

METALEPTEA

THE NEWSLETTER OF THE



ORTHOPTERISTS' SOCIETY

President's Message

Dear Society members,
One more year has gone by and I'm glad to inform that 2011 was a very productive one for our Society. We have successfully achieved several accomplishments mostly related to communication among members of the Board making our work more efficient. Following are some important announcements for the coming year related to the life of our society.

JOURNAL OF ORTHOPTERA RESEARCH

New Associate Editor

I am very glad to announce that Dr. Sam Heads (presently the Associate Editor of *Metaleptea*) will also act as an Associate Editor of JOR, mostly dealing with manuscripts on systematics of Tridactyloidea, Tetrigoidea, Grylloidea and fossil Orthoptera. Sam will start with his new duties with JOR 21 (1). Thank you Sam!

JOR: Going to Four Issues per Year!

It is with very great pleasure that I announce that JOR will double its frequency of appearance during 2012. Although it adds more expense (covers, mailing) and work, mostly for our Editorial Assistant (Nancy Morris) dealing with JOR covers, we believe that this change will bring the following benefits:

1) It will make JOR more attractive



as a place to publish, because it will remove long waits for submitting authors. The more rapid appearance will help attract more people to send their good papers in our direction.

2) It will spread the work out more uniformly for the editors.

3) Without any doubt we know that one of the major challenges facing us is to get JOR listed by ISI Thomson, Science Citation Expanded. At four rather than two issues per year JOR will match the output rate of most of the journals presently listed by Thomson. Thus, it will help to meet the standards required by ISI.

The Society and editorial staff have committed to the costs and effort of increasing the periodicity of JOR. We encourage our community of fellow orthopterists to support us in this new engagement; please consider JOR as a venue for the publication of your research.

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MEMBERSHIP DUES AND SUBSCRIPTION TO JOR

A slight increase (12%) in membership dues (except for students) and in the subscription to JOR will be applied starting 2012, mostly to cover the expense of doubling the rate of appearance of JOR. I hope this increase will not make a big difference to our members' budgets and/or pockets.

11TH INTERNATIONAL CON- GRESS OF ORTHOPTEROLOGY: THE WEBSITE IS OPENED

I have the pleasure to announce that, thanks to the work of the Chair of the Congress, Dr. Long Zhang from the Key Laboratory for Biological Control, Ministry of Agriculture, China Agricultural University, Beijing, the website for our next congress in Kunming, Yun-

nan, China is now opened. Please visit the website of the Congress for more information at:
<http://ico.greatlocust.com>

Wishing you the best for 2012!

MARÍA MARTA CIGLIANO

An invitation to the 11th International Congress of Orthopterology

Dear Orthopterists:

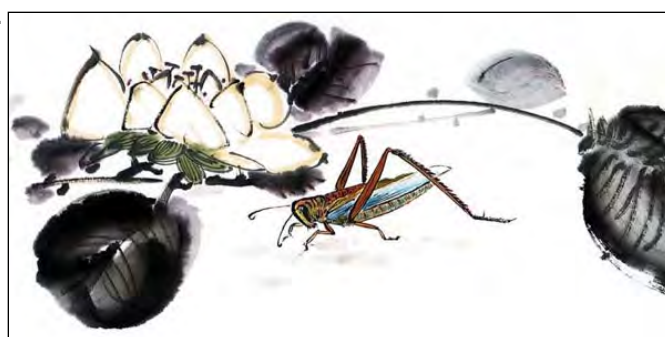
D It is our pleasure to invite you to come to Kunming, Yunnan, China for the 11th International Congress of the Orthopterists' Society. The meeting will be held from 11 to 15 August, 2013 in the Hotel of Yunnan University, situated on the University campus.

The theme of this congress is "*Orthoptera in Scientific Progress and Human Culture*". We are planning an exciting scientific program to share ideas and the latest findings in the various fields of Orthopterology, and to explore fundamental scientific research regarding all aspects of the biology of these insects, from ecology and taxonomy to physiology, phylogeny, genomics, biogeography, phylogeography, behavior, and control measures.

