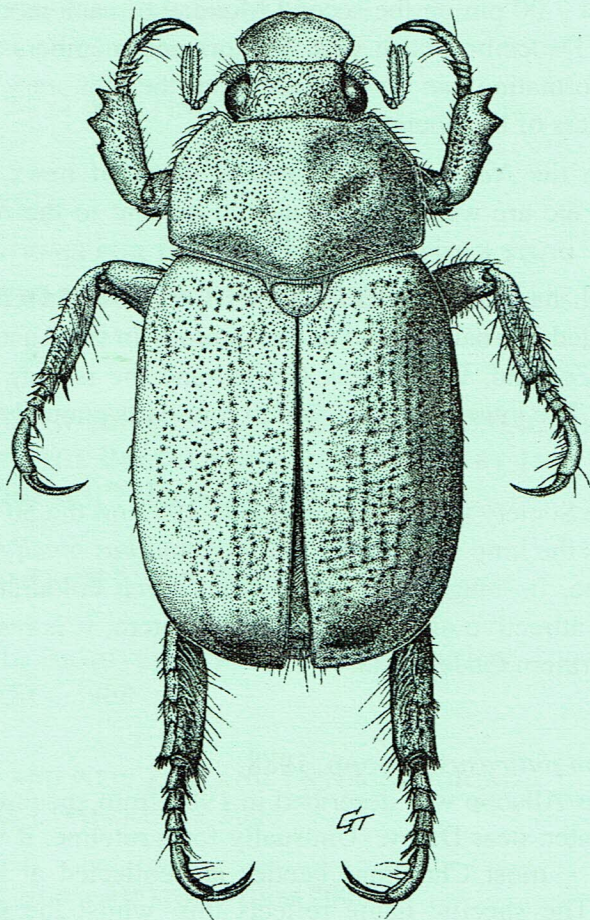


ENTOMOLOGICAL SOCIETY OF QUEENSLAND INC

# NEWS BULLETIN



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The **ENTOMOLOGICAL SOCIETY OF QUEENSLAND INC.**, since its inception in 1923, has promoted the development of pure and applied entomological research in Australia, particularly in Queensland. Membership is open to anyone interested in Entomology. 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 in the Goddard Building, University of Queensland at 7.00 pm on the second Monday of each month (March to June, August to December) each year. Visitors and members are welcome. Membership information can be obtained from the Honorary Secretary, or other office bearers of the Society.

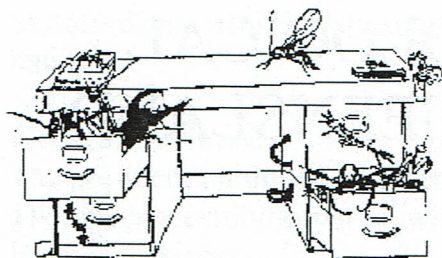
Contributions to the *News Bulletin* such as items of news, trip reports, announcements, etc are welcome and should be sent to the *News Bulletin* Editor.

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 50<sup>th</sup> anniversary of the Society, is the king stag beetle, *Phalacrognathus muelleri* (Macleay), family Lucanidae. Its magnificent purple and green colouration makes it one of the most attractive of all Australia Coleoptera. It is restricted to the rainforests of northern Queensland.

**COVER: *Wambo puticasus* Allsopp, 1988**

*Wambo puticasus* Allsopp was described in 1988 from specimens collected at Lake Broadwater, near Dalby. Unusually for a ruteline, it was collected in a pitfall trap – most Christmas beetles are collected at light or from feeding trees. The specific name reflects this, whilst the generic name honours the shire in which it was collected. Geoff Thompson did the drawing, the original of which is a prized possession of Peter Allsopp.



# TABLE OF CONTENTS

<b>MINUTES OF GENERAL MEETING</b>	<b>98</b>
<b>NOTICE FOR NEXT MEETING</b>	<b>99</b>
<b>MAIN BUSINESS</b>	
<b>"MUSHROOMS FOR BREAKFAST—FUNGI AS A FOOD     SOURCE FOR INSECTS" BY CHRIS BURWELL</b>	<b>100</b>
<b>BOOK REVIEW</b>	
<b>"THE M.R. GOLDING COLLECTION. A PICTORIAL FIELD     GUIDE TO THE BEETLES OF AUSTRALIA. PART 1:     'STIGMODERINI'" BY ALLEN SUNDHOLM</b>	
<b>PERMIT NEWS FROM SUSAN WRIGHT</b>	
<b>INVERTEBRATE BIODIVERSITY AND CONSERVATION CONFERENCE 2008</b>	<b>90</b>
<b>AUSTRALIAN AND NEW ZEALAND ENTOMOLOGICAL SOCIETIES CONFERENCE 2006</b>	<b>95</b>
<b>MEMBERSHIP SUBSCRIPTION FORM 2006</b>	<b>96</b>

The issue of this document does **NOT** constitute a formal publication for the purposes of the "International Code of Zoological Nomenclature 4<sup>th</sup> edition, 1999". Authors alone are responsible for the views expressed.



