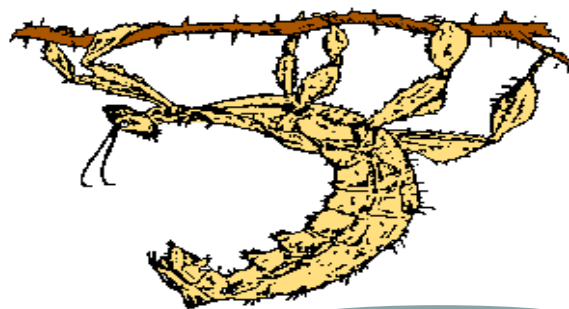


The Phasmid Study Group

JUNE 2013
NEWSLETTER No 130
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*Fantastic PSG Summer Meeting,
6th July 2013. See page 5 for Agenda.*



Extatosoma tiaratum
See Page 11.

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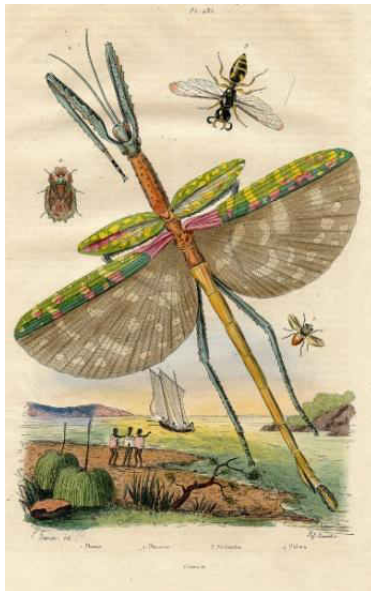
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THE COLOUR PAGE!



Acrophylla titan female. Picture on left, becomes picture on right.
See page 9.



Unknown species. See page 18.



Acanthoxyla spp, brown version. See page 8.



Acanthoxyla spp, green version. See page 8.



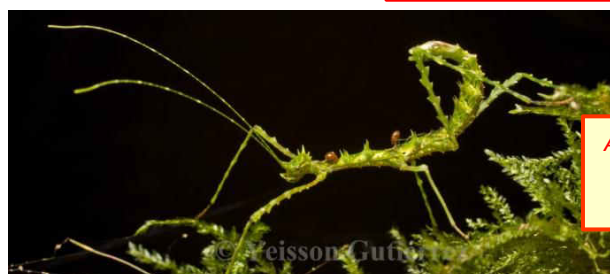
Ctenomorpha marginipennis.
See page 10.



Pictures on the left are from when Sir David Attenborough went to Bristol Zoo Gardens on 21st May 2013 to film for his "Natural Curiosities" series, where he focused on butterflies (regarding metamorphosis) with a short piece on parthenogenesis – hence the *Phyllium giganteum* he is holding in the photo. Also in the photo is Mark Bushell, and one of the invertebrate keepers Carmen Solan.



X-Bugs. See page 16.



Acanthoclonia ornatum.
See page 18.

Editorial

Welcome to the June PSG Newsletter. (See it in full colour on the PSG website). As usual we have something for everyone in this edition, I think our contributors have done brilliantly and I hope you agree. However, I am lacking a puzzle of some sort, and we could always do with a species report. So if you think you can help out here, please send some in for the December Newsletter – and of course ANY contributions are gratefully received.



PSG Summer Meeting. Please be aware we have our PSG Summer Meeting on Saturday, 6th July 2013. Judith has lined up another great meeting. I am looking forward to the two talks by our resident experts, the Great Mystery Phasmid Hunt sounds an intriguing competition, of course as always there is everybody's favourite the Livestock Exchange, and there is oh so much more. For the agenda please see page 5, and for first-timers please read my notes on page 6. It will be a fabulous day out, you won't be disappointed. Hope to see you there!

(PS Please contribute to the December Newsletter, see page 4 for details).

Regards to all, Mike Smith

The PSG is always willing to welcome new members, please help us increase our membership.

To Join (or rejoin) The Phasmid Study Group

See the membership page on the PSG website: <http://phasmid-study-group.org/content/Join-PSG>

Payment can be: in cash to Paul Brock at the Summer PSG Meeting in July, by *PayPal*, by cheque (in £ sterling and drawn on a UK bank) payable to: "*The Phasmid Study Group*"; or by Postal Order or International Postal Giro to:

Paul Brock, 2 Greenways Road, Brockenhurst, SO42 7RN, England, UK.

For overseas members not using *PayPal*: cash may be sent (at your own risk) in your own currency (add an extra £3.00 for exchange rate variations), we recommend using registered post.

Only: £12 UK, £14 Europe, or £15 Overseas. (Prices held for another year!)

Any problems contact Paul Brock by E-mail:

pauldbrock@btinternet.com, or p.brock@phasmid-study-group.com.

PSG Membership benefits include:

PSG Meetings, copies of the PSG Newsletter, all areas of the PSG Website, and free stick insects.

PSG MEMBERSHIP FORMS



If you want any copies of the colourful, new Membership Form eg for handing out at shows, demonstrations, museums, zoos, pet shops, etc. please print them from the PSG website, or contact Paul Brock. Many thanks.

The PSG Committee

Chairman: Judith Marshall. The Natural History Museum, Cromwell Road, London, SW7 5BD. Tel: 0207 942 5610, E-mail: chairman@phasmid-study-group.org or j.marshall@nhm.ac.uk.

Treasurer/Membership Secretary: Paul Brock. 2 Greenways Road, Brockenhurst, SO42 7RN, E-mail: p.brock@phasmid-study-group.org or pauldbrock@btinternet.com.

Newsletter Editor: Mike Smith. 13 Runnacles Street, Silver End, Witham, Essex, CM8 3QN. E-mail: newsletter@phasmid-study-group.org.

Webmaster: Natalie Ford (with assistance from Mike Strick, Chris Pull, Nick Wadham, & Ed Baker). Contact via the PSG Web page, or E-mail: webmaster@phasmid-study-group.org.

Phasmid Studies Editor: Ed Baker and Judith Marshall. (For Judith's contact details see "Chairman", above). Ed's details: The Natural History Museum, Cromwell Road, London, SW7 5BD. Tel: 0207 942 5975. E-mail: phasmidstudies@phasmid-study-group.org.

Exhibitions: Paul Jennings. 89 Brackensdale Avenue, Derby, DE22 4AF. Tel: 01332 343477. E-mail: exhibitions@phasmid-study-group.org.

Livestock Coordinators: Mark and Ian Bushell. 43 Bradford Road, Trowbridge, Wiltshire, BA14 9AD. Tel: 01225 747047. E-mail: livestock@phasmid-study-group.org.

Merchandising: Gavin Ridley and Mike Strick. E-mail: merchandise@phasmid-study-group.org.

Other members: Phil Bragg and Ian Abercrombie.

PSG Website Update *by Natalie Ford*

Hi all, just a quick update from the website team. Some very exciting things going on...

For the first time in a long while, all PSG members now have a web login for the website, enabling you all to access all the great members-only benefits! If for any reason you don't think you've received your web login details or can't remember what they are, drop me an email at webmaster@phasmid-study-group.org with your full name and PSG number and we'll fix that!

You may also have noticed from the number of "update" emails you're receiving that we've been quite busy recently! With the fantastic assistance of Ed Baker, Ian Bushell and website team's new helper Ed Lough, we are in the process of populating the e-n-t-i-r-e back catalogue of PSG newsletters to the website. We've started right back at the very first Newsletter from 1980 and are slowly adding every one since! They are all a fascinating read – we hope you are enjoying them! We also have the full catalogue of Phasmid Studies available on the website too.

Finally, we have a new website in the pipeline! We hope to have this live by the end of the year. It will bring a great new look to the site, make things easier to find and more user-friendly. Plus, all the things we mentioned when we first took over as the new website team are still in the pipeline – as soon as the new site is up and running we'll do our best to start implementing them all!

