

NEWSLETTER



NEWS

BIOLOGY TEACHING AND LEARNING MEETING

There will be a Biology Teaching and Learning meeting in the EEG Seminar Room (Gould Building #116) at 11am on Tuesday, 8 June. The proposals for changes to first year biology and a new structure of biology majors will be discussed. All teaching staff are requested to attend and everyone else is welcome to come along and contribute.

VALE

Warwick Nicholas ("Nick" to almost everyone who knew him), a former head of the then Department of Zoology (pre-dating 'BoZo'), long term member of the department and post-retirement fellow, died on 6 May after a long battle with cancer. Nick will be remembered by members of the former Division of Botany and Zoology. In the May newsletter of the Australian Society for Parasitology Nick was described as "one of the great minds and characters of Australian Parasitology."

Wes Whitten (after whom the new RSB animal house is named) died 24 May. His daughter Penny remarked how pleased the family were that Wes saw the opening of the building named in his honour last year. Wes joined the ANU in 1949, based at the John Curtin School of Medical Research where he worked both as a researcher and as Director of Animal Breeding. In 1966 Wes and his family moved to the US where he worked for 16 years at the Jackson Laboratory, the leading international centre for breeding genetically defined mice for biomedical research, and where Wes was Associate Director for research. He maintained close links with the ANU and ultimately, in retirement, he returned to Canberra.

Two of Wes' discoveries bear his name. **Whitten Medium** is a defined culture medium, still in widespread use today. The **Whitten Effect** is the synchronization of the oestrus cycle in group-housed female mice following exposure to the urine of male mice. It was subsequently shown that the active agent in the urine was a pheromone. This early evidence of chemical communication

between the two sexes was a major breakthrough in the field of mammalian reproductive physiology.



Wes at the opening of the Wes Whitten building.

RSB TRASH-&-TREASURE

Thanks to all who helped organize, and who participated in, the recent RSB Trash-&-Treasure stall. The event raised over \$1000 which will be sent to South Africa to support a household of AIDS orphans and elderly people. The amount raised will provide sufficient funds for the household for close to a year.



Pat and Madeline at the sale.

CONGRATULATIONS

Jan Hemmi and **Jochen Zeil**, EEG, have recently signed a three year, \$73K pa. research contract with the Australian Defence Science and Technology Organisation (DSTO) to study the flight dynamics of insects in natural environments.

At the end of last month, the following students submitted their thesis for PhD: **Lucia Kasumawati**, **Rebecca Barwick** and **Nadine Tietze**.

A Fijian iguana species recently discovered and described by **Scott Keogh**, EEG, and colleagues was featured on the cover of National Geographic Explorer magazine.



Richard Milner, **Patricia Backwell** and **Michael Jennions**, EEG, for their paper 'Eavesdropping in crabs: an agency for lady detection' in *Biology Letters*, the findings of which were also featured in [ABC Science Online](#).

Matthew King, RSB Workshop, has been elected as a general staff representative to the ANU Council. [The role of Council is explained here](#).

FAREWELL

Best wishes and good luck to **Julie-Anne Fritz**, Behm lab, BSB, who has departed ANU to take up a postdoc at the University of Calgary, Canada, where she will be using *C. elegans* as a model to study vitamin B12 metabolism. Julie-Anne has been a pivotal member of the Behm lab since 2002, working as Research Assistant, then PhD student, then postdoc. She will be greatly missed.

Wiebke Ebeling, EEG, will take up a position as Outreach Officer at the University of Tasmania in Hobart, and leave RSB in late June. Her PhD thesis 'Colour Vision in Marsupials' was accepted on 31 May.

NOTICES

PLANT BIOLOGY SEMINAR SERIES, CSIRO Plant Industry Lecture Theatre

9 June, 1pm

Barry Osmond, RSB.

'Avocado and *Arabidopsis* conspire to confirm a long suspected role for lutein in photoprotection.'

16 June, 1pm

Colin Cavanagh, CSIRO, PI.

'Wheat MAGIC: genetic structure and applications.'

SPECIAL SEMINAR

24 June, 1-2pm

Robertson Lecture Theatre

Vanessa M. Hayes

Group Leader Cancer Genetics, Children's Cancer Institute Australia for Medical Research, Lowy Cancer Research Centre, University of New South Wales.

'Personalized Indigenous Genomes – Defining the Extent of Modern Human Diversity.'

These and other seminars can be found on the [RSB Events page](#).

HAPPY HOUR

Friday 11 June, 5pm

Banks Bldg 44

Cheap beer and snacks.

All Welcome.

This newsletter is distributed fortnightly by email and hard-copy, and is archived at <http://biology.anu.edu.au/Newsletter>. Contact [Diane Whitehead](#) to be added to the mailing list, and to submit material for future issues.

RSB ELECTRONICS WORKSHOP

WHERE ARE WE?

We are located on the ground floor next to the Store in the **Robertson building, Building 46** on the [campus map](#), **Rm 036B** on the Robertson Building map.

Website: <http://biology.anu.edu.au/Facilities/Electronics/>

Workbook Email:

electronics@mail.rsbs.anu.edu.au

Phone: 6125 5577 or 61254497

After hours: 61255577

WHAT DO WE DO?

