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Newsletter of the Australasian Arachnological Society

THE AUSTRALASIAN ARACHNOLOGICAL SOCIETY

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

MEMBERSHIP

Membership is open to amateurs, students and professionals, and is managed by our Administrator:

Richard J. Faulder
Agricultural Institute
Yanco, New South Wales 2703.
Australia

email : faulder@agric.nsw.gov.au

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Status box on the envelope indicates the last issue paid for.

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 range of topics including current research activities, student projects, upcoming events or behavioural observations.

Please send articles to the editor:

Volker Framenau
Department of Terrestrial Invertebrates
Western Australian Museum
Locked Bag 49
Welshpool, W.A. 6986, Australia.

volker.framenau@museum.wa.gov.au

Format: i) typed or legibly printed on A4 paper or ii) as text or MS Word file on CD, 3½ 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:
Urodacus armatus ♂ (Western Australia)
Mark S. Harvey

EDITORIAL

This shapes up to be a very interesting year for the Australasian Arachnological Society!

Nearly 20 years after the first meeting of the Society in Tunanda in 1986 and more than 10 years after the Internationonal Arachnological Congress in Brisbane, in 1993, there will be another 'reunion' of the Australasian Arachnological Society. As part of the **Combined Australian Entomological Society, Society of Australian Systematic Biologists and Invertebrate Biodiversity and Conservation Conference** (Australian National University, Canberra) from 4-9 December 2005, we are organizing a **symposium 'Australasian Arachnology – Evolution, Ecology and Conservation'** Currently, there are two sessions earmarked for this symposium, however, the final format will be determined by the number of participants. Please register your interest with the conference organisers. A call of abstracts will be sent out in June (for details please check: http://www.invertebrates2005.com). Of course we endeavour to provide some entertainment for arachnologists beside the scientific program itself. And taking into account the 'social skills' of most arachnologists, there is no doubt that this will involve a few pints of beer or glasses of wine (see Mark's and Cor's report on the conference in Belgium in the last issue).

Not much longer now! The launch of the **website of the Australsian Arachnological Society** is only days away! We have organized an inexpensive host and a domain name (www.australasian-arachnology.org) and all it needs is a final touch up of our site and loading it up. This will hopefully be happening sometime during May, but certainly before the next issue of *Australasian Arachnology* (August). So check the above URL frequently. I will also send out an email through the arachnology topica list server when the site is up. Acknowledgements will follow, it was a major effort from all those involved!

With this newsletter, I have sent out a **list of members** of the Australasian Arachnological Society. This serves a number of purposes: Primarily, you can check if we have your correct details. Also, it makes our society a little more transparent, so that all members know who belongs to our elusive group! If you think that one of your colleagues or friends would be interested in joining the society and you cannot find her or him on the list, please promote us. Membership is the only source of income and some money is required to maintain the newsletter and the upcoming website!

Please remember, that *Australasian Arachnology* is available as (fully coloured!) **pdf-version**. Please consider this option, which saves our society some money, me stuffing envelopes and the world some trees!

A big 'thank you' goes to all contributors of this issue! I am still looking for articles for the next newsletter, so please sharpen your pencils or grease up your keyboards and send me some contributions!

Cheers for now!

Volker

MEMBERSHIP UPDATES

New Members

Travis B. Gotch
GAB Springs Project Officer
Arid Areas Catchment Water Management Board
Roxby Downs Council Chambers
Richardson Place
Roxby Downs
South Australia 5725

Dr Peter Jäger
Forschungsinstitut und Naturmuseum Senckenberg
Senckenberganlage 25
D-60325 Frankfurt a. Main
GERMANY

Dr Jung-Sun Yoo
Department of Terrestrial Invertebrates
Western Australian Museum
Locked Bag 49
Welshpool DC
Western Australia 6986

Change of Address

Dr Karl Brennan
Bushfire CRC Postdoctoral Research Fellow (Invertebrate Ecology)
Forest and Ecosystem Science
University of Melbourne
Creswick VIC 3363
AUSTRALIA

UPCOMING EVENTS

Combined Australian Entomological Society, Society of Australian Systematic Biologists and Invertebrate Biodiversity and Conservation Conference

Australian National University, Canberra
(Australian Capital Territory)

4-9 December 2005

For information check:
http://www.invertebrates2005.com/

For information on the symposium on **'Australasian Arachnology – Evolution, Ecology and Conservation'** as part of the above conference, please contact me (volker.framenau@museum.wa.gov.au).
If you are interested in participating in the symposium by presenting a talk or poster, you have to register with the organizing committee (**NOT** with me) at (http://www.invertebrates2005.com/). A call for abstracts can be expected in June.

