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Newsletter of the Australasian Arachnological Society

THE AUSTRALASIAN ARACHNOLOGICAL SOCIETY

www.australasian-arachnology.org

Acari – Araneae – Amblypygi – Opiliones –
Palpigradi – Pseudoscorpiones – Pycnogonida –
Schizomida – Scorpiones – Uropygi

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

MEMBERSHIP

Membership is open to all who have an interest in arachnids – amateurs, students and professionals – and is managed by our Administrator (**note new address**):

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Membership fees in Australian dollars (per 4 issues):

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Cheques are payable in Australian dollars to “Australasian Arachnological Society”. Any number of issues can be paid for in advance, and receipts can be issued upon request.

Members will receive a **PDF version*** of the newsletter *Australasian Arachnology*, and will be notified by email when their subscription has expired.

***NOTE. PDF-only as of Issue 80**

ARTICLES

The newsletter *Australasian Arachnology* depends on the contributions of members. Please send articles to the Editor:

Michael G. Rix

Department of Terrestrial Zoology

Western Australian Museum

Locked Bag 49, Welshpool DC, W.A. 6986

Email: michael.rix@museum.wa.gov.au

Articles should be typed and saved as a Microsoft Word document, with text in Times New Roman 12-point font. Only electronic email (preferred) or posted CD-ROM submissions will be accepted.

Previous issues of the newsletter are available at <http://www.australasian-arachnology.org/newsletter/issues>.

LIBRARY

For those members who do not have access to a scientific library, the society has a large number of reference books, scientific journals and paper reprints available, either for loan or as photocopies. For all enquiries concerning publications please contact our Librarian:

Jean-Claude Herremans

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Manly, New South Wales 1655

Email: jclh@ihug.com.au

Professional members are encouraged to send in their arachnological reprints as they become available.

COVER ILLUSTRATIONS

Jumping spider, *Portia fimbriata* (Doleschall, 1859), eating an *Argiope* sp. (Araneidae). This photo was taken at Wongalara Wildlife Sanctuary, Northern Territory, during a recent Bush Blitz expedition funded by the Australian Biological Resources Study (ABRS).
Image by **Mark Harvey (WA Museum)**.

EDITORIAL...

Welcome to Issue 84 of *Australasian Arachnology*. I'd like to begin this editorial by first making special mention of the late Doug Wallace OAM (1923-2012), who passed away in June this year. Doug was a founding member of the Australasian Arachnological Society, and would be further known to many as the founder and President of the long-running Rockhampton Arachnological Society. Robert Raven and I have written a small notice re. Doug's passing in the General Announcements section (below), and Robert will contribute a full obituary for Doug in the following issue of the newsletter. Vale Doug – you will be sorely missed.

On a brighter note, this edition also highlights a number of exciting discoveries, including a new spider family from the USA and a new arachnid ordinal record for Western Australia! The last six months have further seen a flurry of revisionary and taxonomic studies on Australasian arachnids, and it is always exciting to see the outputs of ongoing research into our remarkable arachnid fauna. Indeed, some of this research will be showcased at the upcoming Australian Entomological Society/Australasian Arachnological Society Joint Conference (to be held in Hobart in November), with a special symposium dedicated to Australasian arachnids and myriapods. This symposium, entitled "Progress in Australasian Arachnid and Myriapod Systematics in the 21st Century" includes seven speakers presenting on a wide range of topics and taxa. On this note I would like to congratulate Sophie Harrison from the University of Adelaide and Jess Marsh from Flinders University, for being awarded AAS travel awards for this conference. Sophie will present her research on pseudoscorpion systematics within the arachnids/myriapods symposium, and Jess will present her research with a poster on Kangaroo Island arachnid communities and their responses to fire. Both Sophie and Jess submitted very high quality

applications, and the judging panel were unanimous in their decisions.

