Editorial

Dear fellow pyraloid fans,

2012 so far has been an exciting year for me, with an expedition to Bolivia, the completion of a manuscript on the phylogeny of Pyraloidea (see separate text on p. 4), and a mini-symposium on Crambinae here in Geneva.

Matthias Nuss and I went to Bolivia in February and March for 4 weeks. We landed in Santa Cruz and started to organize field work with the help of Julieta Ledezma of the Museo de Historia Natural Noel Kempff Mercado (MHNNKM) and Martin Jansen a herpetologist associated with the Senckenberg Institute (Germany). We were joined in the field by my old friend Daniel Néron, a birder, and by lepidopterist Alejandra Valdivia from the MHNNKM. We rented a car and first went north to a large property near Concepcion. This cattle hacienda is owned by Lutz Werding, of German origin. Don Lutz did a marvellous thing in segregating part of his property as a forest reserve and built a very comfortable research station with the help of the Senckenberg Institute. The main attractions of this area are the very interesting chiquitano forest and cerrado. We collected...
there 8 nights and the Crambinae were plentiful, with some 30 species found. Leaving Hacienda San Sebastian our plan was to reach Buena Vista and try to find Myelobia where large bamboos grow. We stayed with Robin Clarke and his wife Sonia at their Flora y Fauna Hotel. Nature abounds in this more humid area with much larger trees than in the chiquitano forest, but humans have ‘invaded’ the area and we found few moths of interest, perhaps partly due to the fact that the rains are more spread out in the year of late and insect phenology has consequently been perturbed. We stayed only two nights, collected a single specimen of Myelobia, and few other crambines altogether. The next part of the trip was spent in and near Pamperande, in a dry Andean valley on the old road to Cochabamba. There we met Padre Andreas Langer, a priest and naturalist who has helped a great many other naturalists passing in the area over the last decades. He indicated collecting spots and facilitated collecting and specimen preparation. The vegetation of this area is quite fascinating, with various species of cacti, some quite large, but although there were few Crambinae, Matthias collected his first Scopariinae of the expedition, on a hill with more humid vegetation at about 1300 m in elevation. We finished our stay in Bolivia at Refugio Los Volcanes, a private resort especially frequented by birders and certainly one of the two most beautiful natural places I have seen in my life. It was a successful trip with good collecting. Unfortunately, as of June 18, some of our specimens are still in Bolivia because the permit which would have allowed us to carry them out of the country didn’t arrive in time.

For a mini-symposium on Crambinae I had invited Graziano Bassi of Italy and Robert Schouten of Holland, but unfortunately the latter couldn’t come at the last minute. Nevertheless, Graziano and I had a productive time working on the collection, on a manuscript, and on GlobIZ to associate as many genera as possible to their proper tribe. We also selected the genera that we deemed most appropriate to study for a phylogenetic analysis of World Crambinae.

I hope that you enjoy the contributions below. I am happy to welcome two new students to our group. As usual please send any changes of address and additions to the ‘Membership List’ to me. You are also more than welcome to send PP to whoever you like. Also, if you would like to take over as editor of future issues of PP, please don’t hesitate, and let me know.

Cheers,

Bernard Landry
The revision has confirmed the status of 11 genera, while synonymising three genera and proposing the erection of probably six new genera. Seventeen new species were recognised. The larvae were found to contain excellent morphological features that were extremely valuable in helping determine the systematic placement of the genera. The project is expected to be completed in August–September 2012.

References


John Hawking

News from...

Franziska Bauer

Hello everyone, I am Franziska Bauer and I am currently working as a PhD student at the Senckenberg Natural History Collection, Museum of Zoology Dresden, with Matthias Nuss as my supervisor.

In the past, I dedicated myself to research on the megadiverse Coleophorinae (Gelechioidea: Coleophoridae) on which I was able to shed a little bit of light (Bauer et al. 2012). Matthias Nuss, two further co-authors and I provided the first molecular phylogeny of the group. We revealed eight species groups, straightened up the confusing nomenclature and taxonomical concepts available for European species and drew conclusions regarding host-plant associations.

