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THE AUSTRALASIAN ARACHNOLOGICAL SOCIETY

We aim to promote interest in the ecology, behaviour and taxonomy of arachnids of the Australasian region.

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email : faulder@agric.nsw.gov.au

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Previous issues of the newsletter are available at \$2 per issue plus postage.

ARTICLES

The newsletter depends on your contributions! We encourage articles on a a range of topics including current research activities. student projects. upcomina events or behavioural observations

Please send articles to the Editor:

Dr Tracey Churchill Museum & Art Gallery of the Northern Territory GPO Box 4646 Darwin NT 0801 Australia.

email: spider@octa4.net.au

Format: i) typed or legibly printed on A4 paper or ii) as text or MS Word file on CD, 3 ½ floppy disk, or via email.

LIBRARY

The AAS has a large number of reference books, scientific journals and papers available for loan or as photocopies, for those members who do not have access to a scientific library. Professional members are encouraged to send in their arachnological reprints.

Contact our librarian :

Jean-Claude Herremans PO Box 291 Manly, New South Wales 1655. Australia.

email: jclh@ihug.com.au

COVER PHOTOGRAPH by Matjaz Kuntner: Arbanitis variabilis of from S.E. Qld.

EDITORIAL

It is great to read in this issue that Professor Barry Richardson has converted from being an insect ecologist to a salticid taxonomist! Keep your eyes open for the cute jumpers of interest to his project. And for those keen to collect spiders for a worthy scientific cause, also check out the list of taxa for the large scale project which Dr Cor Vink is involved in. Be sure, however, to get advice from your nearest museum curator about the proper process for sending material overseas.

Thankyou to the Macquarie University spider lab for an update – sounds like we have lots more to read about from there! I have introduced a new category of "Undergraduate Projects" so we can read about the outcome of a scorpion study in this issue, and other such projects in the future, which members would rarely get the chance to to read about otherwise.

Dr Volker Framenau and Matthew Bruce have provided two conference reviews to help keep us up with the latest arachnological meetings.

For those members who wait by the letterbox for their next society newsletter, you would be pleased to see that the issues have recently been larger. With a rise in printing costs it is more efficient to favour newsletter size over frequency of production. So keep up the great work contributing all your arachnological news!

.....Tracey



Our librarian, Jean-Claude Herremans, would like to thank Dr Lourenço (Paris), Dr Robert Jackson (University of Canterbury), and Dr Cor Vink (previously from Lincoln University) for contributing their recent publications to the society library. Any other Australasian publications are most welcome!

The current library holdings by taxon are:

Acari: 2791 Amblypygi: 93 Araneae: 7956 Opiliones: 509 Palpigrada: 85 Pseudoscorpiones: 770 Pycnogonida: 70 Ricinulei: 59 Schizomida: 78 Scorpiones: 628 Solifugae: 125 Uropygi: 69

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ARACHNOLOGICAL ACTIVITIES



AUSTRALIAN NATIONAL INSECT COLLECTION

Barry Richardson & Bruce Halliday

After some years of quiet slumber, work on the spider collection at the Australian National Insect Collection in Canberra has recommenced. This is a consequence of two new faces appearing on the scene.

A volunteer, Sandy Roy, is working on recurating the collection. He is re-bottling old material that has been stored in inappropriate containers, upgrading the collection by extracting the spiders from the more than 2,000 bulk samples collected by ANIC staff from a wide range of habitats throughout Australia, and sorting them to family as far as possible. This effort will provide a very useful source of material on the litter living spiders of Australia

Barry Richardson has been appointed an Honorary Fellow in CSIRO Entomology and has moved back to Canberra from the University of Western Sydney. He has given up work on insect communities (and other things) to begin taxonomic studies on the jumping spiders of Australia, an entirely new field for him. This work is being carried out in conjunction with Marek Zabka, the recognised world expert on Australian salticids.