Contributions to the Newsletter. I am as always very much indebted to all the wonderful contributors to this Newsletter - many, many thanks to you all; without your sterling help there would be no Newsletter. I hope, as usual, that there is something here for everyone. **Please, would all members send in a contribution**, including any reviews on shows and meetings, drawings, photos, phasmid problems, answers to problems, crosswords, quizzes, puzzles, web site details, ideas or comments on the Newsletters or the PSG, etc, etc. *Don't worry if you can't spell, have no pictures, or think your contribution is not scientific enough.* Just send in whatever you like, this is YOUR Newsletter, and I'll put in it everything you send in – and correct any spellings and add pictures (if needed). See the PSG Website for more details on how to write articles. E-mail them to: newsletter@phasmid-study-group.org, or post them to Mike Smith, 13 Runnacles Street, Silver End, Witham, Essex, CM8 3QN, England, UK. Closing date for contributions to the next PSG Newsletter in December is 22nd November 2013 (but contributions received before then are particularly much-appreciated).

Diary Dates

IMPORTANT INFORMATION ON DIARY DATES: You should check with the organisers that the event is still on, and at the times shown, before setting out (These are placed in the Newsletter in good faith, but no responsibility is taken by the PSG for any errors). If you attend these or other shows, please send in a review for the Newsletter. If you are aware of any additional shows, exhibitions, fairs, etc, however big or small, wherever they are, if stick insects and/or other creepy crawlies are likely to be present, please pass the details on to the Editor. E-mail them to: newsletter@phasmid-study-group.org.

PSG Summer Meeting. Saturday 6th July 2013. 11.30am, Dorothea Bate Room, Natural History Museum, Cromwell Road, London. (For more details, see Pages 5 and 6).

Royal Entomological Society Insect Festival. Sunday 7th July 2013. 10.00am – 4pm., Yorkshire Museum Gardens and Hospitium, York. (Paul Jennings would like volunteers to man the PSG stall - contact: exhibitions@phasmid-study-group.org).

South West Insect and Spider Show: Saturday 20th July 2013. 10-4pm, greater focus on conservation and responsible animal care, then 6.30-7.30 The Wild and Deadly Animal Show followed by family disco and BBQ - it's our fifth year of Bugfesting so will be partying accordingly - here's to the next five years!- contact nick@bugfest.co.uk.

Bedford Insect and Spider Show; Saturday 31st July 2013. 10-4pm, The Bunyan Centre, Bedford - contact nick@bugfest.co.uk.

Leicester Creepy Crawly Show. Sunday 15th Sept 2013. Parklands Leisure Centre, Wigston Road, Washbrooke Lane, Oadby, Leicester, LE2 5QG. Queries to ianjordan148@hotmail.com. (Paul Jennings would like volunteers to man the PSG stall - contact: exhibitions@phasmid-study-group.org).

Phasmatodea Studies Symposium for the Entomological Society of America. Sunday 10th November 2013. Austin, Texas, USA. More details: <http://www.entsoc.org/entomology2013>.

PSG SUMMER MEETING & AGM, Saturday, 6th July 2013

DOROTHEA BATE ROOM, NATURAL HISTORY MUSEUM, CROMWELL ROAD, LONDON, SW7 5BD, UK.
(FREE PUBLIC ENTRY* to Natural History Museum, also the nearby Victoria & Albert and Science Museums)

If you have any comments on what you would like to see at future PSG Meetings, or if you would be willing to give a talk or other offering at a meeting, please let Judith know. E-mail: j.marshall@nhm.ac.uk

**PLEASE BRING AND WEAR YOUR PSG MEMBERSHIP CARD AS A BADGE
A HOLDER WILL BE PROVIDED.**

AGENDA*

(Any item may be reviewed on the day. Please help us run on time.)

- 10.00am – 11.30am** WELCOME: members are invited to exchange ideas and experiences.
View the display of Vietnamese species from Allan Harman.
Take part in the The Great Mystery Phasmid Hunt **.
View and add to the Bring & Buy stall.
Have a drink, biscuit, and cake from the refreshment table***.
Renew your PSG Membership or collect your membership card.
- 11.30am – 12.30pm** Illustrated Talk on Collecting Phasmids by Ian Abercrombie.
- 12.30pm – 1.30pm** Lunch Break – and time to do the Competition.
- 1.30pm – 2.00pm** Australian Stick & Leaf Insect Camouflage by Paul Brock.
- 2.00pm – 2.25pm** Discussion of Vietnamese and other species new to culture.
- 2.25pm – 2.45pm** Panel of Experts answer your Questions on stick insects/general discussion.
- 2.45pm – 3.00pm** Competition results, and prize giving.
- 3.00pm – 4.00pm** Livestock Exchange****, and final viewing of displays, etc.
- 4.00pm – 4.30pm** Competitors and exhibitors to collect their entries; leftover livestock**** should be taken back by the contributor (please check).
- 4.30pm onwards** Close of meeting.

*You are requested to bring this sheet with you for security reasons to ensure access to the *meeting room* (bring in the whole Newsletter, or a photocopy of the appropriate page if you do not want to tear the page out). The agenda will also help you follow the proceedings.

** The Great Mystery Phasmid Hunt is a new competition developed by Derek Pattenson for PSG members of all ages, Full details of the competition will be given on the day – and there will be prizes.

*** Tea, coffee, squash, and biscuits will be available all day (from about 10.15 am), for a voluntary contribution, in the meeting room (courtesy of Judith). Food shops are available in the museum, offering good food at reasonable prices, but there may be queues. You are welcome to bring your own lunch, to eat in the meeting room or in the museum. You may also “donate” cakes, biscuits, etc, if you wish.

****You are reminded to follow the rules as laid down concerning the Livestock Exchange: eg livestock should be given some foodstuff, and their container must be clearly labeled with their name & PSG number; the food plant they are being fed on, and your name & PSG number. **Please don't forget to check before you leave that all of your livestock has been distributed and, if not, take them back with you.** Do not overcrowd the sticks, but also please use reasonably-sized containers (not too big), and do not spread the spare stock over too many different containers (especially common species). Please remain in your seats throughout the session – ie do not crowd round, or obscure, the livestock table during livestock distribution.

PSG Summer Meeting, Saturday 6th July 2013 by Mike Smith

Yes, another fantastic meeting awaits all PSG members. Just take a look at the agenda on page 5 and see for yourself. Entry to the meeting (and to the Natural History, Science, and Victoria & Albert Museums) is completely **FREE**. When attending the meeting, please bring your PSG 2013 Membership card with you (members who have lost or forgotten their membership cards will still be able to access the meeting, but checks will be made to ensure they are members, and a temporary members' name badge will be issued). If you have not yet had your 2013 membership card, you will be handed it at this meeting.



Dorothea Bate Meeting Room.
(The door at the back leads to it).

Non-members who accompany members will be given a white name badge to wear. Only *members* can vote and/or collect free livestock. Please ensure your visitors do not vote on any PSG issues. The museum's main entrance is in **Cromwell Road, SW7 5BD**; there is also a side entrance in **Exhibition Road** (which tends to have shorter queues). The queues can be quite long, but still usually take only 15-20 minutes maximum. Please note bags are searched on entry for "dangerous" objects so knives, scissors, etc should not be brought in. The nearest tube train station is South Kensington which is on the Circle, District, and Piccadilly Lines. Bus routes include: 14, 49, 70, 74, 345, 360, 414, and C1. But before you travel best check with London Transport for any planned closures (eg for engineering work). Phone **0207 222 1234** (+44 207 222 1234 from overseas), or go to the website **www.tfl.gov.uk**.

LIVESTOCK REPORT by Mark Bushell

The following species are currently available from Mark and Ian (contact details below):

Eggs: - 23, 37, 163, 195, 266, 294, 299, 301, 308, 315 & *Bacteria horni*, *Lonchodiodes* sp. 'NEGROS'.

Insects: - 18, 82, 90, 151, 163, 183, 195, 225, 248, 270, 294, 295, 299, 313 & *Andropromachus scutatus*, *Dares philippinus*, *Neohirasea fruhstorferi*, *Neohirasea* sp. 'LUC PHANG' & *Sipyloidea biplagiata*.

Eggs and insects are *free*, but the member pays for the postal charges. Eggs will be sent by 1st Class post. Live insects will be sent, UK only, and by next day recorded/tracked delivery [currently £6-£7 a parcel].

