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CPBR NEWS

News from the Centre for Plant Biodiversity Research, Australian National Herbarium (CANB), for the information of CPBR and ANBG staff and volunteers.

CPBR News is produced monthly. If you wish to contribute, please email your suggestions to Val Oliver, the coordinator.

This is your newsletter; please contribute news relating to the Centre.

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1. New Zealand Conference

Nau Mai, Haere Mai - Welcome to New Zealand ...
...were the words that greeted several of us (Andrew Young, Linda Broadhurst, Melinda Pickup, David Field and Luke Barrett) as we travelled to Auckland to attend the joint Genetics Society of Australia and Molecular Biology and Evolution conference in June. The conference opened a public lecture series that included talks by Axel Meyer, Jim Watson and Jenny Marshall Graves. The remainder of the conference was devoted to topics such as evolution, gene expression, molecular ecology and conservation genetics. Although it took a little time to overcome the apparent lack of vowels in the NZ alphabet, having negotiated our way through the "truple fun fush" (= triple fin fish) talk (with appropriate interpretation from the our own resident kiwi), we quickly settled into an enjoyable conference. A major highlight was Melinda Pickup winning the GSA Smith-White Student prize which will help her to present her PhD results at an international conference in the coming year.

[Linda Broadhurst]

2. The Australian Plant Census

The following is a report as submitted for the Australian Systematic Botany Society's Newsletter.

Change of name

After a major consultative and navel-gazing exercise, the Census Working Group came up with a list of around 14 possible official titles for this project, ranked in order of preference by a fiendishly complicated voting system. This list was passed to CHAH, the overlords of the project, and they have decided that the official title will henceforth be Australian Plant Census (APC).

The EPBC taxa

One of the conditions for funding of the project was that we would give first priority to reviewing the nomenclature of all those taxa currently listed as extinct, rare and endangered under the Commonwealth's *Environmental Protection and Biodiversity Conservation Act* (EPBC), accompanied by recommendations on how the existing nomenclature should be revised to bring it into line with the Census.

This task has been completed. It involved over 1200 taxa. Despite the fact that many had been added to the list relatively recently, we found that around 10% required changes, an instructive message on how volatile plant nomenclature still is. Even since this report was delivered in July, a handful of additional taxa have changed, and one of the tasks of the Census project will be to continually update this important list, to ensure that conservation efforts are based on contemporary nomenclature.

The family treatments

The project has now entered its core phase, with census and synonymic information being compiled family by family. The decision of the Working Group was that we would begin with those families for which recent country-wide treatments were available, particularly, but not exclusively, those families already treated in *Flora of Australia*.

Census compilation has now been completed for *Flora of Australia* volumes 3 and 18, and draft lists have been circulated among the Working Group. The first parts are agreed, and work has begun on loading the data to APNI. Serendipitously, the *Flora Malesiana* treatment of *Ficus* appeared during consideration of Moraceae from *Flora of Australia* vol. 3, and this, together with Dale Dixon's input means that we now have a very contemporary view of the nomenclature of this complex group. Work has begun on compilation of lists from vol. 16, and this will be followed by volumes 17A and 17B to complete the Proteaceae.

Thus, in the next few weeks the following families will start to appear on the Census web site with the full complement of accepted genera, species and infraspecific taxa, and with full synonymy (or as complete as we can get it):

Balanopaceae
Betulaceae
Cannabaceae
Casuarinaceae
Combretaceae
Fagaceae
Gunneraceae
Haloragaceae
Hamamelidaceae
Lythraceae
Melastomataceae
Moraceae
Onagraceae
Podostemaceae
Punicaceae
Sonneratiaceae
Thymelaeaceae
Ulmaceae
Urticaceae

They will be followed by Elaeagnaceae and Proteaceae.

Please remember that this is a work in progress and that not all of the above will necessarily be available when you rush from reading this to the website. However we encourage you to visit it regularly and watch progress. We also encourage feedback on the content: have we missed some taxa or synonyms; have we failed to mention alternative taxonomies; are there other errors? The other thing you will need to remember is that the taxonomy we are presenting is that arrived at by consensus. It is not the only possible view of the world, nor is it necessarily the best. It is that view that CHAH has agreed is a useful working model. It is permanently open to change, and suggestions on alternative or modified views will be considered, and acted on as appropriate.