# THE ENTOMOLOGICAL SOCIETY OF QUEENSLAND

## **GENERAL MEETING:**

Minutes of the General Meeting of the Entomological Society of Queensland Inc. held in Room 388, Goddard Building, The University of Queensland, on 11 September 2006, at 7 pm. Chaired by Peter Allsopp

### **Attendance:**

Peter Allsopp, Sassan Asgari, Michelle Baker, Chris Burwell, Stephen Frances, Klaus Gottschaldt, Frank Jordan, Chris Lambkin, Gunter Maywald, Fred McDonald, Geoff Monteith, Matthew Purcell, Don Sands, Elly Scheermeyer, Margaret Schneider, Owen Seeman, Kyran Staunton, Geoff Thompson, Susan Wright.

### **Visitors:**

Noel Starick.

### **Apologies:**

Richard Bull, Bronwen Cribb, Gio Fichera, Graham Forbes, Ross Kendall, Peter Mackey, Stacey McLean, John Moss, John Neilsen.

### **Minutes:**

The minutes of the August General Meeting were circulated in the News Bulletin Vol. 34 Issue 5. It was moved by Gunter Maywald, seconded by Sassan Asgari, that the minutes be accepted without amendment.

### **Nominations:**

The following nomination for membership was received, and put to the meeting for election:

Dr Lyn Cook



In accordance with Society rules, the nominee was elected by a show of hands.

**General Business:**

The president reminded members that there is one week to go in Geoff Thompson's exhibition of drawings and etchings at the Mt Cootha Botanical Gardens.

**Main Business:**

The main business of the meeting was a presentation by **Chris Burwell**, entitled "**Insects and Fungi**".

**Vote of Thanks:**

Margaret Schneider gave the vote of thanks for this presentation.

As there was no further business, the Chair closed the meeting.

**NOTICE FOR NEXT MEETING**

**Monday 9th October 2006 at 7pm  
Room 388, Goddard Building  
University of Queensland, St Lucia**

**"Australian Army Malaria Research Unit"  
by Steve Francis**

## **MAIN BUSINESS:**

### **Mushrooms for Breakfast - Fungi as a Food Source for Insects** **By Chris Burwell**

Fungi provide a source of food and habitat for many insects. Several groups, particularly many beetles, are fungal specialists and in several cases highly specialised symbiotic relationships between insects and fungi have evolved. A very wide range of fungal groups and fungal tissues may be utilised as food. Other insects, especially saprophagous species that feed on decaying organic material, are more loosely associated with fungi and may be found elsewhere. In addition, predatory and parasitic insects that attack fungivorous species are often closely associated with particular fungi. I will only discuss a few examples of insect-fungal relationships here, mostly concentrating on obligate fungal feeders. For those interested in reading more, I recommend an extensive review by John Lawrence and Richard Milner (1996) published in the *Fungi of Australia* series.

#### **Order Hemiptera - True Bugs**

The majority of sucking bugs are plant feeders or less commonly predators, but feeding on fungi has been reported for a few groups.

#### **Flat Bugs (Family Aradidae)**

Aradid bugs are one group of Hemiptera that are definitely mycetophagous. Most Australian species are found associated with dead wood although in the northern hemisphere some species can be found on the fruiting bodies of wood rot fungi. Aradids have extremely long stylets that they use to deeply penetrate wood and tap into and suck the fluids from fungal hyphae. When not in the use, the stylets are coiled within sacs in the head capsule. In Australia, species from drier habitats are often subcortical, being found beneath the loose bark of dead trees. In moist rainforests they are usually found on the outside of slowly decaying bark, particularly on the underside of branches and logs on the forest floor. Australia has a diverse fauna of aradids from rainforests, including many wingless species (Monteith 1997). Aradids lead a relatively



sedentary lifestyle and as a result 'colonies' of many individuals (including adults and nymphs of various ages) often build up beneath bark or suitable logs.