In this issue we have another two 'Arachnid Research In Focus...' columns, featuring articles on two strange families of six-eyed haplogyne spiders. The first summarises one of the most exciting spider papers to be published in recent decades, with the description of a new spider family from the western USA! Charles Griswold and colleagues from the California Academy of Sciences (San Francisco) described *Troglooraptor marchingtoni* (family Troglooraptoridae) in *ZooKeys* Issue 215, after the discovery of these spiders in caves in southern Oregon in 2010. The second column features the rare periegopid spiders of the genus *Periegops*, after a recently published cladistic analysis explored the phylogenetic position and morphology of this enigmatic genus. Melinda Moir and Murray Fletcher also present a fascinating article on spider-mimicking bugs, and Kieran Aland, Cahyo Rahmadi and Mark Harvey report on the discovery of the first Whip Spiders (order Amblypygi) from Western Australia.

I wish all members the very best for the rest of 2012, and please consider contributing articles for inclusion in future editions.

Cheers,

Mike



Webs of *Paramatachia* sp. (Desidae) in rainforest at Lamington National Park, Queensland. These unusual, rarely seen spiders live in hollow stems in rainforest, from which they build their characteristic, radiating cribellate webs. Image by Alan Rix.

MEMBERSHIP UPDATES

New Members:

Kirk Foy

Wollongong, New South Wales 2500

Jim Hackett

Cairns, Queensland 4870

Sophie Harrison

Adelaide, South Australia 5048

Lizzy Lowe

Alexandria, New South Wales 2015

Elanor Mahon

Ballarat East, Victoria 3350

Ricardo Pedregal-Cortes

Sydney, New South Wales 2113

Michaela Purcell

Rivett, A.C.T. 2611

Francesca van den Berg

Dulwich Hill, New South Wales 2203

General Announcements

Passing of Doug Wallace. It is with much sadness that we inform you of the recent passing of Douglas (Doug) Wallace OAM (1923-2012), formerly of Rockhampton, Queensland.

Doug was a founding member of the Australasian Arachnological Society as well as founder and President of the Rockhampton Arachnological Society. Doug was a towering figure of Australasian arachnology, whose passion, dedication, community service and huge breadth of knowledge saw him awarded a Medal of the Order of Australia in 2004 “for service to natural science through the study of arachnids, particularly in the Central Queensland region”. Doug has had three spider species named after him for his long-term support of the Rockhampton Pitfall Trapping Programme, with a further 17 new species (of

many) already named from material collected during this study.

Doug will be very sorely missed by all, and a full obituary will be published in the next edition of this newsletter.

Robert Raven & Mike Rix

Arachnid Research *In Focus...* A new spider family (Trogloraptoridae)!

Griswold, C.E., Audisio, T. and Ledford, J. (2012). An extraordinary new family of spiders from caves in the Pacific Northwest (Araneae, Trogloraptoridae, new family). *ZooKeys* **215**, 77-102.

Taxonomy:

Family Trogloraptoridae: currently one described species in one genus.

Distribution:

Klamath-Siskiyou region of southern Oregon and northern California, USA.

Précis:

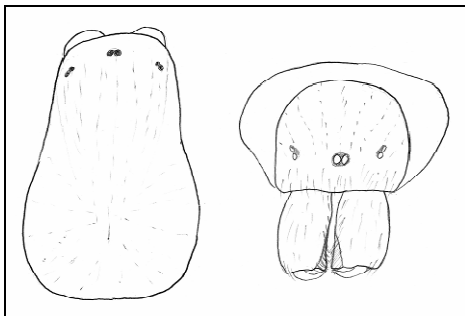
The Trogloraptoridae are a remarkable new family of haplogyne spiders, first discovered in 2010 in caves in the Pacific Northwest of the USA. This highly significant paper, recently published in the journal *ZooKeys*, describes the first trogloraptorid known to science, highlighting the remarkable morphology of these strange, rare spiders. The authors highlight the affinities of the family to the superfamily Dysderoidea (including the Dysderidae, Oonopidae, Orsolobidae and Segestriidae), and propose a sister-group relationship between Trogloraptoridae and all other dysderoid taxa. *Trogloraptor marchingtoni* is a relatively large, six-eyed spider with strongly-developed, raptorial claws, which are superficially similar to the Gradungulidae of eastern Australia and New Zealand. The species is known only from caves in south-western Oregon, although a juvenile of a likely second species has also been discovered in old growth redwood forest in north-western California. The

discovery of these spiders is a reminder to us all of how much we still have to learn about the Earth's biodiversity, especially in a region as well-studied and heavily populated as the western USA. Further information, including a press release and free open access to the original publication can be found on the ZooKeys website. **See:**

<http://www.pensoft.net/journals/zookeys/article/3547/abstract/an-extraordinary-new-family-of-spiders-from-caves-in>.

