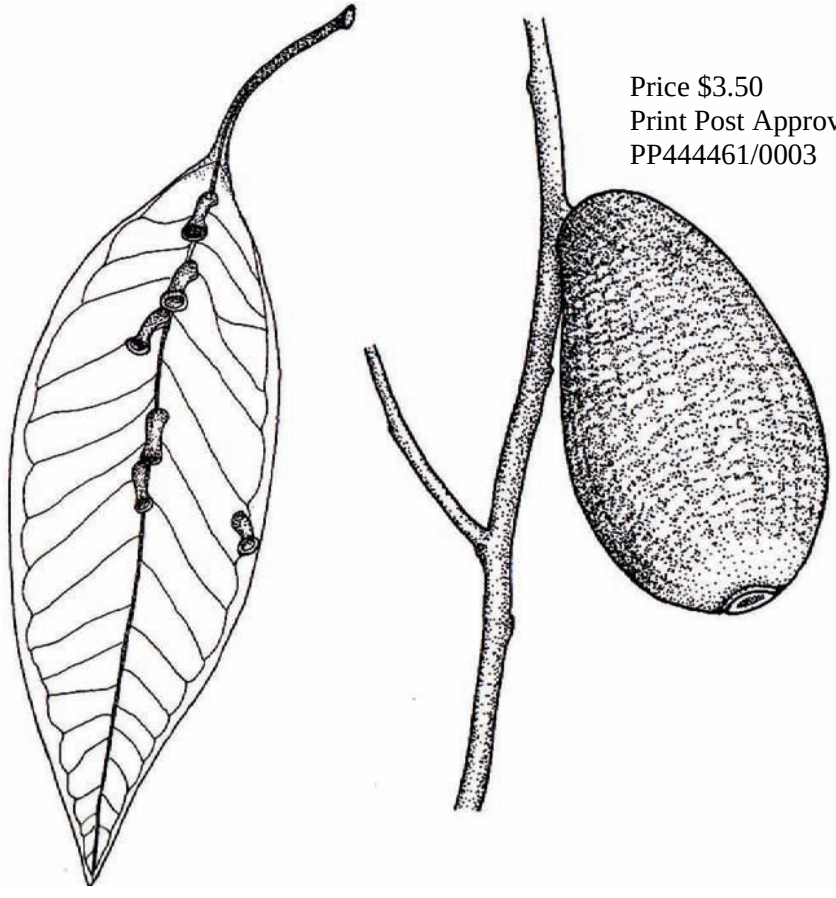
ENTOMOLOGICAL SOCIETY OF QUEENSLAND INC

NEWS BULLETIN



Price $3.50
Print Post Approved
PP444461/0003

Volume 39, Issue 4, June/July 2011

THE ENTOMOLOGICAL SOCIETY OF QUEENSLAND

Internet: www.esq.org.au **Email:** esq@uqconnect.net
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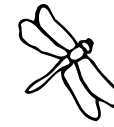
Front cover illustration: Galls induced by the scale insect *Apiomorpha conica* (Eriococcidae) on *Eucalyptus obliqua*. Top: tubular galls on leaves induced by males. Bottom: gall induced by female on stem. Original drawing by Penny Gullan.

ISSN 1037-2989





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The **ENTOMOLOGICAL SOCIETY OF QUEENSLAND INC.**, since its inception in 1923, has striven to promote the development of pure and applied entomological research in Australia, particularly in Queensland. The Society promotes liaison among entomologists through regular meetings and the distribution of a *News Bulletin* to members. Meetings are announced in the *News Bulletin*, and are normally held on the second Monday of each month (March to June, August to December), or on Tuesday if Monday is a public holiday. Visitors and members are welcome. Membership information can be obtained from the Honorary Secretary, or other office bearers of the Society. Membership is open to anyone interested in Entomology.

Contributions to the *News Bulletin* such as items of news, trip reports, announcements, etc are welcome and should be sent to the News Bulletin Editor.

The Society publishes **THE AUSTRALIAN ENTOMOLOGIST**. This is a refereed, illustrated journal devoted to Entomology in the Australian region, including New Zealand, Papua New Guinea and the islands of the South Western Pacific. The journal is published in four parts annually.

EMBLEM: The Society's emblem, chosen in 1973 on the 50th anniversary of the Society, is the king stag beetle, *Phalacrognathus muelleri* (Macleay), family Lucanidae (Coleoptera). Its magnificent purple and green colouration makes it one of the most attractive beetle species in Australia. It is restricted to the rainforests of northern Queensland.

Minutes of General Meeting

Held in Meeting Room (Seminar Room 1–ground floor) Ecosciences Precinct, Boggo Rd, Dutton Park, Monday, June 14th 2011.

Chair: Lyn Cook

Attendance: Justin Bartlett, Richard Bull, Lyn Cook, Alexandra Glauerdt, Ross Kendall, Lance Maddock, Gunter Maywald, Penelope Mills, Chris Moeseneder, Geoff Monteith, Don Sands, Geoff Thompson, Desley Tree, Federica Turco, Richard Zeitek.

Visitors: Rebecca Morley.

Apologies: Charles Dewhurst, Judy King, Christine Lambkin, Simon Lawson, Morris McKee, Matthew Purcell.

Minutes: The minutes of the last General Meeting were circulated in News Bulletin Vol. 39, Issue 3, May 2011.
Moved that the minutes be accepted as a true record: Don Sands
Seconded: Desley Tree
Unanimously accepted by a show of hands.

Business arising
None.

Nominations for Membership:
The following nomination for general membership was received and approved by Council, and was put forward for election:
Jim Pulsford, nominated Geoff Monteith, seconded Desley Tree.
Show of hands: elected unanimously.

General Business:
1. The UQ insect collection is moving to the Queensland Museum, with the securing of cabinets underway and moving to begin on Thursday 16 June. The QM collection will be unavailable for another five weeks.

Main Business

Notes and exhibits:
1. Australian blister beetles wanted. *Federica Turco* (Qld Museum).
2. A mermaid on the wind - a short report on an amazing tiphiid wasp from South Australia *Federica Turco* (Qld Museum).
3. Sticky necks – nuptial gift nectar carriage by male thynnine wasps
Geoff Monteith (Qld Museum).