Barry and Marek plan to continue Marek's previous work through further revisions of genera, the description of many new genera, and the production of regularly updated interactive keys to the family. The latter process, using BioLink, will eventually include known and predicted distribution maps and photographs of the genera and ultimately of each species. The project is an ambitious one, given that there are more than 300 described species and at least 1,000 yet to be described, but each step will be self contained and useful in itself. Barry and Marek are very interested in receiving suitable material and information from anyone who has any knowledge of Australian salticids. Barry can be contacted at barrysalt@bigpond.com and Marek on zabka@ap.siedlce.pl.

Bruce Halliday is Curator of Arachnids in ANIC, and is continuing his interest in mites. His present priorities are pest mites that occur in stored grain, and a generic level overview and keys to genera of Astigmata (Bruce.Halliday@csiro.au).

MACQUARIE UNIVERSITY

Matthew Bruce

At the beginning of 2001 Dr Mariella Herberstein moved from the University of Melbourne to take up a lectureship at Macquarie University. During her brief period at Macquarie she has managed to set up a research laboratory and attracted a number of students working on a broad range of projects concerned with spider and preying mantid behaviour, ecology and phylogenetics. This is despite the lab's less than ideal position in the basement and next to the university's cobalt source.

Currently the lab consists of Mariella, Astrid Heiling (post-doctoral student), Greg Holwell (PhD student) and myself. Anne Gaskett (research assistant), Abby Fleisch (visiting student from the USA), and Honours students Felicity Hoese, Anne Wignall and Phoebe Hill have recently completed their time in the lab and are reported to be recovering well.

Mariella is working on various aspects of the foraging and mating behaviour of invertebrates such as spiders and praying mantids. Her current projects include the signal function of web decorations in orb web spiders. These are those curious crosses found in St. Andrew's Cross spiders. Functional hypotheses include prey attraction, predator deterrent or web advertisement to prevent accidental damage by birds. This research also forms the basis of my PhD. project. Another research interest of Mariella's is the intriguing mating behaviour of orbweb spiders. Sexual cannibalism is quite common in this group of spiders, but the evolutionary significance is still unclear: is it a case of male sacrifice or simply a female foraging strategy? This research was conducted in collaboration with Anne Gaskett, who until recently was employed as a research assistant. Anne still maintains an active interest in the lab and has gone on to become our webmaster.

Astrid Heiling, a Schroedinger Fellow from Austria, is collaborating with Mariella on a project that looks at the foraging behaviour of crab spiders. Typically these spiders sit on flowers and ambush unsuspecting pollinators. Astrid's results so far suggest that that crab spiders attract pollinating insects to flowers due to their colour contrast with the flower. This research has been very fruitful, already producing one *Nature* paper.

Four students have recently completed research projects in the lab. Abby Fleisch studied studying the effect of several parameters. including meteorological temperature, humidity, and visibility, on number and lenath of web the decorations of the orb-web weaving spider, Argiope keyserlingi. Felicity Hoese looked at the function of bright white and vellow bands on the abdomen of St. Andrew's Cross spiders. Anne Wignall was working with Astrid on the flower symmetry preferences of honeybees and crab spiders.

Our basement lab (dungeon) has grown very quickly from its humble beginnings so if anyone wants to come and join us Mariella please contact (m.herberstein@bio.mq.edu.au) or check website (www. out our bio.mg.edu.au/behaviouralecology/). We have a number of potential honours and PhD projects in behavioural ecology, taxonomy, ecology and phylogenetics. If anybody has any Argiope specimens or knows where to get some, I am looking for a number of species to complete my phylogeny of this genus. Please contact me (mbruce@bio.mq.edu.au). We are always keen to receive visitors so if anybody is visiting Sydney drop us a line and we'll show you around the lab (you may even be invited to one of Mariella's famous morning teas).

Australasian Spiders Needed for the Tree of Life: Phylogeny of Spiders

Dr Cor Vink Department of Biology San Diego State University San Diego, CA 92182-4614 USA

A team of arachnologists based in the United States, Argentina, Denmark and Spain are currently working on a five year project funded by the National Science Foundation to produce a phylogeny of all 109 spider families.

