METALEPTEA

THE NEWSLETTER OF THE ORTHOPTERISTS' SOCIETY

# 10th International Congress of Orthopterology in Antalya, Turkey - A Great Success!

The 10th International Congress of Orthopterology (ICO2009) organized by Akdeniz University on behalf of the Orthopterists' Society, was held in Antalya, Turkey from 21-25 June 2009. It was a great success, a very well organized event enjoyed by every participant and, from a scientific point of view, a very interesting meeting. After the congress, several participants expressed by e-mail their very positive feelings and satisfactions about this important event in the life of our Society.

There were 93 regular participants, 28 students, 21 accompanying persons. Additionally there were 13 personnels (8 orthopterists and 5 undergraduate students) from the local organization committee. Some students and faculty from the local biology and agriculture department also attended some sessions. So we had a total of about 160 participants from 43 different countries from all over the world.

Antalya was really a wonderful place for such a meeting. Turkey's principal holiday resort in the Mediterranean region, Antalya (the eighth biggest city in Turkey) is very attractive with shady palm-lined boulevards and a nice marina on the Mediterranean. In the picturesque old quarter, Kaleici, there are narrow winding streets, old wooden houses and a large castle surrounding the ancient city, and of course the main entrance, the Hadrian gate. The city is dominated on the west by impressive mountains, resulting in a fabulous landscape, and surrounded at just a few kilometres by a lot of famous archaeological sites.

The congress was held in the Akdeniz University (in the splendid Ataturk Confeference Center) and we benefited from the five days of a warm but pleasant weather.

Prof. Dr. Battal Çiplak and our new President Maria Marta Cigliano opened the congress and welcomed the participants on behalf of the Organization Committee and of the Orthopterists' Society, respectively. Then, we had some welcome speeches from Prof. Dr. Mehmet Oz (Chair of Biology Department) and Prof. Dr. Abdullah Aziz Ergin (Dean of Science Faculty).

Over the five days of the congress, we had three plenary lectures; (1) by A. Nihat Bozcuk (Prof.Dr. Tevfik Karabag: a memorial), (2) by Maria-Marta Cigliano (Taxonomy in Orthoptera: an uncer-

*Hadrian Gate, Antalya's main entrance (Photo credit: Michel Lecoq)*

## *In this issue...*

tain future), and (3) by L. Lacey Knowles (Tracing paths of speciation: insights from phylogeography and population genetics). Additionally 5 Plenary Symposia took place; (1) Orthoptera and Global changes (organized by Michael Samways & Dan Johnson), (2) Phylogeography and speciation (organized by L. Lacey Knowles), (3) Orthopteroomics: Unravelling the link between orthopteran genomes and phenotypes (organized by Gregory Sword), (4) Communication and Orthoptera (organized by Klaus-Gerhard Heller & Long Zhang) and (5) Integrated pest management for locusts and grasshoppers: are alternatives to chemical pesticides credible? (organized by myself). We had 8 regular sessions (Biogeography chaired by Hojun Song; Physiology, morphology, development by Marcos Lhano; Evolution by Theodore Cohn; Behaviour by Klaus Riede; Ecology & Evolution by Marie-Pierre Chapuis; Ecology by Andrej Gorochov; Pest Management by David Hunter; Systematics and Phylogeny chaired by Charles Bomar). One special session on sexual selection in orthopteroid insects was organized by Karim Vahed, and one meeting on biotechnology in locust control by Thomas Miller. For all sessions, in addition to the oral presentations, many posters (a total of 64) were exhibited and were available during the five days of the meeting. Obviously the Congress gathered, in addition to a broad diversity of participants, a very broad diversity of subjects, all of great interest. All our participants must be complimented for the quality of their presentations, oral as well as posters.

This meeting also will have shown all the dynamics of the orthopterists' community, the diversity of the disciplines involved in the study of our beloved and favorite insects, and the great number of students and young scientists, a very important point for the future. It was also a good opportunity for many participants to discover a very interesting country and a hotspot of biodiversity in the Mediterranean region (Morocco being the second one).

The Proceeding of the Congress (program and all the abstracts) was edited as a special issue of *Metaleptea*, with a very well designed coloured cover, and made available to all participants in their congress bag. Surely, it is one of the best issues of *Metaleptea*. Thanks to Palme Publisher for publishing it for us.

An exhibition on "Art and Orthoptera (ARThoptera)" was organized by Yusuf Güven, Murat Çelik, Ilgaz Topçuoğlu from the Faculties of Fine Arts of Mersin and Akdeniz Universities. The ARThoptera was considered by the authors as "an ironic exhibition" and "a pirate presentation" to the Congress, trying to "explain grasshoppers to the orthopterists looking from outside without considering scientific principles and processes." We expect from these "ARThopterists" to prepare a brief version of the ARThoptera to be published in a future issue of Metaleptea to be shared with other orthopterists who were not able to attend the ICO2009.

A Governing Board meeting was convened during one evening at the special place Kir Kahvesi (belonging to the University Guest House which offers many facilities and an extraordinarily pleasant



*Top: Participants to ICO2009 in the Ataturk Conference Room as viewed by ARThoptera artists, Middle: A collection box of Arthoptera collected in 2009 in Turkey, Bottom: The ARThopterists, Yusuf Güven, Murat Çelik, Ilgaz Topçuoğlu (Photo credit: Battal Çiplak)*

*Group photo of the participants of the ICO2009 at the Ataturk Conference Center in the Akdeniz University (Photo credit: Battal Çiplak)*

working environment) and Maria Marta Cigliano presented during the closing session the main decisions of the Society Board.

During the closing session students awards for oral presentations were given to Ismail K. Saglam (Turkey) and Corinna Bazelet (South Africa) and for posters to Junjie Gu (China). Congratulations to all. Maria Marta also announced that Michael Samways, from South Africa, has been elected by the membership of the Society as the new President-Elect for the period 2009-2013. Michael will take the presidency of the Society at our next meeting in 2013. Compliments to Michael and my best wishes!

Various tours were organized for accompanying persons to visit Antalya, the old town, its marina and museum, the famous Yivli minaret,

*Apollo Temple in Side (Photo credit: Hojun Song)*

various waterfalls (Kurşunlu, Duden, Manavgat), and the ancient towns of Perge, Side and Aspendos. Unfortunately time was limited to see several others such as Termessos, Phaselis, Myra, Patara etc.

A welcome reception was offered by Side municipality at sunset in the magical place of the Apollo Temple, in Side (70 km East from Antalya), followed by a traditional show of an exceptional quality.

The gala dinner took place in the Beach Park, in Antalya, a very pleasant place near the sea shore. Several awards were presented at that occasion in the name of the local organization committee by Prof. Battal Çiplak to various people in consideration of their contributions to the organization of the congress and Dr. Maria Marta Cigliano presented several awards on behalf of the Orthopterists' Society as indicated under the Awards Section.

For me, this gala dinner was a good opportunity to follow the tradition established by David Rentz at the Cairns meeting in Australia, as the Past President, to present our new President Maria Marta Cigliano a genuine French "beret" - decorated with a small silver grasshopper - as a symbol of her authority on the Society and to wish Maria Marta a very successful presidency.

*Past President Lecoq presenting a French beret to the new President Cigliano (Photo credit: Hojun Song)*

A six-day post conference tour was organized in Cappadocia. I was not able to join this trip, but I was told by the participants that it was a great success and a fantastic adventure in one of the most famous places in Turkey.

In conclusion, many thanks to Prof. Battal Çiplak and his team, in the name of the Society. We are all very grateful for such a great work and such a perfect organization for the benefit of our orthopterists community, in a very attractive country.

**Michel Lecoq**
(Past President 2005-2009)
[Photos from the Congress are available at:
http://galeri.ico2009.org]

# Opening Ceremony: Welcoming Remarks on behalf of the Orthopterists' Society

Ladies, gentlemen and colleagues. As the incoming President of the Orthopterists' Society, it is a great honor and pleasure to welcome you all to the 10th International Congress of Orthopterology. Thank you for your presence here today. It is wonderful to have you here representing so many countries of the world. Today, we have nearly 150 people coming from over 40 countries. So, I am extremely pleased to know that we have such an international audience interested in the wonderful world of Orthoptera.

On behalf of the Society, and on my own name, first and foremost, I would like to sincerely thank Prof. Dr. Battal Çiplak, Chair of the Organizing Committee, who has devoted his time over months and has invested an enormous amount of work to guarantee the success of this Conference. I would also like to extend my deepest appreciation to all the members of the Scientific Committee and, specially, to the members of the Local Organizing Committee. Besides, I would like to sincerely thank Professor Dr. Mehmet Öz, Head of the Biology Department, Prof. Dr. A. Aziz Ergin, the Dean of Sciences Faculty, and to Prof. Dr. Israfil Kurtcephe, Rector of Akdeniz University for their support to this Conference, and for allowing it to be held at these nice facilities of the University, and giving the patronage of the Akdeniz University to it. In these thanks I would also like to include all the local authorities and the different organizations that have generously contributed to make this meeting possible through their sponsorship (Saltur, Palme Publisher, Side Municipality, National Gerontology Society of Turkey and Bilim Pharmaceutical, Turkish Airlines, CIRAD, Has Medikal).