For my PhD, I am planning to run a similar strategy for Phycitinae. In fact, both groups can be compared to some extent. Phycitinae are also megadiverse and the current generic classification is dominated by traditional typological concepts, just as formerly in Coleophorinae. The estimated 3,450 described phycitine species are classified into 652 valid genera, an unmanageable jumble of family-, genus- and species-groups. This is where I take action: I am going to focus on reconstructing a phylogeny by means of molecular, morphological and ecological data which hopefully will help to move into a more natural classification of phycitines. Surely, I will not manage the world phycitines and therefore concentrate on European genera and some representatives from other continents.

Reference


Franziska Bauer

Guillermo Fernandez

I have been working during the last 5 years with Joaquin Baixeras at the University of Valencia (Spain) as curator of the Lepidoptera collection. During these years I worked with different groups of moths and became interested in Pyralidae. At the same time I made my M.Sc. in “Biodiversity and Conservation”, the Master thesis topic was about the effects of light pollution on the arthropod fauna.

Two years ago, I met Matthias Nuss for the first time. We started talking about the possibility of doing my PhD on pyraloids. In May, during a common field trip in southern Spain, we agreed to focus on the phylogeny of Chrysauginae, and to study representatives of as many of the 130 known genera as possible. I will develop my work under the supervision of Matthias and Joaquin.

I don’t have a fellowship for doing my PhD yet and will have to combine it with other work. Though I collected myself in Venezuela and Bolivia, I would be happy to receive some support with recently collected material from the Neotropics.

I hope to meet the pyraloid community in the near future.

Guillermo Fernandez

Sciota hostilis (Stephens) adult reared from a larva found in Denmark; photo taken on May 25, 2008 by Franziska Bauer.
In press with Systematic Entomology is a revised – please ask about loans from the FSCA/MGCL. I focus on taxa with economic importance or relatives. I am working on larval descriptions of:

- Diasemioidea janassialis (Walker), which is a pest on Lobelia cardinalis flowers at a couple of nurseries in Missouri; and,
- Duponchelia fovealis: a description needs to be provided for final-instar larvae. Steve Passoa has kindly helped with this.

I recently caught adults and larvae of Penestola bufalis (Guenée) in among mangroves in Vero Beach, Florida. They are saprophages in rotting intertidal leaf litter, like Hymenoptychis and Tatabotys (see Murphy, 1990), and similar to the behavior of Duponchelia.

Alma Solis

In the most thorough molecular phylogeny of Pyraloidea to date. It was a collaborative effort by Jerry Regier, Charlie Mitter, and Mike Cummings from the University of Maryland and lepidopterists Jim Hayden, Bernard Landry, Matthias Nuss, Thomas Simonsen, Shen-Horn Yen, Andreas Zwick and Alma Solis as part of the Lepidoptera Tree-of-Life project. The study sequenced five nuclear genes of 42 pyraloids spanning both families and 18 of the 22 subfamilies, plus up to 14 additional genes in 22 of those pyraloids plus all 24 outgroups. Subfamily relationships within Pyralidae, all very strongly supported, differ only slightly from a previous morphological analysis, and can be summarized as (((Galleriinae + Chrysauginae) (Phycitinae (Pyralinae + Epipaschiinae)))), In Crambidae the molecular phylogeny is also strongly supported, but conflicts with most previous hypotheses. I will be presenting these results at three meetings this year: the Lepidopterists’ Society Meeting in Denver, Colorado, International Congress of Entomology in Daegu, Korea, and the National Entomological Society of America meeting in Knoxville, Tennessee.

At the Lepidopterists’ Society meeting this year I will also be presenting a summary of all of the projects relating to the Acentropinae that I have been working on, some with collaborators, regarding species in Petrophila, Oxyelophila, Usingeriessa, and Aulacodes.

A phylogenetic analysis of Schactonia by Paul Goldstein, Mark Metz & myself will be submitted soon. This is a small genus in the Glaphyriinae with highly derived genitalia and with a presumably unusual biology. The type species was originally described as a noctuid by Schaus. Gene Munroe thought it should be its own family at one time until I talked him out of it when we were working on the Neotropical Checklist. Stay tuned!

I was collecting at the Big Thicket National Park in Texas last summer with Mike Pogue. Texas has been in a drought for many years and it was HOT! Nevertheless, I was able to collect species of Acentropinae that survive due to the underground seeps that are throughout the park. I also managed to “pin” myself with a minute in the foot. It had to be removed with surgery later.