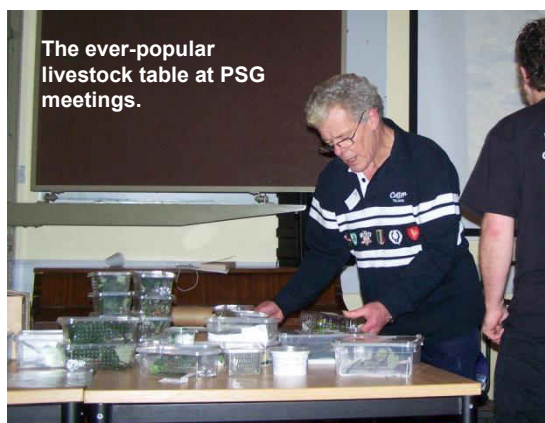
Members' Surplus Livestock:- Your surplus livestock can be sent to our address, but please get in touch before sending live insects or eggs, particularly if the parcel is too large to fit through a letter box. Please also include your name and address as well as what species have been sent: **Mark & Ian Bushell, 43 Bradford Road, Trowbridge, Wiltshire, BA14 9AN, Tel: 01225 767047, E-mail: livestock@phasmid-study-group.org**.

Members' Surplus Livestock at the PSG Summer Meeting:- We are looking forward to the Livestock Exchange at the Summer Meeting, but the usual plea is made. All livestock and eggs are welcome but please ensure that:

- **Each box is labelled** with the species name and PSG Number if it has one. If you are unsure there are plenty of experts available to advise you.

- **Also include data on food plants** and notes of how you have kept them – useful for both the novice and the old hand.

- **Check before you leave** that all your stock has gone, and if it has not then please take it home with you (unless previously arranged with us).



PSG Merchandise Update *by Gavin Ridley*

Just a little update for you regarding merchandise. We have had little merchandise for a while now and so a new product range has been designed and is in the process of being manufactured at quite a reasonable cost. We are looking forward to putting the new items for sale. The merchandise officers will be working with the internet team to bring you the merchandise on the website, but we are quite excited to bring you the new product launch at the Summer PSG Meeting. Even more reason to make sure you come up to the Natural History Museum for the meeting, it really is a great day out.

Living in deepest Somerset meant that, with all the snow, I was unable to see you all at the AGM in January, but even with the extreme weather and cold start to the spring this year, I am hoping that it is unlikely that snow will prevent me attending in the summer! The new merchandise proudly displays the PSG logo, but going forwards we wish to produce other items with new designs. Certainly, we think T-shirts and other clothing should have some nice new designs. This is where you delightful members come into it..! Now I am no artist, and whilst we can create some lovely designs we would really appreciate your input into what you would like to see on your T-shirts! So if you are a budding artist, or an expert one, or perhaps just want to have a go, why not let us have your designs, and you may even see them in circulation on our merchandise! My aim is to have a small clothing range ready soon, so get painting/drawing or busy on the computer!

Also at the summer meeting, when you have had a look at the new merchandise, why not **fill in the questionnaire that will be available** to give your feedback on the new merchandise and to give ideas as to what more new merchandise you would like to see. The email address for merchandise is: merchandise@phasmid-study-group.org. Please note that this is not for livestock. You can order merchandise by email. Also feel free to email me about merchandising issues and ideas. I hope that one day soon I will be able to create an on-line ordering website, linked to the PSG website, so ordering is even easier, and this is a work in progress.

We look forward to seeing you all at the summer meeting!

Paul Brock says he has a few examples for sale, from postcards to key rings and mouse mats, so don't forget to bring some cash along to the Summer PSG Meeting.



Newsletter Survey Results *by Mike Smith*

Many, many thanks to all the members who took the time to reply to the survey. Presumably anyone that had an opinion did reply, and those that did not reply either had no opinion or were happy to go along with the majority.

The majority, 32%, wanted the status quo – ie leave the Newsletter as it is (around 24 pages, twice per year June and December), with 4 colour pages and no increase in membership fees.

Closely followed with 26% who wanted to have additional issues, and/or bigger issues, in an A5 format (A5 is half the size of A4, and would save printing and postal costs) with no increase in membership fees.

Twenty-four per cent wanted additional issues, and/or bigger issues, in the current A4 size format, though it could mean a modest increase in membership fees.

Finally, 18% wanted more colour pages, whatever format is used (A4 or A5), even if it meant a significant increase in membership fees.

There were some comments. One person just said they would accept the majority decision – so they presumably would back the status quo for now. Another said “Change is not progress” – well maybe, and I’d agree if it were change for the sake of change, but surely a change for the better or with good reason is some sort of progress? Another said a BTS Journal style would be nice. From memory, the BTS have an A5 journal on shiny paper, and shiny paper would cost quite a bit more than normal paper, so negating the savings by having a smaller size. Finally, there was a suggestion that some members could receive the Newsletter on-line for a reduced fee. Firstly, by far the majority of members in the past have asked for a hard copy as first preference. And secondly, if there were some members receiving on-line copies at a reduced fee, then there would be less hard copies printed, and the less we print the more expensive each copy becomes, again negating any savings.

In an ideal world, if we could get many more members, then the cost of each copy would go down (the bigger the print run, the lower the cost of each copy, because of the economy of scale), so we could then do more with the Newsletter for the same membership fee (**see page 3 for membership details, can you get more members?**). A5 formatting seems to be fairly acceptable and, if we did go down that avenue, we could do a bit more for the same cost. But also, many members were quite happy to pay a bit more, to get a bit more, so that should be considered too. However, be aware that we plan to go along with the majority and continue with the status quo for at least this year, and probably beyond. Though we were not necessarily seeking a mandate for change, just testing the temperature of the water.

Again, many thanks to all the members who took part in the survey.

NATIONAL INSECT WEEK AT BRISTOL ZOO GARDENS *by Ian Bushell*

Bristol Zoo Gardens, as in previous years, invited the PSG to participate in National Insect Week 2012, which ran from Monday 25th June through to Sunday 1st July, by manning a stand within their grounds. The week is promoted by the Royal Entomological Society, and their theme in 2012 was great British insects. To fit in with this theme of a British phasmid link, and to promote PSG, with Malcolm Lee's blessing his published articles on the UK's Naturalised Stick Insects (*) formed the basis of the display board and more importantly provided and stimulated interest by all the visitors to the fact that these



'exotic' insects could survive and be found within the UK. The evidence that *Acanthoxyla* spp. have probably been established in the wild in the Scilly Isles, Cornwall and Devon for some 100 years is of interest and ties in to Mark's article, European Strategy on Invasive Alien Species, in Newsletter No 129 together with Malcolm Lee's latest article in the same edition.



As with previous years we made the centre point of the PSG display the 'living hedge'; a trough with oasis into which is stuck bramble, hazel etc. and in this instance *Cupressus*, Then with various phasmids free roaming over it, it allowed the public to see the insects up close and (under supervision) to handle them – a great attraction and far better than just looking at them behind glass. In order to demonstrate the British/Phasmid link and to add to the information on the display board, the stars of the PSG stand were the *Acanthoxyla intermedia*, these supplied by Alan Hendy. To provide addition interest and to try and show the great diversity within phasmids we also had

Heteropteryx dilatata, *Carausius detractus*, *Bacteria ploiaria*, *Haaniella scabra*, *phaenopharos khaoyaiensis*, *Trachyaretaon echinatus*, *Eurycantha calcarata* and an unidentified as yet South American insect.

During the week there was a steady stream of school parties passing through the tent, but the weekend was very much a family affair, and although, unlike previous years, no new members were signed up during the week it provided a good opportunity to interest and educate people in our hobby and maybe some will sign up later. Here's to this year.

(*) Newsletter 107 – The Stick-insects of Great Britain, Ireland and the Channel Islands
A 2009 Update on the UK's Naturalised Stick-Insects (2009)
The Naturalised Stick-Insects in South West England (2007)



Phasmid Books – Gray 1833 by Paul D. Brock

I noticed that Gray's superb book on Australian phasmids from 1833 is available on demand (Kessinger Publishing, 2010). See:

http://books.google.co.uk/books/about/The_entomology_of_Australia_in_a_series.html?id=8w1JAAAAcAAJ&redir_esc=y for a free downloadable copy, which has links where one can purchase a printed copy for c. £10 including postage.