SERVICE AND REPAIR

The Electronics Workshop maintains a broad range of electronic and electrical equipment within the school. The workshop staff have many years experience in the field of electronics and are able to service, test and repair laboratory equipment, growth chambers, incubators, centrifuges, autoclaves, domestic equipment, security and alarm systems etc. Basically if it operates off batteries or plugs into a power point we are usually able to work on it. If for some reason we are unable to help we can arrange the work to be done elsewhere or for the equipment disposal if deemed not economical to repair.

FABRICATION AND DESIGN

Part of our work also includes the fabrication of equipment and instrumentation which cannot be purchased, i.e. develop new equipment locally. We can take an idea and while working in conjunction with the person requesting the work, turn it into reality. The jobs can range from the simple to the very

complex and cover analogue systems through to digital and microprocessors. We will also arrange and coordinate other trades if these are required as part of the job. Modifications and upgrades to existing equipment also falls within this category of work. Locally designed and fabricated equipment could also result in a significant cost saving. So if you have an idea, come and talk to us. Please note though that keeping equipment that is currently in use will take priority over design of new equipment.

CALIBRATION

Equipment calibration is another service that we can provide. If you require something calibrated, for example a temperature controlled device, a centrifuge or a balance etc, please bring it to the workshop and we will either calibrate it ourselves or organise a service agent to do the work.

ALARM INSTALLATION AND MONITORING

RSB Electronics also maintain an on call alarm system which monitors critical equipment and notifies an on-call person in the event of equipment failure. There is 24-hour monitoring of temperature, liquid levels, gas pressures, O₂ and CO₂ levels in of some equipment in the School, such as CEF cabinets, fridges, freezers etc. The workshop can design and install additional alarms on request.

ELECTRICAL SAFETY TESTING

The task of electrical safety testing of appliances for RSB is another of the services provided by the Electronics Workshop. According ANU OH&S policy, any appliance that is used in the School whether it is ANU owned or personally owned must be tested for electrical safety prior to being used. Any item that fails an electrical safety test cannot be used in the school until repaired. If an item fails an electrical test we can usually repair it on the same day. The ANU electrical safety policy can be

found at the following address:

http://policies.anu.edu.au/procedures/electrical_safety/procedure

ADVICE

The Electronics Workshop staff are also able to provide pre-purchase advice for electronic and other laboratory equipment. For example, is it an approved appliance? What are the maintenance requirements? What are the power requirements? And so forth.

ELECTRONIC WORKBOOK

All work carried out by the Electronics Workshop is coordinated and monitored via an online electronic workbook. So if there is any work that you want to get done, it should be entered in this book. The work book can be found at <http://workbooks.rsbs.anu.edu.au/index.php>



David Barwick, RSB Electronics Workshop

PAPERS ACCEPTED

Brouwer, L., Barr, I., van de Pol, M., Burke, T., Komdeur, J., Richardson, D.S. MHC-dependent survival in a wild population: evidence for hidden genetic benefits gained through extra-pair fertilisations. *Molecular Ecology*.

Chow, W.S. Alexander Beaumont Hope (1928–2008): an Australian Biophysicist. *Photosynthesis Research*.

Eikenaar, C., Brouwer, L., Komdeur, J., Richardson, D.S. Sex biased natal dispersal is not a fixed trait in a stable population of Seychelles warblers. *Behaviour*.

Fischer, B., Taborsky, B., Kokko, H. How to balance the offspring quality-quantity trade-off when environmental cues are unreliable. *Oikos*.

López-Sepulcre, A., Norris, K., Kokko, H. Evolutionary conservation advice for despotic populations: Habitat heterogeneity favours conflict and reduces productivity in Seychelles Magpie Robins. *Proceedings of the Royal Society of London B*.

Keogh, J.S., Edwards, D.L., Fisher, R.N., Harlow, P.S. Molecular and morphological analysis of the critically endangered Fijian iguanas reveals cryptic diversity and a complex biogeographic history. *Philosophical Transactions of the Royal Society, Series B*.

Pittermann, J., Choat, B., Jansen, S., Stuart, S. A., Lynn, L., Dawson, T. The relationships between xylem safety and hydraulic efficiency in the Cupressaceae: the evolution of pit membrane form and function. *Plant Physiology*.

Searle, I.R., Pontes, O., Melnyk, C.W., Smith, L.M., Baulcombe, D.C. JM14, a JmjC domain protein, is required for RNA silencing and cell-to-cell movement of an RNA silencing signal in *Arabidopsis*. *Genes Dev*.

Sommerville, K.E., Gimeno, T.E., Ball, M.C. Primary nerve (vein) density influences spatial heterogeneity of photosynthetic response to drought in two *Acacia* species. *Functional Plant Biology*.

van de Pol, M., Ens, B.J., Heg, D., Brouwer, L., Krol, J., Maier, M., Exo, K.-M., Oosterbeek, K., Lok, T., Eising, C., Koffijberg, K. Do changes in the frequency, magnitude and timing of extreme climatic events threaten the population viability of shorebirds? *Journal of Applied Ecology*.