In February of this year I was invited to conduct a workshop to adult hood! [You can see more about this event at http://www.ars.usda.gov/News/News, htm?modecode=12-75-41-00]

I am still trying to get immature stages of *Sufetula* spp. in Florida. They sporadically infest the roots of palms in nurseries but are hard to detect; I have not had success with rearing larvae from wild-caught adults. I have recently seen one larva, and it looks like a crambine without stemmata and with a couple of chaetotaxic anomalies. Joël Minet informs me that he has the immatures of *Sufetula sunidesalis*, and I would like to know if anyone has seen larvae of *Diploscelis* or other species.

Sangmi Lee and I were just awarded funding thru the USDA’s 2012 Farm Bill. It is to produce an online Lucid identification tool for pyraloids and microleps that feed on Solanaceae, focusing on the *Leucinodes* group and *Gnorimoschemini*. We will collaborate with Richard Mally, who is studying the *Leucinodes* group, and Akito Kawahara’s lab for sequencing. In the next six months, we will ask you all for loans of solanum-feeding pyraloids and micros for dissection and morphological illustration, and sequencing if possible (allowing for fresh specimens).

Jim Hayden

### Afromoths

The website [www.afromoths.net](http://www.afromoths.net) currently contains 32,380 species-group names. The ultimate aim of the website is to present information on ALL Afrotropical moth species. The actual database underlying the website currently contains close to 34,000 species-group names. This database was published online at the beginning of May 2012. It contains 1324 species-group names belonging to Pyralidae and 2159 to Crambidae. The number of referenced species-group names and names of which the original description has been checked from the primary source can be found below in Table. 1

A new feature of the website is the display of distribution maps (see fig.) showing the distribution of species per country in the Afrotropical region. The database currently contains this information in almost 48,000 distribution records.

![Species Distribution](image)

**Table 1**

<table>
<thead>
<tr>
<th>Species-group names</th>
<th>Names with reference to the original description</th>
<th>Original description checked</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pyralidae</td>
<td>1324</td>
<td>840 (63%)</td>
</tr>
<tr>
<td>Crambidae</td>
<td>2159</td>
<td>1052 (49%)</td>
</tr>
</tbody>
</table>

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Jim Hayden

### On the web

**Pyralid & thyridid moths of Borneo - an illustrated guide**

The pyralid and thyridid moths of Borneo project being put together by Terry Whitaker, Henry Barlow and myself has been much delayed by uncertainty as to whether to produce these in book form or online, and how much textual information to include. The decision has now been made to create an HTML 5 website for these two groups, to give a ‘work-in-progress’ illustrated guide which we hope will give researchers a starting point on matching names to images, to which they can contribute. We hope to start loading this site by April 2012.

Initially the thyridids will go up as a set of plates of images with captions linked to text, because there is already a manuscript. This will be converted to HTML 5 format later (meaning image, name and text will be together when you search for a name). The pyralids, for which there is no manuscript, will be loaded straight to HTML 5. Synonyms and references will be in appendices.

Stephen Sutton

### Diagnostics of Australian pyraloid pests

In the framework of a scholarship provided by the Office of Chief Plant Protection, in Australia, a diagnostic protocol was developed for 12 exotic Pyraloidea species. These moths are pests on rice, sugarcane, citrus fruit and mangoes. Two species not previously recorded in Australia have been confirmed as established in the Northern Territory (*Chilo polychrysus* (Meyrick) and *Scirpophaga rivella* (Fabricius)). Also, the previously unknown genitalia of three of these species are illustrated (*Citripestis*

Willy De Prins

Matthias Nuss

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**GlobIZ News 2012**

During the last 12 months, the number of valid species included in the Global Information System on Pyraloidea (GlobIZ) increased by 1,311 (+ 577 synonyms) to a total of 13,819 (+ 5,448 synonyms). Some 7,700 changes were made by 10 contributors to GlobIZ pages in 2011.

Bernard Landry continued his work on crambines and exceeded the number of 2,000 valid species by 35.

It might be difficult to judge the completeness of the dataset, since nomenclature of pyraloids is comprehensive and always changing. Gaps still exist for Phycitinae, Spilomelinae, Pyraustinae and Pyralinae (given by decreasing numbers). All of the other pyraloid subfamilies are now completed in terms of quantity and so are all pyraloids of the New World.