Arachnid Research *In Focus...* Periegopid Spiders (Periegopidae)

Labarque, F.M. and Ramírez, M.J. (2012). The placement of the spider genus *Periegops* and the phylogeny of Scytodoidea (Araneae: Araneomorphae). *Zootaxa* **2012**, 1-44.



Dorsal and frontal views of carapace of female *Periegops australia* Forster, 1995 from Mount Goonaneman, via Childers, Queensland. Original line sketches by Mike Rix.

Taxonomy:

Family Periegopidae: genus *Periegops* Simon, 1893 (includes 2 described species from Australia and New Zealand).

Distribution:

South-eastern Queensland (Mount Goonaneman and Kroombit Tops) and New Zealand (Banks Peninsula, Alderman Islands and Eastern Cape).

Précis:

Whilst on the subject of strange haplogyne spiders...this paper presents a reviewed phylogenetic analysis of the superfamily Scytodoidea, to test the phylogenetic position of the enigmatic spider family Periegopidae. The Periegopidae (along with the Trogloraptoridae) are one of the world's rarest and most restricted spider families, known from only a handful of localities in south-eastern Queensland and New Zealand. The single genus, *Periegops*, includes *P. australia* Forster, 1995 from Mount Goonaneman and Kroombit Tops in south-eastern Queensland, and *P. suteri* (Urquhart, 1892) from the Banks Peninsula, Christchurch (see Vink, 2006). Additional New Zealand populations are also known from the Alderman Islands and the East Cape region of the North Island of New Zealand, and these may represent a third undescribed species (Vink, 2006). In the authors' cladistic analysis, *Periegops* was found to be the sister-group to the family Drymusidae, known from the Caribbean, South America and South Africa. This 'periegopid-drymusid' lineage was then found to be sister to the Scytodidae, the latter including the ubiquitous 'spitting spiders'. Like Scytodidae and Drymusidae, periegopids possess three very distinctive, widely separated eye groups, with the carapace and body shape of *Periegops* otherwise superficially 'clubionid-like' in general appearance. Both Australian and New Zealand taxa seem to be cursorial, ground-dwelling hunting spiders, restricted to well-forested areas with good leaf litter cover and fallen logs. This paper can be accessed via the *Zootaxa* website. **See:**

<http://www.mapress.com/zootaxa/taxa/Araneae.html>.

References

Vink, C. J. (2006). The spider *Periegops suteri* (Araneae: Periegopidae): description, ecology, localities and management recommendations. *The Weta* **31**, 34-39.

Copycats, or should that be 'copybugs'? Bugs that mimic spiders

by Melinda Moir¹ and Murray Fletcher²

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²Orange Agricultural Institute, Orange, New
South Wales 2800

The last issue of *Australasian Arachnology* (No. 83, February 2012) featured extraordinary spiders mimicking a number of other invertebrates including weevils and ants. But mimicry isn't just the domain of spiders; other invertebrates find it useful to look like spiders as well, predominantly for protection from predators (perhaps including the spider models themselves).

One of the most extraordinary examples of spider mimics in the bug world is the fantastic treehopper *Parantonae dipteroides* Fowler (Fig. 1) (Hemiptera: Membracidae) from Guatemala. It mimics an unknown spider, although whatever the spider, it must be small as the treehopper is only 7 mm in length. The entire dorsal 'spider' is the highly modified pronotum, a characteristic feature of the bug family Membracidae.



Figure 1. The treehopper *Parantonae dipteroides* Fowler (Membracidae) (adapted from Maruyama, 2012). Image by Munetoshi Maruyama (used with permission).