The phylogeny will be based on molecular and morphological data collected from at least 500 genera of spiders representing all the known spider families and their closest relatives (Amblypygi, Uropygi, and Schizomida). These genera have been selected to maximize the resolution of deep branches within the spider phylogeny. Of the taxa selected for this study, a quarter of them are found in Australia or New Zealand. which illustrates the importance of Australasia in understanding worldwide spider systematics.

This project will greatly benefit Australasian arachnology by resolving many of the unknown interfamilial relationships. It also has the potential to correctly place many of the difficult Australasian genera which are currently in families they don't really belong in (e.g., New Zealand members of the Agelenidae) or where their proper family is unknown (e.g., Australian Amaurobioidea).

For a large project like this a lot of fresh material is needed for DNA sequencing and scanning electron microscope (SEM) work. Earlier this year, Jason Bond and Marshal Hedin spent six weeks collecting mygalomorphs in Australia and other collecting trips are planned for New Zealand and Australia. Nevertheless, it would be extremely helpful if Australasian arachnologists were able to collect material for the project.

The associated table indicates the taxa being studied in Australia and New Zealand. It is preferable that specimens representing a genus will be the type species for that genus, but this may not be possible for many taxa. If you can help material collect please contact the "clademaster" associated with those taxa (email addresses are listed below). They will provide you with guidance on preservation and how many specimens might be required. Ideally several fresh specimens of each taxa are needed with at least one preserved in 95-100% ethanol for DNA work. You will also need to contact your local museum curator to ensure that the correct international mailing procedures are followed and the appropriate paperwork is included. For non-institutionally funded arachnologists it should be possible to organize payment for postage. Specimens collected will also need to be accompanied by an American Museum of Natural History transfer form, which available is at: http://research.amnh.org/amcc/speciment ransferform.pdf.

Genus	Family	Location	Clademaster
Missulena *	Actinopodidae	Australia	J.Bond
Neoramia	Agelenidae	NZ	C.Griswold
Orepukia	Agelenidae	NZ	C.Griswold
Tararua	Agelenidae	NZ	C.Griswold
Midgee	Amaurobiidae	Qid, NSW	G.Hormiga
Pakeha	Amaurobiidae	NZ	G.Hormiga
Poaka	Amaurobiidae	NZ	C.Griswold
Storenosoma	Amaurobiidae	Vic, NSW, Qld	G.Hormiga
Austrammo	Ammoxenidae	Australia	N.Platnick
Amphinecta	Amphinectidae	NZ	C.Griswold
Aorangia	Amphinectidae	NZ	C.Griswold
Kababina	Amphinectidae	Qlđ	C.Griswold
Maniho	Amphinectidae	NZ	C.Griswold
Quemusia	Amphinectidae	Qld, NSW	C.Griswold
Amaurobioides	Anyphaenidae	NŽ, Tas, SA	M.Ramírez
Arkys	Araneidae	Australia	N.Scharff
Eriophora	Araneidae	Australia, NZ	N.Scharff
Poecilopachys	Araneidae	Qid, NSW, NZ	N.Scharff
Austrarchaea	Archaeidae	Qld, WA, Vic	N.Platnick
Hickmania	Austrochilidae	Tas	M.Ramírez
Aurecocrypta	Barychelidae	WA	J.Bond
ldiommata	Barychelidae	WA, SA, Qld	J.Bond
Mandjelia	Barychelidae	Qld, WA, NT	J.Bond
Moruga	Barychelidae	Qld, WA	J.Bond
Synothele	Barychelidae	WA, SA	J.Bond
Supunna	Corinnidae	Australia, NZ	M.Ramirez
Cryptothele	Cryptothelidae	Qld	M.Ramirez
Amauropelma	Ctenidae	Qld	C.Griswold
Matilda	Cyatholipidae	Qld, NSW	C.Griswold
Tekella	Cyatholipidae	NZ	C.Griswold
Toddiana	Cyatholipidae	Qld	C.Griswold
Cycloctenus	Cycloctenidae	Australia, NZ	C.Griswold

Australiasian taxa within the Tree of Life project and Clademasters. Asterisks show which taxa are adequately sampled. Abbreviations apply to Australian states, and 'NZ' to New Zealand.