Student Award:
Rebecca Morley (UQ): "The effect of light on bioluminescence in the glowworm *Arachnocampa flava*".
After her presentation, Rebecca was presented with her award – a cheque kindly sponsored by Prof. Dick Drew (Griffith University).

Australian blister beetles wanted

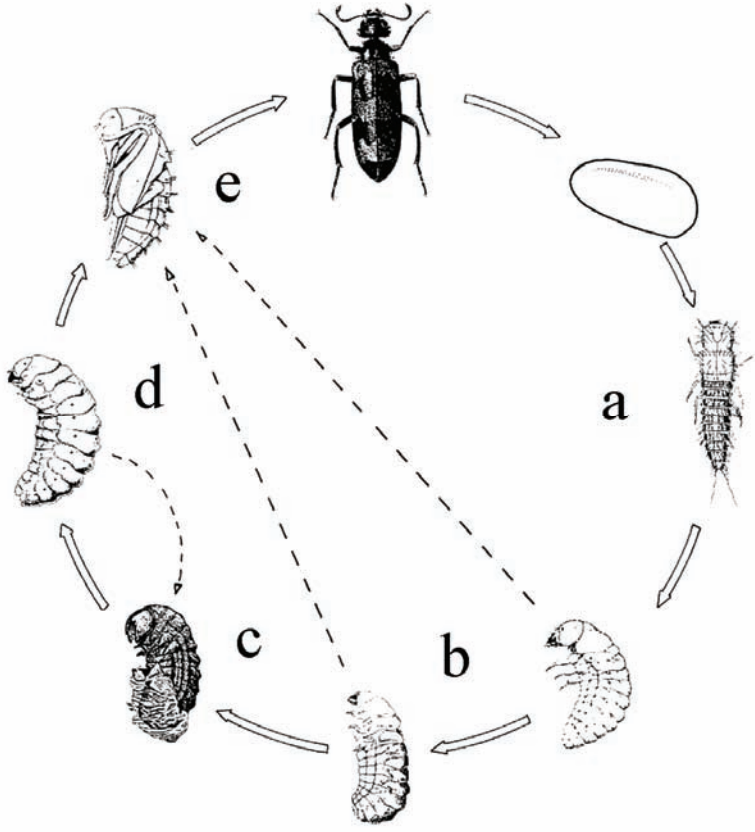
Federica Turco, Queensland Museum

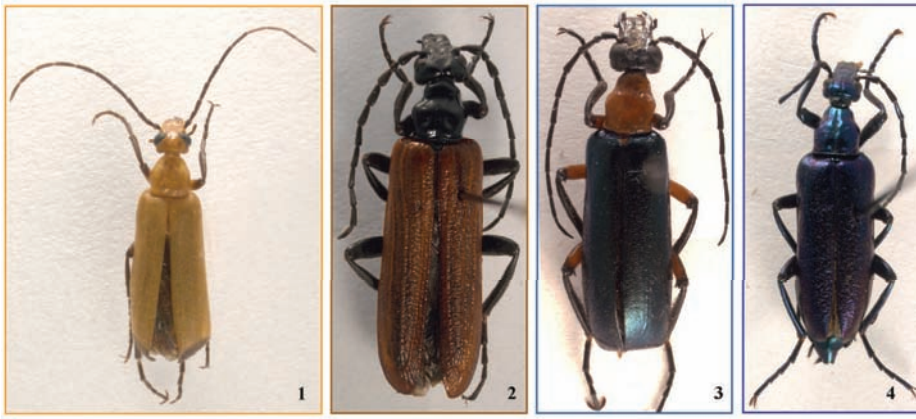
Blister beetles (Meloidae) are Tenebrionoidea beetles, and are therefore closely related to tenebrionids, zopherids, ripiphorids and oedemerids. They are heteromerous beetles characterized by rather soft elytra and a very distinct neck. Indeed the head is always well separated from the prothorax and the posterior portion of the head forms a characteristic neck sclerite. They live in open habitats and feed on flower parts (particularly pollen) of various plant families: Myrtaceae (*Eucalyptus*, *Melaleuca*, *Leptospermum*), Fabaceae (*Acacia*, *Psoralea*), Commelinaceae (*Commelina*), Pittosporaceae (*Bursaria*), Proteaceae (*Hakea*), Rosaceae (*Crataegus*), Ericaceae (*Leucopogon*), Amaranthaceae (*Ptilotus*), Myoporaceae (*Eremophila*).

Other two major features of the family are related to the biology of these beetles. One is the presence of a toxic compound in their haemolymph, known as cantharidin. As a

defensive reaction these beetles release drops of orange/reddish haemolymph from their joints and if you then touch some sensitive or exposed skin, like a cut, or if you simply scratch your eyes you end up with some quite annoying blisters; that is why they are called blister beetles. The other biological feature of the family is the hypermetabolic life cycle related to their parasitic behaviour, against Hymenoptera Apoidea in particular. They are therefore characterized by different larval stages: (A) a mobile campodeiform larva called a triungulin which actively reaches the hosts nest; (B) a first grub; (C) a coarctate phase (overwintering stage); (D) a second grub; finally a pupa (E) and then the adult emerges from the host's nest.

I started my entomological journey in Italy working on blister beetles for my Master and then my PhD thesis. I've been working on behaviour, morphology, taxonomy and phylogeny, using both morphological and molecular data (Turco *et al*., 2003; Turco & Bologna, 2007; 2008; 2011; Bologna *et al*., 2010). During the last five years I've been working in collaboration with Prof. Marco Bologna (University "Roma Tre", Rome) and Prof. John D. Pinto (University of California, Riverside) on a project aiming to define and describe Australasian blister beetle genera. Marco and John worked together on similar projects in the past, dealing with the New and the Old World faunas producing two comprehensive papers (Pinto & Bologna, 1999; Bologna &





Pinto, 2002). Four years ago I joined them on this new taxonomic work, which proved to be quite challenging. Our work is still in progress and we expect to publish Australasian blister beetle genera by the end of the year.

One of the main outcomes relates to the genus *Zonitis*, which has been used to "store" almost all new species described from Australia between late 1800s and early 1900s. We now decided to move those species into *Australozonitis* gen. n. (1), *Pulchrazonitis* gen. n. and *Palaestra* (2-4) (see images above), redefining *Palaestra* itself, and excluding any true *Zonitis* from the Australasian area.