In December of 1976, 50 orthopterists met at San Martin de Los Andes, Argentina, and founded The Pan American Acridological Society. The Society took its formal inception in 1978. In 1985 its objectives were revised in order to reach a broader scientific community, and set to facilitate the communication among those individuals interested in Orthopteroids

President Cigliano delivering opening speech (Photo credit: Battal Çiplak)

and related organisms, and to encourage collaborative research and control programs in Orthopterology among countries of the World. The name of the Society was also changed to The Orthopterists' Society.

To be here today, as the President of the OS is very special for me, because one of the pioneer members and organizers of that first meeting in that little Patagonian town, later President of the Society, was Dr. Ricardo Ronderos, who has been my PhD. advisor, and somebody who sparks one of my best memories in my mind. So, in a way, I feel that today I am inheriting his legacy.

At present, the Society has over 390 members from 52 countries. Since its creation, the Society has come a long way, thanks to several members and Officers who have contributed with their time and hard work to its improvement. At this time, I would like to specially thank the Past Presidents who are here with us today. First of all, I sincerely would like to thank Dr. Michel Lecoq, who has outstandingly chaired the Society during the last term. It has been an enormous pleasure to work under his leadership, and I will sure miss him. I would ask the audience to join me in my applause. Thank you. We also count among us today with the presence of Dr. Theodore Cohn, who has been Past President for two terms from 1997 to 2005 and has been taking the responsibility of Treasurer of the Society since then, and fortunately will continue doing so. Also, among us, is Dr. David Rentz, President from 1993 through 1997. We are also honoured to have Professor Carlos Carbonell, an Honorary Member of the Society, and a very dear person to me. I would like to express my thanks to all of these outstanding members for their work and dedication to the Society. I would also like to thank our Executive Director, Dr. Charles Bomar, who will continue with us, for his hard work and contributions to the Society.

**The Orthopterists' Society** is a scientific organization devoted to facilitating communication among those interested in Orthopteroid insects. It does so through the organization of these International Conferences. This is a very special time for the Society, the time that Orthopterists interested in various topics and specialties from different places of the world come together and have the chance to interact personally and interchange their knowledge and perspectives). Since that first meeting in Argentina, the

Theodore Cohn and Battal Çiplak (Photo credit: Battal Çiplak)

international conferences of the Society were held every three years and since 1993 every four years in different places of the world: twice in USA, once in Venezuela, twice in Canada, Australia and in France. Now, with this, our tenth meeting, we are for the first time at this beautiful Antalya, in Turkey.

Besides organizing the International Meetings, the Society has other ways of communicating the information and knowledge on Orthopteroid insects that constitute some of its most important achievements. First, the Society has a nice Internet Site. Thanks to the Manager Officer, Piotr Naskrecki, the website is being constantly updated and provides an extremely useful source of information. Second, the Society´s newsletter, *Metaleptea*, is currently being published twice a year and distributed electronically. At this time, I would like to thank Marianne Niedzlek-Feaver for her hard work during so many years as the editor of *Metaleptea*, and welcome Hojun Song, who has acted as the associate editor during the past term and is our incoming Editor. I would also like to welcome Sam Heads, who will be acting as the Associate Editor.

The Society has a series of Publications on Orthopteran Diversity dealing with large taxonomic groups or monographic treatments of orthopteran faunas. I am glad to announce that a new book on "Crickets of the Caribbean" by Daniel Otte and Perez Gelabert has just been published under this series.

And finally, the Society has its most important window to the scientific community: *the Journal of Orthoptera Research*. Since its creation the Journal has made great progress and has highly improved its quality. Just a quick look at the last issue proves this. Several improvements in JOR have been recently achieved; an editorial board was established comprised of some of our most prominent members. JOR is being published regularly twice a year. And in 2006 the first nine volumes of JOR became available on JSTOR. This retroactive conversion combines with BioOne to put all 17 volumes of JOR on the web. Through BioOne, JSTOR and Academic OneFile, our journal has been introduced to many new institutions. Besides, through BioOne our members are provided with unrestricted direct access to all past and current JOR papers on BioOne: "Society Member Access Program." Also, and thanks to a new improvement implemented by our Editor, all manuscript submissions and review processes are made on-line.

Albina and Carlos Carbonell and David Rentz (Photo credit: Battal Çiplak)

However, we still have a major debt with our members: get JOR indexed by ISI Thomson. This is no doubt the major challenge facing us that will also demand the involvement of all our members. So, at this time I would like to specially thank Dr. Glenn Morris, who has an enormous job and invests a huge amount of his time in the edition and improvement of our journal. Also, I would like to thank the members of the Scientific Editorial Board who have helped Glenn in the reviewing process and to the Assistant Editor, Nancy Morris. And, last but not least, I would like to specially thank the Guests Editors Drs. Douglas W. Whitman and Vincent E. Shawn who have been responsible for bringing together the diverse array of articles that constitute the Special last Issue on Size Matters.

Also I would like to greet and thank our Regional Representatives: David Hunter (Australia); Seiji Tanaka (Japan); Karim Vahed (West Europe); Michael Sergeev (East Europe – North and Central Asia); Zhang Long (China, North Korea, South Korea); Rohini Balakrishnan (South Asia); M.A. Ould Babah (North, West and Central Africa); Michael Samways (East and South Africa); Alba Bentos (South and Central America); and Dan Johnson (North America).

The Society is proud of maintaining the grants program for young researchers, being an extremely valuable way to foster research into all aspects of Orthopteroid insects.

Besides, the Society has a remarkable tool: the Orthoptera Species File Online. This is one of the finest and most complete taxonomic databases of any group of organisms. It is the result of many years of work done by Daniel Otte who compiled the original database; Piotr Naskrecki, who developed the initial on-line version for the web, and David Eades, who has greatly improved and created a completely new Software/version. The Society has the opportunity to use it not only as a useful taxonomic catalogue and an outstanding tool, but also to set up strategies leading to develop collective efforts towards the entry of the necessary information on species distribution, in order to facilitate the use of these scientific data in biodiversity policy and decision making. The usefulness and importance of the rich data served through OSF is being recognized by widely differing kinds of organizations in science and society. So, at this time I would like to thank David Eades, the Officer of the Orthoptera Species File for his outstanding contributions towards maintaining and improving in so many ways OSF.

One of the main goals of the Society is to contribute to the knowledge of the diversity of Orthopteroids insects and related organisms. Considering the current biodiversity crisis, Orthopteroids should remain a key group for assaying the health of any habitat; they can be excellent indicators of landscape use, as they are ecologically sensitive and yet easy to observe and collect and sufficiently mobile and abundant to serve as workable tools. However, severe damage and stages in degradation to lower diversity levels can only be assessed with reliable taxonomic knowledge. Thus, a general knowledge of Orthopteroid at the species level is still required. The Society can serve as a great forum of awareness of the value of taxonomy and the need of good taxonomy for the conservation of biodiversity.

Ladies and gentlemen, once again I welcome you all and I hope you enjoy a wonderful Conference in this marvelous setting. Thank you very much.

**Maria Marta Cigliano**
President
The Orthopterists' Society

# Summary of the Board Meeting

The Orthopterists' Society Governing Board met to discuss the Society's affairs on Tuesday (June 23, 2009) at the 10th International Congress of Orthopterology. During more than four hours, the Board discussed several issues regarding the Society. Following is a brief report of the some issues that dealt with changes that should affect and improve the Society at large.

*Charles Bomar, Maria Marta Cigliano, David Eades during board meeting (Photo credit: Hojun Song)*

**Officers of the Society**

President Maria Marta Cigliano informed that results from the ballot sent to the OS membership indicated that Michael J. Samways was elected as the new President Elect of the Society, and appointed the following new Officers of the Society:

- *Executive Director - Charles Bomar*
- *Treasurer - Theodore Cohn*
- *Associate Treasurer - Doug Whitman*
- *Past President - Michel Lecoq*
- *JOR Editor - Glenn Morris*
- *JOR Editorial Assistant - Nancy Morris*
- *Metaleptea Editor - Hojun Song*
- *Metaleptea Associate Editor - Sam Heads*
- *Manager OS Website - Piotr Naskrecki*
- *Associate Manager OS Website - David Rentz*
- *OSF Officer - David Eades*

The following Regional Representatives have been appointed for the next term: Dan Johnson (North America), Marcos Goncalves Lhano (South and Central America), Karim Vahed (West Europe), Michael Sergeev (East Europe-North and Central Asia), Battal Çiplak (Middle East), Zhang Long (China, North Korea, South Korea), Seiji Tanaka (Japan), Mohammad Kamil Usmani (South Asia), Mohamed Abdallahi Ould Babah (North and Sahelian Africa), Corinna Bazelet (Sub-Saharan Africa), David Hunter (Australia, New Zealand and Pa-

*Mohamed Abdallahi Ould Babah, David Rentz, Theodore Cohn, Marcos Lhano during board meeting (Photo credit: Hojun Song)*

cific islands). They will have the following responsibilities: preparing an annual report on special problems from their region; recruiting new members; providing articles for *Metaleptea*; recruiting major papers for JOR; recommending sponsored membership; establishing links and mutual co-operation agreements with local orthopterological societies; and Consolidating the OS members in their region and developing joint activities (regional bulletins, meetings, projects etc.)