### **Order Diptera - Flies**

Many families of flies include fungal feeders, particularly within the 'Nematocera' and Cyclorrhapha. Most groups are associated with softer, wetter fungi, particularly mushrooms and toadstools. The larvae of many species are only facultatively associated with fungi but a few families contain numerous truly mycetophagous species. I'll only discuss one of the more charismatic genera of true fungal feeders.

#### ***Tapeigaster* species (Family Heleomyzidae)**

Mushrooms collectors in southern Australia may be familiar with flies of the genus *Tapeigaster*. There are eleven species of *Tapeigaster* restricted to the wetter areas of temperate Australia, including the south-west corner of Western Australia and Tasmania. They are moderately large (housefly to blowfly sized or sometimes larger) brownish or orange coloured flies. *Tapeigaster* males are often seen perching on the fruiting bodies of agaric mushrooms and other fungi. They take up a position on the cap of the mushroom and defend it from rival males looking to muscle in on their territory. Apparently the males are so focused on their defence that they often remain in place even when the mushroom is picked. *Tapeigaster* females have been observed flying beneath the mushroom cap where they are intercepted and mounted by the males. Not surprisingly, the larvae feed on the fungal tissue and at least five species of *Tapeigaster* have been reared from the fruiting bodies of agaric and bolete mushrooms and puffballs (McAlpine & Kent 1982).

### **Order Coleoptera - Beetles**

Many beetle species are associated with fungi. Numerous families have at least some representatives that feed on fungi, and a number of families are almost exclusively fungivorous. Unlike flies, many beetles are associated with the drier, tougher, more persistent fruiting bodies of wood-rot fungi.

## Dung Beetles (Family Scarabaeidae: Scarabaeinae)

The true dung beetles (Scarabaeinae) are a specialised group of scarab beetles that use dung, particularly mammal dung, as a food source for their larval stages. Around the world, some species of dung beetles are able to use alternative food sources (other than dung) for their larvae. Some can use rotten fruit or carrion, and Australian species of *Cephalodesmius* are able to 'manufacture' a dung-like material from fallen leaves, flowers and fruits (Monteith & Storey 1981).

Another alternative food source is mushrooms. The adults of several species of dung beetles are attracted to mushrooms. Australia has nearly 400 native dung beetle species and compared with elsewhere in the world, we have a relatively high proportion, around 10%, that are attracted to fungi. However, many of these species are also attracted to dung and probably use dung as the larval food. Using mushrooms as food for the larvae is much rarer, and has been documented for only two species in the world, one from Mexico and the other from Australia. The Australian species is *Onthophagus dunningi* (Fig. 1) that is found along the east coast from Townsville, Queensland to Victoria. It belongs to a group of five closely related species (the *dunningi*-group). All five species probably use mushrooms as the larval food, but only the biology of *dunningi* has been investigated.

The remarkable biology of *O. dunningi* was elucidated by George Bornemissza (Bornemissza 1971) who was instrumental in the introduction of African dung beetles into Australia. *Onthophagus dunningi* can use a number of different species of 'mushroom' including agarics and boletes, but in coastal areas the extremely toxic *Amanita verna* (although there is dispute whether this species occurs in Australia) is preferred. The adult beetles, both males and females penetrate the bulb of the mushroom beneath the soil. Up to 14 beetles have been found in a single mushroom and 6 to 8 beetles per mushroom are common. The adult beetles feed on the mushroom, shredding the mushroom tissue from the inside, burrowing up the stem and hollowing out the cap. Mating also occurs within the mushroom. Pairs of male and female beetles then work together to provision a nest. The female beetle burrows into the soil beneath the mushroom and the male passes her pieces of shredded



mushroom tissue that she fashions into brood balls and lays an egg within. The brood ball is placed inside a chamber in the burrow. Each completed nest consists of 2-6 brood balls. The eggs hatch and the developing beetle larva feeds on the brood ball. Bornemissza also tested whether the developing larva could also feed on dung. He found that the larvae could not complete its development on dung and it seems that this species only uses mushrooms as a larval food source.