The reason why I'm writing about this is that I would like to ask Society members their help in collecting specimens as well as biological data. Indeed about 90% of specimens available in collections belong to crepuscular species of the genera *Australozonitis* and *Zonitoschema*, collected using light-traps. Unfortunately this material is only partially informative because we miss many day-active species (known only from types or just a few specimens) and with light-trapping there is no biological information associated with the specimens, such as habitat and/or host-plant.

Therefore, if you see or collect specimens and/or any related biological data when you are out there looking for your favourite bugs or just bush-walking, these are my contacts:

Dr Federica Turco
Postdoctoral Fellow, Biodiversity – Entomology
Queensland Museum, South Bank, P.O. Box 3300, South Brisbane - QLD 4101
Ph. +61 07 3840 7690; e-mail: federica.turco@qm.qld.gov.au

THANK YOU!

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A siren in the wind - A short report on an amazing tiphiid wasp from South Australia

Federica Turco, Queensland Museum

The myth of sirens goes a long way back in time but the myth always has some kind of truth behind it. If I'm sitting here with a limited movement ability, how can I get the attention of someone who is passing by? This urge drives all sorts of creatures. Sirens supposedly used to sing a very charming song but someone else may have a different strategy! So… here is my story.

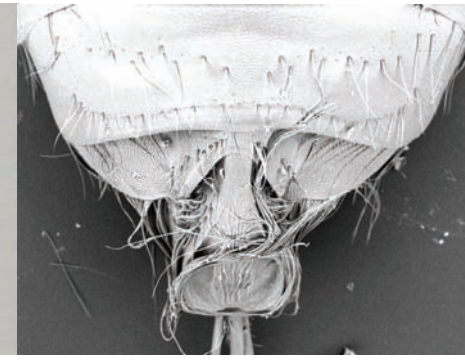
In March 2011 Geoff Monteith and I travelled together in South Australia for about a week, visiting Deep Creek Conservation Park, in the Fleurieu Peninsula, and Mount Remarkable National Park, in the southern part of the Flinders Range. At Mt Remarkable N.P. we stayed at the Alligator Lodge, managed by the Park rangers, just 10 kilometres south of Wilmington. The "backyard" of the Alligator Lodge is a beautiful open *Eucalyptus* woodland with a rich undergrowth scattered with grasstrees and *Spinifex*. It is on a gentle slope facing west and it gets quite a strong breeze every afternoon from the lowland. The very first day at the Alligator Lodge, in the afternoon,

I saw something strange on top of a timber pole just in front of the lodge (above). A female tiphiid wasp performing a rather bizarre behaviour… to me! When Geoff later confirmed me that it was indeed unusual, that was it… I was already charmed by that tiny siren so I decided to go a bit deeper into the matter, even though I am not a specialist in hymenopterans.

Tiphiid wasps, of the subfamily Thynninae in particular, are characterized by wingless females which, because of their limited movement ability, evolved interesting adaptations to make themselves noticed by fully-winged and patrolling males… just like sirens they attract their attention with a chemical "song" and perform specific behaviours to make that song heard as far as possible. According to Graham Brown (2000) "they climb low plants and rest in a characteristic head-up position with their antennae erect", but what we found is the exact opposite. At one stage I could follow one individual looking for the perfect spot on a dead *Spinifex* and the activity was very frantic, trying to get the most out of that beautiful afternoon breeze.

Once back in Brisbane I had a closer look to the morphology of that "singing" abdomen and found what may be pores for pheromones secretion as well as rather dense and long setae to disperse the crucial chemical in the wind effectively. I contacted Graham Brown himself in Darwin and he excitingly confirmed the uniqueness of this behaviour. He could identify the wasp as *Iswaroides* sp., a rather diverse genus with many species to be described from South Australia!

So, this is still a work in progress and the specialists will unravel the taxonomic bundle and how this diversity is related to the very peculiar behaviour we could observe on Mt Remarkable. To be part of this story so far, it's been exciting and a great fun!



Aknowledgements

I wish to thank Geoff Monteith for being a wonderful travel mate and mentor, Claudia Arango (Queensland Museum) for the use of her photographic system and Graham Brown (Natural Sciences, Museums and Art Galleries of the NT) for sharing his expertise on the group.

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"Sticky Necks" - An unusual nuptial feeding mechanism in thynnine wasps (Hymenoptera: Tiphiidae).

Geoff Monteith, Queensland Museum

During the last couple of summer seasons I've done a lot of malaise trapping in southern Queensland. This was aimed at getting DNA quality beetles, so I was using absolute ethanol in the collecting bottles. Any malaise trapping in summer always gets lots of male thynnine wasps. These are a diverse group of nectar-feeding wasps in Australia which have wingless females which solicit for winged males to pick them up for copulation. Copulation takes place while the male flies about with the female attached. Eventually the females are released and burrow into the ground in search of scarab larvae to parasitise. Males spend much time patrolling the environment in search of females so they are regularly taken by malaise traps.

When sorting the samples I noticed that the preserved males of some species of thynnines often had a white waxy mass filling the space between the head and the pronotum (Fig 1). The mass was horseshoe-shaped, almost completely encircling the neck ventrally but never joined dorsally to make a full circle. It was enclosed by a very long fringe of setae which projected backwards from the hind margin of the head and seemed to be partly holding it in place. This waxy body was loosely attached to the back of the head but it could be levered off entire with fine forceps. Doing this revealed that the waxy body was resting in a horseshoe-shaped depression in the back of the head (Fig 2). The depression's surface was extremely smooth and shining, and it lacked any of the setae which were scattered over the rest of the head surface. Compared to this, the heads of males of the species which never carried these waxy bodies were quite normal - uniformly setose and lacking any glabrous depression (Fig 3).