We are also very keen to receive direct input on parts of the Census that have not yet been developed. If you have a detailed synonymy for any taxonomic group, and you are prepared to make it available to the Working Group as the basis for their compilation, please contact me or your local Working Group member to discuss how we might access your data.

Some of you will be aware that the Working Group has been preoccupied in recent weeks with in-depth discussion of a few particular cases. These arise when current usage is split between States or Territories, or where there are competing recent taxonomies. In the spirit of trying to arrive at a true consensus we will resort from time to time to asking proponents of competing views to provide the Working Group with brief summaries of their positions, allowing us to weigh the arguments on both sides. I would like to thank those who have already been involved in these exercises – your contributions have been most welcome and helpful – and to encourage others to contribute, as appropriate, in the future.

Contact information

Brendan Lepschi and I will be contributing a paper to the CHAH /ASBS conference in Brisbane in November, and will be very happy to discuss the project with anyone who can get there. I can be contacted at any time by email on tony.orchard@deh.gov.au. There is a Working Group member (and backup) in each of the State and Territory herbaria (see June ASBS Newsletter for names), and these members will pass on information to the project as well. Background information can be found on the CHAH website at <http://www.chah.gov.au/apc>

[Tony Orchard]
APC Project Coordinator

3. INTERNATIONAL BOTANICAL CONGRESS 2011 - Melbourne



Australia is to host the next International Botanical Congress (IBC). We were officially notified during the recent IBC in Vienna that our bid submitted earlier this year had been successful. This was ratified at a meeting of the International Association of Botanical and Mycological Societies (IABMS) Board on Tuesday 19 July and overwhelmingly supported by delegates at the plenary session of the Congress on Saturday, 23 July.

The XVIII Congress will be held in Melbourne during July 2011. The Melbourne Convention and Visitors Bureau (MCVB) greatly assisted with the development of the bid and have been following through on several aspects since the Vienna meeting. The Melbourne Congress will be held in the new Convention Centre (near the current Exhibition Centre) which is to be completed at the end of 2008.

During the XVII Congress in Vienna we took the opportunity to do the first lot of delegate boosting. A small booth was "manned" by two enthusiastic MCVB reps who provided participants with a range of promotional material:

- Melbourne touristy flier – the Yarra even looked blue
- A4 front & back designed flier with 2011 logo, dates, venue, scientific program information, field trip information and potential committee
- IBC 2011 fridge magnets
- Clip on koalas
- Balloons
- Photographic books on Australia (for perusal only)
- Brochures provided to us by the Australian Embassy in Vienna

All items were extremely popular and we were left with none of the 3000 koalas and fridge magnets! Let's hope they end up in prominent places as a reminder.

At the Closing Ceremony (Sat July 23):

- We arranged for Australian Ambassador to Austria, Deborah Stokes, to attend – she spoke about Australia and Melbourne and why delegates should visit
- Judy West made a presentation about the 2011 Congress and early plans and ideas in terms of organising committee and involvement of scientists beyond Australia, scientific program and field trips
- 4½ minute Tourism Australia DVD was shown – it didn't make the Australians cringe too much, and non-Australians seemed to enjoy it.

All delegates seemed very keen to hear the next Congress will be held in Australia – and only some realised that this means winter in Melbourne! We have no choice in these dates as the IBC has to coincide with the northern hemisphere university breaks. Hopefully we can balance it with the thought of great field trips in the northern half of the country.

The Vienna Congress was a great success, with a wide range of plant sciences covered in the symposia and excellent networking opportunities. The numbers are a little daunting –

- 4250 delegates (500 registered in the last week)
- 1250 speakers
- 330 symposia; c. 15 concurrent sessions
- 2700 posters
-

Delegates from 170 countries; good numbers from Australia across the disciplines

Much was learnt from the organisers of the 2005 Congress and the 1999 Congress in St Louis as well as discussion with delegates. We have an enormous task ahead of us and even though it may seem a long way off now it will come upon us faster than we wish I'm sure.