Toxopsiella	Cycloctenidae	NZ	C.Griswold
Kiama *	Cyrtaucheniidae	NSW	J.Bond
Badumna	Desidae	Australia, NZ	C.Griswold
Desis	Desidae	NZ, Vic, Tas, WA	C.Griswold
Gasparia	Desidae	NZ	C.Griswold
Gohia	Desidae	NZ	C.Griswold
Laestrygones	Desidae	NZ	C.Griswold
Lamina	Desidae	NZ	C.Griswold
Matachia	Desidae	NZ	C.Griswold
Myro	Desidae	NZ, Tas	C.Griswold
Otagoa	Desidae	NZ	C.Griswold
Paramatachia	Desidae	Qld, NSW, SA, Tas	C.Griswold
Pitonga	Desidae	QId, NT, WA	C.Griswold
Toxops	Desidae	Tas	C.Griswold
Cethegus *	Dipluridae	Qld, SA, WA, NSW	J.Bond
Troglodiplura *	Dipluridae	WA, SA	J.Bond
Masteria	Dipluridae	Qld	J,Bond
Meedo	Gallieniellidae	WA, SA, Vic, NSW, Qld	M.Ramirez
Eilica	Gnaphosidae	Qld, WA, Vic, NSW	N.Platnick
Hemicloea	Gnaphosidae	Qld, NSW, WA, Tas, NZ	N.Platnick
Gradungula	Gradungulidae	NZ	M.Ramírez
Macrogradungula	Gradungulidae	Qld	M.Ramírez
Pianoa	Gradungulidae	NZ	M.Ramírez
Progradungula	Gradungulidae	NSW, Vic	M.Ramirez
Tarlina	Gradungulidae	Qld, NSW	M.Ramirez
Atrax *	Hexathelidae	NSW	J.Bond
Hadronyche *	Hexathelidae	NSW, SA, Qld, Vic, Tas	J.Bond
Hexathele *	Hexathelidae	NZ	J.Bond
Teranodes *	Hexathelidae	Tas, Vic	J.Bond
Plesiothele	Hexathelidae	Tas	J.Bond
Holarchaea	Holarchaeidae	NZ, Tas	N.Platnick
Huttonia	Huttoniidae	NZ	N.Platnick
Aganippe *	Idiopidae	SA, NT, WA, Vic, NSW, Qld	J.Bond
Arbanitis *	Idiopidae	Qld, SA, WA, NSW, Vic, Tas	J.Bond
Centrothele	Lamponidae	QId, NSW	N.Platnick
Graycassis	Lamponidae	NSW, QId	N.Platnick

Genus	Family	Location	Clademaster
Lampona	Lamponidae	Australia, NZ	N.Platnick
Lamponina	Lamponidae	Australia	N.Platnick
Paralampona	Lamponidae	Vic, NSW, Tas, WA, Qld	N.Platnick
Pseudolampona	Lamponidae	SA, WA, Vic, NSW, Qld	N.Platnick
Australolinyphia	Linyphiidae	Qld	G.Hormiga
Haplinis	Linyphiidae	NZ	G.Hormiga
Laetesia	Linyphiidae	WA, NZ, SA	G.Hormiga
Novafroneta	Linyphiidae	NZ	G.Hormiga
Venonia	Lycosidae	Qld	P.Sierwald
Malkara	Malkaridae	Qld	N.Scharff
Zearchaea	Mecysmaucheniidae	NZ	N.Platnick
Micropholcomma	Micropholcommatidae	Vic, Tas, NSW, Qld	N.Platnick
Parapua	Micropholcommatidae	NZ	N.Platnick
Textricella	Micropholcommatidae	Tas, NZ, Qld, NSW	N.Platnick
Moggridgea *	Migidae	SA, WA	J.Bond
Migas	Migidae	NZ	J.Bond
Australomimetus	Mimetidae	QId, NSW	N.Scharff
Mituliodon	Miturgidae	Australia	M.Ramírez
Miturga	Miturgidae	Australia	M.Ramírez
lxamatus *	Nemesiidae	QId, NSW	J.Bond
Kwonkan *	Nemesiidae	WA, SA	J.Bond
Merredinia *	Nemesiidae	WA	J.Bond
Teyloides *	Nemesiidae	SA	J.Bond
Xamiatus *	Nemesiidae	Qld, NSW	J.Bond
Neolana	Neolanidae	NZ	C.Griswold
Ambicodamus	Nicodamidae	WA, SA, Vic, NSW, Qld	N.Scharff
Forstertyna	Nicodamidae	NZ	N.Scharff
Megadictyna	Nicodamidae	NZ	N.Scharff
Nicodamus	Nicodamidae	Qld, NSW, Vic, SA, WA	N.Scharff
Australobus	Orsolobidae	WA	M.Arnedo
Tasmanoonops	Orsolobidae	Australia	M.Arnedo
Pararchaea	Pararchaeidae	NZ, Tas, Qld	N.Platnick
Periegops	Periegopidae	NZ, Qld	N.Platnick
Perenethis	Pisauridae	Qld	P.Sierwald
Molycria	Prodidomidae	NSW, WA	N.Platnick