Puzzled as to what was going on, I dropped an email to Graham Brown, Australia's thynnine expert in Darwin. He pointed to a paper by Bruce Given, a New Zealand entomologist who spent from 1945 to 1952 in Australia in search of possible biocontrol agents for scarab pasture pests in NZ (Given 1954). He focussed on the thynnines and sent back to NZ no less than 14,000 pairs of 13 different species in the hope of finding species useful in controlling their pest scarabs. Given made detailed studies on the biology of thynnines in Australia. He focussed on the problem the wingless females have in accessing a nectar source of food and discovered that most females receive their liquid food as a "nuptial gift" from the winged males during the period they are in tandem copulation. There were four ways in which the males assisted the females to gain a nectar meal: (1) in some species the attached female fed on nectar from blossom at the same time as the male was imbibing nectar from the same flowers, (2) in some species the male stored nectar in his crop and then regurgitated it on to a leaf surface for the attached female to consume, (3) in some the male stored nectar in his crop and then directly fed the female by oral

contact, and lastly (4) in certain species, particularly the genus *Tachynomyia*, the males utilise "sub-occipital storage" in which males store food liquids in specialized depressions on the rear surface of the head.

Clearly, what I was seeing in my puzzling specimens was some manifestation of the fourth method, viz. sub-occipital storage. Given illustrates an evolutionary sequence of species showing increasing size of the storage depressions on the head and he says

Figures 1-3. (1) A malaise-trapped male thynnine with a waxy body in position on the back of the head. Note the long setae from the back of the head which enclose the body. (2) Rear view of the head of a species with deep excavation surrounding the neck region for carrying nectar. The sunken surface of the depression is quite hairless. (3) Rear view of the head of a normal male thynnine. The head has no depression and setae are scattered over whole rear surface.

that in some species "the final food bolus, held in place by a fringe of long recurved hairs, is considerably larger than the head". He also points out that many species utilise not only floral nectar, but also secretions from extra-floral nectaries and honey dew from scale insects and other homopterans. Ridsdill-Smith (1970) showed that homopteran honey dew was the major liquid harvested by some species. But all the species that had been studied used liquids of some sort. So what was the solid waxy "necklace" that I was finding on the excavated heads of specimens in my malaise traps. Perhaps the absolute alcohol was playing a role in the riddle? A simple test in my kitchen showed that this is so. A drop of honey dribbled into a glass block filled with absolute ethanol sank and kept its shape as a discreet droplet on the bottom. A couple of hours later the droplet had developed a hard white waxy crust as the ethanol extracted the water from the honey. So presumably the sweet liquid held in the neck chambers of the trapped wasps was dehydrated to solid residue bodies by the ethanol in my malaise traps.

And the moral of this story is that if your daughter's boyfriend arrives to take her out on a date wearing his box of chocolates on a string around his neck, you should be very suspicious!

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STUDENT AWARD PRESENTATION

Exploring the effect of light on glow-worm bioluminescence: a summary of my honours project

Rebecca J. Morley

Glow-worms are the bioluminescent larvae of the fungus fly genus *Arachnocampa* Edwards (Diptera: Keroplatidae) (Harrison, 1966). *Arachnocampa* currently comprises nine described species (Baker *et al.*; Harrison, 1966), of which *A. flava* is the focus of my study as it is the subject of significant tourism attention in southeast Queensland.

Adults of *A. flava* (Figure 1, left) emerge from their pupae after 6-7 days. They are relatively large (9-10 mm long), poor-flying insects that resemble mosquitoes. Mating takes place during or immediately after female emergence. Adults have a short life span, with the male living 4-6 days and the female living only 2-3 days. In this time the female will lay approximately 130 eggs (Figure 1, middle), which take 7-9 days to develop before hatching. The newly emerged larvae are long-lived with a life span of 5-10 months, in which time they pass through 5 larval instars (Baker & Merritt, 2003). The larval stages (Figure 1, right) are the only feeding stages of the life-cycle of *A. flava* (Richards, 1960).

Glow-worm larvae are nocturnal predators that feed predominantly on small flying insects (Wheeler & Williams, 1915). They construct a mucous tube from which they suspend a series of mucous-droplet silk threads. Glow-worm larvae use their bioluminescence to attract prey (Broadley & Stringer, 2001) – small flying insects are lured toward their light source and become trapped in the sticky snares. The movement of prey causes vibration of the snare, which is detected by the glow-worm. The prey is subsequently hauled up and consumed

(Meyer-Rochow, 2007). The brilliant blue-green bioluminescence of *A. flava* corresponds to a spectral emission peak of 484 nm in wavelength (Viviani *et al.*, 2002), which might correspond to the spectral sensitivity of their prey (Meyer-Rochow & Eguchi, 1984).

Glow-worm bioluminescence has been observed to be inhibited by light exposure (Baker, 2002; Gatenby, 1960; Gatenby & Ganguly, 1958; Merritt & Aotani, 2008; Meyer-Rochow, 2007; Meyer-Rochow & Waldvogel, 1979), however, the features of light causing this bioluminescent dimming response have never been quantified in a controlled setting.

My honours research, under the supervision of Dr David Merritt at The University of Queensland, characterised the pattern of

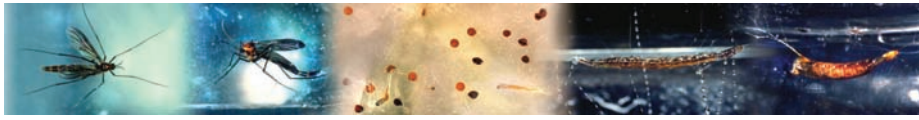

Figure 1. The life-cycle of *Arachnocampa flava*. From left to right: Adult female, adult male, eggs, larva (glow-worm), pupa (Photos: Anthony O'Toole).

