The Phasmid Study Group

DECEMBER 2015
NEWSLETTER No 135
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2016 Membership Renewal Due. No price increase! SEE INSIDE FOR DETAILS.

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It is to be directly understood that all views, opinions or theories, expressed in the pages of "The Newsletter" are those of the author(s) concerned. All announcements of meetings, and requests for help or information, are accepted as bona fide. Neither the Editor, nor Officers of "The Phasmid Study Group", can be held responsible for any loss, embarrassment or injury that might be sustained by reliance thereon.
Editorial

Welcome to the December PSG Newsletter. On behalf of the PSG Committee, may I wish you all season’s greetings for a very Merry Christmas and a very prosperous and Happy New Year. This Newsletter consists of a bumper 28 pages, I sincerely hope there is something here for everyone (if not I’ll eat my hat!).

PSG Winter Meeting & AGM. We have our PSG Winter Meeting and AGM on Saturday, 23rd January 2016, and it will be back in the Dorothea Bate Room. Judith has lined up another great agenda (see next page). If you are interested in joining or helping the committee in any capacity, please contact Judith (details below).

2016 PSG Membership Renewal Due. Your membership is due for renewal. Below is a form giving full details. Great news, there has been no price increase for another year.

New Book? I wish; then I’d be as famous as Paul Brock! However, I have put together a short guide on keeping critters, with lots of useful information, for sale at only £1 each. See page 11 for details, or go to website www.freddyminster.webstarts.co.uk. Copies also available at the PSG Winter Meeting and AGM.

Regards to all, Mike Smith

(PS Please contribute to the next PSG Newsletter, see page 5 for details).

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**Membership Fees Due Now for 2016**

To renew your membership of the Phasmid Study Group (or to join). Cut out the form below, or photocopy it, or download it from the PSG Website, and give/send it to Paul Brock with your membership subscription (all information held in confidence). Only: £12 UK, £14 Europe, or £15 Overseas.

Payment can be: in cash to Paul Brock at the AGM and Winter PSG Meeting in January; by PayPal (In the “To” field, enter: pauldbrock@btinternet.com), 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. Any problems contact Paul Brock by E-mail: pauldbrock@btinternet.com

**PSG Membership Benefits include:**

- PSG Meetings, copies of the PSG Newsletters, access to all areas of the PSG Website, and free stick insects.

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**PSG No (if known):________________luaул Name:________________________**

**Address:____________________________________________________________________________________________**

**Post Code:________________________Country:________________________________________________________**

**E-mail:________________________ Subscription: £______________________** (Including, optional donation)

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**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. 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 Brackendale Avenue, Derby, DE22 4AF. Tel: 01332 343477. E-mail: exhibitions@phasmid-study-group.org.

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

Merchandising: Mike Strick and Daren Moss. E-mail: merchandise@phasmid-study-group.org.

Other members: Phil Bragg and Ian Abercrombie.

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**PSG Mission Statement:** To study and culture stick insects and leaf insects (phasmids), publish results, and foster the free exchange of species, allowing members to share livestock appropriate to their experience.
PSG ANNUAL GENERAL MEETING & WINTER MEETING  
Saturday, 23rd January 2016  

THE 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) 

Comments or ideas 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, or if you want to join the committee, tell Judith: E-mail: j.marshall@nhm.ac.uk or Tel: 020 7942 5610. 

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

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

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.00am – 11.30am</td>
<td>ARRIVALS &amp; INFORMAL GATHERING: Members are encouraged to exchange ideas &amp; experiences, to view displays, and to display any species of special interest – especially those new to culture. Please have a drink, biscuit or cake from the refreshment table**. MEMBERSHIP RENEWAL – Please hand over your cash to Paul or Helen.</td>
</tr>
<tr>
<td>11.30am – 12.00 Noon</td>
<td>ANNUAL GENERAL MEETING: Reports from current committee members. Election of committee for 2016. Volunteers to join or just help the committee? Please contact Judith (details above).</td>
</tr>
<tr>
<td>12.00 Noon – 12.45pm</td>
<td>ILLUSTRATED TALK by Joachim Bresseel. The similarities of his finds in South Vietnam with known species in peninsular Malaysia.</td>
</tr>
<tr>
<td>12.45pm – 1.45pm</td>
<td>LUNCH** also viewing of displays and merchandise, and renew your membership.</td>
</tr>
<tr>
<td>1.45pm – 2.30pm</td>
<td>ILLUSTRATED TALK by Ian Abercrombie.</td>
</tr>
<tr>
<td>2.30pm – 3.00pm</td>
<td>OPEN DISCUSSION/QUESTION TIME</td>
</tr>
<tr>
<td>3.00pm - 4.00pm</td>
<td>LIVESTOCK EXCHANGE***</td>
</tr>
<tr>
<td>4.00pm – 4.30pm</td>
<td>CLOSURE OF MEETING.</td>
</tr>
</tbody>
</table>

•Back to our old Dorothea Bate meeting room. The main museum entrance is therefore now the most convenient, but the Exhibition Road entrance often has shorter queues.  

** 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 welcome to bring in your spare phasmids (you may also bring in other livestock eg mantids, cockroaches, millipedes, fruit beetles, etc) for free distribution to PSG members. You will also have the opportunity to take home livestock from the exchange table, though where numbers of livestock are limited not all members will be able to get their first choices. You are reminded to follow the rules as laid down concerning the Livestock Exchange: eg livestock should be given some foodstuff, and their container be clearly labelled with their scientific name & PSG number; the food plant they are being fed on, and your name & PSG number. Don’t forget to check before you leave that all of your livestock has been distributed and, if not, please take them back home with you. Do not overcrowd the sticks, but also please use reasonably-sized containers (not too big), and do not spread the spare stock of common species over too many different containers. During the livestock exchange please do not crowd around the table, rather sit in the rows of seats and just raise your hand if you are interested in the livestock being offered. 

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 Transport For London for any planned closures (eg for engineering work). Phone 0343 222 1234 (+44 343 222 1234 from overseas), or go to the website www.tfl.gov.uk.
Summer PSG Meeting 4th July 2015 by Mike Smith

It was one of the hottest days of the year, so it seemed a shame to spend it inside; but we had air-conditioning, and a fantastic meeting as always. I went with my pal Karl again; the trains and tubes were well-behaved so we made good time – until we met the queue for the museum which, for no obvious reason, was far longer than usual, and seemed to move at a snail’s pace. Anyway, when inside we soon met up with our old friends and were chatting shop.

I met Mieke Vermeulen, a PSG member from Tasmania, who came over for the meeting (and for a long holiday). Elena Rudolf visited from Germany, and is involved with the Red List project on Australian phasmids. However, overall, I thought the number of members was down a tad compared to usual.

The first talk was by Paul Brock, covering his recent trip looking for stick insects in New Zealand. The talk was very interesting, and not only was it illustrated with lots of amazing photos, Paul even had some livestock to show us. The second talk was by Tony James, covering his recent phasmid collecting trips. Tony had visited lots of places, with great photos of each, including Belize, Costa Rica, Panama, Jamaica, the Caribbean, Zanzibar, Mauritius, and the Seychelles.

We then had a break for lunch. I walked through the museum – had to, because the toilets at the Flett Theatre were closed for refurbishment. I saw a lovely chess set for sale, where all the characters were dinosaurs. I also went to the main hall to have possibly my last look at Dippy the Diplodocus dinosaur cast, who after 35 years of being in that spot is going to be replaced with a real skeleton of a whale (despite public protests).

After lunch, Ed Baker gave a talk on “Phasmins as Pests of Agriculture and Forestry”. I’m sure many members think that phasmids are few and far between, and certainly they are when you go looking for them in the wild. I’m also sure we all think the fears we hear about moving phasmids into and out of some countries is much exaggerated. Yet here was Ed telling us about swarms of phasmids that had done lots of damage in many places around the world. All very interesting.

We then had an auction led by Paul Brock. Ian Clark kindly donated his late father’s books for sale. The books covered stick insects (of course), and some covered other insects. I believe all were out of print, and I recognised a couple as being the backbone of my own library on the subject. Some were worth quite a bit of money, so members picked up excellent bargains. All the books sold quite easily, and very quickly. The books made a useful £75 for the PSG’s funds.

We then had the results of the Photographic Competition. This was amazing. I took in about 6 pictures to make up numbers, as in the past sometimes there were very few photos, but it was unnecessary – as we had the biggest and best turn out for a PSG photo competition ever! See the next page for the winners and their winning photographs.

Finally, we had everybody’s favourite – the Livestock Exchange. Ably run by Ian Bushell, Ian Abercrombie, and Cat Baker. Although I thought member numbers were down, the livestock table was, if anything, more full than usual. Yet somehow, all the livestock was distributed, I don’t think anyone had to take their own back home again. I was particularly pleased with my sub-adult, female Jungle Nymph. Enormous, bright green blighter, magnificent.

I now look forward to the Winter PSG Meeting and AGM on 23.1.16.
There were four winners:

Top Left: Macleay’s Spectre, by Robert Herring;

Top Right: *Extatosoma tiaratum*, by Mike Smith;

Middle Left: *Andropromachus scutatus* female, by Beth Ripper;

Middle Right: The 4 winners with their PSG T-Shirt prizes.

Bottom Left: Judith Marshall & “Judge” Allan Harman;

Bottom Right: *Achrioptera fallax*, by Stephen Lee Thomas (also on front cover and page 12).

