. & HEDDERSON, T.A., What are rare species and why conserve them? LAAKA-LINDBERG, S., HEDDERSON, T.A. & LONGTON, R.E., Rarity and reproductive characters in the British hepatic flora. **Dr Royce Longton** attended the Autumn Meeting of the British Bryological Society at Loughborough in September 1999 and presented a paper, prepared jointly with Dr T.A. Hedderson, entitled: Morphological and genetic variation in the cosmopolitan moss, *Bryum argenteum* Hedw.

**Dr Royce Longton** and **Dr Terry Hedderson** attended a workshop on Developing an *Ex Situ* Strategy for the Conservation of bryophytes in the U.K., organised by the Royal Botanic Gardens, Kew at Wakehurst Place in February 1999. They presented papers on 'How mosses can inform conservation decisions' (TAH), 'Reproductive biology and lifehistory strategies in bryophytes – the implications for *ex situ* conservation (REL), and '*Ex vitro* cultivation of bryophytes and re-establishment in the wild' (REL). Dr Longton also chaired the closing 'Open Forum'.

**Professor John Barnett** visited Paris, Kuopio (Finland), Edinburgh and Brussels for coordination meetings on connection with European Union funded projects on wood formation and fibre properties. He also visited the Forest Products Laboratory of the United States Department of Agriculture to attend an Executive Committee meeting of the International Academy of Wood Science. At this meeting he formally took over as Vice-President of the Academy.

**Dr Stephen Jury** was awarded a one-month research fellowship by the University of Rome to work on Irises with Professor Maretta Colasante. He spent two weeks before

Christmas and two weeks at the end of January in Rome. He visited Palermo, Brussels x2 and Sevilla in conjunction with the preparation of the Euro+Med grant application. He also visited Madrid in September with **Mr Rupert Wilson** to examine the bar code system and Herbar database with Dr Paco Pando at the Real Jardín Botánico CSIC.

**Professor Jeffrey Harborne & Dr Christine Williams** attended a conference '2000 years of natural products research - past, present and future' in Amsterdam last July. Professor Harborne chaired a session on flavonoids and presented a poster with Christine on 'Flavonoid evidence and the classification of the *Anarthriaceae*'. They also visited Bordeaux earlier in the year for a meeting on phenolics in wine. They remember going to a vinyard, but not much else!

**Dr Julie Hawkins** returned to South Africa in January of 1999 to attend the Inaugural Meeting of the South African Society for Systematic Biology. Julie was involved in the early planning of the conference whilst a post-doc. at the University of Cape Town, and was the convenor of a focussed session which addressed the particular problems and potential of systematic studies of large genera. The conference attracted an eminent field of international systematists, and was widely considered a great success.

**Dr Alastair Culham** and **Dr Sawsan Khuri** visited the National Forestry Institute of Korea at the beginning of October to speak at a conference launching the Korean Plant Specialist Group of the IUCN Species Survival Commission. This Group is headed by Professor Yong-Shik Kim of Yeungnam University, South Korea, Professor Yong-Shik Kim has been a regular visitor to Reading over the last five years.



Speakers, with Professor Yong-Shik Kim (L), Dr Culham, Our Man in Seoul between Dr Sawsan Khuri and Dr Wendy Strahm.

**Dr Alastair Culham, Dr Freek Bakker** and **Dr Julie Hawkins** attended the first meeting of the South African Society for Systematic Biology in Stellenbosch last January. Dr Culham gave a talk on the phylogeny of *Drosera*, and Dr Bakker one on the 'Biogeographic history of *Pelargonium* based on DNA Sequences'. The trip to South Africa also enabled some *Pelargonium* collecting in Western Cape and the Karoo.

**Dr Freek Bakker** gave an invited paper and at the XVI IBC in St. Louis, Missouri: 'Evolutionary relationships in *Pelargonium*: a three genome approach'.

## HARRIS GARDEN OPEN DAYS | TOP|

The Harris Garden was opened to the public on four Sundays during 1999. Two were in aid of the National Gardens Scheme ('*The Yellow Book*'), one The Red Cross and one (25th July) The Berkshire Autistic Society. A grand total of £615 was made for this last charity.

At present, three Sunday Open Days are planned: 7 May, 22 July and 24 September, 2--6 p.m. The first and third again in aid of the National Gardens Scheme and the second again the Berkshire Autistic Society.

## THE PERCIVAL SYMPOSIUM | TOP|

Professor John Percival (1863--1949) who was the driving force behind the creation of agricultural botany as a scientific discipline and Professor of Agricultural Botany at the University of Reading from 1907--1932. This year, therefore, saw the 50th anniversary of his death and to mark this an international symposium was held 12<sup>th</sup>—13th in the School, sponsored by the Linnean Society of London. This was organised by Professor Peter Caligari, Dr Stephen Jury, Mr Roy Bridgen (Museum of English Rural Life), Dr Mark Nesbitt (now at the Centre for Economic Botany, Royal Botanic Gardens, Kew), Dr Laura Morrison (University of Oregon) and Dr Geoff Hewitt (our short-course organizer). Percival's monumental treatment of wheat (*The Wheat Plant: a Monograph*, 1921) still serves as the standard reference, reprinted as recently as 1974! During his time, he amassed an enormous living collection of wheats at Reading and made sets of *exsiccatae* which he distributed widely. He also built up a large personal research herbarium which still exists (though somewhat damaged) in our Herbarium.

The meeting brought together a large multi-disciplinary gathering of experts with an interest in wheat studies. It is hoped that shortened versions of the papers can be published as a part of a new Linnean Society publication series.

# PEOPLE | TOP

**Congratulations** to **Dr Bill Baker** on his marriage on June 19th to **Sally Henderson**. Bill now works on Palms with Dr John Dransfield at the Royal Botanic Gardens, Kew.

Bill graduated at Reading in July 1998 with a thesis on *Palmae*. Sally graduated from our Vegetation Survey and Assessment M.Sc. in 1996.

We were all very saddened by the news that **Ahmad Daman Huri Mohammed** is ill with diabetes. We all wish him well to complete his Ph.D. on *Taxithelium (Bryophyta)*. At present he is in Malaysia.

**Humphrey Muiruri** sends greetings from Kenya. He has recently undertaken a short course in Israel.

The last *Herbarium News* reported on **Dr Hani Daraghma** (Hani Abu Sbaih). He is now working as a Programme Officer for the United Nations Development Programme in New York.

Congratulations to Professor Mohamed Rejdali on his appointment to a new post at the Institut Agronomique et Vétérinaire Hassan II, Rabat where he is now head of the scientific reasearch and development office.

Congratulations to Dr Cymon Cox on gaining a post-doctoral research position at Duke University in North Carolina. This is where Dr Angela Newton was, but you will probably know she is now working at the Natural History Museum, London.