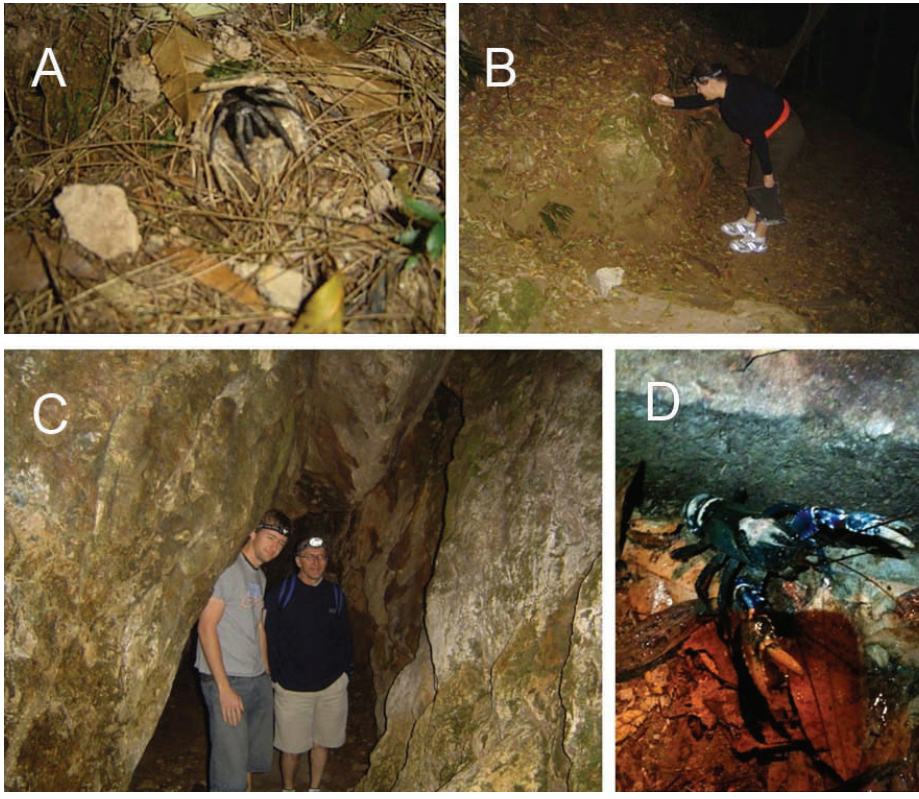

Figure 2. The experience of collecting glow-worms: (A) trapdoor spider, (B) me collecting, (C) research assistant Andrew Calcino and supervisor Dr David Merritt on the hike, (D) a blue crayfish on the path after the rain.

natural bioluminescent output of *A. flava* and investigated the effect of extraneous light intensity, duration and wavelength (colour) upon bioluminescent dousing and recovery.

I collected the glow-worms for my research by taking night hikes with my fellow lab members to Twin Falls in Springbrook National Park (Figure 2). On our way down to the falls, we would often pass flashing fireflies and, if it had been raining, we would come across blue crayfish on the hiking path (Figure 2D). After arriving at Twin Falls, we would switch off our lamps, and look back up the embankment, where we were able to stand in the glow of hundreds of glow-worms showing us their spectacular blue light display. We collected the specimens needed for our research by identifying a glow-worm light source, reaching past a number of trapdoor spiders (Figure 2A) and scooping the larvae out of their snares with a stick and placing them into small microfuge tubes. Once back in the lab, each larva was individually housed and visually isolated from neighbouring glow-worms in an inverted, clay-lined plastic container fronted with plastic. These were then stacked on top of water-filled lids inside a glass aquarium, which was placed at one end of a wooden chamber. At the other end of the chamber was a white LED ring light automated to switch on daily at 6am and off at 6pm, a camera and four exposure lights (Figure 3). Glow-worms were fed once a week by placing two *Drosophila melanogaster* adults into each of their snares.

Understanding the effect of light on bioluminescent dousing and recovery has given insight into bioluminescent control by the nervous system and enabled lighting

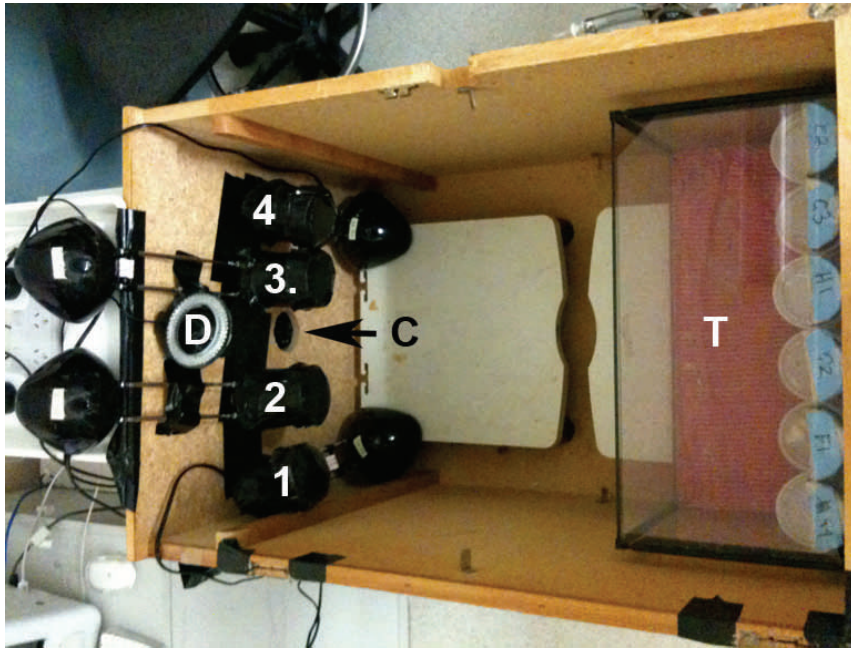

Figure 3. The set-up for light exposure experiments used throughout this study. An aquarium containing stacked, individually housed glow-worms (T) was placed at one end of an isolated chamber and a camera (C), daylight-simulating LED ring-light (D) and four exposure lights (1-4) at the opposite end.

recommendations (e.g. torch filter specifications) for glow-worm tourism. You will have to wait until my research paper is published before you read about my actual findings.

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Next meeting: Members were reminded that the next meeting will be on Monday August 8th - we do not have a meeting in July.

Chair closed the meeting at 2.00pm

Notice of Next Meeting

Monday 8th August 2011, 1pm

~

Shaking the eucalypt leaf beetle tree: some highs and some lows

A presentation by

Gunter Maywald

~

Seminar Room 1
Ground Floor
Ecosciences Precinct
Boggo Road, Dutton Park

Maps and further venue information available at http://www.esq.org.au/meetings.html

ALL WELCOME

USDA ARS Australian Biological Control Laboratory

In July borers attacking *Lygodium microphyllum* were imported into quarantine from Hong Kong and Ryan Zonneveld and Jeff Makinson are rearing larvae to adults. Special enclosures have been constructed in quarantine to entice the adults to mate and oviposit. Little success has been achieved in this regard in the past and we are hoping the new quarantine facility with associated glasshouses at the EcoSciences Precinct will assist our efforts. Raghu Sathyamurthy travelled to Pondicherry University in India to seek collaboration on demographic studies of Downy Rose Myrtle, *Rhodomyrtus tomentosa*. These studies are also planned for Hong Kong, mainland China and in the introduced range in Florida, USA.

