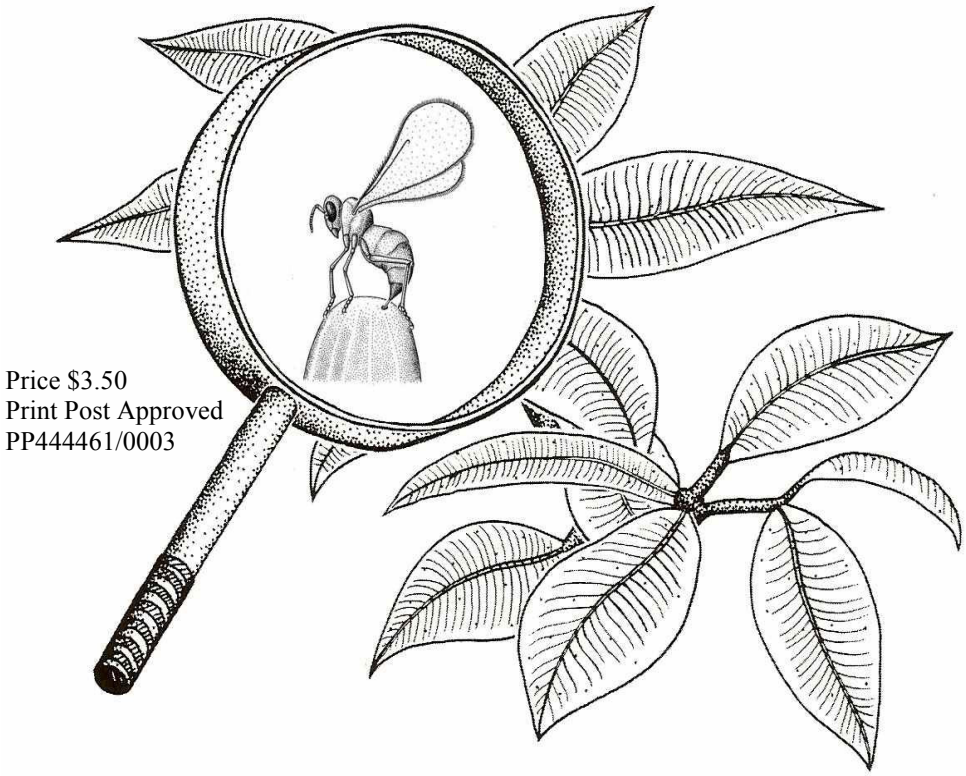
ENTOMOLOGICAL SOCIETY OF QUEENSLAND INC

NEWS BULLETIN



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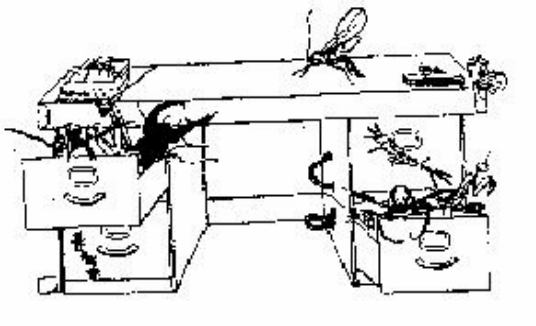
The **ENTOMOLOGICAL SOCIETY OF QUEENSLAND INC.**, since its inception in 1923, has striven to promote the development of pure and applied entomological research in Australia, particularly in Queensland. Membership is open to anyone interested in Entomology. The Society promotes liaison among entomologists 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). 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 50th 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: *Trichogramma, sp*., an egg parasitoid. Drawn by Catherine Bryant.



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The Entomological Society of Queensland

General Meeting August 2007

Minutes of the General Meeting of the Entomological Society of Queensland Inc. held in Room 139, Goddard Building, The University of Queensland, on 13 August 2007, at 7 pm. Chaired by Mike Furlong

Attendance:

Michelle Baker, Richard Bull, Chris Burwell, Lyn Cook, Gio Fichera, Gary Fitt, Mike Furlong, Chris Lambkin, Simon Lawson, Gunter Maywald, Dave Merritt, Geoff Monteith, Matthew Purcell, Nancy Schellhorn, Noel Starick, Desley Tree

Visitors:

Justin Armstrong, Valerie Debuse, Melinda McNaught, Shaun Winterton.

Apologies:

Peter Allsopp, Sassan Asgari, Bronwen Cribb, Ross Kendall, Anna Marcora, Stacey McLean, Don Sands, Margaret Schneider, Susan Wright, Meron Zalucki.

Minutes: The minutes of the May ordinary General Meeting were circulated in the News Bulletin Vol. 35 Issue 4. It was moved by Matthew Purcell, seconded by Desley Tree, that the minutes be accepted without amendment.

Nominations:

The following nomination for membership was received and approved by Council, and is now put before the meeting for election:

Dr Marc Coombs

Dr Margaret Humphrey

Dr Federica Turco

Dr Shaun Winterton

Ms Melinda McNaught

In accordance with Society rules, the nominees were elected by a show of hands.

General Business:

- The President announced that the Council has decided to support an application by the University of Queensland to the Carrick Foundation for the development of a National Curriculum in Entomology by a contribution of $4,000 over two years, on the condition that the grant application is successful.

- Geoff Monteith announced the availability of reprints of the Pat Marks Symposium issue of the Australian Entomologist for $5 each. These have been made available by a generous contribution from the Marks family.