Through the different activities and actions that we have set up together with the Board we will try to reach several achievements during the next term regarding the matters of the Society:

**Membership and subscription dues: Secure payments via the Society website**

An important change to the membership will be implemented. We will explore alternatives to be able to let our membership make their dues and subscriptions payments by credit card via a secure server at our website. We will also be exploring options to deliver annual billing statements on line. Annual dues statements will continue to be sent by regular mail for those who prefer so.

**Membership database: Modification and update directly via the web site**

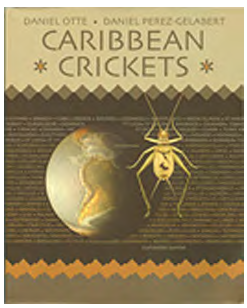
A concerted effort will be made to maintain the Society membership database and to ensure that e-mail addresses are updated. Currently, members are able to modify their addresses only by e-mail to the Executive Director who makes the change and then he transfers the information so that it is also updated in online database in the website. In the future, each member should be issued a unique password (or member ID) that would allow him/her to edit his/her record via the web site. Integrating these two sources of information will improve our ability of keep track of members when they move as well as provide a database of scientific expertise for Society members and the community as a whole.

**Publications**

*Journal of Orthoptera Research*. The Board has agreed on the need to explore alternatives towards the improvement on the visibility and access of JOR in the Web. There are several variables that need to be taken in consideration in this cyber era and we will try to choose the best alternatives that will fit all the needs. Without any doubt we know that one of our major challenges facing us will be to get JOR listed by ISI Thomson. Having in mind all the different variables that need to be considered to get JOR indexed, the Board has come to an agreement to explore the different possibilities and costs of an International Publisher.

*Metaleptea*. The Board has agreed on the necessity to return shortly to a more regular release of Metaleptea, redesign it, and resize its format for an easier distribution. Also, it is the Editoris aim to increase the number of issues per year. In order to fulfill this last objective we need the help of our membership regarding contributions to be sent to Metaleptea. In order to have a professional-looking, informative newsletter, we need the contribution of our membership in submitting interesting articles to it. Research Grantees of the Society are reminded that as a condition for the grant, they have to provide at least an article on their ongoing or recently completed research for Metaleptea.

*Publications on Orthopteran Diversity Series*. The Board has agreed on designating a volunteer reviewer from the JOR Scientific Editorial Board for the Publications on Orthopteran Diversity Series, when a new Monograph or Book is submitted under this series. The new book on "Caribbean Crickets" by Daniel Otte and Daniel Perez-Gelabert has been recently released as a monograph on the Orthopteran Diversity Series.




**Committees**

Financial Report. Treasurer Ted Cohn presented to the Board the financial report for 2008. In summary, and despite the global economic problems, the Society is in good financial situation.

Orthoptera Species File Committee. David Eades, the OSF Officer, presented a brief report on the improvements of the Orthoptera Species File Online and on Species File Software. He mentioned that for most of the orders of Polyneoptera a taxonomic database and website online have been developed using Species File Software. David Eades has also informed the Board that due to the global economic situation, the grants program offered by OSF has been suspended for next year.

Grant Research Committee. The Board has approved the composition of the new committee: Ted Cohn, Karim Vahed, and David Hunter. Last year, 15 proposals were submitted by applicants from nine countries. The Committee funded nine proposals (plus three from 2006 applicants). For 2009, the call for proposals was sent to the membership on 20 May 2009. The committee should request an article on their ongoing research for Metaleptea from the graduate students and young professionals who are awarded grants this year. Past grantees are also requested to provide an article for *Metaleptea*.

**Next OS meeting**

The Board has agreed that the 11th International Conference of the Orthopterists' Society will be held in 2013. We already have some candidates who are willing to take the hard work that demands being Chair of what will be our 11th International Congress of the Orthopterists' Society. It was mentioned that for the choice of venue the Board will consider the interests in Orthoptera in the region, the costs and facilities, the possibility of attracting many members as well as new ones, the possibility of a setting close to a region where a post conference tour can be arranged focusing on interesting collecting sites and diversity of Orthoptera fauna.

**Maria Marta Cigliano**
**& Charles Bomar**

# Awards presented during the Congress

Several awards were presented by the Local Organizing Committee to the different organizations or institutions that contributed with their sponsorship, support and collaboration to the Congress and by the Orthopterists' Society to members and officers of the Society in recognition of outstanding service and achievement, during the Gala Dinner and the Closing Session of the 10th International Congress of Orthopterology.

**Battal Çiplak, on behalf of the Local Organizing Committee, presented several awards to the following people:**

• **Kadir Ucar**, Major of the Side Municipality, in appreciation for sponsoring the Welcome Cocktail at the marvelous site of the Apollo Ruins at Side

• **Palme Publisher**, in appreciation for sponsoring the Abstract Book of the 10th International Congress of Orthopterology

• **Hakan Yaman**, from the National Gerontology Society and Ozan Canyurt, from Bilim Pharmaceutical in appreciation for sponsoring the Gala Dinner of the 10th International Congress of Orthopterology

• **Servet Alioglu**, Saltur Vice-Manager, in recognition for managing the organization of the 10th International Congress of Orthopterology

• **Michel Lecoq**, on behalf of CIRAD, in appreciation for its contribution as an sponsor of the 10th International Congress of Orthopterology

**Maria Marta Cigliano and Charles Bomar, on behalf of the Orthopterists' Society, presented the following awards and recognitions:**

• **Fer Willemse** received the "D.C.F. RENTZ AWARD" in recognition for a lifetime devoted to the study of the Orthopteroid insects

• **Peter Spurgin** received the "SIR BORIS UVAROV'S AWARD IN APPLIED ACRIDOLOGY" for significant contributions to the practice of locust and/or grasshopper management. This award is sponsored by the Association for Applied Acridology International (AAAI), and administered by the Orthopterists' Society.

• **Michel Lecoq** was presented with a book of photographs from Patagonia, Argentina, the place where it was held the first meeting of the Orthopterists' Society, in appreciation for his outstanding service as the President of the Orthopterists' Society during the period 2005-2009.

• **Marianne Niedzlek-Feaver** was presented with a certificate of appreciation in recognition for her long contribution to the Orthopterists´ Society as the Editor of the Metaleptea Newsletter.

• **Battal Çiplak** was presented with a book of photographs from Argentina in appreciation for his wonderful organization of the meeting.

**Students Awards were presented by the Local Organizing Committee and the Orthopterists' Society:**

• "Best Student Oral Presentation Award" was shared by **Ismail K. Saglam** (Turkey) for his oral presentation on "Bioacustics, systematic and distribution of the *Phonochorion* genus (Orthoptera: Tettigoniidae: Phaneropterinae)" (Authors: H. Sevgili, S. Caglar, I. K. Saglam); and **Corinna Bazelet** (South Africa) for her presentation on "Grasshopper bioindicators in the design and management of large-scale ecological networks" (Authors: C. Bazelet & M. Samways).

• "Best Student Poster Presentation Award" was given to **Gu Junjie** for his presentation on "Jurassic-Cretaceous fossil Hagloidea from China" (Authors: G. Jungie, R. Dong, S. ChungKun).

**Maria Marta Cigliano**


*Top: Ismail K. Saglam receiving the best student talk award from President Cigliano; Middle: Gu Junjie receiving the best student poster award from Past President Lecoq; Bottom: Corinna Bazelet presenting her award-winning talk (Photo credit: Battal Çiplak)*

# Peter Spurgin - 2009 winner of the Sir Boris Uvarov's Award in Applied Acridology

The award bears the name of the Father of Modern Acridology, the famous Russian-English orthopterist Boris Petrovich Uvarov (1888 - 1970). This award, sponsored by the Association for Applied Acridology International (AAAI), and administered by the Orthopterists' Society, recognizes outstanding contributions which have a direct impact on both, the theory and practice of locust and/or grasshopper management.

**Peter Spurgin** has worked for the Australian Plague Locust Commission for more than 25 years, initially as a Field Officer and then as Pesticide Officer. As Pesticide Officer, he conducts detailed field research evaluating the efficacy of new and existing pesticides and developing application techniques appropriate to each pesticide. The result has been that Peter has made a substantial contribution to the development and implementation of IPM for locust control in Australia.