ENTOMOLOGISTS IN ACTION

In this edition .....

Forest Health Team

Department of Employment, Economic Development & Innovation (DEEDI)

The forest health team is a unit within DEEDI dedicated to managing pests and diseases in the hardwoods (eucalypts) and softwoods (pine) plantation timber industry in Queensland. The team consists of seven scientists and one technician, with a range of specialisations and interests ranging from insect biology and ecology, chemical ecology, landscape ecology, population modelling, pathology, nutrition, forest biosecurity, biological control, taxonomy and surveillance. The nature of the forest industry, with rotations typically of 25-30 years duration, not only presents unique challenges for pest management, but also a great working environment. The team is based at the Ecosciences Precinct in Dutton Park and at the University of the Sunshine Coast, Sippy Downs.

Simon Lawson

Simon has been with the Department for 14 years and leader of the forest health team since 2006, following in the footsteps of Ross Wylie. He seems to have been destined for a career in entomology after winning a $10 bet with his father that he could not collect 100 species of insects in the backyard (an early lesson in just how diverse a group the insects are). The $10 was put to good use, being about half the cover price (a whopping $19.80!) of the first edition of 'Insects of Australia' at the time. Simon went on to finish a B Ag Sc and M Ag Sc at the University of Adelaide's Waite Institute under David Morgan, and his first professional job was there running the biological control program for the five-spined bark beetle (*Ips grandicollis*). Subsequently he continued studies on bark beetles in Japan, completing a doctorate at the University of Tokyo. A postdoc at the Forestry and Forest Products Institute in Japan followed and before returning to Australia he also had a stint teaching biology English at the University of Tsukuba. His research in Queensland has largely been directed at managing insect pests in eucalypt plantations by gaining a better understanding of their biology and ecology, with particular emphases on semiochemicals as tools in IPM systems, modelling population dynamics, and enhancing biological control. He also has a keen interest in forest biosecurity, both in Australia and in the region, most recently with ACIAR and AusAID projects in the Pacific and Vietnam.

Valerie Debuse

Valerie is an ecologist who started working with the forest health team in 2006 after five years working in landscape ecology, fire ecology and biometry in forestry research. Her main interest is landscape ecology, specifically looking at how the composition of the landscape affects insect population dynamics and behaviour in hardwood plantations. Her work focuses on leaf beetles, longicorn beetles and cossid moths. Valerie is delighted to be studying arthropods again after researching the marine variety (lobsters) for her PhD in the UK.

Manon Griffiths

Manon has worked with Forest Health for 12 years – making her fortunate enough to have overlapped with both the old guard (Ross Wylie, Judy King and Murdoch DeBaar) and the current team. Manon completed her BSc and Honours in the School

(L to R): University of the Sunshine Coast – Tim Smith, Valerie Debuse. Ecosciences Precinct - Janet McDonald, Manon Griffiths, Andrew Hayes, Helen Nahrung, Geoff Pegg, Simon Lawson.

of Environmental Studies, Griffith University and her PhD at UQ. Before starting with Forest Health she worked on population dynamics of aquatic insects at the Centre for Catchment and In-stream Research, Griffith Uni; and on biological control of a range of terrestrial and aquatic weeds at CSIRO Entomology, Alan Fletcher Research Station, and the Weeds and Seeds Centre, Charters Towers. During her time at Forest Health Manon has worked on several tree pests including the Cedar shoot borer, Sirex wood wasp, Essigella pine aphid, Ips bark beetle and Giant Wood Moth. Through these projects she has had the opportunity to work overseas in Vietnam, Thailand and Laos. Manon has also been involved in Hazard Site Surveillance for the detection of invasive forest pests in both plantations and high risk urban sites throughout Queensland. More recently Manon has been helping curate the Queensland Forest Insect Collection since the move to its new home at the Ecosciences Precinct.

Andrew Hayes

Andrew came late to entomological research, but has enjoyed the last three years working with insects - a return to arthropods after a long diversion into vertebrates. He studied for a BSc at Sydney University, with an Honours project examining the blood-gas physiology of two decapod crustaceans. After that he completed a PhD at the University of Western Sydney where he first became interested in chemical ecology, studying chemical communication and social behaviour in the European rabbit. A brief stint in primatology saw him working on chemical communication in lemurs with colleagues from the US, and included a fantastic field trip to Madagascar. Andrew moved to Queensland in 2003 to take up a post-doc position at QUT. Still working with vertebrates, he studied predator-prey interactions between three native rodent species and their predators on the Atherton Tableland - still on the smelly stuff, this time their response to predator faeces. Another post-doc position on laboratory rats and cat odour at the University of Sydney was followed by nearly three years at UQ investigating chemical ecology of the cane toad, as a means of developing a control / management strategy. Finally in 2008 Andrew returned to the invertebrate world starting work at the then DPI&F looking at developing control strategies for a variety of insect pests of horticulture and forestry through the use of chemical ecology. This position has given him the opportunity to develop new skills in a variety of techniques, such as GC-EAD, and he is thoroughly enjoying his time as an almost entomologist.

Janet McDonald

Janet began working as a technician with the Forest Health Surveillance team in DPI in 1998 conducting pests and disease surveys in the softwood plantations. In 2000 the FHS team started surveying Joint Venture hardwood plantations as part of the Hardwoods Queensland initiative. She has mostly been involved with hardwoods plantations since. Janet was part of an ACIAR funded team of researchers who set up Forest Health Surveillance systems in the South Pacific Islands – Fiji, Tonga, Samoa and Vanuatu. She has recently been conducting surveys in the sandalwood plantations in Kununurra WA. Janet's special interest is Geographical Information System (GIS) which is a useful tool to assist the forest health scientists to manage pests and diseases.