Chris Lambkin informed the membership of a Bugcatch weekend that will be held on a property adjoining Lamington National Park on the weekend of November 3-4. The cost will be $4/person for camping, with some limited accommodation in a house also available.

Main Business:

Revegetation by Design: Is it risky?

Nancy A Schellhorn,
CSIRO Entomology, Long Pocket Laboratory, Indooroopilly, QLD

Revegetation by Design involves the integration of native vegetation with insect pest management. It is part of a strategic pest management approach that strives to reduce pest populations in the surroundings of the cropping area, to minimise pest pressure in the crop. In addition, by using native vegetation and native remnants as part of the strategy there is an opportunity to capture consumer value.

One of the growing challenges for the vegetable industry in Australia is the increasing competition from Asian markets. The Revegetation by Design program has the potential to market vegetables using the slogan 'vegetables grown with the bush in mind'. In turn, this may engender consumer loyalty and establish a marketing edge.

There are two approaches to the Revegetation by Design project, the first focuses on replacing weedy areas on-farm that are known to harbour pests with native vegetation that does not. The second focuses on understanding the role that native remnants play in providing habitat for natural enemies or creating unsuitable habitat for pests.

The project originated four years ago in the key vegetable growing area of South Australia, the Northern Adelaide Plains. Western flower thrips (WFT), *Frankliniella occidentalis* (Pergande) (Thysanoptera: Thripidae) and the disease that it vectors, tomato spotted wilt virus, was crippling the vegetable industry with an estimated annual loss of $20 million. We discovered that the exotic weeds around the containment facilities and fields supported WFT populations and that the weeds were hosting the virus. One of the common control tactics to manage these weeds and pests was to implement a 'bare-earth' policy. Although this tactic was suitable to remove weeds and pests, it had the potential of creating new problems such as top soil erosion, dust covering the containment facilities and reducing light levels, and changes in soil moisture. Our strategy was to determine if native plants province to the region could replace weedy habitat while not promoting pest problems.

As a first step, we formulated a set of selection criteria that the native plants must meet to be considered a candidate species for revegetation. Native plants should in the first place: 1) not be the host plants for horticultural pests and diseases (eg. pest and diseases can not develop and reproduce on these plants), 2) provide habitat for a range of natural enemies of pests so that they are available for early colonisation into the crop, 3) are low growing shrubby species that are workable around farm practices and containment facilities, and 4) native to the region. Secondly, the native plants should provide an additional source of income for the farm such as bush tucker, native cut

flowers, and native seed for the revegetation industry. The outcome of Revegetation by Design is long term farm benefit and cost savings for weed, pest and disease control.

Experiments were established using a range of native plants including several species of salt bush (*Atriplex semibaccata*, *A. suberecta*, *Rhagodia parabolica*, *R. crassifolia*, *Enchylaena tomentose*, *Maireana brevifolia*), plant species used in the native cut flower industry (*Acacia victoriae*) and the bush tucker industry (*Kunzea pomifera* – muntries). These plant species were planted on several vegetable growing properties. Four pest species of thrips, WFT, onion thrips (*Thrips tabaci*), tomato thrips (*F. schultzei*) and plague thrips (*Thrips imaginis*), were monitored on the native plants and weeds throughout the year. Figure 1 shows a snap shot of some of the findings.

Recent work in South Australia focuses on whether pest thrips are able to feed and reproduce on these key native plants, even if they do not seem to prefer spending time on them. This work will show whether there is a potential risk of initiating pest problems once there is a mass planting of native vegetation. In addition, work is conducted to confirm that fewer pest thrips are colonising containment facilities where native vegetation has replaced weeds. This work is currently conducted by Glenys Woods and Richard Glatz at SARDI. More information about the parasitoid diversity associated with these native plants and weeds can be found in: Stephens, C., Schellhorn, N., Wood, G. and Austin, A. 2006. Parasitic wasp assemblages associated with native and weedy species in an agricultural landscape. Aust. Journal of Entomology, 45:176-184.

In Southeast QLD, we are currently investigating whether native remnants provide habitat for natural enemies and whether they are an unsuitable habitat for pests of vegetable crops. We established malaise traps in four habitats along two transects (total of eight traps) including: native remnant (100m in from the edge), the edge between the remnant and the crop, the crop (100 m from the edge) and the crop 200 m from the edge. All traps were placed over grass (Figure 2).

