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Newsletter of the Australasian Arachnological Society

THE AUSTRALASIAN
ARACHNOLOGICAL
SOCIETY

(www.australasian-arachnology.org)

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

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

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Status box on the envelope indicates the last issue paid for. Lapsed members receiving the pdf-version will be notified of their membership status by email.

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:

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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:

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COVER PHOTOGRAPH:

Selenocosmia sp. ♂ (Paynes Find, Western Australia)
Mark S. Harvey

EDITORIAL



It has finally arrived! Just days before this newsletter went to the printer, the **Australasian Arachnological Society** launched its own **website**:

www.australasian-arachnology.org

It was a great effort from all involved, but two people in particular (who are not even directly involved with our society) deserve a special mention: Randolf Manderbach (web programming) and Thomas García Godines (graphic design) professionally developed and programmed the lay-out of our website, for free! Thanks to both of them! You will find further acknowledgements and some information in regard to the 'philosophy' of our site in an introductory article on page 4.

Similar to this newsletter, the website will prosper only through contributions and feedback from all of you! The current site must be regarded as a 'beta-version' in relation to its contents. Many more pages relating to particular arachnological groups and topics are needed and all specialists of such groups and topics are encouraged to send me drafts for pages following the structure you can find on the website. We will also host your personal home page and will list any link you find important within the context of our society. Please do not format any contribution; we will do that for you! We aim to develop the website as the 'first stop for all things Australasian Arachnology'.

The early registration deadline for the "Combined Australian Entomological Society, Society of Australian Systematic Biologists and Invertebrate Biodiversity and

Conservation Conference" from the 4th – 9th December in Canberra, with our **Symposium on 'Australasian Arachnology – Evolution, Ecology and Conservation'** is closing in (extended to 15 September 2005). If you want to participate in our symposium, please register soon, at:

<http://www.invertebrates2005.com>

Registration Fees:

	Before 15 September	After 15 September
Registration	AUD\$480	AUD\$560
Student registration *	AUD\$230	AUD\$270

The Registration fee includes:

Conference bag, access to all sessions, book of abstracts, welcome reception (4 December, morning and afternoon tea each day (lunch not included))

No editorial is complete without acknowledging the contributors of the issue! We have major articles from Julianne Waldock with a centenary appreciation on Michaelsen and Hartmeyer's south-west Australian expedition (page 5) and Michael Rix reports on the Australian Pararchaeidae (page 12). Thanks also to Cathy Car for an abstract of her Master's thesis (page 13).

Please consider submitting a contribution for the December newsletter, otherwise there won't be a December newsletter!

Happy reading and internet browsing!

Volker

UPDATES**MEMBERSHIP****New Members****Brad Durrant**

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**Australasian Arachnological
Society now online!!!**

www.australasian-arachnology.org

It has been a few years in the making, from the initial idea to the recent launch of the website of the Australasian Arachnological Society. But finally it is here!

We have to thank all those who contributed to the project. First and foremost the programmer and designer of this website: Dr Randolph Manderbach (www.manderbachmedia.de), zoologist turned web programmer, and old friend of

mine from my university days in Germany, and his graphic designer colleague, Thomas García Godines, both of which spent a lot of time implementing the site, and all that **for free!**



Tracey Churchill has dedicated a considerable amount of time, in particular during the initial stages when we discussed menus, submenus and the layout of the site. Mark Harvey provided feedback during the whole construction phase and has contributed to its contents. Many others have helped by sending contents for pages, in particular Barbara Baehr, Rob Raven and Barry Richardson.

I have learned a great deal during this project. In particular, how patient web programmers have to be with people who promise contents for a site. The design was finalised months, possibly years, ago and it took a long time to send Randolph the words and images to fill the pages. And still, there is a lot more to add in the future and here we need the help of specialists of arachnid groups. Our web site is by far not finished, it's just a rudimentary framework, but will hopefully grow with your contributions.