There is no lack of spider mimicry from Australian bugs either. Jumping spiders (Salticidae) appear the overwhelming model of choice for a multitude of planthopper bugs (Fulgoroidea), perhaps because the spiders' movements are easily mimicked by the jumping bugs. Some planthoppers may wave their forelegs around to imitate jumping spiders, such as species in the tribe Cleotychni in the family Dictyopharidae (Fig. 2). Some of these planthoppers are anteriorly dark in colour against which the fore tarsi are contrasted in brilliant white. These are paddled in front of the face in much the same way that certain salticids signal with their forelegs during territorial displays, or they may imitate the movements of white pedipalps, heightening the illusion that this edible herbivore is a venomous spider. Although not observed in Australia, the flattened forelegs may also be used by males to signal females in a mating display, similar to that of other species in Europe. Obviously, more behavioural work is required on these fascinating bugs to determine exactly how they use mimicry and which predators they manage to deter.



Figure 2. An undescribed species of Cleotychni from Western Australia, thought to mimic jumping spiders. There are a number of undescribed Australian species within this tribe.
Image by Melinda Moir.

Other planthoppers, such as species of the genus *Gelastopsis* (Eurybrachidae) and *Chlamydopteryx mammoides* Gnezdilov & Fletcher (Issidae), take a different approach and have adopted two fake jumping spider eyes on their 'face' or frons (see Fig. 3). We do not know what happens when they are actually confronted by a real jumping spider.



Figure 3. Face off! Bugs mimicking the face of jumping spiders: top *Chlamydopteryx mammoides* (adapted from Gnezdilov and Fletcher, 2010); bottom *Gelastopsis modestus* (Jacobi) (adapted from Constant, 2005).

Top image by Murray Fletcher; bottom by Jerome Constant (used with permission).

There is also the case of the thread-legged assassin bugs (Reduviidae: Emesinae) that mimic thin web-building spiders so that they can opportunistically feed on other invertebrates caught in the host spider's web (Fig. 4). Alternatively, some species 'pluck' at the spider's web pretending to be a captured insect

and when the spider comes to investigate, it becomes the meal! If you're interested in visualising this, there is some good footage at <http://www.youtube.com/watch?v=SU6NoWZAXQw>. Other species of thread-legged bugs specialise on young spiders as they hatch from the egg sac, while arguably the most common of these bugs in Australia, *Empicoris rubromaculatus*, only uses spiders for their webs, into which the bug lays her eggs (see Hickman, 1969).

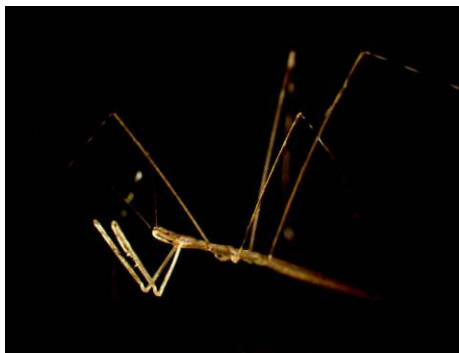


Figure 4. An undescrbed thread-legged assassin bug from Western Australia. Image by Melinda Moir.

References

- Constant, J. (2005). Revision of the Eurybrachidae (IV). The Australian genus *Gelastopsis* Kirkaldy 1906 (Hemiptera: Fulgoromorpha: Eurybrachidae). *Bulletin de l'Institute Royal des Sciences Naturelles de Belgique* **75**, 57-69.
- Gnezdilov, V.M. and Fletcher, M.J. (2010). A review of the Australian genera of the planthopper family Issidae (Hemiptera: Fulgoromorpha) with description of an unusual new species of *Chlamydopteryx* Kirkaldy. *Zootaxa* **2366**, 35-45.
- Hickman, V.V. (1969). The biology of two Emesine bugs (Hemiptera: Reduviidae) occurring on the nests or webs of spiders. *Journal of the Australian Entomological Society (N.S.W.)* **6**, 3-18.
- Maruyama, M. (2012). *Treehoppers, incredible insects*. Nature Editors, Gentosha, Japan.