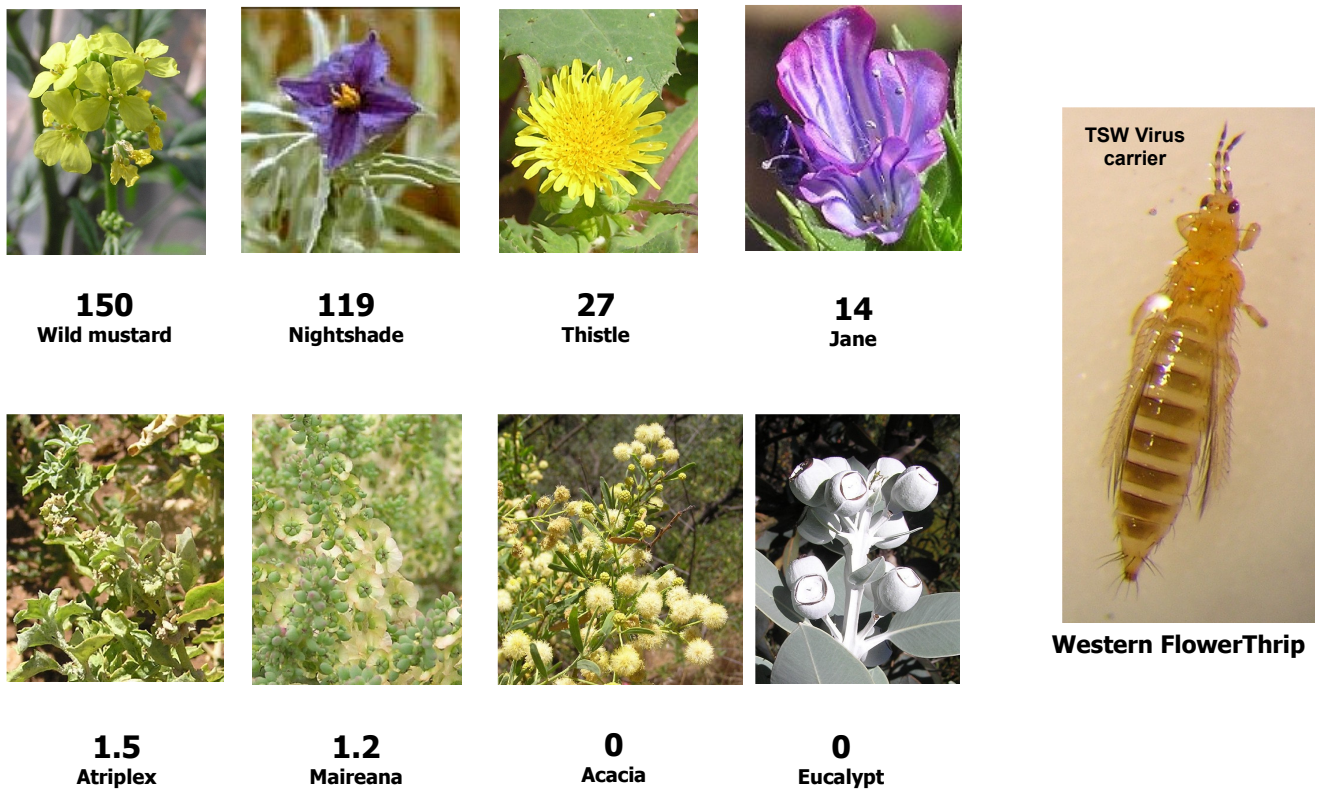


Figure 1. Average number of western flower thrips per 100 flower units for weeds across the top row, and native plants across the bottom row.

Figure 2. Malaise trap in native remnant vegetation in Mulgowie, Qld.

We are focusing on ca. 120 species, primarily hymenoptera and syrphids (Figure 3), but also a few coccinellids and some pests (eg. The jassid, *Cicadulina bimaculata*, which is a vector of maize wallaby ear disease).

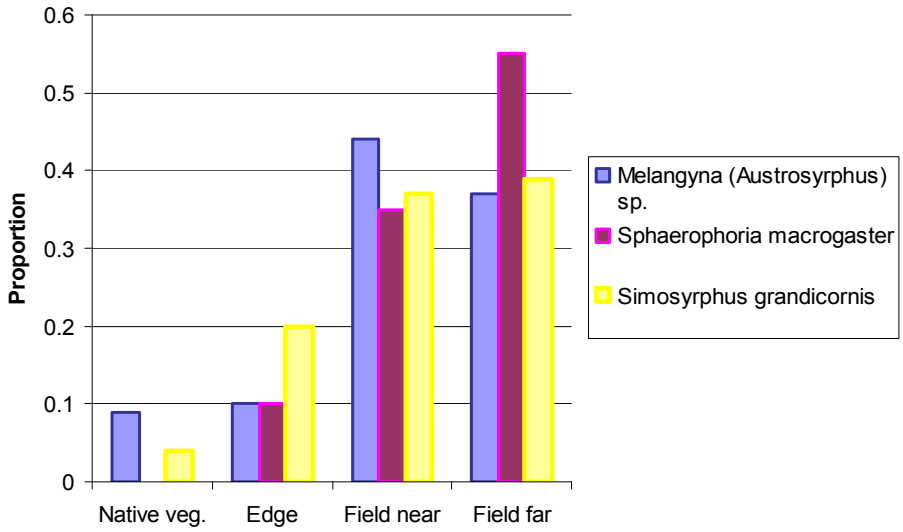


Figure 3. The proportion of syrphid flies captured in Malaise traps in the four habitats. Native veg. = native remnant, Edge = the edge between the remnant and the crop, Field near = 100m from the edge into the crop, and Field far = 200m from the edge into the crop. The larval stage of these three species of syprhids are believed to prey on aphids. *Melangyna* spp n=151, *S. marcrogaster* n=154, *S. grandicornis* n=83.

Other species of syrphids such as *Eumerus* spp, were evenly distributed across all four habitats, and *Syritta orientalis* showed strong preference for the "Edge" and "Field near" habitat. The adults of these species may play an important role in pollination. In addition, one of our key pests of interest, the jassid *Cicadulina bimaculata*, was far more abundant in the 'Field near' and 'Field far' traps.