### **Pleasing Fungus Beetles (Family Erotylidae)**

Erotylid beetles are probably all fungal feeders, both as adults and larvae. A number of species are commonly encountered feeding on mushrooms and bracket fungi in south-eastern Queensland. Most species are aposematically coloured with bright patterns of red or yellow and black. Fruiting bodies of *Laetiporus portentosus*, a large corky bracket occasionally found on living eucalypts becomes quickly riddled with holes through the action of erotylid larvae.

### **Darkling Beetles (Family Tenebrionidae)**

Many species of tenebrionids are associated with dead wood, but members of four tribes (Bolitophagini, Toxicini, Scaphidemini and Diaperini) have become specialised to feed on the tough fruiting bodies of bracket and shelf fungi. One of the largest species (about 1cm in length) is the bolitophagine *Byrsax macleayi*, a species found in montane rainforests in south-eastern Queensland and northern New South Wales. Adults can sometimes be found beneath large perennial brackets of *Ganoderma* growing on dead tree stumps and fallen logs. The head of the male is armed with an impressive pair of elongate horns and both sexes have some of the most powerful chemical odours of any tenebrionids that I have encountered.

Species of *Platydemia* (Diaperini) are common inhabitants of tough, dark-coloured bracket fungi on dead wood in south-eastern Queensland. Their presence in a bracket is often indicated by a cottonwool-like mass of dark, tangled filaments that are in fact elongate strings of faecal material produced by the larvae.

## **Minute Tree-fungus beetles (Family Ciidae) and their parasitoids (*Astichus* spp. - Eulophidae)**

These are the beetles and wasps that originally piqued my interest in insect-fungal interactions and I'll discuss them in some detail. Ciid beetles are fungus feeders both as adults and larvae, the vast majority of them tunneling in and feeding internally on the persistent fruiting bodies of wood-rotting fungi, primarily those of the order Aphyllophorales, the polypore or bracket fungi. Their small size makes them inconspicuous (0.5 - 7 mm in length with most 3-5 mm), but they are among the commonest, most diverse and abundant groups of beetles found in bracket fungi. Worldwide there are at least 1000 species of ciids. In mainland Australia there are about 120 known species, of which only 12 are described (John Lawrence pers. comm.). Most ciids are cylindrical, brown or black (but with some patterned) and vary from smooth to highly setose. The males usually have various horns or projections on the head and/or the pronotum and in some genera they have enlarged mandibles (Fig. 2). Males of at least some species use this armature to fight with each other in tunnels within the fungi they inhabit.

A cross section through the fruiting body of a polypore or bracket fungus usually reveals two distinct layers. The upper layer or context tissue is sterile while the lower layer is the reproductive, spore producing tissue referred to as the hymenium. In most polypores, the hymenium consists of many vertical tubes so that the ventral surface of the fruiting body is covered with many pores, mostly very small, but sometimes quite large. However in some groups the pores are modified and the ventral surface may consist of many small spines or it may be maze-like or produced into gills like those of a mushroom. Most polypores are annual, but others are perennial with new layers of pores produced each year.

Ciids generally colonise a fruiting body once it has already shed its spores and sometimes long after the fungus dies (Fig. 3). In relatively arid environments ciids are capable of feeding in very old and dry fruiting bodies. Adult and larval feeding is generally restricted to the sterile context tissue, although the pore layers may be consumed in heavily infested brackets.



Particular species of ciid beetles tend to feed on a limited range of fungal species (oligophagous), although some have much broader host ranges than others. Previous work on the host preferences of ciid beetles from the northern hemisphere have found that the hosts of a particular beetle species generally fall within one of a small number of broad fungal groups (Paviour-Smith 1960, 1969; Lawrence 1973. For example, the fruiting bodies of Hymenochaetaceae (eg. *Phellinus*), the paler trametoid polypores (eg. *Trametes* and *Lenzites*) and the conks of *Ganoderma* or *Fomes* show little overlap in their ciid beetle faunas. Whether the same pattern of host preference groups applies to the Australian fauna is yet to be demonstrated, but collections of ciids from a large number and variety of fungal hosts are available. Dr. John Lawrence has accumulated a large number of specimens with fungal host data and in recent years I have collected ciids from over 350 samples of macrofungi.