Chasing scorpions on the Solomon Islands

by Lionel Monod
(lmonod@hotmail.com)

I am currently working on scorpions of the genus *Liocheles* Sundevall, 1833 at the Natural History Museum of Geneva in preparation of my Ph. D. thesis. These scorpions are found from India to the Pacific Islands, but the Australasian region harbours the most interesting and diverse fauna. According to the material which I have studied, it appears that certain areas are extremely well sampled, for instance the Queensland wet tropics, whereas others remain poorly known and the material collected is insufficient to carry out a proper systematic analysis. It is not surprising that these areas are generally very remote and difficult to travel, with untouched and pristine ecosystems, and therefore very interesting for conducting surveys. Among these "forgotten" regions are the Solomon Islands. Although close to the Australian East coast, the Solomon Islands seem neglected by scientists. The violent ethnic tensions that the country experienced during the last five years also hampered scientific activities there. After one year of hard work, the Australo-Pacific army forces managed to restore law and order on the Solomons. The country is now on its way to recovery and it is possible to travel safely. So I decided to head for these Melanesian islands in order to collect scorpions, hoping to discover new species.

I started my trip in mid September 2004 and decided to make a stop-over in **New Caledonia** before heading towards the Solomons. The scorpions of the genus *Liocheles* are typical inhabitants of humid tropical habitats. I heard from colleagues that rainforests on that island are extremely limited and are decreasing even more due to urbanisation, extensive logging, nickel mining and bushfires. Indeed, it is difficult to believe that more than 80% of this island was once covered with thick rainforests. The western coast is extremely dry, almost entirely composed of vast farmland and pastures. The remaining rainforests are limited to small patches on the highest mountain tops and plateaus in the centre of the island and on the north-eastern coast. Consequently, it was not easy to find localities in moist ecosystems that have not been previously surveyed. Finally, I managed to find what I was looking for, the endemic species *Liocheles neocaledonicus* (Simon, 1877) (see photo next page) (editor's note: currently listed as junior synonym of the Australian *Liocheles waigiensis* (Gervais, 1844)). After witnessing the damage done by humans on the forests of New Caledonia, I was a bit worried of what I will find in the Solomons. Even if the country is remote and poorly developed, it has already been logged extensively.

I flew to the **Solomon Islands** at the beginning of October 2004 and arrived in the capital Honiara. My first goal was to obtain a collecting permit from the Ministry of Education. After one week of unsuccessful struggles with the administration and lazy clerks, I finally decided to leave the daunting streets of Honiara and head for the more relaxed outer islands without a permit, hoping to get it at the end of the trip. I quickly realized that everything there was taking three to five times longer than it would in developed countries. Thus I would not be able to prospect all the regions I previously planned. I decided to focus my efforts on the Western Province. Even though this is the more developed province in terms of tourism, travelling there can be as challenging as it gets. I finally managed to reach several remote areas with some efforts and with the help of local guides. Light fibreglass motor canoes are the main transport between the islands. Travelling on those little boats through picturesque lagoons with crystal clear water and abundant sea life, although not very safe, was an amazing and enjoyable experience when the sea was calm. It can develop into a real nightmare when the sea and the weather get rough. Choppy currents, gutsy winds, torrential tropical rains and huge swells are common in the Solomons.

The islands are as beautiful and pristine as the lagoons. Although some of them have been entirely logged and coconut plantations now replace primary forests, most of them remain untouched. Wandering through such an environment is a feast of experiences for researchers and travellers alike. Uninhabited islands, untouched lowland rainforests, pristine ecosystems and also skulls shrines, reminders of headhunting and cannibalism that still occurred 60 years ago, give a sense of what must have been in the hearts of the explorers of the 20th century when they saw these unknown lands. The Solomon Islands give you that feeling of new, unexplored horizons. Bushwalking through these thick, incredibly hot and humid jungles also contributes to the feeling. It was the fist time I experienced such emotions, the wonder and awe of the discovery mixed with the fear of the unknown, a real adventure.