Myandra	Prodidomidae	Vic, WA, Tas	N.Platnick
Fecenia	Psechridae	Qld	C.Griswold
Psechrus	Psechridae	Qld	C.Griswold
Portia	Salticidae	Qld	W.Maddison
Dictis	Scytodidae	Australia	N.Platnick
Isopeda	Sparassidae	Australia	M.Ramírez
Baiami	Stiphidiidae	WA, SA, Vic	C.Griswold
Cambridgea	Stiphidiidae	NZ	C.Griswold
Ischalea	Stiphidiidae	NZ	C.Griswold
Procambridgea	Stiphidiidae	NSW, Qld, Vic	C.Griswold
Stiphidion	Stiphidiidae	NSW, Qld, Vic, NZ	C.Griswold
Anapistula	Symphytognathidae	NT, WA, Qld	M.Ramírez
Meringa	Synotaxidae	NZ	C.Griswold
Pahora	Synotaxidae	NZ	C.Griswold
Nanometa	Tetragnathidae	WA	G.Hormiga
Nephila	Tetragnathidae	Australia	G.Hormiga
Hadrotarsus	Theridiidae	Tas	J.Coddington
Bomis	Thomisidae	WA, Qld	M.Ramírez
Stephanopis	Thomisidae	Australia	M.Ramirez
Rebilus	Trochanteriidae	Qld, NSW	N.Platnick
Trachycosmus	Trochanteriidae	Australia	N.Platnick
Waitkera	Uloboridae	NZ	J.Coddington
Asteron	Zodariidae	Qld, NSW, Vic, Tas	M.Ramirez
Storena	Zodariidae	Australia	M.Ramírez
Zealoctenus	Zoridae	NZ	C.Griswold
Uliodon	Zoropsidae	NZ	M.Ramírez
Charinus	Charinidae	Qld	L.Prendini
Charon	Charontidae	Qid, NT	L.Prendini
Apozomus	Hubbardiidae	Qld, NT	L.Prendini
Attenuizomus	Hubbardiidae	NT	L.Prendini
Bamazomus	Hubbardiidae	QId, WA	L.Prendini
Brignolizomus	Hubbardiidae	Qld	L.Prendini
Draculoides	Hubbardiidae	Qld, WA	L.Prendini
Julattenius	Hubbardiidae	Qld	L.Prendini
Notozomus	Hubbardiidae	Qld	L.Prendini

Specimens of Amblypygi and Schizomida are also need as outgroup taxa for the project and are listed separately at the bottom of the table.

Clademasters' e-mail addresses:

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INTERNATIONAL ARACHNOLOGICAL SUBSCRIPTIONS



Subscriptions international to journals and/or societies listed below will be collated by our society's administrator in January. Members have the benefit of paying in Australian dollars and avoiding a bank draft fee. Our fellow societies also appreciate a co-ordinated subscription and payment. When exisiting members receive their notices they can forward these with payment to our administrator. Richard Faulder (see page 1 for details) by 30 January, 2004.