One of the most important parts and the one I would like to prioritise for development is 'Arachnid Identification'. The identification of arachnids in our region is extremely difficult, mainly because keys on generic and species level don't exist for most groups and resources have to be compiled from numerous scattered sources, including pre 1900s original descriptions, single species descriptions, revisions, partial revisions, and web sites. This part of www.australasian-arachnology.org is designed to provide summaries of these resources for each arachnid group. It should also be a place where we can list amendments to currently available keys drawn from the experience of users. Especially for 'Arachnid Identification', I am interested in receiving information from arachnologist who are familiar with particular groups as soon as possible.

If you don't have your own homepage, www.australasian-arachnology.org can host one for you! Have a look through some of our sample pages via the 'Arachnologists' menu. It's easy: Send me an unformatted file with the contents you wish to see on your homepage, for example 'Research Interests', 'Education', and 'Publications' and maybe some of your favourite links. Of course, we would love to include a photo! Needless to say, since we had help from professionals, all links to email addresses are encrypted so that 'robots' (spiders) searching for email addresses for spam won't be able to pick it up.

Volker Framenau
Western Australian Museum

**100 years on: the spiders of the
"Hamburg South-west Australian
Expedition", collected by W.
Michaelsen & R. Hartmeyer in 1905**

by Julianne M. Waldock

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Just over 100 years ago, on the 5th May 1905, two Germans disembarked in Fremantle from the ship 'Karlsruhe' from Bremen on a journey of discovery. Professor W. Michaelsen from Hamburg and Dr R. Hartmeyer from Berlin commenced their 'Hamburger Südwest-Australische Forschungsreise'.



Figure 1: Collecting stations of the 'Hamburger Südwest-Australische Forschungsreise' (Michaelsen & Hartmeyer 1907)

Over the next six months they managed to survey marine and terrestrial sites from as far south as Albany, north to Shark Bay and inland to Kalgoorlie, listing a total of 167 survey stations by rail, horse and boat (Fig. 1). This survey included both invertebrates and vertebrates. On completion of their expedition they filled 49 cases with specimens for return to Europe, of which only “two very small glasses arrived in the homeland damaged, with the contents dried out” (Michaelsen, 1908).

Their journeys throughout the South-west were assisted by free travel on the rail system and the generosity of the German community in Western Australia. Australian Government assistance was also provided, particularly by not charging customs duty for all the equipment and supplies the researchers had brought with them (this generosity was not looked upon favourably by later local researchers, see Dakin, 1916).

Upon their return to Europe, the material was disseminated to the various leading researchers working across Europe. Of course the spiders were given to Dr Eugène Simon at the Museum d'Histoire Naturelle in Paris.

Only two years later, in 1907, the first volume of the report of the expedition was printed as “Die Fauna Südwest-Australiens” edited by Michaelsen and Hartmeyer and published by Gustav Fischer in Jena. Five volumes were eventually published by the year 1930. The report on the spiders was published in two parts. Part one is in volume one (Simon, 1908) and the second part is in volume two (Simon, 1909).

Dr Michaelsen also forwarded three reports of the on-going work, which were published by the Western Australian Natural History and Science Society (Michaelsen, 1908b, 1911 and 1914).

These are the spiders that E. Simon described from the expedition with comments on their currently known distribution and some taxonomic remarks. I have listed the original and currently valid name based on The World Spider Catalog, V6.0 (Platnick, 2005). [original locality data is given in square brackets]:

Mygalomorphae

Dipluridae

Palaeovagrus fugax = *Cethegus fugax* (Simon) [Geraldton, Lion Mill = Mt Helena]

The “Curtain-web Spider” of southern Western Australia (also in South Australia).

Idiopidae

Cantuaria hoggi = *Misgolas hoggi* (Simon) [Eradu]

Nemesiidae

Proshermacha tigrina = *Aname tepperi* (Simon) [Jarrahdale, Serpentine] Widespread across southern Australia.

Proshermacha subarmata = *Aname tepperi* (Simon) [Wooroloo, Harvey]

Barychelidae

Idiommata sp.? [Mundaring Weir]

Simon considered this specimen very similar to *Idiommata blackwalli* Cambridge [ex Swan River], which is widespread in southern Western Australia and known as the “Brush-footed Trapdoor Spider”.