Everybody is welcome to verify data using the public domain [www.pyraloidea.org](http://www.pyraloidea.org) and report missing data or mistakes to Bernard Landry or Matthias Nuss. Moreover, I would be more than happy to provide anybody interested in editing data the right to enter the database for that purpose.

Matthias Nuss
eutraphera (Meyrick),  Deanolis sublimbalis Snellen and Orthaga eaudrusalis Walker). The protocols have been approved by the Department of Agriculture, Fisheries and Forestry Australia and Biosecurity New Zealand. View them at www.padil.gov.au.

Stacey J. Anderson

New Books

Microlepidoptera of Qinling Mountains


This work deals with the microlepidopteran species in the Qinling Mountains, Shaanxi Province, China. A total of 1043 species in 423 genera of 28 families under 13 superfamilies are recognized. 835 species are described in detail, accompanied by colour figures of the adults, and drawings of male and female genitalia characters. Recorded hostplants and distribution data are provided.

One new species is described in Pyralidae: Faveria manoi (Yamanaka, 1993), Acrobasis obtusella (Hübner, 1796), Euzophera (Euzophera) albicostalis Hampson, 1903, Ancylosis (Heterographis) umbrilimbella (Ragonot, 1901), Ancylosis (Heterographis) xylinella (Staudinger, 1870), Physitodes saxicola (Vaughan, 1870), Circo­botys malaisei Munroe & Mutuura, 1970.

The following pyraloid genus and species group names are synonymized: Rufalda Roesler, 1972 (= Glyptoteles Zeller, 1848); Rufalda absolutella Roesler, 1972 (= Glyptoteles leucacrinella Zeller, 1848).

Two combinations are introduced in Pyralidae: Faveria manoi (Yamanaka, 1993), Acrobasis subflavella (Inoue, 1982).

Acrobasis inouei Ren, 2012 is proposed as a replacement name for Conobathra tricolorrella Inoue, 1982, and Edulicodes inouvei Roesler, 1972 is recalled from synonymy.

The studied specimens are deposited in the Insect Collection, College of Life Sciences, Nankai University, Tianjin, except those of Zygaenidae and Limacodidae in the Institute of Zoology, Chinese Academy of Sciences, Beijing, China.

Houhun Li

New species and genera of Pyraloidea from southwestern Africa

It is not new knowledge that the Pyraloidea of Africa south of the Sahara is a poorly known group. The regions with the highest level of faunistic and taxonomic exploration are southern Africa and Madagascar. However, even these regions have been investigated rather unevenly. In South Africa the best explored areas are the former provinces of Transvaal and Natal, whereas the interior and the western parts have remained less studied. Both sides of the continent have a completely different climate with humid conditions in the east and along the south coast, and arid and semi-arid conditions in the west. The biodiversity of Lepidoptera follows this gradient. The fauna is much richer and more speciose in the east than in the dry west.

In the frame of an international project (BIOTA- South Africa) I was studying the Lepidoptera fauna of Namibia and western South Africa since 2007. One of the tasks was the elaboration of a field guide. While working on this topic it soon became obvious that a large part of the fauna was still undescribed. Even common and widespread species turned out to be without names. A field-guide should of course include the abundant species of a region. They probably have an ecological significance, and thus, are important elements of the corresponding local ecosystems. Therefore, I decided to postpone the work on the identification book, and started at first describing and naming these species for later consideration in the planned field-guide. In the last volume of Esperiana Memoir the descriptions of these species were published. In addition, some new genera were established. The new taxa belonging to Pyraloidea are listed in Table 1.

The taxonomic work on these various subfamilies and genera was an extraordinary challenge. In nearly all groups the available taxonomic basis proved to be too weak for daring descriptions and additions of new species and new names. I had to dive deep into pyraloid taxonomy, deeper and longer than anticipated for sorting out things. A great advantage was the accessibility and availability of the important, type-rich collections in the museums of London, Paris, Geneva, Vienna, Cape Town and Pretoria. During the last years I was a regular visitor in the museums of London and South Africa, and I could study most of the type material of the species described from southern Africa. There are only a few lepidopterists with a good knowledge on the African fauna or
with a specialisation in some families. I was fortunate enough to receive much help and support from all of them. Therefore, not all new species are my “babies” but a number of species and genus descriptions are results of joint work. Thanks again to D. Agassiz (Acentropinae), G. Bassi (Crambinae, Cybalomiinae) and K. Maes (Crambidae, excl. Crambinae).