**CONTRIBUTIONS TO THE NEXT PSG NEWSLETTER.**

*Please contribute to the next PSG Newsletter*, 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 if you want help 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. The very latest date for contributions to the next PSG Newsletter in June is 22nd May 2016 (but contributions received before then will be particularly much-appreciated. And don’t forget to try and include photographs with your articles. Please be aware, I always let contributors see and approve their formatted articles prior to publication.
The following species are currently available from Ian (contact details below):

<table>
<thead>
<tr>
<th>Key:</th>
<th>N = Nymph</th>
<th>A = Adult</th>
<th>O = Ova</th>
</tr>
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<tbody>
<tr>
<td>4</td>
<td>Sylophidae sp.</td>
<td>O</td>
<td>294</td>
</tr>
<tr>
<td>18</td>
<td>Heteropteryx dilatata</td>
<td>N</td>
<td>297</td>
</tr>
<tr>
<td>70</td>
<td>Haaniella scabra</td>
<td>AN</td>
<td>299</td>
</tr>
<tr>
<td>73</td>
<td>Phasmatodea cornucervi</td>
<td>ON</td>
<td>301</td>
</tr>
<tr>
<td>82</td>
<td>Rhaphidomerus spiniger</td>
<td>N</td>
<td>313</td>
</tr>
<tr>
<td>90</td>
<td>Rhaphidophora gorkomi</td>
<td>N</td>
<td>311</td>
</tr>
<tr>
<td>112</td>
<td>Haaniella muelleri</td>
<td>N</td>
<td>331</td>
</tr>
<tr>
<td>126</td>
<td>Haaniella dehsamii</td>
<td>N</td>
<td>336</td>
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<tr>
<td>161</td>
<td>Phasmatodea septolobus</td>
<td>N</td>
<td>337</td>
</tr>
<tr>
<td>183</td>
<td>Scrophularia hispidulum</td>
<td>ON</td>
<td>338</td>
</tr>
<tr>
<td>188</td>
<td>Oxyentes spinipennis</td>
<td>O</td>
<td>340</td>
</tr>
<tr>
<td>203</td>
<td>Trachidea biceps</td>
<td>O</td>
<td>342</td>
</tr>
<tr>
<td>208</td>
<td>Trachidea jiangfengensis</td>
<td>N</td>
<td>344</td>
</tr>
<tr>
<td>211</td>
<td>Cunucinida sp. Bangladesh 12</td>
<td>O</td>
<td>352</td>
</tr>
<tr>
<td>221</td>
<td>Scrophularia longicinclus</td>
<td>ONA</td>
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<tr>
<td>248</td>
<td>Pylaenemus guangxensis</td>
<td>N</td>
<td>355</td>
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<tr>
<td>255</td>
<td>Trachypteryx brueckeri</td>
<td>O</td>
<td>360</td>
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<tr>
<td>261</td>
<td>Canacicus alligator</td>
<td>N</td>
<td>361</td>
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<td>264</td>
<td>Pseudophana veitaminn</td>
<td>N</td>
<td>364</td>
</tr>
<tr>
<td>275</td>
<td>Lobolitistra panguana</td>
<td>N</td>
<td>371</td>
</tr>
<tr>
<td>283</td>
<td>Diaprepes venustula</td>
<td>ONA</td>
<td>377</td>
</tr>
</tbody>
</table>

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, by next day/recorded/tracked delivery [currently about £7 a parcel]. Save postage and disappointment, pre-order for delivery at the Winter Meeting.

Members' Surplus Livestock: Your surplus livestock can be sent to my address, but please get in touch before sending any 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: 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 Winter Meeting: We are looking forward to the Livestock Exchange at the Winter Meeting, but the usual pleas are made. All livestock and eggs are welcome but please ensure that:
- Each box is labelled with the species name & PSG No if it has one. If you are unsure there are plenty of experts available to advise you.
- Also include data on foodplants 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 Census:
A census form is now on our website at: http://phasmidstudygroup.org/phasmids/livestockcensus please go to it, fill it in, and submit it. The aim is to establish what species we have in culture throughout PSG. This will enable Mark and I to co-ordinate moving members’ surplus stock and fulfilling other members’ wishes.

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AVAILANB LIVESTOCK – December 2015 to January Meeting 2016 by Ian Bushell

A Crossword for You

Think: “Insects”.

By Mike Smith
Answers on Page 23.

Taken from www.puzzles-to-print.com
I was invited to show my stick insects and other critters at the Museum of Power, in Langford, near Maldon, Essex. I thought my critters might look a bit out of place at such a museum, slightly more so when I was told that they were having a classic car display that day. However, I was persuaded to go along by Les and Ros (who saw my stand at the scout’s St George’s Day, and whose foster daughter Kelly is a member of the PSG).

I had little time to prepare my animals, as the day before I was in London all day watching the rehearsal for the Trouping of the Colour, and also the Duke of Wellington Exhibition. That day was very warm and sunny. Sadly, Sunday 31st May was chilly, rainy, and windy. However, I arrived at the museum in good time and found a table waiting for me under a gazebo. Very quickly I had my stand set up.

The museum was excellent, yet I’ve lived in Essex for over 40 years and never knew it was there. They of course had lots of heavy machinery on show, but also a working railway, a model village, gardens, and a river with lots of fish in. On this particular day there were lots of classic cars too, I love them, plus many stalls with all sorts of wares, the idea being to diversify to encourage more punters in to see the lovely museum.

I was well looked after with lots of freebies: a bacon roll, drinks, cakes, a ride on the train, and a tour of the museum. Ros and Les were busy elsewhere running the show much of the time, but they kept an eye on me and lent me their son, Sonny-Ray, who proved to be an excellent assistant and helped look after my stall all day.

I was the only stand with live animals, and despite the weather there were lots of punters who came to see it. I had stick insects, cockroaches, millipedes, fruit beetles, centipedes, tarantulas and a corn snake. Adults and children were fascinated by the critters, asking lots of questions, holding them, taking photos, and I handed out some PSG membership forms. I think everyone enjoyed the day, I know I did. This museum is well worth a day out. Ref: http://www.museumofpower.org.uk.
Phasmid is the amazing true story of the Lord Howe Island Stick Insect, *Dryococelus australis*, believed to be extinct for nearly 80 years. With a captivating narrative by Rohan Cleave, invertebrate zookeeper at Melbourne Zoo, and stunning watercolour illustrations by renowned artist Coral Tulloch, it is ideal for parents and young readers (aged 4-7). It has 32 pages, is 220 x 285mm, and costs AUS34 (approx. £15 or €21) inc. P&P. To purchase a copy, see https://shop.zoo.org.au/products/book-phasmid-saving-lord-howe-island-stick-insect or http://www.publish.csiro.au/nid/20/pid/7226.htm.

New Children’s Book, Lord Howe Island Stick Insect  by Mike Smith

Beware of the German Wasp by Mike Smith

Sadly, the German Wasp (*Vespula germanica*) is known to attack stick insects. It originated in Europe, Asia, and North Africa, but can now be found in sections of almost every continent. It has established populations in North America, South America, South Africa, Australia and New Zealand. It is very similar to the common wasp (*V. vulgaris*), but usually has three tiny black dots between the eyes (see photos on right).

The phasmid being attacked in the photos below has been identified by Paul Brock as *Clitarchus hookeri*, and Paul showed a video clip of this at the last PSG meeting. The photos and videos were taken by Jeremy Painting, in the Forest Ridge area of the Waitakere Ranges, West Auckland, in New Zealand.

Jeremy comments that there was an intensive wasp poisoning last year. Presumably many wasps escaped. He says he removed the stick insect from the wasps and relocated it on a tree, however it did not seem very well so he imagined it had been stung too.

Wasp photos on right: Wikipedia.
PSG MERCHANDISE by Mike Strick

Rulers feature a life-size image of *Phaenopharos khaoyaiensis* and a list of the body sizes of some of the smallest and largest phasmid species; they are £2 for members, £2.50 for non-members. Badges are 30p each to all - more species will be coming soon. T-shirts are £8.50 to members, £10 to non-members, available in dark green, chocolate brown, and also black. This merchandise will be available at PSG meetings and on the PSG stall at events.

Dematobactron fuscipennis (Redtenbacher, 1908)

Gets friendly with Greg Dickens.

Greg says he found this large stick insect (approx. 30cm long) in the jungle in Nigeria. It dropped on his hammock from above. Paul Brock said that there is very little known about the species - this is a female, the male is as yet unknown, but would be much shorter and more slender with longer wings. It can be found in West-Central Tropical Africa including Gabon and Nigeria.

BTS Exhibition, 11am, Sunday, 22
nd May 2016.
The Warwickshire Exhibition Centre,
The Fosse, Fosse Way, Nr Leamington Spar, Warwickshire, CV31 1XN.
Ref: www.exhibition.thebts.co.uk

SOUTH EAST ARACHNID SHOW

Brought to you by the Invicta Arachnid Club

Hosted at the Ashford International Hotel
Simone Weil Avenue, Ashford, Kent TN24 8UX
Sunday 31st January 2016
11am - 5pm

Ref: www.invicta-arachnid-club.co.uk.
The ever-popular livestock table at PSG meetings.

Photo: Jack Hasenpusch.

Photos by Mark Jackson.

Left: Achrioptera fallax female final moult
Middle: Lonchodes philippinicus female moulting
Top right: Clonopsis gallica in wild, Bordeaux, France
Bottom right: Phyllium giganteum female.

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Photos by David Veljacic

Top left: Dares philippinensis
Bottom left: Extatosoma tiaratum
Middle: Peruphasma schultei nymph
Top right: Peruphasma schultei face
Bottom right: Extatosoma tiaratum.