Minute wasps of the genus *Astichus* (Chalcidoidea: Eulophidae) are mostly parasitoids of larval ciid beetles and are frequently reared from infested fruiting bodies of polypores. Species of *Astichus* are particularly charismatic wasps; most have strikingly patterned wings and bodies that are alternately striped with metallic green and purple (Fig. 4). They are rare in entomological collections because they are only occasionally captured using general collecting techniques for microhymenoptera such as sweeping and malaise traps. In spite of the fact that two PhD students studying and collecting microhymenoptera (Ian Naumann and myself) had passed through the Entomology Department at the University of Queensland, the insect collection there (UQIC) contained only a single specimen of *Astichus*; which was collected by neither of us. However, since collecting polypores, I have reared literally thousands of specimens and to date I know of at least 15 Australian species, three times the number currently described.

Species of *Astichus* more-or-less fall into two groups that correspond to the subgenera *Closteromphale* and *Astichus*. Species of *Closteromphale* (Fig. 4 left) are generally stouter with shorter legs and antennae and less boldly patterned wings. These species appear to spend most of their time within the fungal fruiting body and probably attack the ciid beetle larvae within their own feeding tunnels. Species of *Astichus* *sensu stricto* (Fig. 4

right) are more elongate with longer legs and antennae and have more clearly demarcated wing patterns. Females of these species appear to attack the ciid larvae and oviposit from the outer surface of the fungal fruiting body.

Establishing which species of ciids are attacked by species of *Astichus* can be problematic as two or more species of beetle are frequently found inhabiting the same fruiting body. However, particular species of *Astichus* do appear to be associated with broad groups of fungal hosts in much the same way as their beetle hosts. A number of species are most commonly reared from the paler tramatoid genera while at least two are almost always associated with very woody species of *Phellinus* in the Hymenochaetaceae. However, one particularly common, described species, *Astichus bilineatus*, has been reared from a very wide variety of hosts from across several groups of bracket and shelf fungi.

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## Figures and Captions

Figure 1. A male *Onthophagus dunningi*, one of only two species of dung beetles proven to use mushrooms as a food source for their larvae.

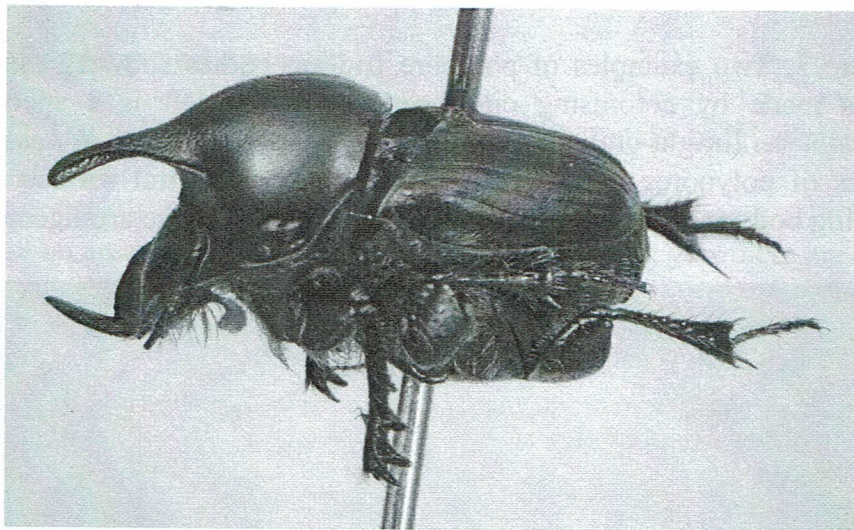


Figure 2. Examples of New Caledonian species of ciid beetles showing some of the variety in coloration and head and pronotal armature found in the family. The beetle on the far right is a species of *Octotemnus*, a genus in which males often have enlarged mandibles.