Liocheles neocaledonicus (Simon, 1877)
Photo: L. Monod

Liocheles was plentiful and widespread in the forests. In certain areas I almost found a scorpion under each stone. Two species were known to occur in the Solomon Islands, *Liocheles australasiae* (Fabricius. 1775) a very widespread, parthenogenetical and ecologically adaptable species, and the geographically more restricted *Liocheles penta* Francke & Laurenço, 1991. Before my departure I had examined several specimens of a mysterious species from the island of Guadacanal, but unfortunately the material was composed

of only juveniles, insufficient to determine its taxonomic identity. This trip enabled me to clarify the status of this species. It is distinct from Papuan species, morphologically very close to *Liocheles neocaledonicus* and it seems to be widespread through the Solomons' Western Province and Guadalcanal Island and probably all over the Solomons. Similar to New Caledonia, the scorpion diversity is also quite poor in the Solomons, at least for the family Liochelidae. Nevertheless, two of the three species found on the islands seem to be endemic.

The trip to Melanesia was a bit disappointing in terms of diversity but it allowed me to discover a truly wild and untouched country. In addition, it gave me a good view of the high rate of irreversible damage our civilisation can do to nature. The Solomon Islands are targeted by loggers for their timber resources. With the end of the ethnic tensions, the logging, which had slowed down a bit during the last five years, will certainly be on the rise again. Logging is a real threat to the livelihood of villagers, to the health of lowland forests and to the maintenance of biodiversity. Attempts are currently made to merge conservation practices with development initiatives. For instance, efforts were made to ensure that tourism develops on a low-impact, eco-tourism basis, especially in the Marovo Lagoon where the constructions of eco-tourism lodges have been sponsored by the World Wildlife Fund for Nature and the World Heritage Organisation (UNESCO). The Tetepare project is a great example and constitutes a highlight of these efforts. Tetepare is an island that has been virtually uninhabited for more than 100 years and has not suffered the fate of many other islands which had their natural resources plundered. Commencing in 1996, a working partnership has been established between the WWF and descendants of Tetepare landowners in order to manage the island so that this unique place will be preserved. The main concern of this association is to monitor the endangered leatherback turtles, which are coming to breed on Tetepare's beaches and on the beaches of the nearby villages of M'baniata and Havilla (Rendova island). Yet the prospects for such a sustainable management are bleak, it seems to provide not enough cash in return. The Solomon Islands are really in need of help to protect and manage their natural resources and huge efforts are needed to assure the future of one of the last unspoiled areas on earth.

Laboratory Profile

Behavioural Ecology @ Macquarie

The behavioural ecology lab at Macquarie University (NSW) consists of a young and dynamic group interested in the behaviour of various invertebrates within an ecological and evolutionary context. We study a variety of aspects of visual signals, foraging and mating behaviours in orb-web spiders, crab spiders, praying mantids and wasps. Our work on visual signals include the colour of crab spiders and the flowers they sit on, and web decorations (stabilimenta) in orb-web spiders. Our work on sexual cannibalism focuses on *Argiope* and

Nephila and recently various Australian praying mantids.

The core of our group consists of: Mariella Herberstein (captain), Astrid Heiling, Ann Goeth (who is an anomaly by working on brush turkeys), Matt Bruce, Greg Holwell, Anne Gaskett, Kate Barry, our perennial Canadian visitor Mike Kasumovic and various Honours students and volunteers. For more detail and contact information visit:

www.bio.mq.edu.au/behaviouralecology/

Revision of the Long-Spinneret Ground Spiders (Prodidomidae Simon, 1884) of Australia – an update

by Barbara C. Baehr[1] and Norman I. Platnick[2]

[1]Queensland Museum, Brisbane (BarbaraB@qm.qld.gov.au)

[2]American Museum of Natural History (platnick@amnh.org)

Platnick (1990) redefined the family Prodidomidae to include only those gnaphosoid spiders with greatly elongated piriform gland spigot bases accompanied by highly plumose or scaled setae. In Australia the Long-Spinneret Ground Spiders consist of two subfamilies, the Prodidominae and the Molycriinae. The Australian Prodidominae, solely represented by the genus *Prodidomus*, are quite small (1.8-4.3 mm), flat, pale spiders with laterigrade legs and greatly enlarged, canoe-shaped posterior lateral spinnerets.