READ MORE ON NEXT PAGE.
Notes on My Photos (on previous page) by David Veljacic

The Extatosoma in the pics I've sent are from a culture I've had for decades, over the years I've blended in eggs I've received from various people to keep the blood line strong. I get a good variety of colours in my culture, from orangey, to brown, cream to tan, yellows and greens. One of my favourite species to display. Achrioptera fallax are the most rewarding species I've cultured to date. I took two tries before getting them right. On the first try I didn't have all of the info I needed and only 5, all male, reached maturity. It's important to be sure none of the foodplants touch the sides, top or floor of the cage. A fan on a timer set to run for 15 minutes ever hour or so really helps with starting them feeding. They are the thirstiest of all the phasms I've kept, particularly the males. I hang a shallow bowl full of soaked cotton batten mid level on two walls of the adult cage. I also mist them twice or more a day depending on how hot it is. For the Dares philippinensis - I have a strange proclivity for small brown things that hide under stuff so these really knock my socks off. They are the only species that I do not remove the eggs to incubate separately; I've just seen my first produced "in house" nymph on 10th July 2015.

‘Guide to Critters’ Booklet for £1 by Mike Smith

I have written a down-to-earth guide, summarising information on, and the care needs of, stick (and leaf) insects, cockroaches, millipedes, fruit beetles, corn snakes, centipedes, scorpions, and tarantulas. It is mainly intended for the children and novices who attend my stall at shows, to answer the many questions they ask me about my critters and how I care for them. But it could be useful to anyone. I also hope to raise a few pennies for the local scouts' coffers. It has colour photographs and is printed as a booklet (ie it has no hard cover). It is available in A5 and A4 sizes. A5 = 148 by 210mm (5.8 by 8.3in); A4 = 210 by 297mm (8.3 by 11.7in).

The guide is filled with lots of fascinating information for anyone interested in these critters, and also lots of information on how to care for the critters in case you are considering keeping them. All in a compact booklet of 28 pages.

I will take some copies to the January PSG Meeting where they will be on sale for only £1 per guide for either A5 or A4 size. (A4 is recommended for people with eyesight problems). Please note, 50% of that is going to the 1st Heybridge Scout Group - charity 1040341.

Limited numbers, so please contact me if you want me to save you a copy. Or I can send you a copy by post on receipt of a Cheque, or on payment by PayPal using my e-mail address: mikelsmith@tinyworld.co.uk.

PRICES BY NORMAL POST:-
A5 size: £1.70 UK (£2.70 Europe, £3.40 Overseas) inc p&p.
A4 size: £1.90 UK (£3.60 Europe, £4.50 Overseas) inc p&p.


This species was reared from specimens collected by Phil Bragg and Paul Jennings in December 2006 near Keningau, Sabah. In December 2014 Thies Büscher, a member of 'Phasma', identified it as Dares murudensis Bragg, 1998. D. murudensis was described from a female holotype held in the Naturalis Biodiversity Center, Leiden, Netherlands. Male currently undescribed. This species is the smallest member of the genus, the holotype being 2.5 cm long. A female from culture was measured as 3.0 cm. (Büscher 2014).

References:
Büscher, T., 2014: Identification van PSG 332 (Dares sp., Crocker Range), Phasma Werkgroep No. 95, December, 2014.

Photos:
Top: . Jelle Strybosch
Others: Kristien Rabaey
http://www.phasma.eu/fotos_soortenlijst/Dares%20sp.%20Crocker%20Range/
This was my second attempt at rearing this species; the first ended in failure when the adults died before mating. At the 2014 AES Exhibition I bought about 200 ova from David Hill. These were 5mm long x 2mm high x 1mm wide, I placed them on a mixture of coir fibre and perlite, separated into 7 individual mini propagators so I could vary the hatching conditions from dry to damp. The temperature stayed more or less at 70°F (21°C), and the humidity variations between the 7 propagators gave the eggs the best chances of hatching. I think this enabled me to get an 80% hatch rate. After approximately one and a half months, the eggs began to hatch.

Newly hatched nymphs of Achrioptera fallax are grey, about 12mm (0.47in) in length and have rather stumpy legs. Their antennae are short. I placed the nymphs into a clear plastic container, and I replaced the centre of the lid with mesh. I fed the nymphs mainly Bramble, but with some evergreen Oak as a second option, and I cut the edges of the leaves so the softer parts of the leaves were available to the nymphs.

Like the ova, I kept the nymphs at around 70°F, and lightly sprayed the leaves every few days. There was quite a high mortality rate, mainly during the first instar. Eventually I obtained about 20 or more strong nymphs which I kept in the same container until their fifth instar. I then moved them into a tall wooden cage with a mesh section at the top, to continue development (picture below).

These large nymphs were mainly beige with brown on the developing wing buds. Up to the sub-adult stage, the nymphs sometimes tucked their second pair of thoracic legs up close to their bodies. I continued to spray the foodplant a few days per week to provide drinking water. It was recommend by Curtis Lakin to provide light for the insects. I did this during the day using energy saving light bulbs. I now had about fourteen large nymphs. The first to moult were the males; one every two weeks or so. The overall body colour was olive green. This gradually changed to an incredible turquoise-blue, with yellow-orange parts under the femurs. The small fore wings and the edges of the hind wings turned creamy white, whilst the membranous sections became bright red. Females remained an overall beige whilst areas between the segments and joints turned bright blue.

Both sexes have spines on the thorax and lilac coloured antennae. The first female died shortly after mouling. It became emaciated as though afflicted by some illness. The second one remained this way for several weeks, eventually dying. Whilst this insect was still alive, a third female moulted and after consuming its old cuticle, began to ‘plump up’ and look almost unrecognisable! Whist the females were maturing I kept the males in a separate cage which also had some ventilation. After a week or so I introduced a male and shortly afterwards, mating occurred with the aforementioned healthy female; a Spermatophore being produced as a result.

After a few weeks, the female started to lay eggs; about two or three a day as far as I can tell. They use the well developed Operculum at the end of the abdomen to drop or throw them. Both males and females display their beautiful wings when they feel threatened, and rub their hind and fore wings to produce a rasping sound. The males also try to pinch.

To conclude: this species is well worth the effort, even though there may be losses along the way. From ovum to adult takes a year. I hope to be able to provide eggs and nymphs later for the PSG in the hopes that others might have better results and stronger cultures. (See also photo on front cover and on page 5).
At a Distance of Forty-two Days, 1 August–25 October 2015
by Jenny Gillam & Eugene Hansen, with Adrian McCleland

At a distance of forty-two days, by Wellington based artists Jenny Gillam and Eugene Hansen, in collaboration with Adrian McCleland, is the result of Gillam’s long-term research project with scientists from the Institute of Natural Resources at Massey University. Serving as both art and genomic science, this in-depth project involves an investigation into a rogue colony of female native New Zealand stick insects that became established during the early twentieth century in the Tresco Abbey Garden, part of the Isles of Scilly situated off the southern coast of the UK.

In 2014 Gillam and Hansen travelled to the Isles with entomologists Steve Trewick and Mary Morgan-Richards to observe the insects. The insects are of great scientific interest because of the length of time the all-female colony has been reproducing without male involvement. Subsequently live specimens of Clitarchus hookeri from Tresco were taken to a physical containment facility at Palmerston North and cross-bred with New Zealand insects for the purposes of further scientific and artistic research. Trewick and Morgan-Richards have been studying what evolutionary difference this lack of male participation may or may not have caused in the species. They are also currently examining if the Scilly Isles insects will successfully breed with males from New Zealand populations.

The objects and elements in the exhibition (at the Te Tuhi public art gallery, Auckland) draw together various ideas and histories regarding scientific classification and the manipulation of nature, as well as different technological innovations that have influenced the world. In the Te Tuhi foyer a vivarium contains stick insects of the same species found in the Isles of Scilly. The Latin word vivarium translates as ‘place of life’ and is a container traditionally used by scientists to observe flora and fauna. A replica of the Portacom building where the insects are currently kept in Palmerston North, under quarantine restrictions and artificial lighting, together with a cardboard box of quarantine clothing, can be seen in the gallery. Further gestures to cultivation, containment and control are indicated by ultraviolet grow lamps and examples of irrigation.

The human control and classification of nature is further explored in a wall work which lists the scientific names of plants that were transported from New Zealand in 1908 destined for Tresco Abbey Garden. The list is based on a handwritten ledger made by the garden’s founder Major Dorrien Smith, and is a record of the New Zealand plants that had been established in the gardens three years later. It is likely that the stick insects originally travelled to the Abbey Gardens with this shipment of plants but were not discovered until much later. The blue lines and text relate to some of Smith’s original handwritten notations, which appear in the margins of this ledger.

Other forms of containment, transportation and classification include the wooden boxes called Wardian cases, which were a major technological innovation allowing plants to be transported around the world. Designed by Dr Nathaniel Bagshaw Ward in the early nineteenth century when he was attempting to protect plant specimens from London’s industrial air pollution, the Wardian case also enabled living plants to be effectively carried across the world because of a contained self-watering environment. The boxes were also created to be flat-packed, making them efficient objects to ship and then assemble to contain the returning plants. The original plants collected for the Tresco Abbey Garden were transported in these cases. Newspaper records show that it took forty-two days for Dorrien Smith to travel with the plants via steamship from New Zealand to the Isles of Scilly. As water transportation accelerated in the mid-twentieth century cargo nets were used to load larger specimens.

At a distance of forty-two days is a true art and science partnership contributing new knowledge to both fields of enquiry. Here questions of evolutionary adaption meet the cultural significance of repatriation and the lingering historic implications of early globalisation.