The first record of whip spiders (Amblypygi) in Western Australia

by Mark S. Harvey¹, Cahyo Rahmadi²
and Kieran Aland³

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Whip spiders are peculiar flattened arachnids with large raptorial pedipalps and long legs (Weygoldt, 2000). Their common name is derived from their extremely long first pair of legs which are used as feelers, and are not used for walking. The use of the word 'spider' is unfortunate, as they are not true spiders. They belong to the Pedipalpi, a group of three orders including Uropygi, Schizomida and Amblypygi. They are mainly tropical in distribution and occur in rainforests, rocky outcrops and caves.



Figure 1. The whip spider (*Charon* sp.) from Western Australia. Image by Mark Harvey.

The whip spider fauna of Australia is small, with only three named species from the mainland and a further species from Christmas Island. The first named species, *Charinus pescotti* Dunn, 1949 (family Charinidae) occurs in the Wet Tropics region of northern Queensland but has also been recorded from the Solomon Islands (Dunn, 1949; Gray and Rob-

inson, 1986; Weygoldt, 2006). *Charon oenpelli* Harvey & West, 1998 (family Charontidae) lives in caves in the sandstone massifs of western Arnhemland in the Northern Territory. It has long slender pedipalps and reduced eyes suggesting moderate adaptations to a subterranean existence (Harvey and West, 1998). *Charon trebax* Harvey & West, 1998 has been collected only once from Emmett Creek, near Cromarty in north-eastern Queensland (Harvey and West, 1998). *Charon gervaisi* Harvey and West, 1998 occurs on Christmas Island in the Indian Ocean (Harvey and West, 1998) and has also been recorded from western Java and Indonesia, in epigeal habitats (Rahmadi, unpublished data). The only other species recorded from Australia, *Charon annulipes* Lauterer, 1895, from Brisbane, Queensland (Lauterer, 1895), is regarded as a nomen dubium (Harvey, 2003).

During a recent trip to northern Western Australia, a population of whip spiders was found in a small coastal cave near the Mitchell Plateau. The cave was only 30 metres in length but quite moist with water condensing on the walls. The whip spider belongs to the genus *Charon*, and clearly represents a new species distinct from all other named species in the genus. The species will be described in a forthcoming paper. This population represents the first record of whip spiders from Western Australia, but is consistent with their tropical distribution. It is highly likely that further species will be discovered in tropical Australia in the future.

References

- Dunn, R.A. (1949). New Pedipalpi from Australia and the Solomon Islands. *Memoirs of the National Museum of Victoria* **16**, 7-15.
- Gray, M.R. and Robinson, M.L. (1986). Observations on the behaviour and taxonomy of the Australian Tailless Whipscorpion *Charinus pescotti* Dunn (Amblypygi: Charontidae). *Proceedings of the Linnean Society of New South Wales* **108**, 217-224.

Harvey, M.S. (2003). *Catalogue of the smaller arachnid orders of the world: Amblypygi, Uropygi, Schizomida, Palpigradi, Ricinulei and Solifugae*. CSIRO Publishing, Melbourne.

Harvey, M.S. and West, P.L.J. (1998). New species of *Charon* (Amblypygi, Charontidae) from northern Australia and Christmas Island. *Journal of Arachnology* **26**, 273-284.

Lauterer, J. (1895). An undescribed species of *Charon*, with notes on the metamorphosis of the first pair of ambulatory legs into a physiological pair of feelers. In: Shirley, J. (ed.) *Report of the Sixth Meeting of the Australasian Association for the Advancement of Science*. Australasian Association for the Advancement of Science, Sydney, pp.413-414.

Weygoldt, P. (2000). *Whip spiders. Their biology, morphology and systematics*. Apollo Books, Stenstrup.

Weygoldt, P. (2006). New Caledonian whip spiders: notes on *Charinus australianus*, *Charinus neo-caledonicus* and other south-western Pacific species of the *Charinus australianus* species group (Chelicerata, Amblypygi, Charinidae). *Verhandlungen des Naturwissenschaftlichen Vereins In Hamburg (NF)* **42**, 5-37.



Very large female water spider (Pisauridae), probably *Megadolomedes australianus* (L. Koch, 1865) basking with her egg sac above a rainforest stream near Mount Warning, northern New South Wales. Image by Aleena Wojcieszek.