Peter's work has resulted in substantial modification of the standard control methods used by the Australian Plague Locust Commission including:

1. increased buffer zones to minimize off target drift,
2. decreased area doses of insecticide via the introduction of new application techniques, including the use of DGPS - (Differential Global Position Satellite) navigational equipment to give more accurate marking and recording of spray tracks,
3. use of barrier treatments for marching bands,
4. adoption of a biopesticide for use operationally on organic properties, environmentally sensitive areas or wherever there is a desire to avoid chemical pesticide use, and
5. standardizing droplet spectra for each type pesticide sprayed as part of locust IPM.

In addition Peter has had substantial experience in conducting survey and control operations in a number of countries, often as a secondment to FAO. This work has involved adapting methods learned in Australia to local conditions through training and leading of small teams in operational control. Such operations have been conducted in the Sudan (1989) for the desert locust, in Tanzania (6 separate control operations between 1994 and 2009) for the Red locust, in Papua New Guinea (1998) and Timor Leste (2007) for the migratory locust.

Swarm of Red Locust (Nomadacris septemfasciata) in Tanzania, 2009 (Photo credit: David Hunter)

During 2007, Peter conducted two missions to Timor Leste for FAO where he initially used ground and aerial surveys to determine the extent of an outbreak of Migratory locust. This was followed with a coordinated ground and aerial control campaign where 2300 ha of adult Migratory locust swarms were treated using the biopesticide Green Guard (fungal pathogen, *Metarhizium anisopliae* var. *acridum*), which successfully reduced locust populations threatening important food crops.

Red Locusts pink from Metarhizium infection (Photo credit: David Hunter)

The success of using *Metarhizium* biopesticide against swarms in Timor Leste led to Peter being asked by FAO to assist with aerial control operations in Tanzania to counter a serious upsurge of Red locust in several outbreak areas. As part of control operations, the biopesticide Green Muscle was used to treat 9,640 ha of dense locust swarms in the ecologically sensitive Iku Plains area of the Katavi National Park. These operations were conducted during May and June 2009: Peter had registered to come to the 10th International Congress of Orthopterology in Antalya but was unable to be there because he was conducting control operations in Tanzania - operations which included the first major operational use of biopesticides against locusts in Africa.

**David Hunter**
Sir Boris Uvarov's Award in Applied Acridology selection committee

# Post Conference Tour Report

Following a very successful conference, a group of 28 participants and partners took a one-week trip that combined orthopterology and the rich history of the Cappodocia Region of central and eastern Turkey. You should view the spectacular collection of photos provided by Claudia Hemp and others to accompany this brief commentary.

We had a large bus all to ourselves and a great guide called Tolga who was very knowledgeable about local history and tourists points of interest. He was very sympathetic towards our "saltatorial" peculiarities and encouraged us to stop wherever we thought it might be productive. We were very fortunate to have a running commentary on the historical geology and botany of the region by Andreas Hemp. This added considerably towards our appreciation of what were viewing. The biological commentary complimented the historical statements of Tolga and made the trip extremely interesting. Usually, 10-minute stops became 30-minute stops - such is the way of the collector. We would all agree that we saw just about everything we wanted and those who were so inclined made useful collections of the local fauna.

Our first stop was made in the historic Taurus Mountains in Cappadocia between Akseki ands Sydisehir where a variety of grasshoppers and katydids were discovered. We had our first "experience" of Mediterranean grasses. My socks had to be disposed of and later, I left my shoes in Turkey because they were infested with grass seeds that could have been brought back to Australia germinating into potential pest species. Many European grasses are now established in Australia as well as western North America and the countryside does not need any additional introductions. We spent the first night in Konya, a city of a million souls where we visited the mosque and museum containing the graves of the mystic Mevlana and other important Muslim leaders. The accommodation here was most impressive to say the least!

On the second day we stopped on the Konya Plain to observe a rather barren field. There were few insects around as it was very cold. But Tolga reflected us that this had been a cultivated field for, perhaps, 10,000 years! For a person coming from Australia, a country a little over 200 years old, this was something to contemplate. Lunch along a stream and visits to the tufa-carved dwellings, churches and underground city of Kaymakli which was built by early Christians to evade threatening armies, added to a memorable day. Plenty of orthopteroids greeted us at most of the sites.

*Natural citadel of Uchisar (Photo credit: Claudia Hemp)*

On the third day we were treated to the remarkable cliff dwellings of Dervent and the natural citadel of Uchisar and Pasa Baglari and the churches of Göreme with their wonderful frescos. All carved hundreds of years ago from the volcanic tufa that is widespread in this part of Turkey. One can just imagine what life was like in those days. We were

*Participants of the Post Conference Tour (Photo credit: Maria Marta Cigliano)*

Orthopterists collecting local fauna (Photo credit: Claudia Hemp)

told that it wasn't many years ago that people continued to occupy these dwellings. A number of us availed ourselves of some Cappadocia plates and other pottery. They really look smart some 10,000 miles away from their source!

The fourth day (29 June 2009) took us into the mountains where we stoped a few times to discover *Saga cappadocica*, a wonderful predatory sagine endemic to the region. We had some tasty local cherries with some friendly farmers near Bereket. Some nice acridids were found in the roadside vegetation. On the evening of the fourth day we were offered a choice: 1) attend a Turkish night with belly dancing and the like 2) attend a performance of the whirling Dervishes 3) have a quiet evening in the hotel. We chose the Dervishes and it proved to be one of the highlights of the trip. We learned about the reverence of their repetitive turning and its religious meaning and as such we were not allowed to take photographs or to applaud after the performance. Wonderful.

On the fifth day we drove along the Mediterranean Sea with beautiful vistas everywhere. There was plenty of "natural" vegetation but as Andreas pointed out, we they had no idea just how "natural" it was. It could have been cut previously and replanted - a few hundred years ago! It was surprising just how extensive these natural rocky hillsides were. The irregular terrain probably contributed to its not being cultivated and being largely left alone. With all the fires that ravage Europe and western North America each summer, it was surprising to see how infrequently that area had been burned. An added item of interest to North Americans and non-Europeans alike was seeing Oleanders growing in their natural habitats - in dry, rocky gullies in the Macchia. Most of the non-European contingent were used to seeing these plants along freeways or in public places where almost nothing else would grow. They are very impressive where they are meant to be growing.

Waiting for a vision (Photo credit: David Rentz)

We were all surprised to see how little seafood was on the menu at any restaurant. Even in Antalya, a city of 1 million along the sea, we saw very little. There were no prawns, no calamari, and no fish. We were told that the sea had been fished out! Maybe that's true but it was certainly not polluted as Claudia's photos attest. We asked Tolga if he could arrange a fish meal and within a couple of hours were in a restaurant having wonderful fish. I suspect it was very expensive, however.

On the last day we noted the extraordinary number of greenhouses and shadehouses along the coast - thousands and thousands of them. We were told that Turkey provides much of Europe with vegetables, especially tomatoes. We saw more than that, however. Even bananas were being grown under cover. Turkey seems a very enterprising place and the country must benefit greatly from the export of all the produce we observed growing along the way. The very last natural history subject we observed was a wonderful tortoise wandering about the rocky hillside. What a place!

It was a wonderful trip with a great group of people in a place that was really quite foreign to most of us but most impressive. We were most grateful to our tour host Tolga, and to the Conference Committee and Saltur Tours for a wonderful week.

**David Rentz**

# Post Conference Trip – "grasshopper" stops

## A list of orthopteran species encountered during the trip

### Day 1: Antalya – Konya, June 26, 2009

**Taurus mountains, Akseki area 1000 m asl., open pine forest**
*Eupholidoptera anatolica* (Ramme, 1930) [Tettigoniinae: Pholidopterini]
*Glyptobothrus bornhalmi* (Harz, 1971) [Gomphocerinae]
*Platycleis cf. intermedia* (Serville, 1838) [Tettigoniinae: Platycleidini]
*Pyrgodera armata* Fischer von Waldheim, 1846 [Oedipodinae]
*Sphenophyma rugulosa* (Stål, 1876) [Catantopinae]

**Taurus mountains, waste land, near Murtigi**
*Notostaurus* sp. [Gomphocerinae]
*Oedaleus decorus* (Germar, 1825) [Oedipodinae]

**Taurus mountains, grassland, Ahnli area 1250 m**
*Oedaleus decorus* (Germar, 1825) [Oedipodinae]
*Glyptobothrus bornhalmi* (Harz, 1971) [Gomphocerinae]
*Platycleis* sp. [Tettigoniinae]

*Tettigonia cf. viridissima* (Linnaeus, 1758) [Tettigoniinae]