For further information about the artists please visit: www.jennygillam.com
Why A New Website?

In January 2012, I took over as PSG webmaster with many exciting plans to modernise and expand the PSG website. Unfortunately, bringing those plans to fruition wasn’t as easy as I hoped and after 3 years of managing only to get to grips with the basics of the existing website, I had pretty much given up hope of ever making them happen.

I explained to Judith my struggles with the website and suggested that maybe I resign. Judith encouraged me instead to ask PSG members for help and so, at the meeting in January this year – with absolutely no expectations of any one volunteering – I asked the audience if anyone would be willing/able to help me with the PSG website. Much to my surprise, Ade Dunn and Janet Mulready volunteered to help me – I was over the moon! To top it off, it turned out that Ade was not only pretty good with websites but he also had quite a bit of time available, which was exactly what we needed!

Ade, Janet, Tony James and I (with some help from Derek TP and Mike Strick) set about planning what we wanted to achieve with the website. Almost as quickly, we realised that these goals couldn’t be possible with the architecture and set-up of the current website, which meant, if we wanted to make these plans a reality, we had to build a new website from scratch – a huge task! Ade assured me he had plenty of time to offer and so we decided to do it. Eight months and a lot of blood, sweat and tears later, we are very excited to reveal... the new PSG website!!!

What Is New?

We wanted to make the website more appealing to the general public (since this is where the majority of members – both present and future – will come from), make the group more attractive to children (see page 16), yet retain access to in-depth articles and taxonomical information to also appeal to phasmid experts. Here’s what the new site offers:

- Care sheets (image top-right) and species information pages for all species*
- Culture List with species photos, previous species names, search filters and the list can now be sorted by any column (image on next page)
- PSG Newsletters and Phasmid Studies are now much easier to access and download (image above far-left).
- A “Junior PSG” section has been introduced, which has phasmid-themed games and fun things to do (see images above). We’re also asking all under-16 yr old PSG members to submit an article about why they like stick and leaf insects – see...
Ade Dunn’s article about this (page 16) – if you submit a “Junior PSG” article, you could win a prize!

- A “Meet Our Experts” page (left), where we have showcased experts in the PSG and you can read about what got them interested in phasmids!
- Online membership sign-up and renewal (via PayPal) with automated membership renewal reminders
- Vastly simplified menu and navigation systems to allow you to find the information you want
- New photo-tagging system and simplified image categories to help you find photos more easily
- Ability to submit species care information for inclusion in the new species care sheets
- More online articles and book reviews
- Online PSG census page
- Greatly simplified admin structure, meaning it is a lot faster and easier for the web team to add new documents or make any changes
- Membership “taster” pages to encourage non-members to join up
- More photos used throughout the website
- Clean, modern look and new web address: http://phasmidstudygroup.org

How Do I Login?
Your website username will be the same one you used on the old website, but you will receive a temporary password, which you can change to a password of your choice. We will send you an email mid-December with your login details and a link to change your password.

Thank You’s
We hope you like the new website and all that it offers. It would not have been possible without a lot of help from some fabulous people, so I would like to say a huge thank you to: Ade Dunn, Gavin Ridley, Janet Mulready, Mark Jackson, Ciara Walsh, Tony James, Derek Tylden-Pattenson, Korina Abbott, Ian Bushell, Mike Strick, Jenny Eldershaw, Judith Marshall, Paul Brock and everyone from our PSG Facebook page who filled out a species care information questionnaire! I’m sure there are more people I may have forgotten to mention – thank you to all of you!

* We are still working to obtain care information for some species and would love you to submit care info for species where this is missing. Fill out a questionnaire here: http://phasmidstudygroup.org/phasmids/species-care/submit-care-info
Stick Talk & Labelling by Mike Smith

As is said in every Newsletter, “Stick Talk” is e-mailed to around 650 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.

Sadly, in these days of Twitter, Facebook, and various forums, the e-mail side of Stick Talk is not used anywhere near as much as in the early days. – maybe three per week. Strangely, when there were less than 100 members, a few years ago, there were lots of entries every day, yet now that there are well over 600 members there are barely enough entries to support a weekly Stick Talk e-mail. However, what e-mails there are, are usually interesting, so it is still rewarding to be a Stick Talk member. The new Request/Offer section is particularly very popular. In addition to the e-mails, Stick Talk has an excellent website www.sticktalk.com (see home page above) Some of it overlaps or duplicates things on the PSG Website, but in particular there are some excellent phasmid pictures on there, all expertly indexed. Also, have you noticed at PSG meetings how many of the boxes of phasmids on the Livestock Exchange table have similar, professional-looking labels? These are done on the Stick Talk website. If you click on the Label icon on the left of the home screen, you get the form shown below, where you can enter whatever details you want to appear on the label; you can Decide the size and quantity of labels, and then can print them off. You do not have to be a Stick Talk member.

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New PSG Website Competition for Youngsters by Adrian Dunn

As you will have heard or read by now, the PSG website team have been beavering away for quite some time now, creating a brand new, easy to use and feature-filled website for all of our members. We plan for it to be full of useful information, guides and articles for ALL of our members. (See pages 14 and 15).

We appreciate, however, that younger members are very important for the future of the PSG also, and that quite often us older folks just don’t write things in a way that’s interesting and fun to read to younger folks. So, rather than try to write things in a “LJouyL YaşL” ourselves, eLs we’re asking for young members to come forward and write some articles for the site. They don’t have to be in perfect English or scientific (we can correct any errors), all we ask is that they are written from your own perspective, from your own experiences about this hobby that we all love! If you have any photos or art you’d like to share on the site, we’d love to see this too. Oh and just to sweeten the deal, the PSG committee have even agreed to give away a prize for the best three entries! Send your entries to webmaster@phasmid-study-group.org. We’ll announce winners and give prizes at the 2016 summer PSG Meeting.

Remember, this is your hobby too folkies, so come on, get tapping away on that keyboard and see what you can come up with! We’re sure it’ll be awesome, and it will help to grow our special “Junior PSG” section of the website, which we want to fill with articles, pics and games for our younger members to enjoy!
The Stick Insect “Tip Exchange” by Mike Smith

I have been asked how I mount and display dead insects, and what success I’ve had with Zensect for killing the Museum Beetle. Sadly I am no expert, sorry if I gave that impression, but I can tell you what I do. Scientists, please read no more, you will have a heart attack; yes I am quite a philistine so far as keeping dried critters is concerned. Well, for a start, I do not kill specimens for mounting (though this can be done with a “killing jar”, eg a jam jar containing cotton wool soaked in nail polish remover or Ethel Acetate – but don’t breathe in the fumes!). When one of my critters dies, I consider whether it will look good mounted. I find exotic-looking critters like Eurycantha stick insects, scorpions, and tarantulas (or tarantula skins) are good for this, as I tend to make my specimen containers a bit glitzy for taking to shows with me, rather than a scientific object. If the dead critter is still pliable (ie if I catch it before it dries naturally), then I will place it into a lifelike pose ready to dry before being mounted. (I have been told that non-pliable specimens can be made pliable if subjected to high humidity, but I have tried this with little success). Then I used to place the dead critter in my greenhouse, which got very hot in the sun, to dry it out. I no longer have a greenhouse, so I now just put the dead critters on a heat mat to dry.

Once dried, I use normal sewing kit pins to pin them into the specimen container. If the pin will not penetrate the dried specimen with gentle pressure (especially so with thick-skinned Eurycanthas), then I drill a very tiny hole through it for the pin to go through. Proper mounting pins can be bought, but I’ve always found normal pins quite okay. Ideally, the mounted critters should be labelled, but I leave mine unlabelled, so there is more to talk about with the punters.

I have supplemented my own dried critter collection by buying dried butterflies and beetles at shows. These can be very expensive, but I choose showy, exotic-looking species. I find the punters at shows are often initially a bit concerned with seeing live critters on my stand, so I introduce them to the specimen container. I can then explain a bit about each mounted critter, which are quite diverse and fascinating, and suddenly the punters are so interested they want to see, and sometimes want to hold, a living version.

Now onto Zensect. My problem was that my dried specimens in one container were being eaten by the Museum Beetle (Anthrenus verbasci). In my case, the blighters had eaten virtually everything (see photo below), so it was a fairly obvious infestation. More subtle, tell-tale signs are when a small spattering of brown dust shows up under and around the dried specimens – and this was beginning to happen in my other specimen container. I had put Naphthalene moth balls in this specimen container, and it still stank of them, but I assume its efficacy had worn off, or the Museum Beetle was immune to them. I then tried the Zensect moth balls, which contain Transfluthrin and I found that in a small area around the balls there were dead beetles and grubs of the Museum Beetle – but, a few inches away from the Zensect balls, the blighters were still crawling around and munching through my dried insect collection. I was getting desperate, so I decided to spray the inside of the specimen container, including all my dried collection, with a household insecticide spray, which contained Tetramethrin. It worked a treat, those Museum Beetles and grubs were dying before my very eyes. I was however very concerned that the dried specimens, especially the butterflies’ wings, looked really dull and wet with the insecticide spray on them, and I thought they might be irretrievably damaged. But fortunately it was not permanent as, when it dried, they looked as good as new. I then removed all the dead Museum Beetles and grubs carefully with some tweezers, blew away any dust, added some more Zensect balls, closed the specimen container, and sealed it with tape (see photo above). I now also frequently check it for any telltale signs of new attacks.