These early descriptive findings suggest that natural enemies of insect pests may benefit from habitat diversity in the landscape, but that in some cases pest species may also benefit. We are currently conducting a review of the literature to explore whether there are risks associated with integrating native vegetation with vegetable production. We have identified 110 invertebrate

pests of vegetables in Australia and investigate whether native plant species support these pests or not. This analysis will show whether planting native vegetation is in all cases associated with lower pest densities in crops or whether there are also exceptions. Hopefully this paper will appear soon, so stay tuned!!

Acknowledgements: I would like to thank my collaborators in this work, Chris Burwell from QLD Museum, Greg Daniels from UQ Museum, Anna Marcora, CSIRO Entomology and Mulgowie Farms. I would like to thank Mark Wade for his assistance with the literature review.

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

Notice of Next Meeting

Monday 10th September 7 pm 2007

Room 139, Goddard Building
University of Queensland,
St Lucia

How and why do glow worms glow?

David Merritt

People & Projects

News from Kika de la Garza Subtropical Agricultural Research Center, USDA-ARS, USA

Biological control of *Arundo donax*, an invasive weed of the Rio Grande River Basin

John Goolsby, Research Entomologist,

USDA-ARS, Weslaco, TX, USA

Kika de la Garza Subtropical Agricultural Research Center

Email: jgoolsby@weslaco.ars.usda.gov

Arundo donax L., *A. donax*, giant reed is an exotic and invasive weed of riparian habitats and irrigation canals of the Rio Grande River Basin and the southwestern U.S. Domination by *A. donax* in these habitats leads to: loss of biodiversity, catastrophic stream bank erosion, damage to bridges, increased costs for chemical and mechanical control along transportation corridors, and impediment of law enforcement activities on the international border. Additionally, this invasive weed competes for water resources in an arid region where these resources are critical to the natural environment, as well as agriculture and municipal users. Biological control using insects from the native range of *A. donax* may be the best option for long-term management of this weed. *Arundo donax* is a good target for biological control because it has no close relatives in North or South America, and several of the plant-feeding insects from its native range in Mediterranean Europe are known to be specialists feeding only on this one plant species.

Biology of* Arundo donax *in the Rio Grande River Basin

Arundo donax is a robust perennial grass 3 to 10 meters tall, growing in many-stemmed cane-like clumps, spreading from horizontal rootstocks below the soil and often forming large colonies. In North America, *A. donax* is not known to produce fertile seed. It nonetheless spreads very rapidly by vegetative means, either from rhizome extension of a colony or from plant fragments carried downstream, primarily during floods. *Arundo donax* typically grows in riparian areas and floodplains. It can be found on wet stream banks, gravel bars, or dry banks away from permanent water.

Native to Eurasia from Spain to India, preliminary genetic studies indicate that the invasive North American populations of *Arundo donax* are from the Mediterranean (J. Gaskin, USDA-ARS; J. Manhart & A. Pepper, Texas A&M; unpublished data). It is invasive in the arid subtropical, Mediterranean, and warm temperate climates of North and South America, Australia, and South Africa. *Arundo donax* was intentionally introduced from the Mediterranean to the New World and was widely distributed by colonists for use in thatching, basket weaving, and other fiber uses. Today *A. donax* is an invasive weed throughout the southern half of the United States, but is most invasive along the rivers in the southwestern United States, with the densest stands growing along the Rio Grande in Texas and the coastal rivers of southern California.

Causes of invasiveness (Why does this plant grow so well on the Rio Grande?)

Weed invasions often follow patterns of human migration. Colonists typically brought to new lands the familiar, staple agricultural and horticultural plants from their former homes. The colonization of New Spain, or what is now known as Mexico and the U.S. Southwest, was aided by the importation of Mediterranean plants that were known to be useful in Spain. *Arundo donax* was among the useful plants that was imported, widely propagated and distributed by the early colonists, perhaps as early as the 1700s. It flourished in North America, partly because the climate of Mediterranean Spain was very similar to parts of North America. While the jump from a widespread, cultivated plant to invasive weed is not well understood, adaptation to climatic conditions, land and water management practices, and lack of co-evolved herbivores likely aided the widespread naturalization of *A. donax* in North America. Regulation and management of rivers in the hot, arid regions of the southwest U.S. for agricultural water use may have favoured the dominance of this already widely

distributed exotic weed. Dam-building during the twentieth century in this region turned many formerly seasonal rivers into continually flowing conveyance systems, which appear to produce conditions more favorable for the growth and dominance of this weed over native vegetation. *Arundo donax* is known to cause river channelization, which leads to stream bank undercutting and erosion during floods. This also releases mats of *A. donax* with rhizome propagules to float downstream. Although the short-term physical effects of channelization and erosion caused by *A. donax* are known, the long-term effect may be that *A. donax* is given a competitive advantage over other riparian plants by forming monocultures and altering stream banks.

The lack of specialist herbivores in North America may also be an important biotic factor that influences the invasiveness of *A. donax*. Surveys in Texas have revealed that *A. donax* is only fed upon by common generalist insects. In comparison, in Europe, *A. donax* has many known specialist herbivores that have co-evolved with the plant and cause considerable damage. Insects in Europe feeding on shoots, canes, and rhizomes appear to stunt *A. donax*, which results in a plant stand that is smaller and less robust. Cooperators at the USDA-ARS European Biological Control Laboratory have collected, identified and prioritized the herbivores of *A. donax*. Three of these herbivore species are currently in quarantine facilities in TX.