- Acta Sinica
- American Arachnol. Soc.
- Arachnol.Soc. of Japan
- Arthropoda Selecta
- British Arachnol, Soc.
- Internat'l Soc. Arachnol.
- Revue Arachnologique

Those members who wish to join a society or to subscribe to a journal can email Richard who will advise you of the relevant 2004 fee once it is available.



Recolonisation of rehabilitated bauxite mine pits by the scorpion *Urodacus planimanus.*

by Kristofer Collett

A summary of a 3rd year Biology project at Curtin University of Technology, & supervised by Karl Brennan.

This study examined recolonisation by the scorpion *Urodacus planimanus* of rehabilitated bauxite mines, operated by Alcoa World Alumina Australia, from surrounding jarrah (*Eucalyptus marginata*) forest.

The study was conducted at the Jarrahdale Mine, 45 km southeast of Perth, Western Australia. Scorpions were surveyed by visual searches under rocks in both mine pits and surrounding jarrah forest. These data were used to determine whether recolonisation of mine pits occurs, and if it had, at what age since mining was recolonisation likely.

Habitat variables that may potentially influence the occurrence of *U. planimanus* were identified. An assessment was then made of whether the variables to which *U. planimanus* may be responding differed

between forest sites and rehabilitated mine pits.

Recolonisation of rehabilitated mine pits by U. planimanus was shown in the study, but only at one pit. As such, assessment as to what age recolonisation occurs was Habitat variables that limited. mav potentially influence scorpions were rocks with a topside surface area over 60 cm² (scorpion abundance) and leaf litter cover (scorpion biomass). This rock size showed significant difference with scorpion abundance. over ail sites sampled.

Between jarrah forests and rehabilitated mine pits, a significant difference was also found in the abundance of rocks with topside area of 30 cm² and 40 cm². These rocks were considerably higher in number for the jarrah forests compared with the rehabilitated mine pits. Simple regression analysis of the data set restricted to rocks under-which scorpions were found showed that scorpions were correlated as living under these sized rocks.



34th Australian Entomological Society/6th Invertebrate Biodiversity & Conservation Combined Conference

Hobart, 28 Sep - 3 Oct 2003

'Arachnological Anecdotes from Tasmania'

Tassie is always worth a trip, particularly if you are attending a scientific conference on your way to examine the arachnology collections of the Tasmanian Museum and Art Gallery (TMAG) in Hobart, and the Queen Victorian Museum and Art Gallery in Launceston (QVMAG) (which was, what I did...). Of course, there are numerous other attractions in Tasmania and I have rarely visited a meetina with many delegates SO embarking post-conference on sightseeing. such as extended trips around the island state or caving expeditions, to name just two.

Entitled 'Invertebrates and Environmental Change', this event integrated the annual Australian Entomological Society, and biennial Invertebrate Biodiversity and Conservation, meetings. The conference was excellent, extremely well organized executed by organizing and the committee which consisted of members University of Tasmania, from the Department of Primary Industries, Water

and the Environment, Forestry Tasmania, TMAG, and the Queensland Museum (!) and chaired by Geoff Allen from the University of Tasmania. There were no technical hiccups at all, and the food provided by the host venue, the Corus Hotel, was sensational.

There were an extremely high number of student presentations, all of impressive quality. Moreover, two presentations with arachnological contents snatched student prizes for their class: 'Genotypic and phenotypic adaptation in an aerially dispersing spider Enophora heroine' by Hayley Sharp from the Australian National University (with co-author Neil Murray, of La Trobe University) won the poster competition, and; 'Problems of 'apparent' predictability inherent in shortterm ecological research: a case study of flood-related changes in beetle and spider assemblages' by Andrea Ballinger (with co-authors Sam Lake and Ralph McNally), from Monash University, came third in the oral presentation section. Well done!

There were a number of presentations dealing with arachnological subjects and the following list [with email contacts in brackets] demonstrates the width and depth of subjects covered:

Oral presentations:

Ballinger, A., Lake S. & McNally, R. 'Problems 'apparent' predictability of inherent in short-term ecological research: a case study of flood-related changes beetle and spider in assemblages'.