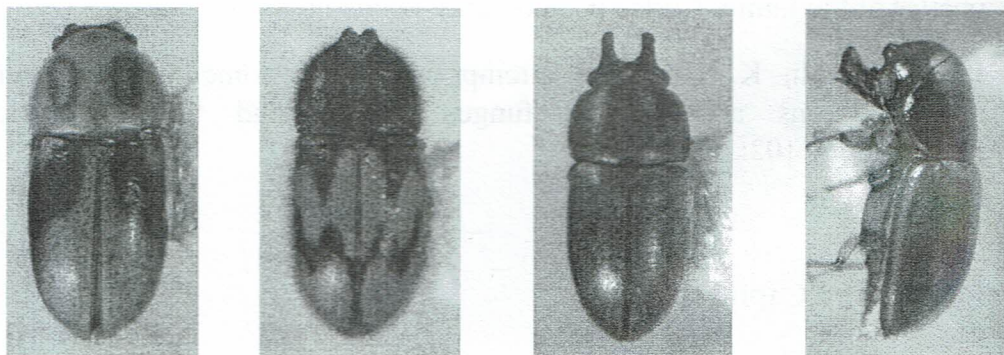
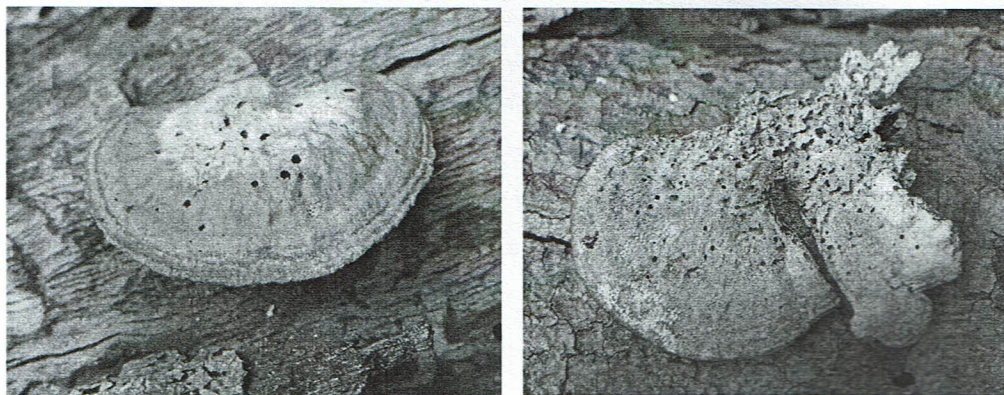


Figure 3. Two examples of polypore fruiting bodies showing the entry holes made by colonising ciid beetles. On the left is a species of *Pycnoporus* (bright orange in life). On the right is a species of *Lenzites*, a genus of polypores in which the typical poroid ventral surface of the fruiting body (not visible here) is replaced with a gill-like arrangement.





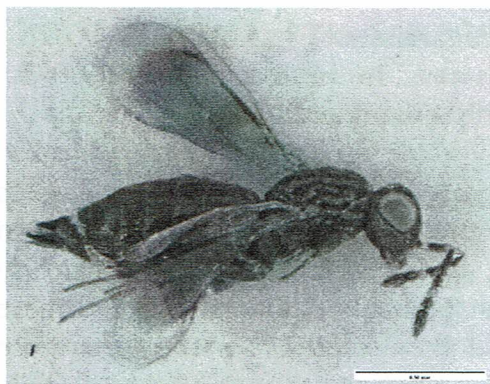


Figure 4. Two species of *Astichus* commonly reared from bracket fungi in Brisbane. On the left is *Astichus bilineatus* (scale bar 0.5 mm), a member of the subgenus *Closteromphale* that occurs in a wide variety of polypore species. On the right is an undescribed species of *Astichus* sensu stricto (scale bar 1 mm) that is mainly associated with paler trametoid polypores.

## Questions and Answers

Q: Has anybody done work on volatiles that make fungi attractive to insects?

It's not an area that I'm particularly familiar with, but yes, there are studies reporting the attraction of insects to volatile compounds from fungi. I suspect that attraction to different fungal volatiles is one of the important factors underlying host preferences in fungal feeding insects. The chemical composition of polypore fruiting bodies almost certainly influences the host preferences of ciid beetles, although this may not depend on volatiles. For example, one of the features of the conks of *Ganoderma* and species of Hymenochaetaceae is that the application of a solution of KOH permanently stains the fungal tissue black. Similarly, ciid beetle adults and larvae feeding on these groups of fungi produce almost black faecal pellets that much darker than the content tissue itself. Ciids feeding on the paler trametoid polypores produced faecal pellets

that are only a little darker than the fungal tissue.

Q: A number of your beetle species are horned. Why?

In all the examples that I've discussed today, it is the males that possess the horns and I suspect that they are all used for combat between intraspecific males. Fungal fruiting bodies are usually quite patchily distributed resources and males most probably rigorously defend these resources for mating privileges with the females. Certainly there are reports of ciid beetles employing their head and pronotal horns in male versus male combat within their tunnels in polypore fruiting bodies.

Q: How does the size of the wasps compare to the beetles?

The *Astichus* wasps are most probably solitary parasitoids of the ciid beetle larvae and consequently they are smaller than their beetle hosts. Individual species of *Astichus* species vary in size, but the females of the Australian species range from around 1-2.5 mm in length. Males are smaller than females and are frequently less than 1 mm long.