Density and Distribution of* Arundo donax *in the Rio Grande Basin

Using both satellite QuickBird images and aerial infrared images, J. Everitt and C. Yang (USDA-ARS, Weslaco) are documenting the density and distribution of *A. donax* in the Rio Grande Basin. This study will allow the program to document the invasiveness on the Rio Grande River, but also the many tributary rivers in the U.S. and Mexico. Documenting the invasiveness of an invasive weed is essential for approval from the North American, Technical Advisory Group for Biological Control of Weeds (TAG). This group is comprised of representatives from the U.S. Mexico and Canada.

***Ecohydrology of* Arundo donax**

Arundo donax is well known to use considerable quantities of water. However, most of the data comes from California and is not directly applicable to the Rio Grande Basin. Understanding the water use of *A. donax* in comparison with the native riparian vegetation in the Rio Grande Basin is critical to predicting

potential water gains following a successful biological control program. Documenting the impacts of an invasive weed and potential benefits of a biological control program are essential for approval from TAG.

Dr. G. Moore of Texas A&M University, along with M.S. student D. Watts and research associate K. Zhaurova are measuring water use of the plant along the Rio Grande. In a parallel quarantine pre-release impact study, the group is comparing the water use of plants under attack by the candidate agents. This information will be used to prioritize the agents.

International liaison activities within the Rio Grande Basin

The Rio Grande Basin covers an area of 467,000 km^2 and lies within the states of Durango, Chihuahua, Coahuila, Nuevo León, and Tamaulipas in Mexico; Colorado, New Mexico and Texas in the United States; and native American pueblos in northern New Mexico. The length of the river is 3,033 km and a large segment of it (2,000 km) in Texas forms the border between the U.S. and Mexico. Liaison activities between the U.S. and Mexico to discuss the impacts of invasive weeds on the Rio Grande Basin and potential benefits of biological control programs are being undertaken by F. Nibling and L. Arriaga (U.S. Bureau of Reclamation) and representatives of federal and state agencies in Mexico. The Bi-national Research Group for Exotic Weeds (BREW) is coordinating activities for biological control of salt cedar and now *A. donax*.

Pre-release efficacy studies

Selecting the most effective agents or combinations of agents is underway using the ecohydrology data and the *Arundo donax* plant architecture model. The development of the architecture model was done by P. Room and J. Hanan (CSIRO and Univ. of Queensland) and later customized for *A. donax* by R. Carruthers, D. Spencer (USDA-ARS Albany and Davis, CA). Currently, Spencer and Goolsby are measuring several plant growth attributes of *A. donax* under attack by the agents to determine if there are significant differences in plant growth, biomass, etc. over time.

***Genetic characterization of* Arundo donax**

Preliminary analysis of invasive North American *A. donax* indicated that these populations were likely of Mediterranean origin. To further define the origin of the clonal *A. donax* populations, an intensive survey of the Iberian Peninsula was undertaken. Plant samples from each river system from southern Portugal

to France were sampled and characterized using a suite of custom microsatellites developed for *A. donax* (Manhart, Pepper, and Tarin, Texas A&M University, unpublished data). The analysis showed that the Rio Grande Basin has two geographically discrete but phylogenetically similar genotypes. These two type matched most closely with the Guadiana and Castellon rivers near Huelva and Valencia, Spain respectively.

Collection of agents from the 'origin'

To obtain the best adapted natural enemies, intensive collections near Huelva and Valencia, Spain will be undertaken by Alan Kirk (USDA-ARS-EBCL, Montpellier). Previous collections have not been made on the Rio Tinto which also flows into the Atlantic near Huelva. This river could hold the clone which is the exact match for the Rio Grande clone of *A. donax*. Interestingly, Christopher Columbus and many other explorers and conquistadors left for the New World from the Port of Huelva.

Biology and host range of candidate biological control agents

Biological studies of the agents are underway by P. Moran (USDA-ARS, Weslaco) and D. Flores (USDA-APHIS, Edinburg, TX). Studies will document the life cycle, reproduction and damage to *A. donax* by the Arundo wasp, *Tetramesa romana* (Eurytomidae); Arundo scale, *Rhizaspidiotus donacis* (Diaspididae); Arundo fly, *Cryptonevra* sp. (Chloripidae). Host range studies are being conducted by J. Goolsby. No choices tests of 32 plant species, including the 4 ecotypes of *Phragmites australis* in N. America are being evaluated. Additional non-target species indigenous to southern Africa may be conducted for PPRI (Pretoria, South Africa) for potential release of biological control agents for *A. donax*, Spaanse riet/giant reed.

Salutation

Thanks for the opportunity to provide an overview of the research that I'm involved with in the US. Your influence on me as a classical weed biological control scientist was profound. Muchas gracias to my many friends and colleagues in Australia and New Zealand. I owe a huge debt of gratitude to you all. If you are ever in Texas (or northern Mexico) please stop by Weslaco. Also, if there is anything you need from this area of the globe, i.e. collections, plant/ insect records please let me know.