## Day 2: Konya – Nevsehir, June 27, 2009

**Cappadocia, Belisirme (mountain church, river restaurant), dry grassland slopes 1200 m**
*Notostaurus anatolicus* (Krauss, 1896) [Gomphocerinae]
*Glyptobothrus bornhalmi* (Harz, 1971) [Gomphocerinae]
*Oedipoda miniata* (Pallas, 1771) [Oedipodinae]

**Konya plain, toilet stop**
*Platycleis* sp. [Tettigoniinae]



*Left: Glyptobothrus bornhalmi male, Right: Tettigonia cf. viridissima nymph (Photo credit: Claudia Hemp)*

## Day 3: Nevsehir, June 28, 2009

**Nevsehir, dry grassland on slope near Hotel Dedeman 1300 m**
*Glyptobothrus bornhalmi* (Harz, 1971) [Gomphocerinae]
*Dociostaurus (Stauronotulus) hauensteini* (Bolivar, 1893) [Gomphocerinae]
*Platycleis cf. albopunctata grisea* (Fabricius, 1781) [Tettigoniinae]
*Pyrgodera armata* Fischer von Waldheim, 1846 [Oedipodinae]
*Stenobothrus zubowskyi* Bolivar, 1899 [Gomphocerinae]

**Cappadocia Devrent stone camel 1000 m**
*Glyptobothrus bornhalmi* (Harz, 1971) [Gomphocerinae]
*Stenobothrus* sp. 1 [Gomphocerinae]
*Syreyaella bella* Uvarov, 1934 [Tettigoniinae]

**Cappadocia Göreme**
*Stenobothrus* sp. 2 [Gomphocerinae]



*Left: Pyrgodera armata, a large and conspicuous oedipodine species widely distributed in dry areas of Asia, Right: Oedipoda miniata male on bare ground, Belisirme, Cappadocia (Photo credit: Claudia Hemp)*

## Day 4: Nevsehir – Adana, June 29, 2009

**Kayalar, petrol station, waste land 1300 m**
*Oedipoda miniata* (Pallas, 1771) [Oedipodinae]


*Eupholidoptera tucherti (Photo credit: Claudia Hemp)*

**Cherry stop 1km ahead of Bereket, waste land**
*Oedipoda miniata* (Pallas, 1771) [Oedipodinae]
*Platycleis* sp. [Tettigoniinae]

**Between Ulukista and Pozanti, Taurus mountains, road side, stony slope 1200 m**
*Saga cappadocia* Werner, 1903 [Saginae]
*Calliptamus* sp. [Calliptaminae]
*Dociostaurus (Kazakia) brevicollis* (Eversmann, 1848) [Gomphocerinae]
*Oedipoda miniata* (Pallas, 1771) [Oedipodinae]
*Platycleis* sp. [Tettigoniinae]
*Pyrgodera armata* Fischer von Waldheim, 1846 [Oedipodinae]
*Ramburiella bolivari* (Kuthy, 1907) [Gomphocerinae]
*Tettigonia cf. viridissima* (Linnaeus, 1758) [Tettigoniinae]

## Day 5: Adana – Anamur, June 30, 2009

**Coastal pine forest, Silifke area, between Bogsak and Akdere 220 m**
*Dociostaurus (Kazakia) jagoi* Soltani, 1978 [Gomphocerinae]
*Calliptamus cf. italicus* (Linnaeus, 1758) [Calliptaminae]
*Oedipoda miniata* (Pallas, 1771) [Oedipodinae]

**Coastal maquis vegetation, near Korikos**
*Tylopsis lilifolia* (Fabricius, 1793) [Phaneropterinae]
*Calliptamus* sp. [Calliptaminae]
*Eupholidoptera tucherti* Harz, 1988 [Tettigoniinae]


*Saga cappadocica, an endemic species (Photo credit: Claudia Hemp)*

**Petrol station stop, Agacli, beach**
*Pyrgomorpha cognata* Krauss, 1877 [Pyrgomorphidae]
*Sphingonotus caerulans caerulans forma exornatus* [Oedipodinae]

## Day 6: Anamur – Antalya, July 1, 2009

**Yakacik, coastal area between Anamur and Antalya 300 m waste land and maquis vegetation**
*Calliptamus cf. barbarus* (Costa, 1836) [Calliptaminae]
*Dociostaurus (Kazakia) jagoi* Soltani, 1978
[Gomphocerinae]
*Eupholidoptera* sp. [Tettigoniinae]
*Oedipoda miniata* (Pallas, 1771) [Oedipodinae]

*Ramburiella turkomana* (Fischer von Waldheim, 1846) [Gomphocerinae]

For help in identifying the material, thanks to Mustafa Ünal (Turkey), Klaus-Gerhard Heller (Germany), and Martin Husemann (USA).

**Claudia Hemp**

# The Dan Otte Symposium

Daniel Otte is a distinguished leader in evolutionary biology, systematics and the behavior of insects, especially grasshoppers, crickets and their relatives. He is the Curator and Chairman of the Department of Entomology, Academy of Natural Sciences. Dan has published extensively on insect evolutionary biology including his Harvard University Press series on North American grasshoppers and books on the crickets of Hawaii, Australia and his just published book on the Caribbean crickets. Many students have also been encouraged and guided by Dr. Otte, including four PhD students when he was at the University of Texas, Nancy Burley, Bill Cade, Tony Joern, and Joan Strassmann.

The four Otte students sponsored a special symposium to recognize Dan's many contributions and especially his role in their careers and the careers of many other students. The symposium was held June 15-17, 2009 at the University of Lethbridge, Alberta Canada and included 35 participants. Presentations covered a wide range of evolutionary biology including insect systematics, reproductive behavior in insects, birds and slime molds, and human behavior.

It was announced at the evening banquet that Dan Otte will receive the Joseph Leidy Medal from the Academy of Natural Sciences in the fall. This award recognizes significant accomplishments in the sciences and previous recipients include E. O. Wilson and Ernst Mayr. Dan's wife Laurel and daughters Jessie and Jenny spoke that evening and Dick Alexander, Professor and Curator Emeritus, University of Michigan, was the keynote speaker. Dr. Alexander was Dan's PhD supervisor and they and their families spent a year together working on the crickets of Australia. Dr. Alexander described that year as they traveled many long Australian roads. Dan finished the evening and spoke of his improbably journey as a boy from Zululand, South Africa.

*Dan Otte and his four students (from left: Bill Cade, Dan Otte, Joan Strassmann, Tony Joern, Nancy Burley) (Photo credit: Hojun Song)*

Many people stayed after the Symposium and visited the nearby Rock Mountain parks and resorts.

Please visit www.danottesymposium.com for more information about Dan, the list of speakers and titles, and links to video recordings of the banquet speeches and many photographs from the Symposium.

**Bill Cade**
President and Professor
The University of Lethbridge

*Participants of the Dan Otte Symposium at the University of Lethbridge (Photo credit: Hojun Song)*

# Regional Reports - What is happening around the world?

## Africa

James Pryke of Stellenbosch University recently completed his Ph.D. thesis on invertebrate biodiversity of the Cape Peninsula; part of the Cape Floristic Region (CFR) biodiversity hotspot. Fires have become more frequent in the CFR as a direct result of human activity and James has shown that the orthopterans in the area are remarkably resilient to fires, returning to the affected area soon afterwards. A similar recovery is also seen in ants (Hymenoptera: Formicidae), but is generally not true of other invertebrate groups such as harvestmen (Arachnida: Opiliones) and terrestrial crustaceans (e.g. Isopoda).

Corey Bazelet (also of Stellenbosch University) is currently undertaking a study of the Orthoptera of remnant grassland ecological networks (ENs) within commercially maintained forests in KwaZulu-Natal. The aim of this study is to determine the extent to which orthopterans are able to survive in ENs compared to their success in adjacent reserve areas. Results are still being collated, though interesting preliminary findings from mark-release-recapture studies suggest that certain species with great flight ability do not readily disperse, tending to stay very much within the local area. In collaboration with Dr. Dan Otte and Dr. Piotr Naskrecki, Corey is also undertaking a comprehensive survey of CFR Orthoptera and producing a number of taxonomic revisions.

Paul Grant (again of Stellenbosch University) has just begun a project which aims to record the distribution of high-elevation species. Paul is also testing the value of landscape acoustic profiling using orthopteran songs as a potential tool in conservation management.

In Sudan, Abdalla A. M., University of Kordofan has started research on the bio-ecology of the tree locust, the most notorious insect pest infesting the gum Arabic tree, *Acacia sengal*. The aim is to provide the necessary data for a future management program against the locust, which has received little attention in the past. The program is supported by the Orthopterists' Society through the Small Grants Program.