Synothele michaelseni Simon [Lion Mill]

Araneomorphae**Pholcidae**

Trichocycclus nigropunctatus Simon
[Yalgoo]

Segestriidae

Ariadna thyranthina Simon [Edel Land,
Baba Head, Tamala, Norseman,
Albany]

Oonopidae

Gamasomorpha servula Simon [Eradu]

Hersiliidae

Tama brachyura Simon (*nomen dubium*,
see Baehr & Baehr, 1987) [Geraldton,
Karrakatta, East Fremantle,
Brunswick Junction, Boyanup]

Theridiidae

Billima attrita = *Theridion attritum* (Simon)
[Subiaco]

Crustulina bicrucata Simon [Eradu]

Dipoena (Lasaeola) austera Simon
[Denham]

Enoplognatha bidens Simon [Eradu,
Fremantle, York, Broome Hill]

Euryopsis maga Simon [Torbay]

Lithyphantes niveo-signatus = *Steatoda*
niveosignata (Simon) [Denham,
Eradu]

Lithyphantes octonotatus = *Steatoda*
octonotata (Simon) [Day Dawn]

Moneta longicauda Simon [Subiaco]

Teutana adumbrata Simon [Yalgoo]

Theridion hartmeyer Simon [Moora]

Theridion mortuale Simon [Subiaco,
Harvey, Collie, Boyanup]

Theridion subpingue Simon [Jarrahdale,
Boyanup]

Linyphiidae

Ceratinopsis melanura = *Ostearius*
melanopygius (O.P.-Cambridge)
[Fremantle]

Delorhipis erythrocephalus = *Savigna*
erythrocephala (Simon) [North
Fremantle]

Gonatum lividulum (*nomen dubium*,
Millidge, 1981) [Torbay]

Laetesia egregia Simon [Eradu]

Laetesia mollita Simon [Bunbury,
Boyanup]

Linyphia cupidinea = *Laperousea blattifera*
(Urquhart) [Subiaco]

Tetragnathidae

Nanometa gentilis Simon [Lion Mill,
Yallingup, Broomehill, South Albany]

Tetragnatha luteocincta Simon [Midland,
Guildford, Serpentine, Brunswick
Junction]

Tetragnatha maeandrata Simon [Subiaco,
Serpentine, Albany]

Araneidae

Araneus amblycyphus Simon [Busselton]

Araneus cyphoxis Simon [Perth, Rottnest
Island, Brunswick Junction]

Araneus senicaudatus Simon
[Northampton, Subiaco, Rottnest
Island, Jarrahdale, Serpentine]

Araneus senicaudatus simplex Simon
[Lion Mill, Midland, Subiaco,
Cottesloe, East Fremantle, Brunswick
Junction, Beverley]

Arkys nitidiceps Simon [Torbay]

Cyclosa bacilliformis Simon [Lion Mill]

Larinia eburneiventris = *Araneus*
eburneiventris (Simon) [Dirk Hartog
Island, Brown Station, North
Fremantle]

Paraplectanoides ceruleus Simon [Dirk
Hartog Island, Brown Station]

Lycosidae

Artoria cingulipes Simon [Collie]
Very common in south-west Western
Australia.

Artoria flavimanus = *Artoria flavimana*
Simon [Mundaring Weir]
Widespread in forests of southern
Australia and Tasmania.

Artoria taeniifera Simon [Bunbury]

Lycosa christopheri = *Lycosa leuckarti*
(Thorell) [Fremantle]

Lycosa dimota Simon [Day Dawn]

Lycosa immansueta = *Hogna immansueta*
(Simon) [Wooroloo, Cannington]

Lycosa impedita = *Artoria impedita*
(Simon) (Framenau, in press)
[Gooseberry Hill]

Lycosa marcentior = *Venatrix pullastra*
(Simon) (Framenau, submitted)
[Dongarra, Boyanup]

Lycosa meracula = *Tetrallycosa oraria* (L. Koch) (Framenau *et al.* in press)
[Denham, Albany]
Juvenile syntypes from Denham are not conspecific with male syntype from Albany (Framenau *et al.* in press).