All the best,

John

NEXT *BUGCATCH* TRIP - WEEKEND OF NOV 2-4 2007

If you are interested in field entomology and would like to help with our surveys of targeted National Park areas for the EPA, then come along to our next *Bugcatch* camp. It will be at a truly idyllic campsite on the banks of Canungra Creek right adjacent to the rarely visited lowland rainforests of Lamington National Park. Most of Lamington is at around 900-1000m elevation but this area is at just 300m in the floor of the valley of Canungra Creek. There is private access to this area on the small farm "Yandooya" which hosts campers and also has some cottages for rent. The camping site is just an undeveloped bush site and we'll have it to ourselves. The rainforest there is one of the sampling sites for the IBISCA global warming insect monitoring project which has been running at Lamington for the last year and the area has yielded a surprisingly different insect fauna from that on the high plateau, with many unsuspected northern species turning up. So there is potential for interesting discoveries. It is a perfect site for running mercury lights and stream collecting will also be great. Some of us from the Queensland Museum have worked there during the last year so we can guide you to the access tracks and show some of the IBISCA activities that have been going on.

Some of us will be setting up camp there on the Friday and will remain until the Sunday afternoon and participants are welcome to come either Friday or Saturday morning. We're hoping that most people will camp and there is plenty of room. You'll need all your own camping gear and food will be do-it-yourself.There will be a small camping fee payable to "Yandooya". The cottage is about half a km back from the campsite and is quite economical for a small group or family if there are those that prefer some comfort. Road access if fine to the cottage but the last section to the campsite is preferably 4WD, especially if there's rain about. We'll be able to shuttle people. It's about 90 min drive from Brisbane and probably best not to arrive after dark.

We'd love to have you join us for the weekend and students would be especially welcome. We'll be sending special instructions to those who put their names down. For the present we'd like you to register your interest by contacting one of us.

Geoff Monteith (geoff.monteith@qm.qld.gov.au; Phone 38407690)

Christine Lambkin (christine.lambkin@qm.qld.gov.au; Phone 38407699)

GOOD NEWS!
REDUCED PAGE CHARGES FOR *THE AUSTRALIAN ENTOMOLOGIST*

The Magazine Committee has reviewed production costs for the Society's quarterly scientific journal, *The Australian Entomologist,* and because of reduced printing costs we can now offer a substantial reduction in page charges for authors. Rates for standard black and white pages are reduced from $27.50 to $20 per page, while rates for full colour pages are reduced from $60 to $50 per page. Authors receive 50 reprints of their papers. The new charges will be in place for the December issue this year (Vol 33, Part 4) so authors who have papers in that issue will receive a pleasant surprise when they get their bills. We are pleased to receive manuscripts on any topic of entomology relevant to Australia, New Guinea, New Zealand and the general SW Pacific region.

REPRINT OF THE PAT MARKS SYMPOSIUM ISSUE OF *THE AUSTRALIAN ENTOMOLOGIST*

Due to the generosity of the executors of the estate of the late Dr Elizabet Nesta ("Pat") Marks, we have been able to reprint the special issue of *The Australian Entomologist* which carried the proceedings of the special Symposium held in her honour by the Society in 2005. This heavily illustrated, 64-page issue has eight papers dealing with the life of this acclaimed mosquito researcher and great activist in Australian entomology for more than 50 years. It is essential reading for anyone interested in the history of our science in Australia. Copies can be ordered for just $5 posted to anywhere. Send your orders to Geoff Monteith, Business Manager, P.O.Box 537, Indooroopilly.QLD.4068 with payment made out to Entomological Society of Queensland. A crisp $5 note will do the trick and receipts will be sent with the publication.

Entomological Society of Queensland

Dear Butterfly Enthusiast

I have recently started my PhD at Macquarie University with Professor Lesley Hughes, I am planning to investigate whether Australian Lepidoptera are responding to climate change by shifting their ranges southwards.

I am trying to collect data points for east coast butterfly species and I am wondering if you or any or your members may be able to help me. I have already got the data from the Dunn and Dunn 1991 data base for butterflies and have been in touch with Murdoch De Barr and Andrew Atkins, but I am hoping that there are still more records out there. I would be very interested in hearing from anyone who has a voucher specimen or just sighted any of my target species, especially in the last ten years. If anyone is inclined to share their data with me I would need a location (with a GPS coordinate if possible), date and whether the data point is from a sighting or voucher specimen. I have attached a list of my target species below.

Thank you, in advance, for your help.

Katherine McClellan

email: kmcclell@bio.mq.edu.au

Butterflies: **Order**: Lepidoptera

Superfamily: Papilionoidea

Family	**Subfamily**	**Species**
Hesperiidae	Coeliadinae	*Hasora khoda*
	Trapezitinae	*Trapezites phigalioides*
	Trapezitinae	*Trapezites iacchoides*
	Trapezitinae	*Anisynta tillyardi*
	Hesperiinae	*Suniana sunias*
Pieridae	Pierinae	*Elodina angulipennis*
	Pierinae	*Elodina perdita*
Nymphalidae	Satyrinae	*Hypocysta euphemia*
	Satyrinae	*Heteronympha mirfica*
	Nymphalinae	*Doleschallia bisaltide*
	Danainae	*Euploea tulliolus*

Butterfly list *cont*……..