However, this book has also been auctioned in Australia by Australian Book Auctions, as follows: **Davidson Collection sales, February 2006 where it sold for A\$11,650.** See catalogue entry below:

Gray, George Robert. The Entomology of Australia, In a Series of Monographs... Part I. Containing the Monograph of the Genus Phasma [all published]. London, Published by the Author... Sold also by Messrs. Longman and Co., 1833. *Quarto, eight hand-coloured engraved plates; title-page marked and with some staining in the top fore-corner of a few leaves at the end; in a colonial binding of the Arts and Crafts period, bound in quarter red morocco and cloth boards, the spine lettered in gilt and tooled in blind.* Rare. One of a very small group of beautifully drawn and finely hand-coloured early Australian natural history plate books, Gray's Phasma was the second separately-published work on Australian entomology, preceded only by Lewin's Insects (lot 257). The eight plates were all drawn and hand-coloured by the author himself. Phasma was published in a very small edition to subscribers (the meagre list of whom is given on p. xi – only 21 names) and a proposed second part was never published. Provenance: Edward E. Pescott, ownership inscription (partly erased) on the title-page dated 2 April, 1899, and for whom almost certainly bound. Dame Mabel Brookes (Hince/Joel, December 1968, lot 199). References: Ferguson, 1653; Musgrave, 128. Estimate: A\$3000/5000.

A second copy came up for sale later with much the same details and same estimate http://www.australianbookauctions.com/sale_058/sale_058.pdf: ex. Ian Halliday collection sales catalogue 58 item 13, 2012 where it sold for A\$11,067.50.

It is not surprising that such a rare book sold for much higher than the estimate. Dance & Hancock, in *Classic natural history prints, Butterflies, Moths & Other Insects* (1981, Studio Editions, London, p. 84) states that Gray's work was published when he was a staff member of the British Museum aged twenty-five. Contrary to information given in the auction catalogues, the hand coloured engravings were by B. Waterhouse, coloured by G. Bayfield, after original drawings by Charles M. Curtis [see example figure, from plate 4]. Thanks to Gavin de Lacy for details of the sale prices.

For member's information, I am giving a talk at a camouflage conference in Sydney on 11 August 2013*

<http://sydney.edu.au/sca/camouflage/> where the Gray plate is one of the slides being shown, along with the plate from Guérin-Ménéville's *Dictionnaire pittoresque d'histoire naturelle et des phénomènes de la nature* Volume: 3. Paris (1835). This shows an example where additional images have been added and the original colouration slightly changed! [See example figure of *Acrophylla titan* female, from plate 4, right]. A section for a book will also be submitted. The paper (Brock & Hasenpusch) considers two things: the extraordinary range and methods of phasmid camouflage; and how phasmids are represented in visual form and whether this results in a conflict between the artist and scientist. Do representations accurately reflect the animal's natural behaviour, particularly in relation to camouflage?



[See the pictures in colour on the Colour Page, page 2.] [*This is the same talk Paul will be giving at the Summer PSG Meeting.]

My Little Friends by Mieke Vermeulen

I am lucky enough to live in the paradise known as Tasmania, that little heart shaped island off the south coast of Australia. Our farm is on the north-west coast, a fairly mild area renown for its agriculture. We have about 102 acres/41 hectares and run beef cattle and sheep using mostly bio-dynamic practices. We're also known in the district as a bit mad because we use Clydesdale draught horses for much of the work, but that's another story.

Over the last ten years or so we have been fortunate enough to have a succession of Margined-winged Stick-insects, *Ctenomorpha marginipennis*, take up residence in the bushes outside my dining room window. The bush they prefer is a New Zealand Christmas bush (*Metrosideros* sp.) and they seem quite happy to stay there munching away.

Our children first noticed them and thought they were funny but were soon fascinated by all the goings on. We saw them swaying gently in the breeze trying to look like part of the bush. We watched them mating...not something to gasp at for farm-raised children. The way they peel themselves off of their old skin and then eat the leftovers amused everybody and led to lively discussions as to the reason. We concluded that they were conserving nutrients. But, as my daughter pointed out, "they always leave one leg casing hanging, so I don't have to finish MY dinner either"

Visitors have been very taken with them and got quite good at the insect version of Where's Wally...."Phind" the Phasmid. One Filipino lady always rushes straight to the window to check, and my friend from New Zealand takes a special interest because it's HER bush they're eating. . Mind you it can cause a bit of a stir when I bring them inside and let them stroll round the dining room table, there has been a sudden lack of bravery when the beastie makes a foray up your arm.

Recently I came inside and as usual glanced at the window to see who was there in the bush when I noticed the large female waving her legs wildly. Not normal behaviour. On closer inspection it proved to be an attack by a European wasp. The wasp was really having a go and fearing the worst, I flung open the window, half dived out and grabbed the stick insect. She promptly did the ladylike thing and fainted on my hand. Put her on the table, and being a firm believer in retribution, got the fly spray and nuked the wasp. After ten minutes or so, during which time I did everything except provide mouth to mouth, she came to and was able to go back outside. She was however bent like a boomerang where she got stung and



Ctenomorpha marginipennis,
(projectnoah.org)

didn't straighten out for a week. Pruning the wilderness outside my window involves an old meat safe (for putting sticks in), much searching and a very careful set of shears, but that's another story too.

I'm off to walk the Bibbulmun Track in August and would love any information people have about the phasmid life over in West Australia. E-mail: mieke.vermeulen@hotmail.com.



Ctenomorpha marginipennis,
in Mieke's hand.



Christmas
bush.
(Wikipedia)



Eggs.
(Paul Brock)

PSG Winter Meeting, 19th January 2013 *by Mike Smith*

To say the weather was against us is a bit of an understatement. But bombs, room refurbishment, rail disruption, nothing has yet stopped us having our PSG meetings. We did consider deferring it, all options were on the table, but we were aware that many members had made special travelling and accommodation arrangements to attend the meeting and so we decided to go ahead. With modern technology, we were able to ensure most members were aware the meeting was on (eg e-mails, Website, Sticktalk, etc). We had about 40 members make it there, a third less than normal. Though many well-known members were unable to attend and some members tried to get in but had to give up. Apologies to everyone who was unable to attend, but please do come to the Summer PSG Meeting on 6th July 2013 (see page 5 for details).



The roads in my village were lethal, difficult to walk on let alone drive on, but once I'd slipped and slid onto the main road to town, which had been gritted and salted, the journey to the train station was less troublesome. I went to the meeting with my friend, fellow member Karl again. Amazingly the trains were running, and to time! Though there was planned engineering work going on so we had to change trains earlier than usual. Anyway, we got to the meeting room by around 10.20am and there were a few members there already, setting up tables, chairs, refreshments, displays, etc. But by around 11am (half an hour before the start) there were still not many members arrived – see photo on left.



I took the first turn at meeting and greeting members, and handing out new membership cards. Karl was not a committee member, yet helped out quite a bit with this all day. The picture and livestock competitions went ahead though, not surprisingly with the weather, we did not get many entries (see above photo). The museum display of giant sticks that Judith arranged was amazing; there certainly were some whoppers there! (See photo on the right). As the 11.30am start time approached so we had more and more members arrive, till eventually by the afternoon we had around 40. Good for the day, but the room still looked a bit empty (see photo below).



Fortunately, all our speakers made it to the meeting, so we started on time with the first speaker, Paul Brock, on the subject of Australian Stick Insects. Paul gave an excellent slide show, and a fascinating insight into Australian stick insects – he could write a book on it, erm, I believe he has!

Next we had our Annual General Meeting (AGM). A bit awkward since we were low on numbers, but it went well enough. In particular Paul Brock our Membership Secretary and Treasurer said our finances were in good shape (yippee). There being no other volunteers, we then put it to the vote that our existing committee members be voted in for another year, and this was passed by a show of hands. Paul Jennings' post was a query, but as he was unable to attend we deferred any final decision on that post until the Summer Meeting. If anyone wanted to raise anything at the AGM, but was unable to do so, please raise the matter at the Summer Meeting, or send your question to Judith in advance for answering at the Summer Meeting.

We then had an illustrated talk by Adrian Durkin on the subject of The Origin of Orthoptera. Basically an evolutionary tale. And it was very interesting how clearly he made the distinctions between different geological eras, and explained the evolutionary family trees of various critters – including stick insects! (See photo on right).



Then just before lunch we had a short but amazing talk by Robert Bradburne on the subject of Stick Insect Origami (ie making stick insects, and other critters, just by folding paper into shapes). It was incredible to see the models that had been created. Robert brought in



many samples (see photo on left), some of which took hours to make. He also gave away one secret of making them – and this is probably one reason why me and others had trouble following his excellent instructions in the last Newsletter for making an origami stick insect. The answer lies in the paper...by using special tissue paper, and gluing thin metal foil on the back, or sandwiching the foil between two sheets of tissue paper, then the paper retains its folds so much better. It was all explained but, if you are interested in the subject, Robert says there is lots of information about it on the internet.