Q: Fungi are often seasonal. What do these insects do when there are no fruiting bodies around?

Ciid beetles are probably not affected by the seasonal growth cycles of fungi as much as other fungivorous groups because the fruiting bodies of their hosts are often quite persistent in the environment and can often be utilised as a food source for more than a season, enabling them sufficient time to colonise new fruiting bodies as they arise. Ciid colonies in perennial fruiting bodies such as the hoof-like *Phellinus* conks found on living trees, can probably persist for many years. Other groups of insects that feed on softer fungi probably enter diapause either as adults or more commonly pupae during the fungal off-season.



**BOOK REVIEW: "The M.R. GOLDING collection. a pictorial Field Guide to the Beetles of Australia. Part 1: Stigmoderini" Mark Golding, Indian Ocean Books, Perth, Western Australia. 50pp, colour illus, r.r.p. \$24.95.**

**Reviewed by Allen Sundholm**

This is part one of a series of booklets which Mark Golding is publishing concerning the Australian beetle fauna. It is also Mark's first publication. This part deals with four of the five known genera in the Buprestid tribe Stigmoderini (family Buprestidae, subfamily Buprestinae): *Metaxymorpha*, *Calotemognatha*, *Stigmodera* and *Themognatha* (this latter genus is alternatively known as *Temognatha*). The largest genus in the tribe, *Castiarina*, will presumably be discussed in a later booklet. The particular capitalization used in the title of the book is reflected in the title of this review.

To my mind, Marks' self-published booklet has three common themes throughout:

- notes and colour photographs of many species of Australian jewel beetles (Order Coleoptera, Family Buprestidae), including some undescribed. Mark describes his experience of their behavior, and many of the species are illustrated in colour (either alive or as pinned specimens) for the first time;
- an insight into the ongoing and vital role of the so-called amateur entomologist;
- a personal glimpse of what it is like to be a traveling amateur entomologist in Australia, which for some of us, including myself, is not just a mere spare-time hobby, but a spare-time way of life.

Most of the described species of Australian Buprestidae have been discovered by so-called "amateur entomologists" (whom I prefer to be called "entomological enthusiasts"). Mark Golding is one such discoverer, having discovered or co-discovered several species of Australian beetles, at least one of which has been named by Dr Shelley

Barker in honour of Mark Golding (*Castiarina markgoldingi* Barker, 2005).

Mark's enthusiasm for his lifelong journey of exploration of the Australian biota shows in the text, written in the first-person. He has traveled widely throughout Australia, often changing jobs in order to work, live and collect for periods of time in a variety of different Australian regions. This has resulted in his seeing and photographing far more of the Australian bush and its natural inhabitants than most Australians.

Of particular interest is the depiction of a number of species which have yet to be described. Wisely, in order to avoid any nomenclature confusion, Mark clearly states that his inclusion of undescribed species does not imply their formal description as new taxa. Undescribed species were included in order to help illustrate what remains to be discovered and described in Australia. I am in agreement with most of the names given to the described species illustrated.

This book is not without its flaws: the design, text, grammar and layout could have done with a little editing. Some of the photos in the section showing photos of live specimens have low contrast and a yellowish tint. However, the habitus photos throughout the book are generally of very good quality and clarity. I can see and agree with where Mark is going with this book series – a celebration of his life-long travels and experiences in the Australian bush, and to get the message across that Australia has many wonderful creatures which most Australians are completely unaware of, and which as Australian's we should be doing more to care for.

There are very few publications of the general interest variety which deal solely with the Australian Buprestidae fauna, and any new book which sheds more light on the largely unknown biology of these creatures must be a plus.

Recommended.

Allen Sundholm.

July 2006



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## Permit News

Firstly I would like to thank you all for your co-operation with regard to the Society's collecting permits. I have had a wonderful response and would like to thank you for your returns and abiding by the other conditions placed upon us in return for the use of these permits.

Permit number TWB/25/2005 (covering State Forests, Timber reserves and other state lands only) expires mid-October 2006 and so most of you will have received your renewed permit, TWB/30/2006. The other two permits the society holds; those covering Protected areas (National Parks) (no. WITK03173805) and protected species (no. WISP03175405) are still current. Again, a reminder that the collecting return is mandatory even if you have not collected anything. Also, it is a condition of the permits that you remain a financial member of the Entomological Society of Queensland while you use these permits. If you have not met both of these conditions, you will not be sent the new permit.