Lycaenidae	Theclinae	*Paralucia spinifera*
	Theclinae	*Hypochrysops epicurus*
	Theclinae	*Ogyris barnardi*
	Theclinae	*Deudorix diovis*
	Polyommatinae	*Prosotas felderi*

Permit Report Time

To all members who have been issued with endorsed copies of permits held by the Entomological Society of Queensland:

It is a requirement of the permit that a report is sent by the Society to the EPA. This report is due in August and it is now time to send me the information.

The information the EPA requires is as follows: latitude and longitude or grid references, datum used, locality information, collector, date, method of collection, habitat, life stage, sex (if known), altitude, scientific name (common name if there is one) and number collected. In the case of butterflies I need to know if a specimen was taken or if the record is an observation only. They also ask for information on where the specimens are held. There is an excel file which your data should be entered, so please contact me if you require this form.

Your **reports are now overdue** so can you please get in contact ASAP with a return. E**ven if you haven't collected anything the EPA still requires that a report be lodged by every holder of the permit.** If there are any queries or problems my contact details are on the back of the bulletin. **The State Forest permit is due to expire in September 2007** so those of you who are planning trips to State Forests please check the dates carefully to avoid being caught out. I have applied for a renewed permit and will send it out automatically to those who are both financial and have sent me a return. **If you have not sent in a return you will not receive the renewed State Forests permit.**

A reminder also that **members who hold permits must be financial** members of the society, so can all members please check that you have paid up for 2007.

Remember to keep me up-to-date with any postal and email address changes. I have had trouble contacting numerous people via email.

Looking forward to seeing your reports.

Susan Wright

News from Queensland Museum

Barbara Baehr & Robert Raven attended the International Congress of Acarology in Brazil, which coincided with a meeting with all members of their Planetary Biodiversity Inventory project (PBI) on the spider family Oonopidae. Other news in Arachnology is that Jenny Beard has started here on her ABRS project "Safeguarding Australia: improving our diagnostic capabilities for flat mites (Acari: Tenuipalpidae)".

The 17th International Congress of Arachnology and the "Goblin Spider PBI" Meeting in Brazil

Robert Raven and Barbara Baehr

The 17th International Congress of Arachnology was held in Sao Pedro from the 5 – 10 August 2007. The venue is about 150 km north-west of Sao Paulo. Thanks to Ricardo Pinto and Cristina Rheims and their organizing committee, the 330 participants had a great time with lots of talks and beautifully arranged posters which showed the enormous scientific diversity in Arachnology.

With "A new genus and species of Australian spiders in the family Cycloctenidae (Araneae)" (Robert Raven) and "The Goblin Spider PBI and their multi-user approach" (Barbara Baehr) we gave the great diversity of the talks our "Australian touch".

Back in Sao Paulo our "PBI Oonopidae Meeting" at the Instituto Butantan began on Monday the 13th with a warm welcome by the Principal Investigator Norman Platnick. PowerPoint presentations about the already described 72 Oonopid genera were presented on Monday and Tuesday. Wednesday, Thursday and Friday was devoted to the sorting of our collections from Africa & Madagascar (Wednesday), Australia (Thursday), Asia (Friday) and South America (Saturday). As a result we recognized about 190 putative genera which need to be scored into our descriptive database.

Sunday to Thursday was mainly devoted to provide all the missing characters and character states with images in order to complete the "Descriptive

Database". During this time, Robert Raven was presenting the Locality Database as well as updating the Spider Catalogue in order to upload the Oonopidae for the "Goblin Spider" Catalogue.

This "PBI Oonopidae Meeting" was a very work intensive time and a great experience to work as a team.

1.Photo of Congress, **2**. Genus Nov, **3**. Ischnothyreus sp.

New Release

What wasp is that?
An interactive identification guide to the Australasian families of Hymenoptera

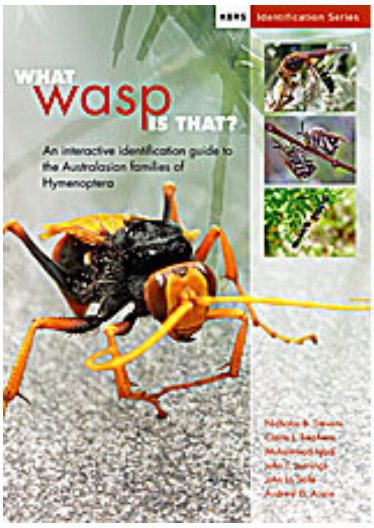
N.B.Stevens, C.J.Stephens, Muhammad Iqbal, J.T.Jennings, J.La Salle & A.D.Austin

CD ROM

Australian Biological Resources Study/Centre for Biological Information Technology (CBIT), 2006

ISBN-13: 978 0 642 56851 9

ISBN-10: 0 642 56851 0

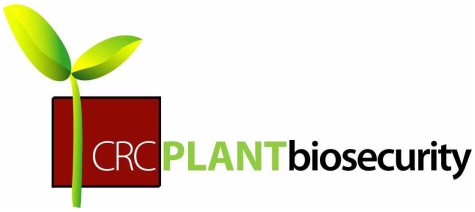


The Hymenoptera (ants, bees, sawflies and wasps) are one of the 'mega-diverse' insect orders. Species occur ubiquitously from forests and woodlands to grasslands and wetlands, freshwater and intertidal zones to urban parks and gardens. Arguably, no other insect group plays such key roles in the functioning of ecosystems. Wasps regulate insect populations though predation and parasitism, bees are among the most important pollinators of flowering plants, and ants dominate many terrestrial landscapes where they are involved with vital ecological processes such as predation, seed dispersal and soil health.