After lunch we had an illustrated talk by Ian Abercrombie on his travels around Asia. He seemed to have had more than his fair share of rain – well it is rain forest – and he said he returned to a wet England! However, despite this setback, Ian had produced some amazing photos. Not only of stick insects, but of poisonous snakes, spiders, frogs, all sorts, and he usually had an interesting little tale about each of them.

The next item was the Panel of Experts answering members' questions. To be honest, I don't recall much about this as my attention was on other things, but it seemed to go well. The raffle was postponed until the Summer Meeting as we had such a slow start to this one. So we went on to the Picture and Livestock competitions. Sadly, we had very few entries (see photo on previous page) I think members were more interested in fighting the snow than bringing in entries, but of what was there the standard was high. The winning picture was of an *Extatosoma tiaratum* (see photo on right – and in colour on front cover), and the winner was...well, me! The livestock winner was Alan Hendy, with a pair of *Oxyartes lamellatus* (see photo below left).



Then we came to the finale – everybody's favourite...the Livestock Exchange! The photo on the right shows how it was relatively sparse but, bearing in mind the sub-zero temperatures outside and the low attendance, it was in fact quite amazing what was there. And certainly there was something for everyone.



Oh yes, there is always someone letting us see their amazing stick; wandering around the meeting with it. On this occasion it was an awesome *Oxyartes lamellatus* belonging to Alan Hendy (see picture on right).



Finally, I again joined the "après stick" brigade and went round the pub for an enjoyable swift pint. Incidentally, many thanks to everyone who returned their Newsletter survey form, a summary appears on page 7. So to conclude, it was a very busy, but very enjoyable day out. Our Summer PSG Meeting on 6th July 2013 should be in warm weather (but don't bank on it), though what you can be sure of is a great day out. See you there.



Sticks go to School by Jennie Williams



I have just spent a lovely couple of hours at my grandson's school, taking in some Mantids and Stick Insects because their topic is Mini Beasts. I have never seen 5 year olds as still and fascinated as they were, as before when I have taken them in boys were terrified and girls really interested. I took in *Peruphasma schultei* and a fully grown male *Eurycantha calcarata* as well as the mantids, for once the *Eurycantha* was very well behaved and even allowed me to handle him without drawing blood, the *Peruphasma* as usual jumped off my hand and tried to escape causing much mayhem. But all safely back home now, I may even have persuaded them to have some Indian stick insects (on the proviso that I will care for them during the holidays). That being the case I may need some ova, nymphs and adults of the above to get a culture going for them. Watch this space!

THE DEVELOPMENT OF THE PHASMID SPECIES LIST

Part Five: PSG No.201 – PSG No.250

by A.J.E.Harman (PSG.189)

PSG No.201 *Valid name: Sipyloidea sp.*

Country of origin: Bangladesh. The culture was established from specimens collected in the Chittagong region by Nicholas Cliquennois and N.Shorubi in February 1996.

PSG No.202 *Valid name: Medaura jobrensis* Brock & Cliquennois, 2000

Country of origin: Bangladesh. The culture was established from specimens collected in the Chittagong region by Nicholas Cliquennois and N.Shorubi in 1996. A second collection was made in the Srimongol Region in September 1997.

PSG No.203 *Valid name: Tirachoidea biceps* (Redtenbacher, 1908)

Country of origin: Indonesia, Java. The culture was established from specimens collected by Eric van Gorkom in 1997 and given to Wim Potvin. Originally **Pharnacia**, transferred to **Tirachoidea** by Hennemann & Conle, 2008.

PSG No.204 *Valid name: Menexenus batesii* (Kirby, 1896)

Country of origin: Indonesia, Moluccas. The origin of this culture is not known. Culture now lost. Originally **Lonchodes**, transferred to **Staelonchodes** by Kirby, 1904(a), and to **Menexenus** by Brunner, 1907.

PSG No.205 *Valid name: Phaenopharos struthioneus* (Westwood, 1859)

Country of origin: West Malaysia. This culture was established from specimens collected by Ian Abercrombie and Francis Seow-Choen at Tasik Chini in October 1994. Further collections made in November 1996 and March 1999. Originally **Lopaphus**, transferred to **Phaenopharos** by Kirby, 1904(a).

PSG No.206 *Valid name: Clonaria sp.*

Country of origin: Tanzania. This culture was established from specimens collected by Nicholas Cliquennois near Arusha at about 2300 m. Culture now lost.

PSG No.207 *Valid name: Cuniculina sp.*

Country of origin: Bangladesh. The culture was established from specimens collected by Nicholas Cliquennois and N.Shorubi in September, 1997 in the Srimongol region.

PSG No.208 *Valid name: Tirachoidea jianfenglingensis* (Bi, 1994)

Countries of origin: China, Vietnam. The culture was established from specimens sent to Peter Heusi in 1993. Original culture from Cuc Phuong National Park, NhoQuan District, Ninh Binh Province. The species was described from specimens collected in Hainan Province, China. Originally **Pharnacia**, transferred to **Tirachoidea** by Hennemann & Conle, 2008.

PSG No.209 *Valid name: Lopaphus brachypterus* (de Haan, 1842)

Country of origin: Singapore. The culture was established from specimens collected by Frank Hennemann and Francis Seow-Choen in August 1994. A further culture was established by me and Mary Salton. Originally **Phasma**, transferred to **Lopaphus** by Westwood, 1859.

PSG No.210 *Valid name: Myronides magnificus* Brunner, 1907

Country of origin: Vietnam. The culture was established from specimens collected at Cuc Phuong National Park, Nho Quan District, Ninh Binh Province, received by Peter Heusi in 1997.

PSG No.211 *Valid name: Cuniculina sp.*

Country of origin: Bangladesh. The culture was established from specimens collected by Nicholas Cliquennois and N.Shorubi in the Srimongol Region in November 1997.

PSG No.212 *Valid name: Pylaemenes mitratus* (Redtenbacher, 1906)

Countries of origin: West Malaysia, Singapore. The culture was established from specimens supplied by Francis Seow-Choen. Originally **Datames**, transferred to **Pylaemenes** by Seow-Choen, 2000.

PSG No.213 *Valid name: Malacomorpha jamaicana* (Redtenbacher, 1906)

Country of origin: Jamaica. The culture was established from specimens collected by Tony and Pat James near Portland, Jamaica in March, 1999. Originally **Anisomorpha**, transferred to **Malacomorpha** by Zompro, 2004.

PSG No.214 *Valid name: Haplopus jamaicensis* (Drury, 1773)

Country of origin: Jamaica. The culture was established from specimens collected by Tony and Pat James. Originally **Mantis**, transferred to **Haplopus** by Westwood, 1859.

PSG No.215 *Valid name: Phaenopharos khaoyaiensis* Zompro, 2000

Country of origin: Thailand. The culture was established from specimens collected by Ingo Fritzsche between September 1997 and January 1998 at Khao Luk Chang at 400-475 m., Nakhon Ratchasima Region.

PSG No.216 *Valid name: Medaura scabriuscula* (Wood-Mason, 1873)

Country of origin: Bangladesh. The culture was established from specimens collected by Nicholas Cliquennois and N.Shorubi in February, 1996 in the Chittagong and Srimongol Regions. Originally **Bacillus**, transferred to **Menaka** by Wood-Mason, 1877, and to **Medaura** by Kirby, 1904(a).

PSG No.217 *Valid name: Lopaphus trilineatus* (Carl, 1913)

Country of origin: Bangladesh. The culture was established from specimens collected by Nicholas Cliquennois and N.Shorubi in February, 1996 in the Chittagong Region near Chunoti. Originally **Myronides**, transferred to **Lopaphus** by Cliquennois & Rabaey, 2000.

PSG No.218 *Valid name: Clonaria luethyi* (Zompro, 2000)

Country of origin: Thailand. The culture was established from specimens collected from Ko Tao. Originally **Gratidia**, transferred to **Clonaria** by Otte & Brock, 2005.