I am advised by Judith that the Natural History Museum, London, firstly freeze their specimen trays for at least 3 days, and then the tray is sealed airtight. Sadly, I don’t think my wife would appreciate me putting dead insects in our home freezer, I’m not even allowed to put frozen mice in there (used to feed my corn snake). Judith also suggested putting Vapona, cut into small pieces, into the specimen container – but pointed out that it is extremely dangerous to people. At the moment I’m happy with the insect spray and Zensect, to date there have been no more attacks by the Museum Beetle in my remaining container. Also, I’m now starting to make up a new container.

As I said at the start, I am not an expert with these specimen trays, I’ve just built up a bit of experience as I went along. Maybe a PSG member, who is an expert, could explain the right way to do things.

Please send in your tips or questions to share with other members. Eg how do you find phasmid food in the winter, how do you maintain heat and humidity in the cages, do you have an easy way to collect eggs, how do you find escapees, how do you photograph nymphs?
The AES Annual Exhibition and Trade Fair is the entomology show to attend. The show takes place at Kempton Park Race Course near London and exhibitors and traders pack two very large floors of exhibition space. It is open to members of the public: £4 for adults and £1 for Children (under 16). I’d not been to any critter show for years, but felt it time to renew some of my aging pets. This show is the bee’s knees of shows, is only about 2 hours of loud 60’s music (in my car) away from me, and the PSG have a stand there each year. If you only go to one show, this is the one.

I arrived 30 minutes before it opened, yet the queue was already incredibly lengthy. However, it opened bang on time at 11am and the queue soon went down, amazingly fitting quite easily into the two large exhibition floors. I had a wish list, but also wanted the best deals, so I quickly did a reconnoiter of all the stands (not easy with the punters crowding around them), and pinpointed where the best bargains were.

There was something there for everyone, both livestock and merchandise, but I thought that mainly there were tarantulas and stick insects, and I found that the stick insects were really very nice but also very expensive – what a great advert for joining the PSG and/or Stick Talk to get them for free.

Anyway, I first bought a large heat mat, and rolled it up into my bag. Next I needed some tarantulas (mine were over 15 years old so I wanted some new blood). As usual I sought small spiderlings, being the best value, and I bought a few more than I needed in case of any fatalities. I bought numerous species including the Curly Haired that was on my list, each for only £1. I’ve not seen that price in any pet shop. I also wanted a Red Knee, but these were very expensive on all the stands, however I did buy a White Knee spiderling for £3.50.

Next I wanted a centipede. I found a lovely little critter for £8 but was concerned that the lid was not very tight! Anyway, I managed to seal it with some Sellotape – as I did NOT want a centipede loose in my bag! Then on to the scorpions, I wanted a Pandinus imperator but the few I saw were on sale for a fortune (I was told it was because you could no longer import them into the country). So I picked up a similar, but much cheaper Pandinus cavimanus.

Next I wanted some pinned butterflies to cheer up my dead critter box. I found some beauties at only £1 each, and bought 5. I bought some crickets – 3 boxes for £6, pretty good value eh? I also bought three giant millipedes. Finally, I went to the PSG stall upstairs. It was much quieter upstairs, with fewer stalls. The PSG stall was in the middle, manned by some PSG stalwarts, and there were lots of stick insects available brought in by PSG members. I picked up some Peruphasma schultei nymphs that Derek had brought in for me, and was also given some adults. I saw the PSG badges and rulers on the stall, so bought a ruler which looked very useful.

I am extremely pleased with my booty from the show, but disappointed that I did not get the names of all the species I picked up. I must bring a pen with me next time! To be a bit pedantic, and this is common at other shows I’ve been to, the stall holders were a mine of useful information on all of their critters if you ask them any questions, and they labelled their wares well on their stalls. However, very few of the containers you take away had the species name on them, no stalls that I saw had any care sheets or instructions on show, let alone offered, and I was given no warning that the tarantulas, scorpion, and centipede that I bought could give a nasty “bite/sting”. I’ll admit that most punters seemed to be seasoned exotic pet keepers, but it is a bit worrying in the case of any novices. Perhaps I should have taken some of my books to sell...(see page 11).
Introduction: Since my last report (Lee 2012) there has been a substantial increase in the number of online phasmid records, including several from Ireland. The total number of phasmid records up to 30th June 2015 stands at 2,207 (a 61% increase on 2012) in 274 separate locations with 66 of them new locations. Online reporting via the PSG website has made it easy for those finding a stick insect to get more information, as well as making a contribution to the national database. The ubiquity of mobile phones with high resolution cameras has meant that some two thirds of reports now have a clear image, readily enabling determination of the species.

There were several overseas phasmid reports from those just wanting to know what they had found. With Paul Brock’s breadth of knowledge of our world phasmid fauna, he was able to confirm Bacillus atticus from Greece, Paraphanocles keratoskeleton from Barbados (one of the few phasmids to feature on a stamp) and an escaped Eurycantha calcarata found in Germany.

Some reports were clear mis-identifications, particularly of the stick-like caterpillars of various species of Thorn Moths. There have been five sightings which have turned out to be Water Stick-insects Ranatra linearis. They also have a long stick-like body but are unrelated to phasmids. Although they spend most of their time under water, they will fly in warm weather to search for new breeding grounds. Four sightings were in spring (April to June), with one in September.

Predation of our naturalised phasmids: I have received some interesting images showing examples of predation. Spiders are happy to take advantage of anything that blunders into their webs, although larger phasmids would easily break free. In my own garden I photographed a Daddy Long-legs Spider Pholcus phalangioides consuming a smaller nymph. The late Claude Rivers told me that this spider was always a problem when he was trying to breed our naturalised phasmids in his garden shed in Kent during the 1950s.

Perhaps the most unusual example of spider predation came from Ryan Pentecost in Falmouth, when he got a fine image of the introduced species, the Noble False Widow Spider Steatoda nobilis consuming an adult Acanthoxyla inermis. This uncommon species has recently been expanding its range in southern England and has been the subject of many alarmist tabloid headlines about ‘Killer’ spiders roaming our countryside. Although females are capable of giving a nasty bite if mishandled, they are not aggressive and confirmed incidences of bites are rare (Hogenboom 2013).

Birds have been known to decimate populations of small nymphs once they get their eye in. Predation of adult stick insects is much less common, but Dick Filby took an amazing picture of a Red-Backed Shrike (virtually extinct as a UK breeding bird, and a rare passage migrant) that had caught a Prickly Stick-insect on Bryher in October 2013. This is a rare enough insect, but a photograph of one being devoured by such a rare bird is definitely a ‘once in a lifetime’ shot.

Walls full of sticks: Most reports are of a single stick insect, occasionally two or three, but two images stand out with impressive numbers. The first was taken in February 2013 showing the wall behind a Hypericum bush in a garden at Helston, Cornwall. This picture was taken during one of the coldest Cornish winters on record, and only a few days after a prolonged period of sub-zero
temperatures. To find a single stick insect living through such arctic conditions would be rare enough, but here were 31 adults. They were between the bush and the house wall, and no doubt heat escaping from inside the house had created a micro-climate enabling their survival. Interestingly, there were a much higher number of brown ones (approximately 50:50) than would be typically recorded.

The First UK Phasmid Record: The first article on a phasmid found outdoors in the UK was of a specimen of *Acanthoxyla geisovii* on a climbing rose in the Paignton garden of a Mrs. M. F. Arbuthnot. The article was written by W. F. Kirby from the Natural History Museum and appeared in the ‘Notes and Queries’ section of edition no. 827 of the monthly journal *The Zoologist* (Series IV, Volume 14 pp197-8). This was published on May 14th 1910 and included a black-edged frontispiece in memory of King Edward VII who died on 7th May, concluding "Zoologists can only echo the universal grief for a great national loss", which may have reflected the national mood, if somewhat obsequious for modern tastes.

Kirby did not say when he received the insect, merely stating it was ‘a short time ago’. Such brief ‘Notes and Queries’ items can often be used by editors as fillers to make up the 40 pages each month, so could have been held over rather than published immediately. However, checking Notes and Queries items for other months that year shows they often refer to sightings a few weeks prior to publication, so it is most likely that Kirby received the phasmid in early spring 1910, and it had over-wintered in the mild climate of Paignton.

The address given in the article was merely ‘Fairlawn, Paignton’. This may have been sufficient for an Edwardian postman, but when Claude Rivers visited Paignton in August 1952 to see if phasmids still survived (as he suspected these New Zealand species would), he did not know where to start. On leaving the station, he headed north and found some Edwardian properties in Southfield Road. He was struck by an unusual tree in a garden there and explained his quest to the garden owner. He knew nothing of a Mrs Arbuthnot but was able to take Claude Rivers straight to some stick insects on a Japanese cedar tree in the shadow of that unusual tree. A neighbour vaguely recalled a Mrs Arbuthnot used to live in an adjacent house, so Rivers concluded that he had rediscovered the original location in the 1910 report (Rivers 1953).

The report of the first UK Phasmid by W. F. Kirby in 1910

In my 2006 report (Lee 2006), I referred to a letter received by Claude Rivers in 1953 from a Mrs Doel, who, as a 10 year old girl, returned from New Zealand in 1903 with her parents, together with a large box of shrubs embedded in earth on the ship’s deck. They lived temporarily in Paignton and although she was only in Paignton for a very short while, she remembered her teacher was a Miss Arbuthnot who lived in Dartmouth Road. The plants were left behind when the family moved to London. To remember her teacher 50 years later and after such a short acquaintance meant she made quite an impression on this young girl. To know where she...
lived surely meant she had visited her, perhaps with her parents. The 1901 census website confirmed this was Miss Mary Arbuthnot, a school headmistress living in Elmsleigh Terrace off Dartmouth Road. Her teacher may well have been the recipient of those strange New Zealand shrubs when the family moved to London. This seemed the most likely candidate for the M F Arbuthnot who sent the phasmid to W F Kirby.