Please contact me if there are any queries or problems regarding this permit. My contact details are on the back of the Society News Bulletin.

Susan Wright



**The 8th Invertebrate Biodiversity & Conservation Conference 2007** will be held at the Queensland Museum, Brisbane, Queensland, Australia  
3-7 December 2007.

The overall theme is **"Pacific Priorities"**, with subthemes of:

1. 'New Caledonia'
2. 'Fire'
3. 'Marine Megadiversity'
4. 'Survival in Suburbia'
5. 'Mine Site Restoration'

To ensure you receive more information as it becomes available please register your interest on [www.ibcc2007.org/](http://www.ibcc2007.org/).

Or contact Sally Brown, 8IBCC Conference Secretariat  
PO Box 108, Kenmore, QLD 4069, Australia  
[Sally.brown@uq.net.au](mailto:Sally.brown@uq.net.au)





## Australian and New Zealand Entomological Societies' Conference

24-27 September 2006  
University of Adelaide, South Australia



### Welcome to the Australian and New Zealand Entomological Societies' Conference

#### *Biosecurity—Caring for the Environment and Agriculture*

#### **INVITATION**

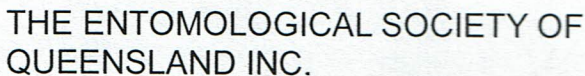
On behalf of the organising committee, we extend a warm invitation to you to attend a joint conference of the Australian and New Zealand Entomological Societies to be held in Adelaide, South Australia from September 24 – 27<sup>th</sup> 2006. The conference will bring together approximately 150 researchers (scientists and students) from a broad range of interests to discuss the latest research in entomology. The conference has the theme of “Biosecurity – Caring for the Environment and Agriculture” and part of the scientific program will be devoted to this area. However, intending delegates are encouraged to submit papers/posters on their own areas of expertise and interest as the overall program will be designed to cover a much broader range of topics than just this theme.

All intending delegates are encouraged to submit an “Expression of Interest Form” from our website ([www.aesnzconference2006.com](http://www.aesnzconference2006.com)) as soon as possible to assist the organising committee in the early stages of the conference planning.

#### **THE VENUE**

The conference will be held on the North Terrace Campus of the University of Adelaide that houses most of its teaching and research facilities. Set in the cultural heart of the city on the northern edge of the city centre, the North Terrace Campus offers excellence in its educational and social facilities. Established in 1874, the North Terrace Campus is home to the schools of Physics & Chemistry and Molecular & Biological Sciences; as well as part of Earth & Environmental Sciences. The School of Agriculture and Wine is located on the Waite Research Precinct in the suburbs of Adelaide about 8 kms from the city centre. SARDI, the Australian Wine Institute and CSIRO are also co-located on this Precinct.

For more information on registration, sponsors and contacts, visit our website [www.aesnzconference2006.com](http://www.aesnzconference2006.com) or contact Sally Brown Conference Connections, by mail: PO Box 108 KENMORE 4969; Email: [sally.brown@uq.net.au](mailto:sally.brown@uq.net.au); phone: 07 3201 2808; or fax: 07 3201 2809.



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## IMPORTANT NOTICE

The official address for the Entomological Society of Queensland and *Australian Entomologist* and to which all communications should be addressed is:

**PO Box 537, Indooroopilly 4068, Qld.**

Back cover gives contact details of individual council members.

## NOTICE OF NEXT MEETING

The next meeting of the Society will be held at 7 pm on Monday, 9 October in Room 388, GODDARD Building, University of Qld. The main business will be a talk by Steve Francis entitled "Australian Army Malaria Research Unit". Refreshments will be served before the meeting at 6:30pm in the tea room, Level 2 of the Goddard Building (to the right of the main stairs), with a gold coin donation required. No donation is required to attend the talk alone.

## VISITORS ARE WELCOME

### DIARY DATES 2006

*Meetings held usually every 2nd Monday of the Month*

<b>09 Oct</b>	Steve Francis	Australian Army Malaria Research Unit
<b>13 Nov</b>	Scott O'Neill	
<b>11 Dec</b>	Notes and Exhibits	

## HONORARY LIFE MEMBERS OF THE SOCIETY

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M.J. Harslett	R.P. Kleinschmidt	E.J. Reye	