PSG.219 *Valid name: Cuniculina sp.*

Country of origin: Bangladesh. The culture was established from two collections made by Nicholas Cliquennois and N.Shorubi. The first in the Chittagong Region in February, 1996, the second from the Shachori Forest, Srimongol Region in September, 1997.

PSG No.220 *Valid name: Malacomorpha cyllarus* (Westwood, 1859)

Country of origin: Jamaica. The culture was established from specimens collected by Tony and Pat James near Portland, Jamaica in March, 1999. Originally **Necroscia**, transferred to **Pseudophasma** by Kirby, 1904(a), to **Alloeophasma** by Redtenbacher, 1906, and to **Malacomorpha** by Conle & Hennemann, 2002.

PSG No.221 *Valid name: Sceptrophasma langkawicense* Brock & Seow-Choen, 2000

Country of origin: West Malaysia, Langkawi Island. The culture was established from specimens collected by Francis Seow-Choen in 1995.

PSG No.222 *Valid name: Sipyloidea sp.*

Country of origin: Indonesia, Irian Jaya. The culture was established from specimens collected near Sentani by Heinz van Herwaarden and Oscar van Gorkom.

PSG No.223 Valid name: Rhamphosipyloidea philippa (Stål, 1877)

Country of origin: Philippines, Luzon Island. I have no information relating to this species. Originally **Necrosia philippa**, transferred to **Sipyloidea** by Redtenbacher, 1908, and to **Rhamphosipyloidea** by Lit & Eusebio, 2008.

PSG No.224 Valid name: Parapachymorpha zomproi Fritzsche & Gitsaga, 2000

Country of origin: Thailand. The culture was established from specimens collected in Nakhon Ratchasima Region, S.Khao Mai Pokat 900-1000 m. in October, 1997 by Ingo Fritzsche.

PSG No.225 Valid name: Clonaria conformans Brunner, 1907

Country of origin: Thailand. The culture was established from specimens collected in Nakhon Ratchasima Region in September 1997 by Ingo Fritzsche.

PSG No.226 Valid name: Cuniculina stilpna (Westwood, 1859)

Country of origin: Bangladesh. The culture was established from specimens collected in Sharhori Forest, Srimongol Region in September, 1997 by Nicholas Cliquennois and N.Shorubi. Originally **Lonchodes**, transferred to **Baculum** by Kirby, 1904(a), to **Clitumnus** by Brunner, 1907, and to **Cuniculina** by Brock, 2003.

PSG No.227 Valid name: Entoria koshunensis Shiraki, 1935

Country of origin: Taiwan. I have no information relating to this species.

PSG No.228 Valid name: Entoria formosana Shiraki, 1911

Country of origin: Taiwan. I have no information relating to this species.

PSG No.229 Valid name: Ramulus sp? (round eggs – Khao Yai)

Country of origin: Thailand. The culture was established from specimens collected in Nakhon Ratchasima Region in September, 1997. A further collection was made by me and Mary Salton at Khao Yai in August, 2000.

PSG No.230 Valid name: Lonchodiodes samarensis Hennemann & Conle, 2007

Country of origin: Philippines, Samar Island. The culture was established from specimens reared by Andy Maluche from eggs sent to breeders in Europe.

PSG No.231 Valid name: Abrosoma festinatum Brock & Seow-Choen, 1995

Country of origin: West Malaysia. Initial culture established from specimens collected by Wim Potvin and Stijn Bauwens at Bina Negara 10 km. from Kuala Kangsa, Perak State in July, 2001. A further collection was made by Ian and Maureen Bushell in 2003.

PSG No.232 Valid name: Mithrenes panayensis Hennemann & Conle, 2007

Country of origin: Philippines, Panay Island Initial culture was established from specimens collected by Andy Maluche in 2001, and imported into Europe and cultured by Kristien Rabaey and Rob Simoens.

PSG No.233 Valid name: Neopromachus doreyanus (Bates, 1865)

Country of origin: Papua New Guinea. I have been unable to establish the origin of this species. Originally **Lonchodes**, transferred to **Promachus** by Kirby, 1904(a), and to **Neopromachus** by Günther, 1928.

PSG No.234 Valid name: Xylica oedematosa Karsch, 1898

Country of origin: Tanzania. I believe that the species was collected by Jeroen de Heer in the Usambara area.

PSG No.235 Valid name: Brasidas samarensis Rehn & Rehn, 1938

Country of origin: Philippines, Samar Island. The initial culture was established by Kristien Rabaey and Rob Simoens from specimens collected by Andy Maluche.

PSG No.236 Valid name: Dimorphodes catenulatus

Redtenbacher, 1906 Country of origin: Papua New Guinea. The initial culture was established by Kristien Rabaey from specimens collected by Heinz van Herwaarden in 2000.

PSG No.237 Valid name: Pseudosermyle phalangiphora (Rehn, 1907)

Country of origin: Belize. The initial culture was established from specimens collected by Tony and Pat James. A further stock from Belmopan was reared by Bruno Kneubühler in 2006. Originally **Sermyle**, transferred to **Pseudosermyle** by Zompro, 2001.

PSG No.238 Valid name: Dinophasma kinabaluense Bragg, 2001

Country of origin: East Malaysia, Sabah. The initial culture was established from specimens collected by Phil Bragg and Mark Bushell in August 2001.

PSG No.239 Valid name: Olinta sp.

Country of origin: Costa Rica. The culture was established from specimens collected by Tony and Pat James.

PSG No.240 Valid name: Lamponius portoricensis Rehn & Hebard, 1938

Country of origin: Believed Puerto Rico (U.S.A.). Initial culture established from specimens believed imported by Cameron die Konigin.

PSG No.241 Valid Name: Carausius spinosus Brunner, 1907

Country of origin: West Malaysia. The culture was established from specimens collected by me and Mary Salton from a female collected at Chenderiang, Perak on 6th August, 1999 and a pair from Gunung Jerai, Kedah on 15th August, 1999.

PSG No.242 Valid name: Neohirasea hongkongensis Brock & Seow-Choen, 2000

Country of origin: Hong Kong. The initial culture was established with specimens collected by Paul Brock.

PSG No.243 Valid name: Entoria victoria Brock & Seow-Choen, 2000

Country of origin: Hong Kong. Brought into culture by Paul Brock.

PSG No.244 Valid name: Cuniculina cunicula (Westwood, 1859)

Country of origin: Sri Lanka. Brought into culture from specimens collected by Frank Hennemann at Hunas Falls. Originally **Bacillus**, transferred to **Cuniculina** by Brunner, 1907.

PSG No.245 Valid name: Pylaemenes borneensis sepilokensis (Bragg, 1998)

Country of origin: East Malaysia, Sabah. Brought into culture from specimens collected by Mark Bushell at Sepilok Forest Reserve. Originally **Datames**, transferred to **Pylaemenes** by Zompro, 2004.

PSG No.246 Valid name: Mnesilochus rusticus (Brunner, 1907)

Country of origin: East Malaysia, Sabah. Brought into culture by Mark Bushell. Originally **Prisomera**, transferred as a synonym of **Lonchodes hosei** by Günther, 1932(c), reinstated as a valid species by Bragg, 2001 and transferred to **Mnesilochus** by Hennemann & Conle, 2007.

PSG No.247 Valid name: Lonchodes harmani Bragg & Chan, 1993

Country of origin: East Malaysia, Sabah. Brought into culture by Mark Bushell.

PSG No.248 Valid name: Pylaemenes guangxiensis (Bi & Li, 1994)

Country of origin: Hong Kong. Brought into culture by Paul Brock and known to members as **Pylaemenes hongkongensis** Brock & Seow-Choen, 2000, but synonymised with **guangxiensis** by Zompro, 2004. Originally **Datames**, transferred to **Dares** by Zompro, 2004, and to **Pylaemenes** by Brock & Okada, 2005.

PSG No.249 Valid name: *Metriophasma diocles* (Westwood, 1859) Country of origin: Panama . Brought into culture by Sven Bradler. Originally **Metriotes** but this name preoccupied, new name **Metriophasma** by Uvarov, 1940.

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Grateful thanks to Ian Abercrombie, Ed Baker, Phil Bragg, Paul Brock, Ian Bushell, Mark Bushell, Ingo Fritzsche, Frank Hennemann, Judith Marshall, Kristien Rabaey, Mary Salton and Rob Simoens.