Lycosa percauta = *Venatrix pullastra*
(Simon) (Framenau, submitted)
[Rottneest Island]

Lycosa phegeia = *Trochosa tristicula phegeia* (Simon) [Cannington]
Unpublished junior synonym of *Lycosa properipes* (V.W. Framenau, personal communication)

Lycosa properipes Simon [Guildford, Subiaco]

Lycosa propitia = *Venatrix pullastra*
(Simon) (Framenau, submitted)
[Cannington]

Lycosa pullastra = *Venatrix pullastra*
(Simon) [Mundaring Weir, near Albany]
Very common in south-west Western Australia.

Lycosa segregis = *Venatrix pullastra*
(Simon) [Fremantle]

Lycosa sibyllina = *Tetrallycosa oraria* (L. Koch) [Albany]

Lycosa woodwardi = *Allocosa woodwardi*
(Simon) [Northampton, Dongara, Beverley]
Unpublished junior synonym of

Lycosa godeffroyi L. Koch (V.W. Framenau, personal communication), very common in southern half of mainland Australia.

Pardosa praevelox = *Pardosa serrata* (L. Koch) [Buckland Hill near Fremantle].

Stiphidiidae

Aphyctoschaema storeniforme = *Baiami storeniformis* (Simon) [Day Dawn, near Cue].

Epimecinus tegenarioides = *Baiami tegenarioides* (Simon) [Collie].
A common spider in the South-west.

Epimecinus volucris = *Baiami volucris* (Simon) [Rottneest Island, Jarrahdale, Brunswick Junction, Bunbury].
A common spider in the South-west.

Lathyrarcha tetrica Simon [Boyanup].

Zoridae

Argoctenus hystriculus Simon
[Cannington]

Argoctenus nebulosus Simon [Cranbrook]
Elassoctenus harpax Simon [Geraldton, Wooroloo, Lion Mill]

Hestimodema ambigua Simon [Lion Mill, Cannington]

Hestimodema latevittata Simon
[Fremantle cemetery, Donnybrook]

Desidae

Amaurobius microps = *Badumna microps* (Simon) [Bridgetown, Albany]
Similar to *Badumna insignis* (L. Koch, 1872), the common "Black House Spider" of southern Western Australia, but *B. microps* prefers habitats away from houses and is found in the forests of the south-west.

Aphyctoschaema albicauda = *Badumna vultuosa* (Simon) [Eradu].

Aphyctoschaema bivittatum = *Forsterina velifera* (Simon) [Dongara].

Aphyctoschaema cryphoeciforme =
Badumna cryphoeciformis (Simon)
[Kalgoorlie, Guildford].

Aphyctoschaema veliferum = *Badumna velifera* (Simon) [Dirk Hartog Island, Brown Station].

Aphyctoschaema virgosum = *Badumna virgosa* (Simon) [Kalgoorlie, Coolgardie].

Aphyctoschaema vultuosum = *Badumna vultuosa* (Simon) [Eradu, Moonyoonooka, Wooroloo, Cannington].

Desis hartmeyer Simon [Albany]

Phryganoporus gausapatus occidentalis =
Phryganoporus candidus (L.Koch, 1872) [Cannington]
A communal spider which occurs across Australia.

Phryganoporus nigrinus Simon [Boyanup] Western Australia to Queensland.

Phryganoporus tubicola = *Phryganoporus candidus* (L.Koch, 1872) [Denham].

Syroris seriata = *Syroris misella* (Simon) [Yalgoo]

Dictynidae

Callevophthalmus lividus = *C. albus* (Keyserling, 1890) [Buckland Hill, East Fremantle].
Australia-wide.

Dictyna anaulax = *Sudesna anaulax* (Simon) [Cottesloe].