With the aid of the 1911 census website, it can be confirmed that the Mrs M F Arbuthnot referred to by Kirby was actually 61 year old Miss Margaret France Arbuthnott, who lived with her mother and sisters in Fairlawn, Paignton. The enumerator’s address label (her mother pointedly inserting ‘The Honourable’ between the words Mrs and Arbuthnott) confirms Fairlawn was indeed in Southfield Road where Claude Rivers happened upon those stick insects. Margaret died in 1917, 4 years after her mother. An Arbuthnott genealogy website confirms that Mary Arbuthnot and Margaret Arbuthnott were distantly related. Living in the same town they would undoubtedly have socialised together. The mere fact that Margaret reported her phasmid find is sufficient evidence that she had an interest in nature, and perhaps Mary shared some of those New Zealand plants with her. This is a sure way to start a colony of these parthenogenetic insects.

An increasing range: Both Acanthoxyla species have shown a significant post 2000 increase in their range, particularly A. inermis in Cornwall which has been dramatic. I am satisfied this is a genuine increase and not merely the result of the ease with which sightings can now be reported online. In almost all cases, the finder has confirmed never having seen them before, with just the occasional mention of previous sightings, invariably in the prior year or so.

It has been suggested to me, by several media sources looking for a story, that perhaps this is another example of the effects of global warming. An examination of their lifestyle and habits shows this is unlikely to be the case. Being parthenogenetic, these phasms have no need to wander off in search of a mate. Their survival strategy is to move as little as possible to maintain their camouflage as just another piece of the bush. This immobility means that eggs are simply dropped below where they are feeding, such that succeeding generations may utilise the same bush for decades. The answer for this increased distribution undoubtedly lies with the fact that there are at least four nurseries/garden centres in Devon and Cornwall that have these species within the grounds. As we buy their plants and bring them back to our gardens, occasionally a stick insect or their eggs will come along too.

In order to highlight this range increase, the distribution maps below identify those tetrads (2km by 2km Ordnance Survey grid squares) which had their earliest records pre 2000 (these tetrads will have current records as well).

**Prickly Stick-insect Acanthoxyla geisovii (Kaup) – PSG 80**

**Cornwall:** There are two known Cornish nurseries that have A. geisovii in their grounds and these no doubt account for the smattering of post 2000 locations in southwest Cornwall. Since 2012, confirmed new sightings have come from single gardens in Mullion Cove, Troon and Percuil.

Outside of Devon and Cornwall, at the end of May 2015 I received a clear image from garden in Wiltshire of an A. geisovii nymph on a conifer plant. The garden owner said she purchased the conifer from a Cornish nursery the previous week. The following month another image was received showing there were two nymphs. The nursery subsequently confirmed they had been seeing phasmas within the grounds for several years. This report may not lead to a colony in Wiltshire, but it does illustrate the ease with which these sedentary insects can be transported long distances.

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**Mrs Doel’s 1953 letter to Claude Rivers, and The 1911 census address label for Fairlawn**

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**Devon:** Whilst I have no direct evidence of their presence in any garden centres in Devon, the number of tetrads has more than quadrupled since 2000, with many some distance from Torbay. This strongly suggests they are being distributed by artificial means. Since my last report, fresh locations have been from gardens at Bishopsteignton, Bovey Tracey, Harberton, Modbury, Plymouth Turnchapel and Salcombe.
Unarmed Stick-insect *Acanthoxyla inermis* Salmon—PSG 81

**Cornwall:** There have been 49 new tetrads (an increase of 29%) which are spread throughout the county.

**Devon:** The number of tetrads in Devon has more than doubled since 2012, from 8 to 18. Most new locations are within the south west of the county, but there was a report from north Devon at Northam, near Bideford, and one from Rockbeare, east of Exeter. Although neither report took an image, their descriptions were sufficient to rule out discarded Lab-sticks.

**Dorset:** Just a single Dorset record has been received, from a new tetrad in the north of Poole.

**Hampshire:** I am pleased that earlier concerns the Rowlands Castle colony may have died out proved unfounded. In 2014 I had four separate reports, all from gardens within 100 metres of the original location, including one of over 20 insects.

**South West Ireland:** Several online reports have been made from SW Ireland, including in and around Kenmare town itself. It was found in a nursery near the town in October 2013, which will undoubtedly lead to further spread in the area. South of the Kenmare River came a sighting from a garden alongside Glenmore Lake. This is only a few miles south of Derreen Gardens where this species has been recorded since the 1960s. The previous garden owner was good friends with the head gardener at Derreen, and had obtained shrubs from there, which explained their presence. In my 2006 report I noted a sighting of a possible *A. inermis* from Ballincollig, west of Cork. An image from a garden in Cork was clearly an *Acanthoxyla* species. It showed large tubercles, but they were not black tipped, and a black line was present on the pronotum. The conclusion is that the species present is *A. inermis*.

*Bacillus rossius* (Rossi) – PSG 3

In his autumn 2013 trip to the Isles of Scilly, Paul Brock found this species in a new part of Tresco, at New Grimsby. There have also been further reports from Hampshire. In 2014 a clear image enabled confirmation at a new site in Hamble. The Hayling Island location first mentioned in my 2012 report continues to thrive, with Steve Guy finding no less than 61 insects at this site in September 2014. An online report from the same location, also in September 2014, confirms numbers are sufficient to be noticed by the public.

*Bacillus whitei* Nascetti & Bullini – PSG 108

Several reports have been received from Slough gardens, all within 100 yards of the
original site. Having survived several bitter winters, I believe it is now fully naturalised here.

**Smooth Stick-insect Clitarchus hookeri (White)** – PSG 7

During his 2013 trip Paul Brock established this species is doing well in Tresco Abbey Gardens and on St Marys. A few months before his trip I received images of a small nymph at the campsite on the nearby island of Bryher. Paul visited the site and was able to confirm the species there was the Smooth Stick-insect. He also found them in two other locations on the island. They undoubtedly arrived on plant material.

**Ramulus thaili Hausleithner** – PSG 22

In July 2015 an online report was received from a lady in Cardiff who found a stick insect on her as she sat on a bench alongside Roath Lake. It was *Ramulus thaili* and this was only a few yards from the hot house where Greg Jones found the species back in November 2001. It is inconceivable that this tropical species survives outdoors, and it had likely been picked up on her clothing as she went round the hot house.

**Conservation Status:** This table updates the statistics, as at 30th June 2015, on our naturalised species –

<table>
<thead>
<tr>
<th>SPECIES</th>
<th>locations</th>
<th>1 km²</th>
<th>tetrads</th>
<th>10 km²</th>
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<td>51</td>
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<td>373</td>
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<td>61</td>
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<td>4</td>
<td>4</td>
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<td>Bacillus rossius</td>
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<td>Bacillus whitei</td>
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<td>1</td>
</tr>
<tr>
<td>Clitarchus hookeri</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Clonopsis gallica</td>
<td>1</td>
<td>1</td>
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</tr>
</tbody>
</table>

**FOOTNOTE:** Location Summaries as at 30th June 2015


**Stick Insects in the News by Mike Smith**

A stick insect is not even for Christmas! A Mum called 999 after her children were given stick insects as Christmas presents by her ex. I saw this reported in *The Daily Mirror* and *The Northern Echo*, I’ve summarised the story below.

A mum dialled 999 after her ex gave their children a glass jar of stick insects as a Christmas present. She called North Yorkshire police from her home in York on Christmas Day [2014] after the children’s father returned them with the stick insects. The woman begged the police to take the creepy crawlies into custody and even offered to drop them off at her nearest police station. Paul Richardson, the deployment manager who decides the response to 999 calls in York, said: “I think she was surprised when we said no. People think we have this endless resource that we can deal with any issue whatsoever”. Although police initially saw the funny side of her request, Mr Richardson said there was a serious side to the call, as it took an operator away from being available for genuine emergency calls.

Refs:  
Phasma Meeting Udenhout October 2015 by Ian Bushell

The 56th Phasma Meeting, again well organised by Rob Krijns, was held at the Bosch en Duin at Udenhout on Sunday 11th October. Some 60 members from The Netherlands and Belgium plus 2 from the UK attended, and it followed the normal informal nature of these meetings which allows plenty of time for socialising between the talks/discussions and livestock exchange.

Jerome Constant gave a most interesting talk, in English, of his recent trip to Cambodia in April and May this year. This visit, backed by the Natural History Museum Brussels and Phnom Penh University Department of Biology, was aimed at training Cambodian students in collecting and preparing specimens for the University. Apart from these workshops three field trips were made; one to the Prey Nap Mangroves and two to the more mountainous areas of Krom NP and Chambok. It is of interest that in the last 100 years only five species (two Ramulus, Calvisia, Necroscia, and Orestes mouhotii) have been recorded in Cambodia. In contrast the two week field trip resulted in the discovery of fifteen new species, all in the mountainous regions. These were; three species of Lamachodes, Macellina sp. both green and brown feeding on grasses, four Medaurini sp. all feeding on grasses, Sipyloidea sp., Lopaphus sp., Asceles sp., two Ramulus sp., Necroscinae sp., Phaenapharus sp. and confirmation of Orestes mouhotii. Further collaborative visits will be made.

The livestock exchange, run by Tim Bollens and Elien with Joachim Bresseel providing the commentary, included some 102 species, all members leaving content but as always with more than they originally intended to take.