Most of the Australian species and genera belong to the Molycriinae. These small to medium sized (1.8mm - 5.0mm) spiders vary in colouration and can be pale, cinnamon or greyish. They can easily be identified by their extremely long anterior lateral spinnerets, which are situated anteriorly and far removed from the other spinnerets (Fig. 1). In all prodidomids, the posterior median eyes are flat, silvery and triangular, egg-shaped or irregularly rectangular. The Molycriianae have both eye rows strongly procurved, whereas in the Prodidominae the anterior eye row is straight.

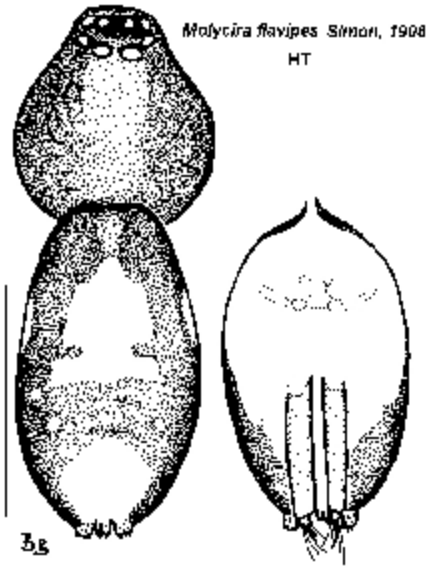

Figure 1: *Molycira flavipes* Simon, 1908

Prodidomidae are distributed over the whole mainland of Australia and Tasmania. They live in nearly every habitat, from the rainforests in Queensland to the dry deserts of the

Kimberleys. Little is known about their biology. Prodidomidae are mostly ground dwellers but they also inhabit tree trunks. Most of them are nocturnal, hiding in litter or under bark at daytime, however, the small species of the genus *Myandra* seem to be active during the day. Their colouration, with horizontal stripes on the abdomen, and their behaviour suggest them to be ant mimics.

Our current knowledge of the systematics of the Long-Spinneret Ground Spiders in Australia is rudimentary. Most species were described around the turn of the 19th to the 20th century. Prodidomidae are not listed in the online ABRS ABIF catalogue (http://www.deh.gov.au/biodiversity/abrs/online-resources/fauna/afd/index.html).

Platnick (2005) lists 10 species and 6 genera of Prodidomidae from Australasia:

- *Cryptoerithus occultus* Rainbow, 1915
- *Encoptarthria serventyi* Main, 1954
- *Honunius quadricaudus* Simon, 1908
- *Molycria alboplagiata* Simon, 1908
- *Molycria flavipes* Simon, 1908
- *Molycria mammosa* (O. P.-Cambridge, 1874)
- *Molycria splendida* Simon, 1908
- *Myandra bicincta* Simon, 1908
- *Myandra cambridgei* Simon, 1887
- *Prodidomus beattyi* Platnick, 1977

The aims of our revision, funded by the Australian Biological Resource Study (ABRS), are

1. To place the 10 known species according to their phylogenetic relationships.
2. To describe all new species and genera. This revision will reveal 7 genera and more than 130 new species: 6 genera belong to the Molycriinae, only *Prodidomus* belongs to the Prodidominae.
3. To provide keys for genera and species within each genus.
4. To reconstruct the phylogenetic relationships of genera and species groups.

References

Platnick, N.I. 1990. Spinneret morphology and the phylogeny of ground spiders (Araneae, Gnaphosoidea). *American Museum Novitates* **2978:** 1-42.

Platnick, N.I. 2005. The World Spider Catalogue, Version 5.5. http://research.amnh.org/entomology/spiders/catalog/INTRO1.html. American Museum of Natural History.

Request for material

Clubiona from Australia and New Caledonia

Lisa Boutin (Queen Victoria Museum and Art Gallery, Launceston) is currently working on the taxonomy of the genus *Clubiona* in Australia and New Caledonia and is interested in receiving any material available of this genus in the region. Please contact Lisa at:

Lisa.Boutin@qvmag.tas.gov.au

or:
Lisa J. Boutin
Queen Victoria Museum and Art Gallery
Wellington St
Launceston, TAS 7250

POSTGRADUATE PROJECTS

Predator-prey interactions in orb-web spiders

Dinesh Rao

Thesis: Ph.D.