Helen Nahrung

Helen's first involvement with Forestry was through a CSIRO studentship at the recently -closed DPI Fraser Rd laboratories in Gympie – twenty years on in the great circle of life, and she is working again with some of the same staff from back then! In the interim, she majored in Entomology in the Hartley-Teakle building at UQ - one of the last Honours students through the last actual Entomology Department in Australia. She also worked there for a while as a Research Assistant, and spent four years at the recently-closed Alan Fletcher Research Station in Sherwood, working on biocontrol of

lantana, prickly acacia and parkinsonia. She and her husband, acarologist Owen Seeman, spent the next few years in cosy Hobart where she did her PhD in Forest Entomology, then worked as a Research Assistant and enjoyed our beautiful island state. Owen was offered his dream job at the Qld Museum in 2003, so they returned to sunny Queensland, where Helen completed a two-year post-doc at QUT in Forest Health Ecology. In 2005 she joined the Forest Health Team at the recently-closed DPI Long Pocket site, working on several forestry pests, with a couple of breaks to welcome two little boys. She now works part-time at the Ecosciences Precinct on several projects in hardwood, softwood and high-value timber plantations from Stanthorpe to the tropics, including chemical and landscape ecology, invasion characteristics, biological control, and population modelling.

Geoff Pegg

Geoff is the plant pathologist on the forest health team and for the last 11 years has been involved in pest and disease research for the key softwood and hardwood plantation species used in Queensland. In his previous life Geoff was employed with the Australian Quarantine and Inspection Service (AQIS). Geoff's main area of expertise is in foliage diseases of eucalypts, recently completing his PhD on the biology, ecology and management of Quambalaria shoot blight of spotted gums. Since the recent detection of Eucalypt Rust (*Puccinia psidii*) in NSW and Queensland he has been closely involved in the response and is now beginning research to assess the impact and host range of this disease, in particular looking for resistance within eucalypt species to *P. psidii* and investigating the impact the disease will have within the native environment.

Tim Smith

Tim is not your traditional entomologist, having only studied entomology as an undergrad. He did his PhD in plant nutrition and soil science. He has been working in forestry research for 13 years and had seen anecdotal effects of pest and disease attacks relating to nutritional field trial treatments. An invitation to join the PHRF stem borer project provided the perfect opportunity to link up with leading entomologists to study the interactions between plant nutrition/ health and borer attack of hardwood species in much greater detail.

NOTICES

Scientific Library on Offer

Dr Ted Dahms, a specialist of chalcidoid Hymenoptera, is offering the contents of his scientific library. The library contains literature mostly on Hymenoptera (though not exclusively) and includes 1036 reprints, 130 Monographs and larger papers in serial publications plus several rare publications and other serials. Amongst the reprints are some hard to find papers by South American and Russian specialists. Ted is not looking to sell the library but just cover any cartage costs. A complete list can be requested directly from Ted Dahms by email: ted.dahms@plumcon.com.au or by phone: 07 3273 2396

Ross Crozier Memorial Volume

Professor Ross Crozier was an eminent ant evolutionary biologist based at James Cook University, Townsville. He died suddenly at a relatively early age last year. The leading ant journal, *Myrmecological News*, has just published a special Memorial Volume in honour of Ross's life and ant research. It runs to 128 pages and has 18 separate papers by ant workers around the world plus a forward by eminent sociobiologist E.O. Wilson. It is available online for 25 Euros from http://myrmecologicalnews.org/cms/

Photos Wanted

I'm preparing a CSIRO Guidebook to the Australian Cockroaches and would be happy to receive any cockroach photos you may like to submit. The publisher has agreed to provide a free copy of the book to anyone whose photos we decide to use. There are more cockroaches in Australia than you think and all images will be of interest.

I am short of material from Tasmania and Victoria so if you plan a field trip there in the coming season, please keep me in mind if the odd cockroach crosses your path.

The images need to be at least 300 dpi and in sharp focus, of course. So keep your camera at the ready. Also if you have images on slides of excellent quality, I can scan them. But I'm interested in Australian cockroaches only for this project.