*Alluaud's spider cricket (Phalangacris alluaudi) recently found on Cousine Island, Seychelles, has remarkably long antennae, which can be bent around and backwards, enabling it to scan a 36-cm diameter circle in the darkness of rock overhangs. It maintains contact with other individuals by touching antennae, seen here as the fine downward-pointing line in the middle left of the picture. (Photo credit: Michael Samways)*

Wail Mohamed Haroon successfully defended his MSc on evaluation of the efficacy of *Metarhizium anisopliae* alone or mixed with neem seed oil against the tee locust. The work was co-supervised by Abdalla M. Abdalla, University of Kordofan, Sudan, and Michel Lecoq and My Hanh Luong-Skovmand from CIRAD, France. The study also evaluated compatibility of *M. anisopliae* mixed with different concentrations of neem oil at different temperatures.

Manan Elzain El Hassan, University of Kordofan, completed the 3rd season in his PhD work on the eco-biology of the Senegalese grasshopper in Kordofan. The study investigated the activity of the grasshopper, its population dynamics, population structure and voltinism. The study also correlated the grasshopper's behavior with environmental variables, such as temperature, relative humidity and wind direction.

Omer Rahama Mohamed, University of Kordofan and University of Khartoum, completed the 3rd season of his PhD work on the bio-ecology of the tree locust in plantations of *A. senegal*. The study provides the necessary biological information towards monitoring and control the tree locust in the near future.

Hashim Ali Abdel Kareem was awarded an MSc at the University of Kordofan, on the efficacy of neem seed extracts used alone or mixed with a reduced dosages of synthetic pyrethroids against the tree locust, based on the hypothesis that mixing neem extracts with a pyrethroid may reduce any adverse effects of the active ingredient in the environment, enhance efficacy through potentiation, and reduce the cost of control.

Ahmed Elmusta, University of Kordofan and University of Khartoum, presented his project proposal for tree locust damage assessment using remote sense technologies and ground data.

In Mauritania, Mohamed Abdallahi Babah Ebbe, director of the National Anti-Locust Center (CNLA), as successfully defended his PhD Thesis on the Biogeography of the Desert Locust (*Schistocerca gregaria*) and identification, characterization, and originality of an outbreak area in central Mauritania. This work was completed under the supervision of CIRAD Acridologie unit (Montpellier) and of the Ecole Pratique des Haute Etudes (Uni-

versity of Paris 1).

In the same country we can mention that Ahmed Salem Sidi Benahi successfully defended his MSc thesis on the use of remote sensing for early detection of the Desert Locust habitats. A large project (2009-2010) just started on this issue in collaboration with CIRAD and FAO, project funded by the French funds for world environment (FFEM).

In Algeria, the PhD thesis work of Mohamed Lazar, from the plant protection department, is in progress. Mohamed is working on the biogeography of the Desert Locust in southern Algeria, the characterization of its habitats and the early detection of favorable conditions for this locust by satellite remote sensing.

In Madagascar, CIRAD Acridology team, working for the National Locust Center (CAN) in collaboration with FOFIFA (National centre of applied research for rural development) and the University of Tuléar, just finish a 4 years project allowing to map the Migratory Locust (*Locusta migratoria*) habitats over all the gregarious area and to define and to build a GIS which can be used as a tool to better survey the Migratory Locust and prevent its invasions. Research on The Red Locust (*Nomadacris septemfasciata*) was also completed allowing to better understand the population dynamics and migrations of this species in the outbreak area located in the southern part of the country. Suitable conditions for gregarization and outbreaks are now better understood. In the north of the country, a new outbreak area (created as a result of recent deforestation) has been discovered and studied by Alex Franc, from the CIRAD team. Alex successfully defended his thesis in Montpellier 3 University last year.

Also in Madagascar we can mention the recent master of science thesis of Abdou Chamouine (University of Tuléar, Madagascar) on the characterization of the Red Locust phases at the nymphal instars and identification of the gregarization threshold. As well, the MSc thesis of Jean-Baptiste Borot (University of Nantes, France) on the management of uncertainty associated with the interpolations within the framework of a GIS used as an early warning tool for the control of the Migratory Locust in Madagascar.

Maiga Idrissa, from Plant Protection department of Niger, successfully defended its PhD thesis at Montpellier 2 University on the ecology of the Senegalese grasshopper (*Oedaleus senegalensis*). Idrissa was working in Niger, under the supervision of CIRAD Acridology, in the framework of the PRéLiss Project, funded by the Danish government, and in collaboration with the Regional Center AGRHYMET of the CILSS (Permanent Interstate Committee for Drought Control in the Sahel). Its research – combining intensive field work and the use of modeling methods - focus mainly on the ecology of the embryonic stage and on the strategies to better control this important pest for the African Sahel.

In Senegal, a lot of work has been done by Wim Mullié and Youssoupha Gueye on the field efficacy of the mycopesticide Green Muscle® to control the Senegalese grasshopper, using terrestrial and aerial applications. Wim and Youssoupha were working for the Senegalese Plant Protection Department. Results were very conclusive and Senegal is now working hard to implement this biopesticide (produced locally) for grasshopper control.

In Morocco we can mention the recent creation of a Master of Science in Acridology by the Hassan 2 Agronomical Institute in Agadir, in collaboration with the National Locust Center. This master students from West and North Africa are welcomed and a lot of research is currently conducted in this framework. For instance, Keita Mahamadou, from Mali, is currently working, under the supervision of CIRAD, on the biogeography of the Desert Locust in the northern part of his country, using archives data from OCLALAV (the past Western African organization to control the Desert Locust, now replaced by national centers).

**Michael Samways**
Regional Representative
(Africa)

## South America

The situation of the several countries in the area is certainly not the same in all of them. In Argentina, Brazil, Chile and Uruguay the situation is much better than in the rest of Latin America. In these countries there have been and are at present, scientists working on Orthoptera. As a result, the orthopteran fauna is far better known in these countries than elsewhere in South America. Of course Argentina and Brazil, being large countries with a variety of climates and biotopes need still much work to be done. Nevertheless, this work is already being done by able scientists. Mexico has had researchers in the field and there are now several students working on Orthoptera. I do not know of any scientists working on Orthoptera in Central America. The rest of the area is certainly not the most active with regard to research projects; nor in terms of the number of workers interested in Orthoptera. Bolivia, Peru, Ecuador, Colombia and Venezuela have few or none doing any research on Orthoptera. What is known about the Orthoptera of these countries comes in general from researchers in the USA or Europe who have studied materials sent to them by collectors. These authors themselves have not been in these counties, or at best have made short visits to them.

Those working in the region face many challenges. For instance, the extraordinary richness of the group in South America and the general lack of taxonomic and bionomic knowledge. Much of that information has been lost forever through poor development policies and habitat destruction; the latter caused by the indiscriminate cutting of native forest and the installation of large areas of monocultives that cause population desequilibrium and faunal extinctions. We are aware of not having the means to revert this situation, but there are certain actions that we believe we can take to help limit the problem.

We must give priority to the generational renewal of research workers and of persons interested in Orthoptera. Only by the joint interest of students and graduates can we satisfy the future needs of orthopterology in South America. The need to foster the next genera-

tion of orthopterists is evident. Research on Coleoptera, Lepidoptera and Hymenoptera is comparatively well funded and very attractive to young entomologists. Among these young persons we must find those who will replace those of us that are older and approaching the age of retirement; and they need and deserve all of our help and support. In this particular area I will refer to Colombia, which I know better than the rest of the countries in its group (Bolivia, Peru, Ecuador, Venezuela and Central America) and which I think serves well as an example of what is happening in the rest of these countries.

During the last few years, I have corresponded with several Colombian entomologists who have students interested in working with Orthoptera. I have travelled twice to Colombia in order to meet them and have received two of them as visitors in Uruguay. For the most part however, my communication with them has been through e-mail and other means of correspondence. Some of them who seemed very promising, finally left the field of orthopterology, tired perhaps of fighting the obstacles they found for progressing in this field of research. Others still have the enthusiasm and the strength to go on with their research on Orthoptera, but all of them have expressed upon me the general lack of support and encouragement for them in their country. They have struggled to find experienced researchers in Colombia to help them initiate and direct the kind of research they want to do. Moreover, they do not as a rule have access to the basic literature needed to begin the study of the taxonomy of the group and the identification and classification of Colombian species. We are all aware that Colombia, with its many diverse environments and climates, is one of the most significant biodiversity 'hot spots' in the New World. Very recently we have published, together with H. F. Rowell, C. S. Carbonell and one of the most enthusiastic and tenacious Colombian students, Mitzy Porras, a list of the known Orthoptera of Colombia. Despite our efforts this list is the poorest and most incomplete one can imagine for one of the richest faunas in South America; clearly much more work still needs to be done in this important region.

The political situation of Colombia of course, is not ideal for the undertaking of field work in the natural sciences. Nevertheless, there are some areas where such work could be carried out in safety and it is in these areas where most students propose to collect. However, despite their enthusiasm, once the fieldwork is complete, these students will still be hindered by the overwhelming lack of basic resources and access to literature. This is in now way an unfounded statement; for example, in a country with such a diverse assemblage of Eumastacidae, one will not find in any library, a single copy of the important revision of this group by Marius Descamps.