[andrea.ballinger@sci.monash.edu.au]

Beaulieu, F. 'Is each forest type inhabited by a distinct invertebrate fauna? Insight from a group of predatory soil-inhabiting mites (Acari: Mesostigmata)'. [fbeaulieu@zen.uq.edu.au]

Beavis, A. & Rowell, D. 'A comparison of maternal investment in a social and nonsocial species of huntsman spider'. [amber.beavis@anu.edu.au]

Doran, N. 'Potential bioresources in Tasmanian spiders and other invertebrates: preliminary work, future possibilities and implications for conservation management'. [niall.doran@dpiwe.tas.gov.au]

Framenau, V. W., Harvey, M. & Austin, A. D. 'Dances with wolves down under'. [framenau@museum.wa.gov.au]

<u>Gotch, T., Framenau, V. W. & Austin, A.</u> <u>D.</u> 'The wolf spiders of the South Australian mound springs: their identity revealed'. [travis.gotch@adelaide.edu.au]

Ridsdill-Smith, J., Pavri, C., Reidy-Crofts, J. & Edwards, O. 'Increased pasture diversity to reduce populations of redlegged mites and Lucerne flies'. [james.ridsdill-smith@csiro.au]

Sharp, H. & Murray, N. 'Gene flow and local adaptation in an aerially dispersing spider *Eriophora heroine'*. [hayley.sharp@anu.edu.au]

Umina, P. & Hoffman, A. 'Diapause strategies of earth mites and implications for pest control'. [p.umina@latrobe.edu.au] Weeks, A. & Stouthammer, R. 'Increased fecundity and partial cytoplasmic incompatibility associated with infection by an intracellular bacterium from the Cytophaga-Flavobacterium-Bacteroides phylum in the predatory mite, *Metaseiulus occidentalis*'. [a.weeks@latrobe.edu.au]

Posters

Bashford, D., Muirhead, A. & Boutin, L. 'The spider fauna utilizing *Eucalyptus obliqua* at the Warra LTER site in southern Tasmania'.

<u>Durrant, B.</u>'Biogeographical patterns of zodariid spiders (Araneae, Zodariidae) in the wheatbelt region, Western Australia' [bradleyd@calm.wa.gov.au]

Stay tuned for the XXII International Congress of Entomology 'Strength in Diversity' in Brisbane (15 – 21 August 2004; www.ccm.com.au/icoe) and the next 'Invertebrate Biodiversity and Conservation Meeting' in Canberra in 2005!

Dr Volker Framenau

Department of Terrestrial Invertebrates Western Australian Museum Francis St, Perth, W.A. 6000



20th European Colloquium Of Arachnology

Despite the tyranny of distance, two intrepid Australian arachnologists made the epic journey to Szombathely, Hungary for the 20th European Colloquium of Arachnology.

The meeting highlighted the diversity of arachnological research being conducted across Europe and beyond. Papers and posters were presented on a wide variety of topics including behaviour, ecology, morphology. taxonomy, systematics, agroecology, physiology and even the impact spiders of on humans (arachnophobia). The meeting also included two special symposia, "Spiders as ecological indicators" and "Spider senses", both of which highlighted the wider scientific importance of arachnological research.

The highlights of the meeting included two invited presentations, one by Yael Lubin on the evolution of sociality in spiders and the other by Axel Schmidt on vision in spiders. The other conference highlight for us was Anne receiving the prize for the best student presentation for her talk on sexual cannibalism in the St. Andrews Cross spider, *Argiope keyserlingi*. All rumours suggesting that she won only because the Hungarians thought that she needed a new t-shirt are entirely false. In fact all of the winners already had very nice t-shirts!

Of course you can't have a European meeting without Russians, and we knew that they had arrived when a pile of smoked fish and vodka suitable for long, cold field seasons in Siberia appeared in the fridge! We were grateful for the incredible hospitality and friendliness of our hosts, and in particular we would like to thank Ferenc Samu and Csaba Szinetár for organising the conferencem, and Tamás Szuts for organising social events.

We certainly encourage society members to go to one of these meetings, which are held every year within Europe.

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