Please send your photos via email to bunyipco@yahoo.com

Dave Rentz

DEATH NOTICE

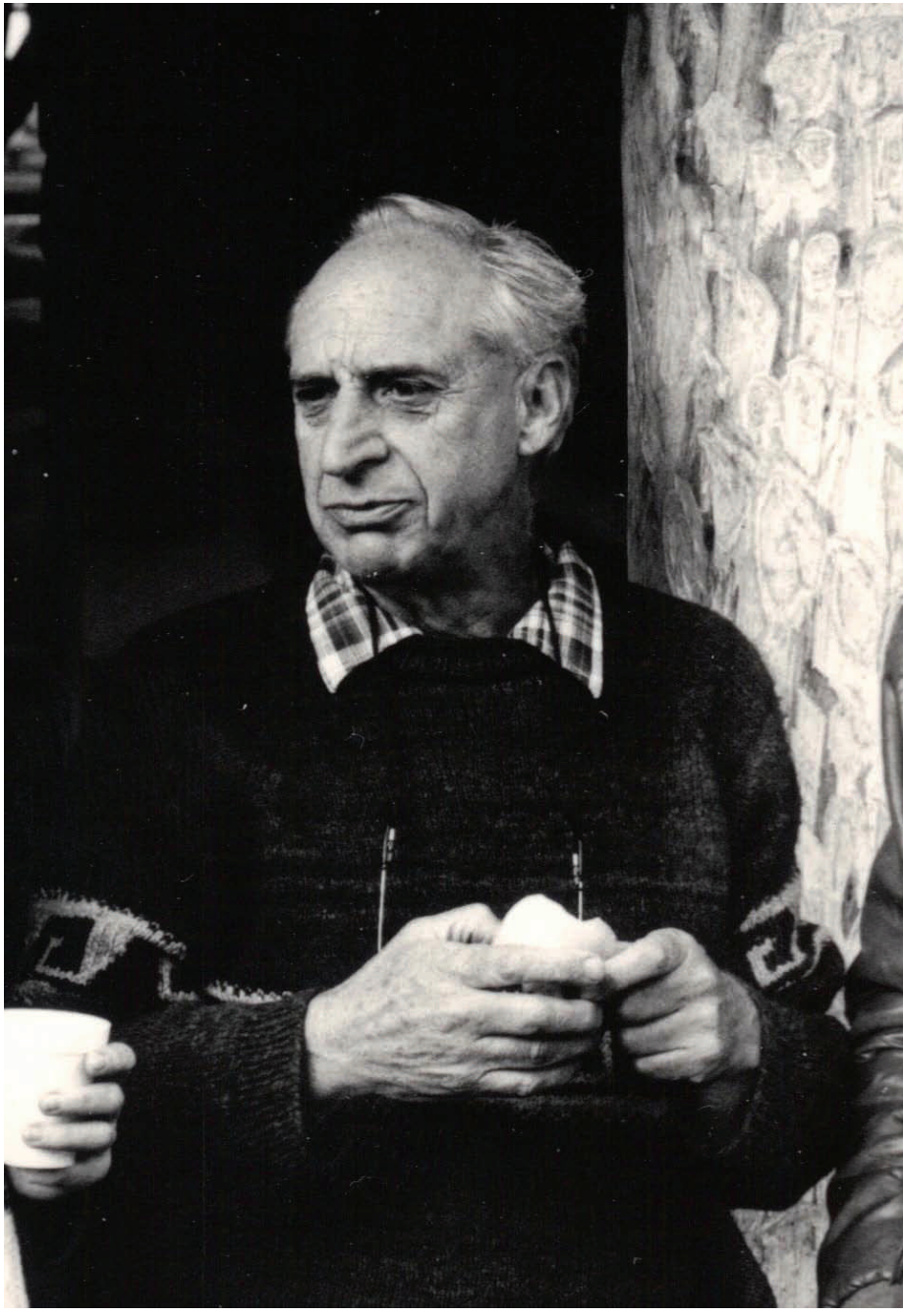
Dr Courtenay Neville SMITHERS 1925-2011

The death occurred of long-term ESQ member Courtenay Smithers, at age 85, in Sydney on 12 May 2011. Courtenay was born in South Africa then lived in England from 1938, seeing service in the British Army during the war years. After discharge he returned to Africa where he trained at Universities in both South Africa and Rhodesia (later to become Zimbabwe) followed by employment in Rhodesia, initially in the area of tsetese fly control and later in research.

In 1960 he came to Australia to take up a position as curator of entomology at the Australian Museum in Sydney and he remained there until retirement in 1985, rising to Principal Curator of Entomology and Deputy Director during his service. Courtenay's principal interest was the taxonomy of the Psocoptera and he was leading authority in this field producing a world catalogue in 1967, a major review of overall classification in 1972, and scores of smaller papers. He also published widely on Australian lacewings and scorpion flies. He had a fascination with island faunas and wrote on the insect faunas of Lord Howe, Norfolk and Christmas Islands. He was always anxious to involve the public in museum activities and is well known for his long-term studies of butterfly migration which involved asking the public to tag butterflies and return recaptured specimens. He also published semi-popular guides to beekeeping and insect collecting techniques. An onerous highlight of his entomological career was becoming General Secretary of the first ever International Congress of Entomology held in Australia in 1972. He moved to an office at CSIRO for a year, so that he could be close to the final venue and to the President, Doug Waterhouse, and the great success of that Congress was due in no small part to Courtenay's patient organisational skills.

Though he retired in 1985 his insect work flourished until his death and he was a regular at the Australian Museum until very recently with publications still coming out. He also spent much time in retirement at the bush property at Singleton that he bought and developed as the private Tuglo Wildlife Reserve.

Geoff Monteith
Queensland Museum



Courtenay Smithers at the Hobart 1985 meeting of the Australian Entomological Society.

Entomological Society of Queensland
Nomination for Membership Form

www.esq.org.au

Title________ First name________________________________

Surname ____

Email ____

Address____

___________________________postcode_____________Date_______________

Nominated by ____

Seconded by ____

☐ General membership **$30 AUD**	I would like to receive my News Bulletin
☐ Joint membership **$36 AUD**	☐ electronically (PDF) by email
☐ Student membership **$18 AUD**	☐ in hard copy by mail

☐ Cheque/Money Order enclosed

or Please charge my : ☐ Bankcard ☐ Visa ☐ Mastercard

Name on Card ____

Expiry Date ________________ Signature ________________________________

Please return completed form to : Honorary Secretary
Entomological Society of Queensland
P.O. Box 537
Indooroopilly
Qld. 4068

Please retain the receipt below for your records

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Entomological Society of Queensland—Receipt for payment of membership fees

Name ______________________________________ Date _____________

Amount paid $_________________ for year/s ______________

DIARY DATES 2011

Meetings held 2nd Monday of the month (or Tuesday if Monday is a public holiday)

MAR—Monday 14th	Matt Purcell	AGM and President's Address
APR—Monday 11th	Dr Diana Leeman	Small hive beetle, a recently established scourge of apiaries
MAY—Monday 9th	Dr Tim Heard (CSIRO)	Australian native stingless bees
JUN—Tuesday 14th	Notes and Exhibits & Student Award Presentation	
AUG—Monday 8th	Gunter Maywald	Shaking the eucalypt leaf beetle tree: some highs & lows
SEP—Monday 12th	DEEDI Forest Health	Semiochemicals for forest pest management
OCT—Monday 10th		
NOV—Monday 14th		
DEC—Monday 12th		

SOCIETY SUBSCRIPTION RATES

GENERAL:	Person who has full membership privileges	**$30pa**
JOINT:	Residents in the same household who share a copy of the *News Bulletin*, but each otherwise have full membership privileges.	**$36pa**
STUDENT:	Students and others at the discretion of the Society Council	**$18pa**

Student membership conveys full membership privileges at a reduced rate.

THE *AUSTRALIAN ENTOMOLOGIST* SUBCRIPTION RATES

AUSTRALIA:	Individuals	**AU$33pa**
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ASIA/PACIFIC:	Individuals	**AU$40pa**
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	Institutions	**AU$50pa**

Subscriptions should be sent to the Business Manager,
The Australian Entomologist PO Box 537, Indooroopilly QLD 4068.

THE ENTOMOLOGICAL SOCIETY OF QUEENSLAND

NOTICE OF NEXT MEETING

Monday 8th August 2011, 1pm

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Shaking the eucalypt leaf beetle tree: some highs and some lows

a presentation by

Gunter Maywald

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Seminar Room 1
Ground Floor, Ecosciences Precinct
Boggo Road, DUTTON PARK

More venue details available at
http://www.esq.org.au/meetings.html

ALL WELCOME

NEXT NEWS BULLETIN

Volume 39, Issue 5 (August 2011)
due early September

CONTRIBUTIONS WELCOME

DEADLINE - Thursday 25th August
Send your news/stories/notices to the editor
(justin.bartlett@deedi.qld.gov.au)