I myself have photocopied and sent to Colombia the vast majority of my own personal literature collection, but such bulky shipments are extremely expensive. Furthermore, I am not aware of a single library in Colombia that subscribes to JOR and many of us do not have all of our papers available as PDFs to send electronically.

This is the situation in Colombia today: many students are interested in doing research; an insect fauna unknown for the most part, and almost no bibliography for the study of Orthoptera (and of many other orders as well). The catalog of the library of the University of Colombia in Bogotá shows only some forty titles related to Orthoptera, and it is the only library in the country that has even some literature on the group. So, my proposal to the whole membership of the O.S. is that we should choose one of the Colombian libraries – preferably that of the University – and send there all of our papers, and copies of those old papers which are basic for the knowledge of the Orthoptera of the area (not only Colombia but also Ecuador and Venezuela). I refer mainly to works on the subject by Hebard, Rehn, Giglio-Tos, Scudder, L. Bruner, Brunner von Wattenwyl, Descamps and the like. This would provide the basics of a bibliography which will allow students willing to study the group to be able to work on a solid basis of knowledge of what has been made before. Many of us have been privileged in that researchers before us have laid the foundation for the development of our own knowledge. It is our duty as scientists and as orthopterologists therefore, to do the same to help others who do not have the advantages we have had. Maybe this could not properly be called a report on the whole area of South America, as some of its countries I do not personally know; but I thought it necessary to share what I know of these problems with the rest of the Society. This situation is true of a large part of the region and we must find ways to improve it in the countries concerned.

**Alba Bentos-Pereira**
Regional Representative
(South America)

*Cardiodactylus sp. (Ensifera: Gryllidae: Eneopterinae), Papua New Guinea, New Ireland Province (Photo credit: Hojun Song)*

# The Orthopterists' Society Grant Reports

## Prezygotic isolation in the genus *Sphingonotus*

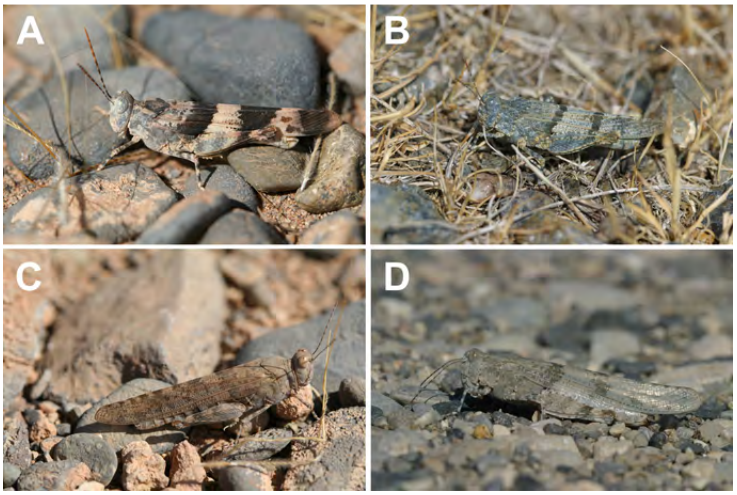
One of the main features of speciation is the development of isolation barriers. We distinguish between barriers that work before mating (premating isolation), after mating but before fertilization (postmating-prezygotic) and after fertilization (postzygotic). While postmating-prezygotic and postzygotic barriers do not prevent heterospecific matings, premating barriers are supposed to prevent mating of individuals belonging to different species. Premating barriers can underlie different principles: They enable the choosy gender (usually the female) of discriminating heterospecific individuals or they work mechanically to thwart the transfer of sperm. In many cases courtship display and behaviour play an important role for premating isolation (Coyne & Orr 2004). In Orthoptera premating isolation is often achieved by different song patterns (e.g. Ragge 1987; Shaw 1999). However, as in many other insects, genitalia structure can also serve as isolating agent (e.g. Otte 2002). The genus *Sphingonotus* is one of the most species-rich genera of band-winged grasshoppers (Oedipodinae) worldwide. With 142 described species and a nearly cosmopolitan distribution (Eades & Otte 2009), *Sphingonotus* is a suitable model system for biogeography and speciation studies.

Supported by a grant of the Orthopterists' Society, we continued our molecular phylogenetic studies on the genus. So far, we have completed sequencing four genes (mtDNA: ND1/16s rRNA, ND5, ITS2, 12s rRNA) for 138 specimens and single gene sequences have been completed for more than 100 additional specimens. The resulting phylogenetic trees revealed two recent radiations in the genus *Sphingonotus*. The phylogenetic relationships within these groups are difficult to resolve (Hochkirch & Husemann 2008). Two groups are characterized by a specialized stridulatory apparatus: the subgenus *Pseudosphingonotus* and the *S. radioserratus*-group. Whereas *Sphingonotus* s.l. uses a serrate intercalary vein to produce sounds, *Pseudosphingonotus* uses thickened cross veinlets between the radius and the media. The species of the *S. radioserratus*-group have evolved a serrate radial vein, which they use for sound production. Overall it seems that sound production and courtship behaviour are an important trait for the maintenance of species boundaries among *Sphingonotus* species. The closely related species *S. rubescens* and *S. caerulans* for example are morphologically and genetically very little differentiated, but their song structures differ essentially.

We also started to study male genitalia of several species. First results suggest that genitalia are more variable than usually thought. They differ substantially between distantly related species, while they are rather similar between closely related species. This conforms to the pleiotropy hypothesis (Arnquist 1998) which suggests that genitalia are of little importance as isolation barrier and differences just evolve as a by-product of genetic drift.

Our current results indicate that sound production and behaviour have a stronger importance for the maintenance of species boundaries than genitalia structures. Nevertheless, reproductive isolation does not seem to be complete. Mistshenko (1936) and Harz (1975) already noted some evidence for hybridization. Our genetic network analyses confirm this suggestion, as we found introgression particularly among the two young radiations (the *S. caerulans* group and the *S. azurescens* group).

Currently, we try to broaden our taxon sampling and include more species from the East Mediterranean, Central Asia and East Asia. We would be pleased, if anybody could send us material from these regions, particularly from China.




*S. octofasciatus from Morocco, S. lluciapomaresi from Spain, S. rubescens from Morocco and S. caerulans from France (Photo credit: Martin Huseman)*

**Martin Huseman**
Baylor University, USA
**Axel Hochkirch**
University of Trier, Germany

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# The natural ecology of *Ciulfina* mantids in Far North Queensland, Australia

Praying mantids have in the past been used as model organisms to study the ecology of generalist insect predators. Whilst a substantial body of scientific literature is available there is a limit to which this information can be applied to other praying mantid species. The order Mantodea contains a rich diversity of species occupying a range of varied niches which is not represented in the scientific literature.

Praying mantids of the genus *Ciulfina* are one such group where, despite being widespread throughout the forests of tropical northern Australia, there is little known about their general biology and ecology. There are five described species of *Ciulfina*, however an even greater number of species are still awaiting formal description. As a Masters student at Macquarie University in Sydney, I received funding from the Orthopterists' Society to research aspects of the natural ecology of *Ciulfina* mantids. With this additional funding I was able to survey the population characteristics of *Ciulfina* mantids over a two year period. My research focuses particularly on their interactions with their tree trunk habitat and how habitat selection is influenced by their interactions with conspecifics. This research took place primarily in the field throughout the forests of Far North Queensland with sites in the Atherton Tablelands, Mission Beach, and the Girringun National Park.

*Ciulfina* mantids differ from other more well known mantid species in a number of ways including their habitat and life history. They inhabit smooth, vertical tree trunk surfaces where they prey upon other small invertebrates such as ants and crickets. As a tropical species they are present as adults and juveniles throughout the entire year and do not appear to have an obvious seasonal breeding pattern.

*Juvenile Ciulfina biseriata (Photo credit: James O'Hanlon)*

With limited flying abilities *Ciulfina* mantids will jump from tree to tree when moving throughout forest patches. Whilst *Ciulfina* mantids do not appear to prefer particular tree species, certain forest patches, such as those close to forest clearings, may provide ideal habitat for these mantids. The selection of individual trees can be influenced by characteristics of the trunk surface and the presence or absence of conspecifics. It appears

*Mantid hunting in the Atherton Tablelands (Photo credit: James O'Hanlon)*

that mate searching behaviour and sexual conflict may influence habitat selection decisions more than competition for resources between conspecifics in the same habitat. Within the genus habitat selection priorities may differ between each species. How this can influence their distributions and ecology however is still unclear and warrants further investigation.

As a charismatic group of organisms, praying mantids are often victim to generalisations about their general ecology as the great diversity of mantid species have not received in-depth research attention. This research into the ecology of *Ciulfina* mantids provides a unique insight into new areas of praying mantis biology. With further research into a greater number and diversity of praying mantis species we will be able to gain a more comprehensive insight into the ecology and evolution of this wonderful order of insects.