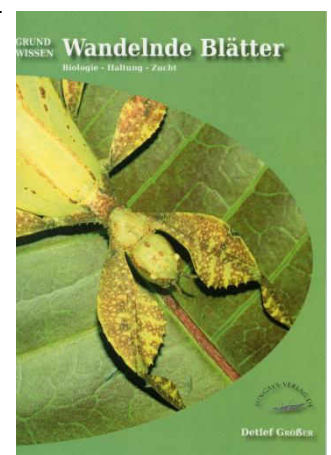
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A new leaf insect rearer's book is well worth a mention – says Paul Brock.

Grösser, D. 2013. **Grundwissen Wandelnde Blätter eine Einführung in die Biologie, Haltung & Zucht**. Sungaya-Verlag, Berlin. Price 9.90 Euros (ISBN 978-3-943592-18-4). A lavishly illustrated rearer's book on leaf insects covering 11 named species and two others reared by enthusiasts, including forms. Some historical information, anatomy and brief taxonomical notes are included. Text in German, 79 pages, paperback. It is a bargain.

Thanks Paul, I must admit the price is good, as doubtlessly are the photos. Sadly I do not speak (or read) German. But if Paul was impressed with the book, it must be good. Editor.

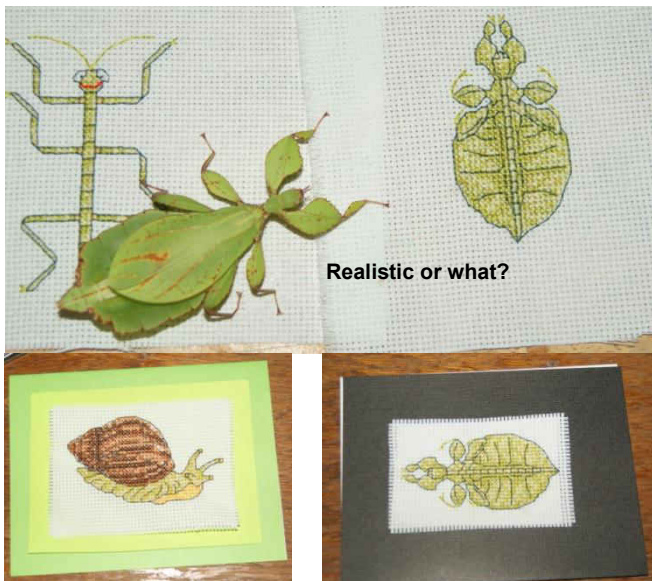


X-Bugs by Roslyn Hill

Here's something I believe you won't have seen before. I found a group of x-stitch designs featuring some of our favourite insects – it's an entomologists dream. There are several patterns of both real insects and cartoon ones.

They were originally published in the magazine "World of Cross Stitching" in one of their 'Design Libraries' entitled "Ugly Bug Ball". There's a nice variety of real patterns including a cockroach, a praying mantis, 2 types of beetle, a millipede, a giant African land snail, a caterpillar, a moth, a very cool looking spider and (I'm saving the best till last).....

a sub-adult *Phyllium*! It looks great! The materials needed - aida (the cloth) and threads (DMC) - are easily obtained from eBay. It is called counted cross stitch so it's not already printed on the aida.



I do a lot of x-stitching and I'm thrilled to have found something that combines my favourite hobbies. When I complete them, I use the finished product - they can simply be put in a frame or as a bookmark or fridge magnets or on greeting cards. Can you imagine the look on a loved ones face when you present them with a handmade card with a picture of their favourite pets on the front?

I did not create these patterns, but I am going to attempt to create some so that I can provide a wider range of phasmid species. If you have any queries, or want to buy any, please feel free to contact me on lizardlady@live.ie.

Many thanks Roslyn. We have had origami sticks, and now x-sticks, do any other readers have a hobby that takes in sticks? Please share it with us. Editor.

DAD! It's Raining Stick Insects by Richard Bradbury

I had no idea stick insects did this. On being summoned by my indignant younger son I saw BudWing nymphs of mixed *1 to *4 instar had escaped and were gathered on the 80cm diameter ceiling rose above a triple low energy bulb lamp above where my son was breakfasting.

The *Phenopharos* nymphs were evenly distributed except for a pie slice sector of about one third of the circle devoid of nymphs. This was odd. As I watched, more stood away from the ceiling waving their antennae. The ones at the edge of the insect clear circle jumped in succession, flipping and extending legs and antennae into freefall posture. Instead of plummeting, they floated quickly like a sprinkle of freckly purple snow flakes. They could steer. Almost all of them landed on the vertical back of the chair or the dark dressing gown hanging over the arm of the chair. I watched in amazement.

After a little while I saw that the spreading circle of empty ceiling was centred on sudden short jerky movements. It was a well camouflaged zebra jumping spider about 6 or 7 ish mm long. Jumping spider went outdoors hungry. So, any ideas? Chemical alarm or vibration communication?



Perhaps direct detection of the spider and its movements? Individual or group? We already know that Pings (Madagascar Pink Wing - *Sipiloidea sipylus*) can spread warning in a colony by foot tapping. This is responded to by raising antennae and becoming alert. Written on behalf of David and Robert Bradbury. (First published in Sticktalk).

BIAZA Big Bug Bonanza

by Tracy Dove

Many British zoos and aquaria will be holding invertebrate-themed 'BBBB' events from 5th to 11th August 2013 and there may be opportunities for PSG members to get involved if they wish.

Some zoos and aquaria would like to invite representatives of specialist invertebrate groups to come along during their events and to talk to their visitors, ideally bringing live specimens to show. This is a great opportunity for the PSG to recruit new members. If you would like to be included on a list of PSG members willing to offer time and expertise to a participating zoo or aquarium please contact event coordinator Tracy Dove on education@isleofwightzoo.com. She will then try to link interested PSG members with appropriate zoological institutions. Please include information about the geographic region within which you would be prepared to travel. Payment of expenses will need to be negotiated between individuals and the institution.



What is BIAZA? BIAZA is the umbrella body for zoos and aquariums in Britain and Ireland. It operates a membership scheme whereby member institutions must meet certain criteria in terms of animal welfare, conservation, education and research. Membership requires the demonstration of continuing commitment in these areas. Members are entitled to display the BIAZA logo to show that they meet or exceed those criteria. Not all zoos and aquariums are BIAZA members. More information about BIAZA can be found at www.biaza.org.uk.

What is the BIAZA Big Bug Bonanza? Helping the public to understand the importance of invertebrates and to appreciate their amazing diversity should be an integral part of conservation organisations' messaging. With this in mind, many zoos and aquariums hold events in support of National Insect Week (NIW). However, this popular event is only held on alternate years and BIAZA's Terrestrial Invertebrate Working Group (TIWG) decided to develop an invertebrate-themed event that will take place in years when there is no NIW. Thus the BIAZA Big Bug Bonanza (BBBB) was born (or should that be hatched?) and the first BIAZA Big Bug Bonanza takes place in 2013. All BIAZA collections have been invited to take part and thus draw attention to the invertebrate world in all its amazing diversity.

The aims of BBBB are:

- To raise awareness of the importance of invertebrate life in ecosystems
- To elicit positive attitudes to invertebrates by the general public
- To encourage positive behaviours towards invertebrates.



When is it? In 2013 BBBB is from 5th to 11th August although some BIAZA members may hold the event on other dates if that is more convenient.

What will be happening in BBBB? Participating BIAZA institutions will carry out invertebrate-themed activities with the public. These may be similar to and/or different from the activities that they do during National Insect Week. It is suggested that some activities involve exotic invertebrates (Big Bugs!) if available, drawing on institutions' own collections and inviting experts from specialist invertebrate groups (such as PSG). If you would like any more information please contact PSG member Tracy Dove (contact details below).

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Stick Talk is e-mailed to around 630 subscribers in over 40 countries worldwide and is a list dedicated to stick insects: queries, answers, information, etc. As a Stick Talk list member, you will receive a short e-mail every few days. The Stick Talk list is totally independent of the PSG, though many Stick Talk list members are also members of the PSG. If you want to join the list, visit the website: www.sticktalk.com and click on "Join". It's totally free of charge; and if you do not like it, just send an e-mail asking to be taken off the list. It is also moderated; so it's secure, safe from bad language, and there will be no spam.