Institution: Macquarie University, Sydney

Supervisors: Ken Cheng, Mariella Herberstein

My research topic concerns predator-prey interactions in an orb-web spider. More specifically, I am looking at the responses of the European honey bee (*Apis mellifera*) to the stabilimenta (web decorations) of the St. Andrews Cross spider (*Argiope keyserlingi*). Recent research is leading to a consensus that the stabilimenta of the *Argiope* spiders function as prey attractants. I will be looking at the details of this interaction, and the conditions under which bees avoid or fly into webs can then be studied by analyzing trajectories of bees using video recording of their flight. Further, I will be exploring the effects of different kinds of stabilimenta and backgrounds on the capture rate and flight pattern of the bees. This work will be carried out in a large all weather bee facility set up on campus.

Photogallery

by Garry Vogelsang, Melbourne (sir_bazz@bigpond.com)

I'm a budding photographer more so than budding arachnologist and was recently looking for some subjects for the current International Agfanet Photo Awards http://www.agfanet.com/en/cafe/contest/cont_submit.php3, which happens to have a theme of extreme close ups.

It was while I was looking for trapped insects in our backyard pool that I first noticed some small spiders in the pool but it wasn't until I came back with my camera that I noticed one of the spiders was carrying young on its back.

Having never seen this behaviour before I took a series of pictures in the hope that I may have something reasonable to enter in the competition. Our pool and spa are a magnet for unwary insects and I suspect our spiders have adapted to use it as a supply of easy meals. After reviewing some of the better shots, my search began for the name and identification of the mystery spider which led me first to

the enquiries department at the Australian Museum and to Mike Gray of the same, and finally to Volker Framenau of the Western Australian Museum. Volker was kind enough to provide the missing name and classification of our mystery spider, (‘*Trochosa’ expolita* (L. Koch, 1877)), and now all that is left is to submit my entry and see how it goes once judging begins in late March.

Observations on general behaviour and activity patterns in *Lampona cylindrata*

L.S. Nyskohus and M. Kokkinn
(nysk0004@flinders.edu.au)

Rearing spiderlings from egg hatching to the point of sexual maturity can be a laborious process. This is especially true for stenophagous spiders that specialise in eating other spiders. As part of my honours project entitled ‘The morphology and histology of the venom glands of several Araneae species, with emphasis given to *Lampona cylindrata* (L. Koch, 1866)’, I attempted to rear *L. cylindrata* (the White-tailed Spider). A primary aim of the study was to rear these spiders to maturity, while observing any general activity and behaviour patterns.

A *L. cylindrata* egg sac along with the lively mother was collected from the bark of a River Red Gum in Adelaide. After all 109 spiderlings emerged, they were individually placed in holding tubes and were subject to an artificial photoperiod in an insectary. The feeding of each spiderling involved a diet of juvenile spiderlings from other species that had been bred in captivity (primarily *Latrodectus hasselti* Thorell, 1870, the Redback Spider).

Although a large proportion of spiderlings did remain alive after the rearing period of 20 weeks, a high mortality rate was observed prior to or during the onset of ecdysis. Numerous spiderlings were observed having difficulty when emerging from their old exoskeleton (Fig. 1), struggling with this process for up to 14 days. A total of 66% of all spiderling deaths was associated with the moulting process.

Figure 1: The exoskeleton of a spiderling fails to detach properly resulting in its death.

As previous studies have shown, the likely reason for this occurrence was their monotypic diet, which lacked the mixed nutrients these spiderlings would presumably obtain when hunting in their normal environment. In addition to these deaths, the rate of growth was considerably slower than expected for spiderlings in general, with no sign of the onset of sexual maturity with the fifth instar being reached and an average length increase of approximately 3mm. *Lampona cylindrata* may be a slow growing spider, however the likely explanation for their lack of growth may be attributed to their diet. This reinforces the idea that spiders feeding on polytypic diets would have better survival and growth rates than those fed on a sole dietary source.

Figure 2: *Pholcus phalangioides* feeding on *L. cylindrata*.