Miturgidae

Cheiracanthium nervosum Simon [North Fremantle]

Cheiracanthium pennuliferum Simon [Subiaco, Albany]

Diaprogapta striola Simon [Boorabbin]

Miturga agelenina Simon [Buckland Hill near Nth Fremantle, East Fremantle, also in Victoria and Tasmania]

Miturga catograpt Simon [Geraldton, Lion Mill, Pickering Brook]

Miturga ferina Simon [Broomehill]

Miturga impedita Simon [Pickering Brook]

Miturga occidentalis Simon [Tamala, Yalgoo, Eradu, Mt Robinson near Kalgoorlie]

Miturga severa Simon [Victoria*]

Miturga thorelli Simon [eastern Australia*]

Miturga whistleri Simon [Collie, Upper Blackwood district (Hamburg Mus. collection)]

Liocranidae

Liparochrysis resplendens Simon [Lunenburg in the Darling Range]

Clubionidae

Clubiona cycladata Simon [Guildford, Collie, Torbay]

Clubiona munis Simon [Day Dawn]

Clubiona laudabilis Simon [Denham]

Corinnidae

Supunna michaelsoni Simon [Harvey]

Supunna smaragdinea Simon [Wooroloo]

Zodariidae

Storena tetrica = *Storosa tetrica* (Simon) [Albany]

Storena torosa = *Neostorena torosa* (Simon) [Northampton]

Storena eximia Simon [Kalgoorlie, Boorabbin]

Storena tricolor Simon [Lion Mill, Collie, Boyanup]

Trochanteriidae

Rebilus castaneus Simon [Edel Land, Tamala, Day Dawn, Yalgoo, Mt Robinson near Kalgoorlie]

Corimaethes campestratus Simon [Day Dawn]

Trachytrema castaneum Simon [Day Dawn]

Lamponidae

Lampona punctigera Simon [Northampton, Moora, Lion Mill, Midland, Karrakatta, East Fremantle]

recreation ground, Harvey, York,
Torbay]

Lampona foliifera Simon [Boorabbin]

Lampona obnubila Simon = *Lampona
brevipes* L. Koch [Boyanup]

Lampona paupercula Simon = *Lampona
brevipes* L. Koch [Boyanup]

Asadipus nitidiceps = *Prionosternum
nitidiceps* (Simon) [East Fremantle,
Busselton]

Aristerus phaleratus = *Asadipus
phaleratus* (Simon) [Day Dawn,
Yalgoo, Boorabbin]

Prodidomidae

Myandra bicincta Simon [Boyanup]

Molycrion splendida Simon [Northampton]

Molycrion flavipes Simon [East Fremantle
at recreation ground]

Molycrion alboplagiata Simon [Lion Mill]

Honunius quadricaudus Simon [Harvey]

Gnaphosidae

Ceryerda cursitans Simon [Day Dawn]

Hemicloea insidiosa Simon [East
Fremantle, Subiaco]

Hemicloea michaelseni Simon [Yalgoo,
Kalgoorlie]

Hemicloea sublimbata Simon [Kalgoorlie,
Coolgardie, Boorabbin, Beverley]

Hemicloea crocotila Simon [Northampton]

Hemicloea semiplumosa Simon
[Boorabbin, Cranbrook]

Drassodes respersus = *Anzacia respersa*
(Simon) [Northampton]

Drassodes petilus = *Anzacia petila*
(Simon) [Fremantle at Obelisk Hill,
Bunbury]

Drassodes nugatorius = *Anzacia
nugatoria* (Simon) (Albany)

Drassodes micaceus = *Anzacia micacea*
(Simon) [Dongara]

Drassodes musteculus = *Anzacia
mustecula* (Simon) [Boyanup]

Drassodes sarritus = *Anzacia sarrita*
(Simon) [Tasmania*]

Drassodes dimotus = *Anzacia dimota*
(Simon) [inland Victoria*]

Homoeothele micans Simon [Denham,
Moonyoonooka]

Megamyрмаekion penicillatum Simon
[Yalgoo, Boorabbin, Wooroloo,
Guildford, Collie, Brunswick Junction,
York, Torbay]

Megamyрмаekion vestigator Simon [Mt
Robinson near Kalgoorlie]

Megamyрмаekion austrinum Simon
[Geraldton]

Megamyрмаekion echemophthalmum
Simon [Pickering Brook, York]

Megamyрмаekion perpusillum Simon
[Edel Land, Tamala, Wooroloo]

Aphantaulex scotophaea Simon
[Boyanup]

Sergiolus australianus Simon (*nomen
dubium*, Platnick & Shadab, 1981)
[Northampton]