**James O'Hanlon**
Macquarie University, Australia

## *17th Annual Call for Applications for the Orthopterists' Society Grants*

***Who can apply:*** *Graduate students and young professionals*
***For:*** *Significant basic research in Orthoptera (s. l.) and innovative presentation of findings*
***Funding amount:*** *$300-$1,000*
***Deadline:*** *30 September 2009 (will be awarded in December)*
***How to apply:*** *The proposals should be in the following format:* ***DESCRIPTION*** *(1 page): 1) TITLE, 2) SIGNIFICANCE, stressing the new aspects of the proposal, expected contribution to theory, relation to previous work, etc., 3) RESEARCH PLAN, including the particular orthopterans to be studied, methods, logistics, an approximate timetable, etc., and, 4) INNOVATIONS IN PRESENTATION, such as special tabulation, distinctive illustrations and diagrams, material on computer discs, CD-ROMs, etc.* ***CURRICULUM VITAE*** *(half page) including present position or years in graduate school, education, number of papers published or completed, citation of selected publications pertinent to the proposal to aid the judges (No vital statistics).* ***BUDGET*** *(half page) including justification of items where appropriate, other funding for the project, etc. Overhead CANNOT be provided on Society grants. Proposals from graduate students must include a simple recommendation of their major professor or advisor. Those not affiliated with an educational or research institution should indicate where the work is to be done. A report will be required from the successful applicants which will be published in Metaleptea.*
***Submit to:*** *Theodore J. Cohn, Chair, Research Committee Insect Division, Museum of Zoology, 1109 Geddes Ave., University of Michigan, Ann Arbor, MI 48109-1079, USA, Fax: (734) 763-0480, E-mail: tcohn@sunstroke.sdsu.edu [plain text or RTF only]*

# Society's Financial Reports

## Orthopterists' Society Statement of Income and Expenses for 2008 (in US$)

| **Income** (much additional income deferred to 2009) | **2007** | **2008** |
|---|---|---|
| Membershlip dues | 5,019 | 3,135 |
| Publications (subscriptions, page charges, back issues) | 11,373 | 14,380 |
| Non-designated contributions | 16,699 | 12,295 |
| Research grant contributions (match by anonymous donor included in non-design. contrib. above) | 1,300 | 630 |
| Sponsored membership contributions | 495 | 315 |
| Credit card fees | 164 | 42 |
| Contribution from AAAI for investment in Uvarov Award Account | 0 | 2,000 |
| Investment income (about 2/3 reinvested in Vang.Tot.St.Ind.Funds) | 3,009 | 3,485 |
| **Total Income** | **38,059** | **36,282** |
| **Expenses** | | |
| Officers remuneraion [several 2007 checks cashed in 2008] | 2,630 | 2,300 |
| Editorial assistant | 9,078 | 18,156 |
| Assistance for Executive Director plus miscellaneous small expenses | 1,109 | 1,149 |
| Printing costs in 2007: JOR 15 (2), JOR 16 (1) | 6,179 | 0 |
| Printing costs in 2008: JOR 16 (2), JOR 17 (1) | 0 | 6,849 |
| Research Grants (one deferred until 2009) | 5,400 | 4,410 |
| Miscellaneous bank fees (wire transf., check returned, new checks) | 1,072 | 287 |
| Credit Card company fees | 421 | 274 |
| **Total Expenses** | **25,889** | **33,425** |
| **Surplus (Income-Expenses)** | **12,170** | **2,857** |

**Orthoptera Species File**

(The Society now receives a yearly payment from the Orthoptera Species File endowment at the University of Illinois Foundation. Such funds are disbursed entirely as grants by the Treasurer as determined by the OSF Officer of the Society who is aided by a committee of Society members.)

| | | |
|---|---|---|
| Income | 33,324 | 14,200 |
| Expenditures (one grant for 14,000 was paid in 2008 from previous year's funds) | 33,324 | 21,220 |

## Orthopterists' Society Fund Balances 2008

| | Fair Market Value Begin. of Year | End of Year |
|---|---|---|
| **Checking Account** | **3,648** | **5,908** |
| **Securities** | | |
| Vanguared Total Stock Market Index Fund (Operating Account) | 38,204 | 24,054 |
| Vanguared Total Stock Market Index Fund (Grant Account, restricted) | 17,283 | 10,882 |
| A.G.Edwards & Sons (Operating Account) | 11,413 | 11,667 |
| A.G.Edwards & Sons (Endowment Account) | 22,964 | 12,456 |
| A.G.Edwards & Sons (AAAI Uvarov Award Account, restricted) | 10,481 | 7,565 |
| **Total Securities** | **100,345** | **66,624** |
| **Total Assets** | **103,993** | **72,532** |

## *Treasurer's Comments*

*As of this writing in August 2009, your Society is in an excellent financial condition. Our income from membership dues, publications, and contributions easily cover our expenses, the major portion of which is our peer-reviewed Journal of Orthoptera Research. Although I have had trouble with a new system for charging credit card accounts for the latter part of 2008, we should be able to work out the problem this summer. The Society now derives a considerable income ($9,660) from profit-sharing with BioOne and JSTOR. We ended 2008 with a good surplus, and I expect a larger one this year.*

*Our investments have, of course, declined significantly in value during 2008 in line with the general decline in the US stock market. But these investments were made for the long term- we do little or no trading, and have sold none of our stocks recently. When the stock market recovers our investments will increase in value, especially as we have been reinvesting the dividends in the Vanguard Total Stock Market Index Fund; even in these hard economic days, that fund has been paying regular if reduced dividends. We have therefore been automatically buying more shares in this fund at considerably reduced prices, and when the upturn in the market occurs, the value of our holding will increase even more. Much of the cash income from other of our investments is being held as cash, but we generally have not had to use this source of income to pay our expenses.*

*I wish to express my special thanks to those members who have generously contributed to the Society- non-designated category, sponsored membership, and research grants- and to our sustaining members who pay three times the annual dues each year. We are thus able to avoid any increase in membership dues and subscriptions, and to contemplate new projects.*

*This year the Society published Daniel Otte and Daniel Perez-Gelabert's massive, "Caribbean Crickets" through an anonymous donor for the printing and shipping costs. In the past other books have been similarly published by the Society.*

***Theodore Cohn***
*Treasurer*

# Editorial

Welcome to the new look of *Metaleptea*. I hope you enjoyed the reports from the 10th International Congress of Orthopterology as well as other articles describing the activities of the members of our Society. This is the first publication under my editorship and I am sure there will be some mistakes as well as rooms to improve. I want to express thanks to everybody who contributed articles in a timely fashion. Especially, our President Maria Marta Cigliano deserves some recognition for her efforts to coordinate with all the other board members in order to provide me with all the reports from the Congress. Also, our associate editor Sam Heads did a marvelous job editing in the midst of moving from the U.K. to the U.S. to start a postdoc at the OSF.

Putting together a newsletter for the first time was a big challenge for me and it made me realize how much time and effort our former Editor of *Metaleptea* Marianne Niedzlek-Feaver must have invested in order to publish *Metaleptea* in a timely manner. It was Marianne who made a successful transition from a paper version of the newsletter to an electronic version. Obtaining articles from the members and dealing with the frustration of formatting using not-so-user-friendly software are only a couple of many obstacles that an editor has to go through, but Marianne dealt with those issues so gracefully and patiently. One of the reasons why she stepped down was her weakening health and I truly hope and pray that she would get better. So, here I would like to express my sincere thanks to Marianne for her many years of wonderful work.

The success of a newsletter depends on its contents. And the contents come from you the members! *Metaleptea* will regularly feature the reports from the awardees of the Orthopterists' Society Grants as well as the reports from the regional representatives. But, besides those, I look forward to receiving reports from special meetings (such as the reports from the Dan Otte Symposium featured in this issue), personal reflections, stories about famous orthopterists, travel logs, short stories and poems, or anything you want to share with the members of the Society. I am also keenly interested in publishing photographs of our favorite insects. Surely, many of you must have nice pictures of your beloved organisms and *Metaleptea* is a perfectly good place to brag about your orthopterans. I will also strive for bridging the gap between professionals and amateurs by introducing them to the members of our Society.

To be published in *Metaleptea*, please send me articles/photographs at entomos@gmail.com with a subject line starting with [Metaleptea]. MS Word document is preferred and images should be in JPEG or TIFF format with a resolution of at least 144 DPI. Please do not embed images into a word document, but send me as separate files. The next issue of *Metaleptea* will be in December 2009 or January 2010 and please send me the articles promptly. Also, please do not hesitate to send me feedback regarding *Metaleptea*. I look forward to hearing from you soon.

**Hojun Song**
Editor of *Metaleptea*

*Pseudothericles compressifrons* (Stål, 1875) (Caelifera: Thericleidae). South Africa: Eastern Cape Province. Great Fish River Nature Reserve (Photo credit: Hojun Song)

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