As a result of rearing the spiderlings of *L. cylindrata*, an insight into the predatory chain amongst various species of spider was also gained. It was found that *L. cylindrata* had successfully adapted to hunting a variety of other spider prey, with both adult and juvenile specimens overcoming the majority of other common species of spider. The exception to this rule was *Pholcus phalangioides* (Fuesslin, 1775), the Daddy Long Leg, which regularly ended up as the hunter rather than the hunted when placed into a *L. cylindrata* vivarium (Fig. 2)

The activity of *L. cylindrata* was recorded in observational chambers under controlled conditions. In accordance with the majority of other species of spider, *L. cylindrata* was noted as being more active at night with regular and extensive movement being observed between periods of rest. While observing the movement of these spiders, grooming patterns were also noted. It was unclear whether these repeated movements were an attempt to remove unwanted debris from the abdomen or, alternatively, done to coat the body in a substance obtained from its mouthparts. Either way, this was a regular process that consistently took place immediately prior to the onset of the hours of light or just following it.

In addition to these observational studies, further studies were carried out investigating the histology of the venom glands of *L. cylindrata*. This involved removing the glands of numerous specimens, processing, embedding and performing both routine and IHC histology. The venom glands of *L. cylindrata* were structurally very similar to those of *L. hasselti* and *Lycosa godeffroyi*. (L. Koch, 1865). Each gland was surrounded by a layer of striated muscle, which was accompanied by a basal membrane, which then gave rise to secretory epithelial cells (Fig. 3). The secretory cells were found both lining the basal

membrane and within the interior of the venom gland, with *L. godeffroyi* also displaying the more obvious presence of tubular acni throughout the venom gland.

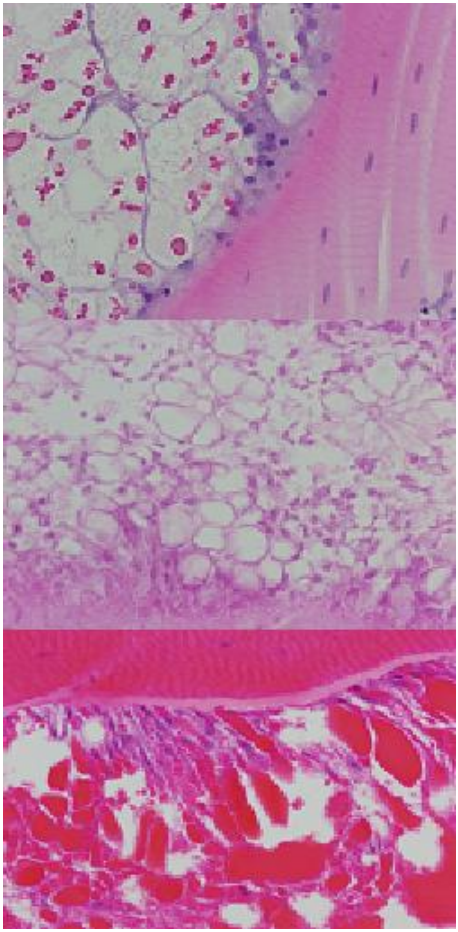

Figure 3: A section of the venom gland of three spider species displaying striated muscle, secretory epithelial cells and the lumen of the glands filled with likely venom components. From above: *L.cylindrata*, *L. godeffroyi* and *L. hasselti.*

Recent Australasian Arachnological Publications

This column aims to collate arachnological publications that were issued (but not those 'in press') since the last volume of *Australasian Arachnology*. This includes:

- papers on Australasian arachnology and
- written by Australasian arachnologists (including non-arachnid papers).

I am particularly interested to list entries of publications that are not easily trackable through the common library search engines, including theses and abstracts of theses. Please provide me with information on your latest publications for the next issue.

Baehr, B. 2004. The systematics of a new endemic Australian genus of ant spiders *Masasteron*. *Invertebrate Systematics* **18**: 661-691.

Beard, J. J. & **Walter, D. E.** 2004. Cryptic false spider mites: a new genus, *Austrolinus*, and a review of the family Linotetranidae (Acari: Prostigmata: Tetranychoidea). *Invertebrate Systematics* **18**: 593-606.

Benjamin, S. P. 2004. Taxonomic revision and phylogenetic hypothesis for the jumping spider subfamily Ballinae (Araneae, Salticidae). *Zoological Journal of the Linnean Society* **142**: 1-82.