Sparassidae

Eodelena nigrifrons = *Delena nigrifrons*
(Simon) [Boorabbin]

Isopoda woodwardi = *Holconia nigrigularis*
(Simon) [Kalgoorlie]

Isopoda nigrigularis = *Holconia nigrigularis*
(Simon) [Edel Land, Tamala,
Northampton]

Isopoda cerussata = *Isopedella cerussata*
(Simon) [Northampton]

Isopoda cana = *Isopedella cana* (Simon)
[Cranbrook]

Thomisidae

Xysticus periscelis Simon [Perth, Subiaco,
Rottneest Island, Fremantle]

Stephanopsis palliolata Simon [Wooroloo]

Sidyra kochi = *Sidyrella kochi* (Simon)
[Wooroloo]

Salticidae

- Astia tristicula* = *Sondra tristicula* (Simon)
[Subiaco, Bunbury, Boyanup]
Helpis occidentalis Simon [Guildford,
Torbay]
Adoxotoma nigroolivacea Simon [Collie]
Adoxotoma chionopogon Simon
[Wooroloo, Lion Mill]
Saitis michaelsoni = *Lycidas michaelsoni*
(Simon) (Boyanup)
Saitis michaelsoni obscurior = *Lycidas*
obscurior (Simon) [Subiaco,
Cannington]
Saitis heteropogon = *Lycidas heteropogon*
(Simon) [Busselton]
Holoplatys quinquecingulata = *Zebraplatys*
quinquecingulata (Simon) [Day Dawn]
Holoplatys fractivittata = *Zebraplatys*
fractivittata (Simon) [Moonyoonooka,
Midland]
Muziris carinatus Simon [Wooroloo]
Clynotis albopictus = *Clynotis severus*
(L.Koch) [Harvey, Bunbury]
Habrocestum chrysomelas = *Lycidas*
chrysomelas (Simon) [Lion Mill]
Habrocestum speculiferum = *Lycidas*
speculifer (Simon) [North Fremantle]
Eugasmia chlorophthalma = *Lycidas*
chlorophthalmus (Simon) [York]
Servaea spinibarbis Simon [Subiaco,
Cottesloe, Buckland Hill, North
Fremantle, East Fremantle, Fremantle
cemetery]
Opisthoncus devexus Simon [Dirk Hartog
Island, Brown Station]
Opisthoncus machaerodus Simon
[Midland]
Simaethula chalcops Simon [Subiaco]

*It appears that Simon used the opportunity of the publication to describe species from his own collection from localities elsewhere in Australia.

The original spider material was disseminated to museums in Europe (Museum National d'Histoire Naturelle in Paris, France; Zoologisches Staatsinstitut und Zoologisches Museum, Hamburg, Germany; Museum für Naturkunde, Zentralinstitut der Humboldt-Universität, Berlin, Germany) and the Western Australian Museum, Perth. The Western Australian Museum collection contains 42 type specimens of 41 species, comprising 39 syntypes (38 species) and three paralectotypes (Main & Harvey, 1992).

This survey was not an exhaustive survey of south-western Australia with many of the spiders collected representing the most commonly encountered species. However, this is still a highly significant collection and any survey of ground spiders in south-western Australia will consist almost exclusively of species named by Eugène Simon in addition to numerous undescribed species.

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Systematics of the Australasian spider family Pararchaeidae (Arachnida, Araneae)

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The Pararchaeidae are an unusual family of small to very small spiders (3 mm or less in body length; Figs 1-2), known only from the forests of

Australia and New Zealand. Most species live within moss or thick leaf litter, although some occur under tree bark or even among dense foliage. Pararchaeid spiders are never common in nature, rarely collected alive, and specimens are usually only sampled during long-term pitfall or tree-trapping surveys.



Figure 1: Female pararchaeid in defensive posture.

After collecting several live pararchaeid spiders from sclerophyll bushland near Brisbane in 2000, my interest in this group quickly developed. I soon learned that our taxonomic and biological knowledge of the family was rudimentary at best, with only five species described from Australia, four of these being Tasmanian. Preliminary fieldwork around Brisbane, plus an examination of the Queensland Museum collection, revealed five species in south-eastern Queensland alone, two of which are often sympatric in Brisbane suburban bushland reserves.