Once again Ian Abercrombie and I are indebted to Kristien and Rob for a wonderful weekend and their great hospitality.

On the invitation of the Natural History Museum Brussels the next Phasma meeting will be held there on Sunday 17th April 2016. This symposium is open to all Phasma and PSG members and any other Phasmid enthusiasts (see http://www.phasma.eu/ for details).

At this meeting there is the opportunity for people to give a presentation for up to 30 minutes in the museum auditorium. If you are interested in attending and giving a talk please contact either Jerome Constant, Joachim Bresseel or Kristien Rabaey and Rob Simoens – contact details for them can be obtained from Ian Bushell (livestock@phasmid-study-group.org).

Phasmid Enthusiasts‘ Meeting in Frankfurt, Nov 2014 by Thies Büscher

For the first time a meeting was arranged for phasmid breeders and enthusiasts at the same time as the 117th International Insects Exchange in Frankfurt (Main), Germany. Holger Dräger and Daniel Dittmar (both members of Phasma), and also myself (a member of Phasma & the PSG), had invited many people who were interested in phasmids. All did not go exactly to plan, but the organisers still thought it was a great evening.

As there was one of the biggest entomological events, a big insect fair, around a meeting was arranged for phasmid breeders and enthusiasts at the same time as the 117th International Insects Exchange in Frankfurt (Main), Germany. Holger Dräger and Daniel Dittmar (both members of Phasma), and also myself (a member of Phasma & the PSG), had invited many people who were interested in phasmids. All did not go exactly to plan, but the organisers still thought it was a great evening.

As there was one of the biggest entomological events, a big insect fair, around the corner, understandably everybody went there for the first half of the day. This did cause a delay on starting the programme, but we hope everybody still had a nice day. Sadly Kristien and Rob had to leave early, as they had a long way to go home.

The livestock exchange, run by Tim Bollens and Elien with Joachim Bresseel providing the commentary, included some 102 species, all members leaving content but as always with more than they originally intended to take.

The event was held in Germany and was not limited to Phasma members, so many phasmid enthusiasts gathered in the conference room, some seeing each other for the very first time.

They consisted of a colourful mix of breeders and researchers from many different countries, including Germany, Belgium, the Netherlands, Switzerland and even the USA.

Before the meeting, Daniel (hot from his vacation), provided an internet platform to coordinate livestock exchanges, and therefore much livestock was available to new breeders. I gave a talk on gynandromorphism at the meeting. This was followed by Holger Dräger’s talk about the family Heteropterygidae, its species in culture and their breeding status, which then progressed into an open discussion about recent systematical aspects. The meeting ended at 8pm, but some then people met again at a nearby restaurant.

Although it had been a great day, we intended to make improvements for future meetings, and also planned to make it a regular event for the European phasmid community. At the time of writing, we plan to run the next meeting on 7th November 2015 in Frankfurt. Among the speakers will be Matan Shelomi (of Max Planck Institute for Chemical Ecology, Jena) speaking about Evolution and Activity of Plant Cell Wall Degrading Enzymes in Phasmatodea. Daniel will again kindly provide an internet resource to co-ordinate the meeting (lifts, livestock exchange, etc.).

We would like to invite members of the PSG to attend future November meetings. You can find details at www.phasmiden.com or e-mail me: Thies.b@web.de.
Rare Stick Insect To Go International

Hundreds of tiny stick insect eggs have arrived at Bristol Zoo Gardens in an international effort to save one of the world’s rarest insects. Lord Howe Island Stick-insect, Dryococelus australis, eggs have been sent to Bristol from Melbourne Zoo as part of a captive breeding program to prevent the species from becoming extinct.

The critically endangered creature was thought to be extinct until 2001. Bristol Zoo is hoping to be one of the first collections outside of Australia to successfully breed the species as part of a global programme. Conservationists have now deemed the species so important and endangered that additional captive breeding groups need to be established around the world. Bristol Zoo has been selected as having the necessary expertise and facilities to receive 300 of the precious, pea-sized eggs, along with Toronto and San Diego Zoos. The eggs made the long journey by air in carefully packaged batches of 50 eggs placed in sterilised sand, travelling in a climate-controlled part of the cargo hold.

Mark Bushell, assistant curator of invertebrates at Bristol Zoo, said he was delighted to have received the eggs: “These stick insects are on the verge of extinction and we are thrilled to have been invited to take part in this vital effort to help conserve the species and bolster the captive population. Bristol Zoo is the only place in the whole of Europe where the species now exists.” Mark, who is hoping to be the UK studbook holder for the species, added: “From a personal point of view, this is a career highlight as I have been studying this species for 20 years and have always wanted to see one of these creatures, let alone be responsible for raising and breeding them.” This species was wiped out on its native island after European rats ran aground from a stranded ship in 1918. The eggs are all descended from a breeding pair known as Adam and Eve, which were rescued from Ball’s Pyramid, a volcanic outcrop off Lord Howe Island in 2003.

Mark added: "While there is no guarantee of a high hatching success rate, it is critical that we try and establish populations of this species outside Australia as an insurance measure, as there are thought to be around just 40 individual stick insects left in the wild on Ball’s Pyramid, in one small bushy area alone. The eggs were laid at various times and could hatch anytime between a week to three months after their arrival. When they emerge from the egg, the insects are a vibrant green and three times the size of the egg. Over time the stick insects moult, going from green to brown and finally jet black.

Stick insects are among renowned naturalist Sir David Attenborough’s favourite creatures. He collected them as a child. In 2012, he went out of his way to see a Lord Howe Island stick insect in Melbourne after Jane Goodall visited them in 2008. Bristol Zoo Gardens is a conservation and education charity and relies on the generous support of the public not only to fund its important work in the zoo, but also its vital conservation and research projects spanning five continents. For more information about visiting Bristol Zoo Gardens, visit the website at www.bristolzoo.org.uk or phone 0117 974 7300.

My Trip to Australia 2015 by Beth Ripper

This November and December I’ll be living a childhood dream and will be travelling to North East Queensland, Australia to photograph and collect data about phasmids in their natural habitats. If you'd like to see what I get up to, I'll be writing about the trip on my blog, available here: https://phasmidexpedition.wordpress.com. Thank you to those of you who have helped me plan the expedition and also to the Winston Churchill Memorial Trust who are supporting the work. I’ll be reporting back to the PSG when I get back to the UK. In the meantime please feel free to get in touch with me via phasmidexpedition@gmail.com if you have any suggestions or questions about the trip... it would be great to hear from you!

Bugfest by Nick Wadham

We are looking at the UK’s first ever two day entomological fair on 27th and 28th February 2016. It is going to be the largest longest ever entomological event this country has ever seen. We are expecting a lot of big name traders for this one! And lots from Europe too. We are yet to finalise the venues, but expect to do so very soon. Full details will be available on the Bugfest website. For more details see http://www.bugfest.co.uk.
Dec 2015 Website: www.phasmidstudygroup.org Facebook: www.facebook.com/PhasmidStudyGroup Newsletter 135.26


PSG No.301 Valid name: Brasidas foveolatus foveolatus (Redtenbacher, 1906) Country of origin: Philippines, Mindanao Island. The culture was established from specimens collected by Joachim Bresseel, Mark Bushell and Ellen Caluwé in March, 2008. Originally Obrimus, transferred to Brasidas by Rehn & Rehn in 1938.

PSG No.302 Valid name: Matutometes amoena Hennemann & Conle, 2007 Country of origin: Philippines, Mindanao Island. The culture was established from specimens collected by Joachim Bresseel, Mark Bushell and Ellen Caluwé in March, 2008.

PSG No.303 Valid name: Orxine siphias (Westwood, 1859) Country of origin: Indonesia, Sulawesi, Sangihe Island. The culture was established from specimens collected by Christophe Bauduin in November, 2007. Originally Anophelepis, transferred to Orxine by Stål in 1875.

PSG No.304 Valid name: Malacormophra guamuhaeayaense Zompro & Fritzsche, 2008 Country of origin: Cuba. The culture was established from specimens collected by Ingo Fritzsche at Cordillera Del Guamuahay near Topes de Collentes N 2157', W 804' in October, 2006.

PSG No.305 Valid name: Mithrenes sp. Country of origin: Philippines, Luzon Island, P Agsanjan Falls? The culture was established from specimens collected by Joachim Bresseel and Mark Bushell in 2007.

PSG No.306 Valid name: Megacrania batesii (Kirby, 1896) Country of origin: Solomon Islands, Malaita Island. The culture was established in May, 2006 by Bruno Kneubühler who bought the eggs from a nature collector. Originally Platycrania, transferred to Megacrania by Kirby in 1904.

PSG No.307 Valid name: Hypocyrus ornatisimus (Brunner, 1907) Country of origin: Belize. The culture was established from specimens collected by Jan Meerma near Belmopan in 2006. Originally Ocnophila, transferred to Hypocyrus by Hennemann & Conle in 2012.

PSG No.308 Valid name: Onchestus rentzi Brock & Hasenpuch, 2007 Country of origin: Australia. The culture was established by Oskar Conle in 2001. A further culture was established by Paul Brock and Jack Hasenpuch at Garrardinina near Innisfail, Queensland.

PSG No.309 Valid name: Asystata sp. Country of origin: Philippines, Luzon Island. The culture was established from specimens collected by Thierry Heitzmann.

PSG No.310 Valid name: Periphetes forcipatus (Bates, 1865) Country of origin: Indonesia, Sulawesi. The culture was established from specimens collected at Bugadidi, south Sulawesi and eggs sent to Sigetake Suzuki. Originally Lorchodes, transferred to Staelonchodes by Kirby in 1904 (a), transferred to Periphetes by Hennemann in 1998.