This interactive Lucid key provides the means to identify the 67 families of Hymenoptera that occur across Australasia using over 250 full-colour, clearly annotated illustrations of features easily seen using basic light microscopy. The key contains a comprehensive introduction on the biology, morphology and classification of the group and includes over 350 colour photographs and detailed descriptions of each family. The numerical and ecological diversity of Hymenoptera make them an ideal study organism. As such, this key will be a valuable tool for students, researchers, biological control practitioners, those involved in ecological surveys and monitoring, or simply anyone with an interest in a unique and important, yet often unnoticed, component of our native biodiversity.

Available from CBIT at http://shop.cbit.uq.edu.au/ProductDetails.aspx?productID=169

Entomological Society of Queensland



Seeking Expressions of Interest for *Specialised Training Scholarships for Emergency Plant Pests/ Disease Diagnosticians* 2007-8

Applications are once again invited for the Department of Agriculture, Fisheries and Forestry (DAFF), and Co-operative Research Centre for National Plant Biosecurity (CRC NPB) Training Scholarship in Diagnosing Emergency Plant Pests/Diseases. The scholarships will provide a stipend of up to $10,000 for the duration of the specialised training. A financial contribution of the applicant's employer towards the training is strongly recommended.

The scholarships are intended to provide assistance to government employees and CRC NPB participant employees to gain experience in diagnosing emergency plant pests/diseases. It is anticipated that the training will make a significant contribution to enhance the national diagnostic capacity in identifying emergency plant pests/diseases. Depending on identified needs, training will be provided as one of the following:

* Participation at the specialised training workshop (national or international) or

* Working visit in a diagnostic reference laboratory (national or international).

Background Information

The Australian Government announced a budget initiative, *Securing the Future – Protecting Our Industries from Biological, Chemical and Physical Risk.* The major objective of the program is to further boost Australia's readiness to respond to Biosecurity threats in animal and plant emergencies. In the plant health component of the *Securing the Future* budget initiative, the Office of the Chief Plant Protection Officer (OCPPO) has identified five main areas of investment. These have been targeted as gaps or areas of strategic investment with other plant health stakeholders to progress long-term development of national Biosecurity capacity. One of the key areas is *Enhancement of Diagnostic Capacity* for emergency plant pests/diseases. As part of the succession planning in maintaining national expertise in a plant pest diagnostics this project will provide scholarships for advanced training of diagnostic/plant pathology (morphological and/or molecular) personnel in order to enhance Australia's capability in diagnosing exotic pests and diseases. Until now 21 Scholarships have been awarded. This year the Cooperative Research Centre for National Plant Biosecurity (CRC-NPB) joined DAFF in this initiative and as such a minor component of research may now be included in the training program provided it enhances diagnostic capacity and capabilities.

Application Process

Deadline for Stage 1 application is 14 September 2007.

For further information on the qualification criteria or the application process please contact:

Therese Brackenbury (02) 6272 5191
OCPPO, Department of Agriculture, Fisheries and Forestry,
GPO Box 858, Canberra, ACT 2601
therese.brackenbury@affa.gov.au

Jacek Plazinski (02) 6272 4334, or
Gary Kong, CRC-NPB, (07) 4688 1319

RAY KUMAR

We are sad to report the death in Shreveport, Louisiana, USA, of Dr Rajainder ("Ray") Kumar on the 22nd of August after a long battle with brain cancer. Ray was a member of the Society for more than 40 years and was well known to many members throughout his long and distinguished career in many parts of the world. After completing his first PhD at University of Rajahstan he came to do a second doctorate on hemipteran morphology at the University of Queensland under the tutelage of Dr Tom Woodward in the early 1960s. From there he went to a University post at University of Ghana, moving to another university in Nigeria, some years later when conditions in Ghana deteriorated. From there he moved to Papua New Guinea in the late 1980s, initially with the Agriculture Department then later moving back to academia at the University of Papua New Guinea where he trained scores of students in tropical agricultural entomology, always with a good foundation of pure science. He retired about 5 years ago first going to suburban Las Vegas and later to Shreveport where he renewed teaching. He leaves his wife Dorcy and sons, Sunil and Fifi. A full obituary will appear in the next issue of *Myrmecia.*

Geoff Monteith

DIARY DATES 2007

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

September 10th	David Merritt	How & why do glow-worms glow?
October 8th	Steve Barker	Why are there so many head lice, *Pediculus capitis*?"
November 12th	Andrew Austin (Perkins Memorial lecture)	
December 10th	Notes & Exhibits	

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.

Sustaining associate of the News Bulletin:

TROPICAL FRUIT FLY RESEARCH GROUP, GRIFFITH UNIVERSITY

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NOTICE OF NEXT MEETING

The next meeting of the Society will be held at 7:00 pm on **Monday**, **10th September** at **Room 139**, GODDARD Building, University of Qld. The main business will be **David Merritt: How and why do glow worms glow?** Refreshments will be served before the meeting at 6:30 pm 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

HONORARY LIFE MEMBERS OF THE SOCIETY

R.A.I. Drew	E.M. Exley	D.L. Hancock
M.J. Harslett R.P.	D.S. Kettle	R. P. Kleinschmidt