Figure 2: Female pararchaeid in resting posture.

In 2002 and 2003 I revised the Tasmanian species of Pararchaeidae and Holarchaeidae, as a framework study for a larger revision (Rix, 2005). There are now seven species of *Pararchaea* described from Tasmania, eight from Australia, and ten in total from Australia and New Zealand. Based on morphology, I also proposed four species groups for the described Australian Pararchaeidae. With this framework in place I am currently revising the entire family Pararchaeidae, and my aims are as follows:

1. To describe the 24 new species and six new genera of Pararchaeidae present in collections. All but one of these new species are from mainland Australia.
2. To examine taxa in a phylogenetic analysis, allowing insights into the biogeography of the group.
3. To summarise all known biological information, and to describe for the first time moulting, courtship and mating behaviour and the egg sac of a pararchaeid species.
4. To discuss the conservation of Pararchaeidae, and the implications

this study has for future land management in Australia.

In 2006 I will begin a Ph.D. on spider systematics at the University of Western Australia, in collaboration with Mark Harvey (Western Australian Museum).

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Rix, M.G. 2005. A review of the Tasmanian species of Pararchaeidae and Holarchaeidae (Arachnida, Araneae). *The Journal of Arachnology* **33**: 135-152.

This study documented the species diversity of thomisids associated with the understorey vegetation of four study sites. In addition, the relationships between thomisid species richness and abundance and the following parameters were investigated: attributes of the vegetation, other spider families, insect abundance, seasonal influences and abiotic factors. The relationships between environmental factors and insects and spiders other than thomisids were also investigated.

The study showed that, while insect numbers as a whole were affected strongly by the flowering of plants, spider family numbers were affected by a variety of abiotic and biotic factors, although most tended to be influenced by attributes of the vegetation. Each family seemed to respond in a different way to environmental conditions. The family Thomisidae appeared to be most influenced by vegetation cover.

On a finer taxonomic scale, thomisids showed considerable variation, both temporally and spatially, in their responses to environmental factors. Responses of genera and age groups within genera did not mirror those of the family as a whole. There appeared to be two main groups of thomisid genera: those that matured in spring and were influenced by the flowering of shrubs and those that matured in summer and were influenced by other factors. Age groups within genera also did not respond in the same way to environmental factors.

This study has indicated that, despite fragmentation, the understorey invertebrate fauna of box woodland is diverse and abundant, exhibiting a variety of responses to environmental factors

THESIS ABSTRACT



A Case Study of Crab Spiders (Araneae: Thomisidae) in Remnant Woodlands of the South Western Slopes Region of New South Wales.

Cathy Car

(Thesis submitted for the degree of Master of Applied Science (Environmental Science), Charles Sturt University)

Supervisors: Dr Helen Wood, Dr Tracey Churchill (external)

Despite their ecological significance and potential as an indicator group, little is known about the patterns of distribution and abundance of Australian crab spiders (Araneae: Thomisidae) and their taxonomic relationships are uncertain. In order to address this lack of knowledge, Thomisidae were chosen as a focal group within areas of remnant woodlands in the South Western Slopes region of NSW.

across time and space. At each taxonomic level, the responses appeared to change, suggesting that the aims of 'snap-shot' surveys and choice of potential indicator species need to be clearly defined to provide meaningful data.

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* and those that appeared since 2004 and were not listed previously. This includes:

- Ø papers on Australasian arachnology and
- Ø 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.

Rix, M. G. 2005. A review of the Tasmanian species of Pararchaeidae and Holarchaeidae (Arachnida, Araneae). *The Journal of Arachnology* **33**: 135-152.

Whitehouse, M. E. A. & Lubin, Y. 2005. The functions of societies and the evolution of group living: spider societies as a test case. *Biological*

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Thomas, M. L. & Framenau, V. W. 2005.

Foraging decisions of individual workers vary with colony size in the greenhead ant *Rhytidoponera metallica* (Formicidae, Ectatomminae). *Insectes Sociaux* **52**, 26-30.

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