Some of the new taxa are provisionally placed in a genus (e.g. *Sclerobia*) or subfamily (e.g. *Flohtschape*). Don’t worry too much. I keep on working on Pyralidae and I am confident to find the correct placement in the system sooner or later.

Reference


Wolfram Mey

Table 1: Synopsis of species and genera of Pyraloidae described or commented in Esperiana Memoir 6, 2011

Pyralidae
Gallerinae
*Paroxyptera hererofilletia* spec. nov.

Pyralinae
*Hypotia faucis* spec. nov.
*Triphassa argentea* spec. nov.
*Actenia fuscoserrata* spec. nov.
*Actenia dirempta* spec. nov.

Eppaschiniidae
*Isolopha magna* spec. nov.
*Otiopagagaga* gen. nov.
*Otiopagagaga prima* spec. nov.
*Otiopagagaga secundaria* spec. nov.
*Otiopagagaga dentilinealis* (Hampson, 1906), comb. nov.
*Salma gamsbergpsalalis* spec. nov.
*Salma mompopastalis* spec. nov.
*Flotschape gen. nov.
*Flotschape rhynchopalpata* sp. nov.

Phycitinae
*Merulempista colorata* spec. nov.
*Sclerobia triangulata* spec. nov.
*Gaana nigronervosa* spec. nov.
*Elegia insconsicuella* (Ragonot, 1888)
*Namibicola karios* sp. nov.
*Namibicola palmwagos* sp. nov.
*Pogononeura hirticostella* Ragonot, 1888
*Pogonotropha dicksoni* spec. nov.

Crambidae
Crambinae
*Surattha luteola* Bassi & Mey, spec. nov.
*Surratha africalis* Hampson, 1919
*Prionapteryx splendida* Bassi & Mey, spec. nov.
*Prionapteryx amatthia* Bassi & Mey, spec. nov.
*Parancyloptela Bassi & Mey, gen. nov.
*Parancyloptela relica Bassi & Mey, spec. nov.
*Glaucocohas maculosa* Bassi & Mey, spec. nov.
*Crambus proteus* Bassi & Mey, spec. nov.
*Coniesta william (de Joannis, 1926) [Diatraea]*, comb. nov.

Acentropinae
*Enophyia assegaiia* spec. nov.
*Enophyia muroeoi Agassiz & Mey, spec. nov.

Cybalomiinae
*Hyperla xanthomista* spec. nov.
*Hyperla conspersalis* spec. nov.
*Hyperla transversalis* spec. nov.
*Crambicybalomia* gen. nov.
*Crambicybalomia ariditatis* spec. nov.
*Ptychopseustis lucipara* spec. nov.
*Ptychopseustis schmitzi* spec. nov.

Odontiinae
*Autocharis arida* Maes & Mey, spec. nov.
*Emprepes maesi* spec. nov.
*Tegostoma arida* spec. nov.

Pyraustinae
*Metasia grootbergensis* sp. nov.

“Membership” list

David Agassiz
The Garden House, Stafford Place
Weston-super-Mare BS23 2QZ
UNITED KINGDOM
e-mail: agassiz@btinternet.com; D.Agassiz@nhm.ac.uk

Stacey Anderson
Entomology Technician
NAQS - AQIS Darwin
PO Box 37646, Winnellie, NT 0821
AUSTRALIA
e-mail: Stacey.Anderson@aqis.gov.au

J. E. F. Asselbergs
Neerland 20 NL-4614
GD Bergen-op-Zoom
NETHERLANDS
e-mail: JEF.Asselbergs@hetnet.nl

Yang Seup Bae
Incheon University
Incheon, KOREA
e-mail: baey@incheon.ac.kr

George J. Balogh
6275 Liteolier Street
Portage, Michigan 49024-2394
U.S.A.
e-mail: bugdr@att.net

Hans Bänziger
Department of Entomology
Faculty of Agriculture
Chiang Mai University
Chiang Mai 50200
THAILAND
e-mail: sangda.h@chiangmai.ac.th

Alejandro Barro
Dpto Biologia Animal y Humana
Facultad de Biologia
Universidad de La Habana
Calle 25 # 455 entre J e I
Vedado CP 10400
La Habana, CUBA
e-mail: abarro@bio.uh.cu