We put together an Organising Committee at the time of developing the bid and most of those people are still keen to be involved, although some of the roles may change. The School of Botany, University of Melbourne and CSIRO Plant Industry have agreed to act as the host organisations. A professional conference organising body will be appointed by tender in the next couple of months.

We have time to develop a stimulating scientific program that will accommodate all aspects of the botanical sciences, particularly the core disciplinary areas, such as:

- Ecology and the environment
- Conservation and restoration biology
- Population biology
- Systematics and evolutionary biology
- Physiology and phytochemistry
- Botanical diversity and taxonomy
- Cell Biology
- Molecular Genetics
- Physiology and Functional Genomics
- Structure and Development
- Botanical History
- Ethnobotany
- Bioinformatics, biological databases, knowledge management

In addition, the scientific program will need to incorporate symposia that look “over the horizon”, fundamentally re-examining the way we think about how plants evolve, function, and exist in a complex and changing environment as we approach the 2011 Congress. Further, with Australia's position in the southern hemisphere and its gondwanic origins and consequent evolution of a unique biota, we have the opportunity to develop other symposia that provide means to explore the diversity and evolution of Oceania and the gondwanic floras.

Some of these more specialized symposia might include:

- Urban plant ecology and conservation
- Restoration ecology
- Genes and genome evolution
- Climate change
- Function and development
- Biogeography of Oceania
- Biosecurity – invasives and invasiveness
- The rhizosphere
- Evolution of gondwanic floras
- Sustainable agriculture
- Systematics and botanical diversity in the genomics age
- Tropical forests

A critical drawcard to encourage delegates to come to the Melbourne IBC will be to host an outstanding range of field trips. Most still regard Australia as a long way to travel, so inclusion of opportunities for delegates to experience the diversity of Australia and its distinctive flora will be essential. Field trips need to cover a broad spectrum of vegetation types and a good cross section of the species, particularly the endemic groups and those for which the Australian flora is widely known. The bid document included some potential field trips across all states and territories, and clearly a coordinated approach will be needed so that trips of varied duration, accommodation type and degrees of difficulty are offered. Please feel free to let me know if you have some suggestions.

Judy West
judy.west@csiro.au

4. Centre Equipment

Centre staff are advised that there is now a 6-megapixel digital camera (Nikon D1X) available for staff to use. Bookings for the camera can be made with Andrew Slee on 6246 5114.

[Laura Vallee]

5. New staff



Bort Edwards will be visiting the herbarium from time to time over the next year in connection with his Honours program at BoZo. Bort is investigating the molecular systematics and morphology of the Melaleuca group of genera. His molecular data will be drawn from the chloroplast genome (some of you will recall that Gill Brown worked on this group using ITS data for her Honours year). His advisors are Mike Crisp, Lyn Cook and myself.

Bort is already well known to some of us as he had interactions with David Jones and Mark due to his interest in orchids.

Mostly Bort will be looking at specimens in the collection but also he will be using the library, chewing the fat with the orchid blokes, etc.

[Lyn Craven]

6. Annual Volunteers Morning Tea

Over the past year our keen volunteers have processed over 14 000 specimens. This has included cryptogams, orchids, exchange material from Australia and overseas and the mounting (and remounting) of backlog and countless small sheets for AVH priority families (don't ask them about the Cyperaceae).

To show our appreciation to the over 40 volunteers who have generously donated their time over the past year the Centre held its annual Volunteers Morning Tea on Thursday September 22nd. Staff and volunteers gathered in the Herbarium Tea Room for a veritable feast of cakes, slices, quiches, breads, biscuits, cheeses and a nice cup of tea. Jill Alexander, Jean Egan, Marianne Paul, Xing-su Shen and Penny Sohler received hand lenses in recognition of 5 years service to the volunteer program and Camilla Bennett was presented with a silver photo frame in recognition of her impressive 10 years of volunteering at the Herbarium prior to her recent retirement from the program.

Many thanks to all the people who provided the delicious food. The volunteers thoroughly enjoyed their morning tea and appreciate the recognition of the wider Centre for the vital role they play in the functioning of the Herbarium.



Marianne Paul, Jill Alexander and Penny Sohler proudly display their new hand lenses received in recognition of 5 years as volunteer mounters. (Photo: Tony Wood).