Holiday to Colombia *by David Holland*

For Christmas 2011, I went on holiday to Cali, Colombia. Cali is the 3rd biggest city in Colombia and although a very nice city, it is not the best place in Colombia to look for Phasmids as a) it does not have much green space and b) security concerns make it impossible to look for stick insects at night in the little green space that there is. However I did have the chance to look for Phasmids on two different occasions. Once was in Cierro de Oro, near Manizales not shown on the map but about 90 miles south of Medellin, where Jason (also known as Yeisson) Gutierrez, colleagues of his, and myself went looking for Phasmids. We found the following stick insects:



Top left: *Libethra cf. rabdotula*. Middle left: *Diapheromerini* - (possibly *Libethra*). Bottom left: *Acanthoclonia ornatum*. Right: unknown.

The amazing thing about this expedition is that we were not very far from Manizales – not that small a city – with almost 500,000 people but the amount of wildlife was very impressive.

One problem I had was the quantity of insects. It was hard not to be distracted by other very interesting insects. (See below, top left). We also saw an unidentified stick insect (below, bottom left). One issue that I did have was the altitude, it was 2,500m and it was ok to walk but running was not that easy. However the climate was quite nice as it was not too hot (20-22 C).

After that I went looking for stick insects on my own in a place called Rio Claro about an hour's drive from Cali. This was much warmer as it was only 1,000m. I only had one night to look for stick insects. However I was reasonably successful finding the two stick insects shown below on the right - I am not sure what these are.



I really enjoyed looking for stick insects and **STRONGLY** recommend that anyone else does the same. I learnt that the following are very useful for when looking for stick insects in South America (and probably anywhere else): a) make sure your torch works (it didn't in Manizales). b) **PATIENCE** is essential. In Rio Claro, I looked for 90 minutes and just as I was thinking this was a waste of time, I started finding stick insects. c) if you catch any insects at high altitude make sure you keep them as cool as possible when you take them somewhere warmer. (Next time I will ask my in laws to get an ice maker and I will keep any sticks surrounded by ice). d) ideally find someone who will look after any you catch and send you eggs, rather than bring them back. e) plan to spend as long as possible in the forest; it is great fun, as you see so many interesting animals. In Rio Claro which to be honest is not a good place to look for insects (it was not as rural as we had been told), I still saw a possum, loads of mantids and other things. f) if you are at less than 800m put loads of insect repellent on. g) try to research as much as possible, particularly in places like Colombia. There is amazing habitat there but very few people including the locals know about it, so it can be very hard to find. And h) remember that high altitude can be a bit difficult and in South America you can look for stick insects at up to 4000 meters above sea level.

Finally, I would like to thank Jason Guterrez for his advice and letting me use his photos.

Questions – can you help?

David Holland has two interesting questions. Firstly, can different *Haaniella* species be kept together or will they hybridise? Secondly, are there other species of *Heteropteryx*, or just the one? The “one” obviously being *dilatata*, the Jungle Nymph. If you have any answers, please send them to the Newsletter, e-mail: newsletter@phasmid-study-group.org. I'll pass them on to David, and also put them in the Newsletter. **SEND YOUR QUESTIONS IN TOO!**

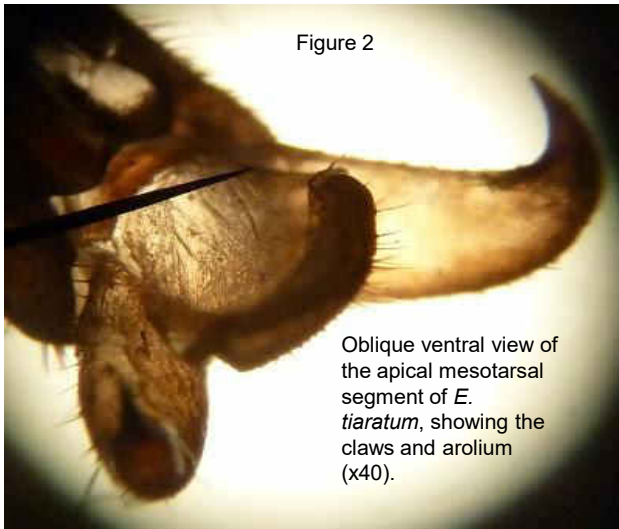
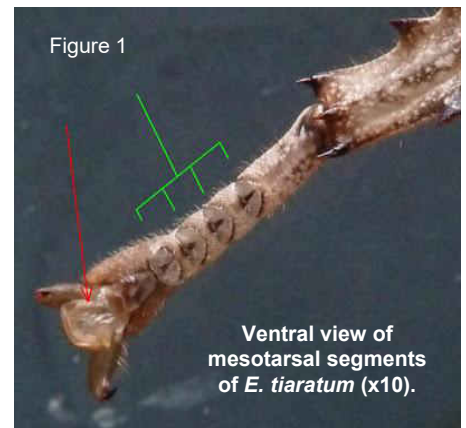


An adult pair of *Heteropteryx dilatata*

Tarsal structure and substrate adhesion in Macleay's Spectre stick-insects, *Extatosoma tiaratum* (Macleay, 1826) by David S. Hubble

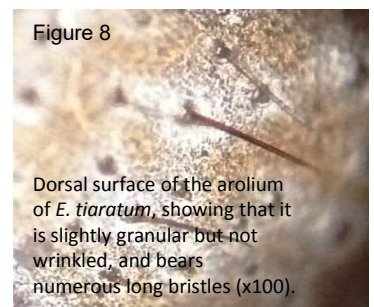
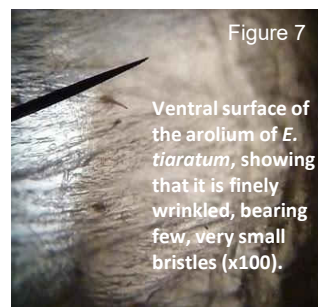
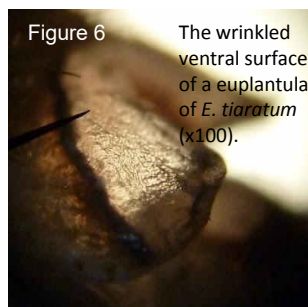
Following observations of a large, heavy adult female *E. tiaratum* clinging successfully to the near-vertical smooth sides of a vivarium, a final-moult exuvium was investigated, in particular the meso- and metatarsal segments (although similar structures are seen on the protarsi). Fig. 1 shows the tarsal segments, each bearing a pair of ventral pads ('euplantulae', indicated by green lines), the apical segment having a larger pad ('arolium', indicated by the red arrow), plus a pair of claws.

Looking more closely (Figs. 2-4), the hooked shape of the claws is clearly seen, with the tips narrowed to fine, sclerotised points, ideal for penetrating tiny crevices and irregularities in the substrate and presumably piercing it if it is soft.



The tarsi can also be seen to bear small bristles, even on the claws, and so can be assumed to have a sensory function as well, something that can be considered adaptive for a species that needs to move through a complex vegetation structure at night. However, looking at the ventral surfaces of the arolium and euplantulae, these are finely wrinkled and bear very few bristles, all small. As it is now well known that geckos' feet have a fine structure that increases surface area hugely and allows them to adhere to smooth surfaces such as glass using van der Waals interactions with the substrate (Autumn *et al.* 2002), it is possible that a similar or analogous function is present here, although the high electron-microscope magnification required to investigate nano-scale structure is not available.

Figs. 5 & 6 (the euplantulae) and 7 (the arolium) clearly show the irregularly wrinkled, sparsely bristled surfaces which contrast with the unwrinkled, bristled dorsal surface of the arolium in Fig. 8, the euplantulae having no equivalent.



These images suggest an adhesive function for the euplantulae and ventral surface of the arolium, although its precise mechanism can only be speculated upon without more detailed investigation. However, Bußhardt *et al.* (2012) did use electron microscopy to describe, compare and image the euplantulae of *Cuniculina impigra* and *Carausius morosus*. They found that "smooth pads are specialized for rather smooth substrates, whereas nubby pads are better adapted to generate stronger forces on a broader range of surfaces". As far as I am aware, no-one has done equivalent work on *E. tiaratum* but it is possible that the pads are neither smooth nor nubby (bearing small bumps), but instead increase grip via the increase of surface area through wrinkling. Investigation of whole limbs lost naturally shows that the wrinkles are present in vivo and are not artefacts of ecdysis. (E-mail: dshubble@yahoo.com, blog at <http://davehubbleecology.blogspot.com/>).

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