Erratum:

Re. Whyte, R. (2012) Australia's Crown Jewels: Australian *Arkys* species, treasures of the bush, a pictorial account. *Australasian Arachnology* **83**, 9-13.

by Robert Whyte

The Gap, Queensland 4061, Australia

A number of details mentioned in the above article were incorrect, and thanks to Volker Framenau for bringing these errors to my attention. On page 9, it was noted that *Arkys lancearius* occurs "throughout Australia"; this species is in fact not known from Western Australia. It was also stated on page 10 that recent molecular studies have "confirmed their placement in the Araneidae (see Framenau et al., 2010)"; this is also incorrect, as Framenau et al. actually stated that the Arkyinae appear to be basal Tetragnathidae, not Araneidae as quoted.

Recent Australasian Arachnological Publications

This column provides an informal list of arachnological publications issued since the last edition of *Australasian Arachnology*. These include publications on Australasian arachnids or papers written by Australasian arachnologists. If members would like to see their publications listed here please feel free to send me reference lists for the next edition.

Agnarsson, I. (2012). Systematics of new subsocial and solitary Australasian *Anelosimus* species (Araneae: Theridiidae). *Invertebrate Systematics* **26**, 1-16.

Baehr, B.C., Harvey, M.S., Burger, M. and Thoma, M. (2012). The new Australasian goblin spider genus *Prethopalpus* (Araneae, Oonopidae). *Bulletin of the American Museum of Natural History* **369**, 1-113.

Bayer, S. (2012). The lace-sheet-weavers - a long story (Araneae: Psecridae: *Psecrhus*). *Zootaxa* **3379**, 1-170.

- Boyer, S.L. and Reuter, C.N. (2012). New species of mite harvestmen from the Wet Tropics of Queensland, Australia, with commentary on biogeography of the genus *Austropurcellia* (Opiliones: Cyphophthalmi: Pettalidae). *Journal of Arachnology* **40**, 96-112.
- Coddington, J.A., Kuntner, M. and Opell, B.D. (2012). Systematics of the spider family Deinopidae with a revision of the genus *Menneus*. *Smithsonian Contributions to Zoology* **636**, 1-61.
- Harvey, F.S.B., Framenau, V.W., Wojcieszek, J.M., Rix, M.G. and Harvey, M.S. (2012). Molecular and morphological characterisation of new species in the trapdoor spider genus *Aname* (Araneae: Mygalomorphae: Nemesiidae) from the Pilbara bioregion of Western Australia. *Zootaxa* **3383**, 15-38.
- Labarque, F.M. and Ramírez, M.J. (2012). The placement of the spider genus *Periegops* and the phylogeny of Scytodoidea (Araneae: Araneomorphae). *Zootaxa* **2012**, 1-44.
- Li, Z., Framenau, V.W. and Zhang, Z.-S. (2012). First record of the wolf spider subfamily Artoriinae and the genus *Artoria* from China (Araneae: Lycosidae). *Zootaxa* **3235**, 35-44.
- Malumbres-Olarte, J. and Vink, C.J. (2012). Redescription of *Clubiona blesti* Forster, 1979 (Araneae: Clubionidae) with a preliminary molecular phylogeny of New Zealand *Clubiona*. *Zootaxa* **3277**, 27-42.
- Otto, J. (2012). Ready to dance: peacock spiders. *Landscape* **28**(1), 15-20.
- Otto, J. and Hill, D.E. (2012). Description of Darlington's Peacock Spider (Araneae: Salticidae: Euophryinae: *Maratus* species A) from the Stirling Range National Park of Western Australia. *Peckhamia* **101.1**, 1-21.
- Platnick, N.I., Abraham, N., Álvarez-Padilla, F., Andriamalala, D., Baehr, B., Baert, L., et al. (2012). Tarsal organ morphology and the phylogeny of goblin spiders (Araneae, Oonopidae), with notes on basal genera. *American Museum Novitates* **3736**, 1-52.
- Raven, R.J. (2012). Revisions of Australian ground-hunting spiders. V. A new lycosoid genus from eastern Australia (Araneae: Tengellidae). *Zootaxa* **3305**, 28-52.
- Richardson, B.J. and Gunter, N.L. (2012). Revision of Australian jumping spider genus *Servaea* Simon 1887 (Araneae: Salticidae) including use of DNA sequence data and predicted distributions. *Zootaxa* **3350**, 1-33.
- Rix, M.G. and Harvey, M.S. (2012a). Australian Assassins, Part II: A review of the new assassin spider genus *Zephyrarchaea* (Araneae, Archaecidae) from southern Australia. *ZooKeys* **191**, 1-62.
- Rix, M.G. and Harvey, M.S. (2012b). Australian Assassins, Part III: A review of the assassin spiders (Araneae, Archaecidae) of tropical north-eastern Queensland. *ZooKeys* **218**, 1-55.
- Vink, C.J., Paquin, P. and Cruickshank, R.H. (2012). Taxonomy and irreproducible biological science. *BioScience* **62**, 451-452.
- Volschenk, E.S., Harvey, M.S. and Prendini, L. (2012). A new species of *Urodacus* (Scorpiones: Urodacidae) from Western Australia. *American Museum Novitates* **3748**, 1-18.
- Waldock, J. and Edgecombe, G.D. (2012). A new genus of scolopendrid centipede (Chilopoda: Scolopendromorpha: Scolopendriini) from the central Australian deserts. *Zootaxa* **3321**, 22-36.
- Wojcieszek, J.M., Austin, P., Harvey, M.S. and Simmons, L.W. (2012). Micro-CT scanning provides insight into the functional morphology of millipede genitalia. *Journal of Zoology* **287**, 91-95.
- Wojcieszek, J.M. and Simmons, L.W. (2012). Evidence for stabilizing selection and slow divergent evolution of male genitalia in a millipede (*Antichiropus variabilis*). *Evolution* **66**, 1138-1153.
- Żabka, M. and Waldock, J. (2012). Salticidae (Arachnida: Araneae) from Oriental, Australian and Pacific regions. Genus *Cosmophasis* Simon, 1901. *Annales Zoologici* **62**, 115-198.