PSG No.311 Valid name: Eubulides igorrot Rehn, 1938 Country of origin: Philippines, Luzon Island. The culture was established from specimens collected by Joachim Bresseel and Thierry Heitzmann.

PSG No.312 Valid name: Phenacephorus latifemur Tamayo-Lorenzo, 2001 Country of origin: East Malaysia, Sarawak. The culture was established from specimens collected by Javier Tamayo-Lorenzo in June, 2006 at Serian at an altitude of 300m, N 1 10'15.86", E 110 35'56.35".

PSG No.313 Valid name: Manduria sypstropes (Westwood, 1859) Country of origin: Philippines, Negros Island. The culture was established from specimens collected by Marco Gottardo.

PSG No.314 Valid name: Tisamenus serratorius Stål, 1875 Country of origin: Philippines, Luzon Island, Quezon Province. The culture was established from specimens collected by Joachim Bresseel at Sierra Madre Real.

PSG No.315 Valid name: Entoria nuda Brunner, 1907 Country of origin: Japan, Okinawa. The culture was established from eggs sent by a Japanese breeder to Miebe van den Bergh.

PSG No.316 Valid name: "Nescicrarioa" sp. Country of origin: Taiwan. I have been unable to find any details of the origin of this species.

PSG No.317 Valid name: Trachyaraetaon sp. Country of origin: Philippines, Luzon Island, Aurora Province, Ditambo Falls. The culture was established from specimens collected by Joachim Bresseel and others.

PSG No.318 Valid name: Micadina phluctainoides (Rehn, 1904) Country of Japan. The culture was established from specimens collected in two parks, Oyamada-Chyou and Mashida-Chi, around Tokyo. Specimens were distributed by Mieke Duitschaever and Rob Krijns Originally Marmessoidae, transferred to Ophricara by Kirby in 1904 (b), transferred to Arrhidaeus by Kirby in 1904 (a), transferred to Micadina by Redtenbacher in 1908.

PSG No.319 Valid name: Iagoras sp. Country of origin: Ecuador. The culture was established from specimens collected by Horst Kaehe in April, 2008 in Pachijal (Los Banos) Pichincha.

PSG No.320 Valid name: Necrosciniae (flat eggs 1) Negros Country of origin: Philippines, Negros Island. The culture was established from specimens collected on Mount Kanlaon and Mount Mandalagan in May, 2008.

PSG No.321 Valid name: Cranidium gibbosum (Burmeister, 1838) Country of origin: French Guiana. The culture was established from specimens collected by members of the French Phasmid Group. On two occasions stock was imported into France. The first stock was collected in August, 1992 near Kourou. The second stock was collected in July, 1993 at two localities, Montagnes de Kav and Saul. Originally Diapherodes, transferred to Cranidium by Kirby in 1904.

PSG No.322 Necrosciniae sp. (flat eggs 2) Pulog Country of origin: Philippines, Luzon Island. The culture was established from specimens collected by Thierry Heitzmann on Mount Pulog, Bicol in November, 2010.

PSG No.323 Valid name: Megacrania tsudai Shiraki, 1932 Country of origin: Taiwan. The culture was established from specimens collected by Ken Chen at Hengchun Peninsula and Green Island in April, 2008.

PSG No.324 Valid name: Obrimus sp. probably Obrimus bicolanus Rehn & Rehn, 1939 Country of origin: Philippines, Luzon Island. The culture was established from specimens collected by Thierry Heitzmann on Mount Pulog, Bicol in October, 2010.

PSG No.325 Valid name: Hermachus leyensis Zompro, 1997 Country of origin: Philippines, Mindanao Island. The culture was established from three separate collections. The first stock was collected by Mark Bushell and Joachim Bresseel in March, 2008. The second stock was found by Dave Navarro in April, 2008. The third culture was found by Joachim Bresseel, Tim Bollens and Rob Krijns in April, 2010.

PSG No.326 Valid name: Trachyaraetaon echinatus (Stål, 1877) Country of origin: Philippines, Luzon Island. The culture was established from one female collected by Joachim Bresseel, Tim Bollens and Rob Krijns on Marinfata on the road to Infanta in April 2010. Originally Obrimus, transferred to Trachyaraetaon by Zompro in 2004.

PSG No.327 Valid name: Achrioptera fallax Coquerel, 1861 Country of origin: Madagascar. The culture was established from specimens collected at Oranga, Montagne de Francais, Antsiranana, Diana in March, 2007 by Frank Glaw and Moritz Grubember. Brought into culture by Frank Glaw.

PSG No.328 Valid name: Andropropomachus scutatus Carl, 1913 Country of origin: Vietnam, Tam Dao National Park. The culture was established from specimens collected by Joachim Bresseel and Jerome . Constant in 2011.

PSG No.329 Valid name: Aretaon sp. "Palawan" Country of origin: Philippines, Palawan Island. The culture was established by Joachim Bresseel who extracted two eggs from the abdomen of a dead female and hatched them.
PSG No.330 Valid name: Bacteria horni Redtenbacher, 1908
Country of origin: Mexico. The culture was established from eggs collected by Professor Paolo Fontana of Italy and passed to Oskar Conle.

PSG No.331 Valid name: Dares philippinensis Bragg, 1998
Country of origin: Philippines, Palawan Island. The culture was established from specimens collected by Paul Jennings.

PSG No.332 Valid name: Dares murudensis Bragg, 1998
Country of origin: East Malaysia, Sabah, Crocker Range, near Keningau, N 05°23’59”, E 116°06’09”.
The culture was established from specimens collected by Phil Bragg and Paul Jennings on 25th December, 2006.

PSG No.333 Valid name: Diapherodes martinicensis Leolong & Langlois, 2005
Country of origin: Isle of Martinique. The culture was established from specimens reared by Yannick Bellanger.

PSG No.334 Valid name: Libethra strigiventris (Westwood, 1859)
Country of origin: Colombia. The culture was established from specimens collected by David Holland at Rio Claro, Valle de Cauca, Cauca Department in January, 2012. Originally Bacteria, transferred to Libethra by Kirby in 1904.

PSG No.335 Valid name: Lonchodioidea sp. ‘Negros’
Country of origin: Philippines, Negros Island. The culture was established by Bruno Kneubühler from eggs received by him.

PSG No.336 Valid name: Lophapus sp. ‘Cuc Phuong’
Country of origin: Vietnam, Cuc Phuong National Park. The culture was established from specimens collected by Joachim Bresseel and Jerome Constant at Cuc Phuong National Park in 2011.

PSG No.337 Valid name: Marmessoidea sp. Cuc Phuong’
Country of origin: Vietnam, Cuc Phuong National Park. The culture was established from specimens collected by Joachim Bresseel and Jerome Constant at Cuc Phuong National Park in 2011.

REFERENCES for Part Seven (for other references please refer to Parts One to Six)
BRADLER, S., ROBERTSON, J.A., WHITING, M.F., 2014. A molecular phylogeny of Phasmatodea with emphasis on Necrosciinae, the most species rich sub family of stick insects; Systematic Entomology (2014) 1-18.

This completes this excellent series by Allan Harman up to PSG No 350. But numbers are up to PSG No 379, so there are more to add to the list. Judith is arranging for all the parts to be placed on the new website, and it will be regularly updated. This will be a fantastic reference for the use of all PSG members.
Antennapedia by Beth Ripper

I recently received some Andropromachus scutatus nymphs and noticed that one of the female nymphs was missing an antenna. A small appendage looking like a foot (tarsus) had formed in its place. Although I’d heard about this happening before, I’d never actually seen it and was keen to find out more...

This particular mutation is called antennapedia¹, and is caused by the mutation of a specific gene in the insect’s DNA. The cells of all known living organisms contain DNA molecules, which hold the genetic instructions needed for the organism’s development, functioning and reproduction. A gene is a short section of DNA, which contains a particular set of instructions, usually coding for a certain protein or for a particular function².

Occasionally mutations can occur, resulting in the suppression or over-expression of a gene. These mutations may be hereditary, meaning that they are passed from parent to offspring, or acquired, meaning that the mutation has occurred during the organism’s lifetime and would only be present in affected cells (not every cell in the organism’s body).

Acquired mutations can often be caused by environmental factors, for example, as a result of cell damage from ultraviolet radiation from the sun, or can be caused if a mistake is made when the DNA copies itself during cell division³.

The antennapedia mutation is an example of an acquired mutation. The leg-like appendage develops in place of an antenna because there has been a mutation in a specific homeotic (HOX) gene. Homeotic genes determine the body plan for an organism whilst it develops. This type of mutation was first studied in fruit flies (Drosophila) and has also been observed in phasmids.

Phasmids have what are called ‘filiform’ antenna, meaning that they are thin and thread-like⁴. Antennae may be damaged or lost after being eaten by other insects or animals, or by becoming caught in spiny vegetation.

Researchers have noted that if an antenna of a nymph was cut at the level of the proximal pedicel (dashed line in image to left), the insect would often regenerate a leg instead of an antenna during the next moult⁵. The bottom image shows the head and antennapedia regenerates of a stick insect (Carausius morosus) whose antennae were cut in the third or fourth instar⁶.

I was curious to see how the antennapedia regenerate seen in my female Andropromachus scutatus nymph would develop. Unfortunately the new appendage became stuck during the final moult and remained within the shed skin. Somehow the female knew to leave this skin untouched, rather than eat it.

Have you seen similar examples in your collections? How have they developed? It would be interesting to hear about other observations from members...