Bochkov, A. V. & **OConnor, B. M.** 2004. Phylogeny, taxonomy and biology of

mites of the genera *Chelacheles* and *Neochelacheles* (Acari: Cheyletidae). *Invertebrate Systematics* **18**: 547-592.

Coleman, N. 2005. Australia's desert 'wolves'. *Asian Geographic* **1/2005**: 72-79.

Davies, V. T. 2005. *Teeatta*, a new spider genus from Tasmania, Australia (Amaurobioidea: Amphinectidae: Tasmarubriinae). *Memoirs of the Queensland Museum* **50**: 195-199.

Durrant, B. J. 2004. Biogeographical patterns of zodariid spiders (Araneae: Zodariidae) in the wheatbelt region, Western Australia. *Records of the Western Australian Museum Supplement* **67**: 217-230.

Durrant, B. J. & **Guthrie, N. A.** 2004. Faunas of unflooded saline wetland floors of the Western Australian wheatbelt. *Western Australian Museum Supplement* **67**: 231-256.

Elgar, M. A. & **Schneider, J. M.** 2004. The evolutionary significance of sexual cannibalism. *Advances in the Study of Behaviour* **34**: 135-163.

Framenau, V. W. & **Elgar, M. A.** 2005. Cohort dependent life-history traits in a wolf spider (Araneae: Lycosidae) with bimodal life cycle. *Journal of Zoology, London* **265**: 179-188.

Gaskett, A. C., **Herberstein, M. E.**, **Downes, B. J.** & **Elgar, M. A.** 2004. Life-time male mating preferences in a sexually cannibalistic orb-web spider (Araneae: Araneidae). *Behaviour* **141**: 1197-1210.

Guthrie, N. A. & **Waldock, J. M.** 2004. Patterns in the composition of the jumping spider (Arachnida: Araneae: Salticidae) assemblage from the wheatbelt region, Western Australia. *Records of the Western Australian Museum Supplement* **67**: 203-216.

Harvey, M. S. 2004. Remarks on the New World pseudoscorpion genera *Parawithius* and *Victorwithius*, with a new genus bearing a remarkable sternal modification (Pseudoscorpiones, Withiidae). *Journal of Arachnology* **32**: 436-456.

Harvey, M. S., Waldock, J. M., Guthrie, N. A., Durrant, B. J. & **McKenzie, N. L.** 2004. Patterns in the composition of ground-dwelling araneomorph spider communities in the Western Australian wheatbelt. *Records of the Western Australian Museum Supplement* **67**: 257-292.

Heiling, A. M. 2004. Effect of spider position on prey capture success and orb-web design. *Acta Zoologica Sinica* **50**:559-565.

Isbister G. K. 2004. Necrotic arachnidism: the mythology of a modern plague. *Lancet* **364**:549-553.

Jackson, R. R. & **Li, D.** 2004 One-encounter search-image formation by araneophagic spiders. *Animal Cognition* **7**: 274-254.

Jocqué, R. & **Churchill, T. B.** 2005. On the new genus *Tropizodium* (Araneae:Zodariidae), representing the femoral organ clade in Australia and the Pacific. *Zootaxa* **944**: 1-10.

Lim, M. L. M. & **Li, D.** 2004. Courtship and male-male agonistic behaviour of *Cosmophasis umbratica* Simon, an

ornate jumping spider (Araneae: Salticidae) from Singapore. *Raffles Bulletin of Zoology* **52**: 435-448.

Lui, P. C., Petersen, D., Kimble, R. M., Raven, R. J. & **Pearn, J. H.** 2005. Idiopathic necrotizing dermatitis: Current management. *Journal of Paediatric Child Health* **41**: 27-30.

Main, B. Y. 2004. Biosystematics of Australian mygalomorph spiders: descriptions of three new species of *Teyl* from Victoria (Araneae: Nemesiidae). *Memoirs of the Museum of Victoria* **61**: 47-55.

Peng, X.-J., Li, S. & **Yang, Z.-Z.** 2004. The jumping spiders from Dali, Yunnan, China (Araneae: Salticidae). *Raffles Bulletin of Zoology* **52**: 413-417.

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UPCOMING EVENTS

Fourth Meeting of the Australasian Evolution Society
Esplanade Hotel, Fremantle (Western Australia)

27th – 30th September 2005

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