Conferences



Organisers	National University of Laos Senckenberg Research Institute SENCKENBERG world of biodiversity	
Sponsor	BIOPAT e.V. (www.biopat.de)	
Information	www.senckenberg.de/laos	
Registration	peter.jaeger@senckenberg.de	

Southeast Asian Spider Symposium: Spiders of the Greater Mekong Region

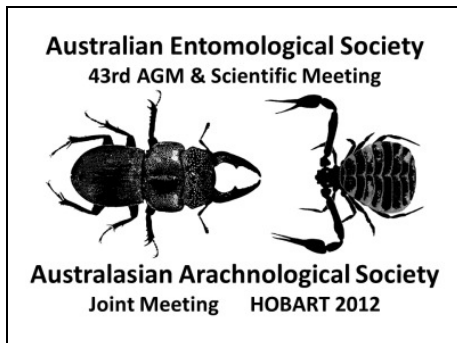
Where: National University of Laos, Vientiane, Laos

When: 12-16 November 2012

Website:

http://www.senckenberg.de/root/index.php?page_id=15244&preview=true

Contact: Dr Peter Jäger, Arachnology, Senckenberg, Senckenberganlage 25, 60325 Frankfurt, Germany (email: Peter.Jaeger@senckenberg.de)


AES/AAS Joint Meeting

Where: Centre for Arts, University of Tasmania, Hobart, Tasmania

When: 25-28 November 2012

Website: <http://www.cdesign.com.au/aes2012/>

Contact: Conference Design Pty Ltd, 228 Liverpool Street, Hobart TAS 7000 (email: info@cdesign.com.au)

Registration (early-bird) closes 1 September 2012.


19th International Congress of Arachnology

Where: Howard Beach Resort, Kenting National Park, Taiwan

When: 23-28 June 2013

Website: <http://araneae.thu.edu.tw/ica2013/>

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Lobster-Pot Spider, *Saccodomus formivorus* Rainbow, 1900
(Thomisidae) from Redbank Plains, Queensland.
Image by Mike Rix.