Kunming, the capital city of Yunnan Province in southern China, is in the centre of the Yunnan-Guizhou Plateau, located at an elevation of 1,900 m above sea level. Yunnan has some of the most magical and diverse scenery in all of China and is home to a third of China's ethnic minorities. The province is also home to the nation's greatest number of species of flora and fauna. It is known for its mild climate year-round. Do plan to stay a few extra

days to explore other sites in Yunnan.

We look forward to seeing you in Kunming and offering you an informative conference and a warm, Chinese experience.



Sincerely yours,

LONG ZHANG
Beijing, China

MARÍA MARTA CIGLIANO
La Plata, Argentina

Scientific program

A very exciting scientific program has been planned covering a wide range of subjects with plenary lectures and symposia/workshops aimed at giving overviews and updates on recent research. Besides plenary lectures, symposia and workshops, there will be special sessions of the regularly submitted presentation.

SYMPOSIA

Orthoptera Conservation

Organizer: Michael Samways, University of Stellenbosch, South Africa

Orthoptera Systematics

Organizer: Hojun Song, University of Central Florida, USA

Taxonomy of Orthoptera: How to Consider Species Concepts

Organizer: Battal Ciplak, Faculty of Art & Science, Antalya, Turkey

Sex

Organizer: Douglas Whitman, Illinois State University, USA

Orthoptera as Components of Communities in Biomonitoring Research

Organizer: Dan Johnson, University of Lethbridge, Canada

Orthoptera Communication: From Model Organisms to Comparative Studies

Organizer: Klaus Riede, Museum Alexander Koenig, Germany

Orthoptera in Culture & Education

Organizer: Charles Bomar, University of Wisconsin-Stout, USA

Grasshopper and Locust Control: Progress or Constant Renewal?

Organizer: Alexandre Latchinsky, University of Wyoming, USA

Functional Genomics: Will Genes Reveal the Locust Polyphenism Mystery?

Organizer: Greg Sword (Texas A&M University, USA) and Darron Cullen (University of Sydney, Australia)

PANEL DISCUSSION/WORKSHOP

International collaboration on higher systematics of Orthoptera

The Orthopterists' Society welcomes new members



As you know membership is at the cornerstone of keeping the Society fluid and vibrant thus I am glad to welcome our new

members from Australia, Sweden, France, England, USA, Germany, China, United Kingdom, Thailand, India, Republic of South Korea, Algeria, Burkina Faso, Libya, Niger, Mali, Tunisie, Chad and Egypt who joined the Society during 2011.

Besides, I would like to thank our Regional Representatives, especially Mohamed Abdallahi OULD Babah, who are doing a great job in advertising our Society.

MARÍA MARTA CIGLIANO

NEW MEMBERS:

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Below: Aposematic form of Schistocerca lineata nymph from Texas (Photo credit: H. Song)



Orthoptera Species File Updates

LSIDs

Recently OSF started to provide and display LSIDs for taxon names. These “Life Science Identifiers” are globally unique identifiers used for biodiversity data. They provide a way to track and find metadata of all sorts of biological entities on the internet, such as taxon names, nomenclatural acts and taxon concepts, specimens, authors and collectors, publications, institutions, etc. New taxon names are usually registered at ZooBank and thereby receive an LSID. Now also OSF (as well as the other databases based on Species File Software) issues LSIDs automatically when new names are entered. If authors wish to include LSIDs for names of new taxa in future articles, those could already be reserved before the manuscripts are submitted. Upon valid publication of the corresponding descriptions they will then be displayed in OSF along with the new taxa. With the LSIDs can also be created hyperlinks to taxon pages in OSF, which could be included into the descriptions. Please contact

us if you are interested in using OSF LSIDs in your publications.

Repository of sound recordings

Currently there are very few sound recordings available in OSF, although calling songs are an important means for species identification as well as for various systematic, behavioral, and ecological analyses. OSF could function as a repository for recordings mentioned in publications with appropriate sources and additional data. This would offer the possibility to study those recordings directly, beyond the limitations of illustrations and verbal descriptions. The songs of crickets and grasshoppers could be reproduced directly (this currently does not yet work in all browser types) and the high-pitched and often entirely ultrasonic songs of katydids could be downloaded by interested researchers and analyzed with specialized software. In publications resulting from subsequent studies, the original authors of the recordings naturally would be credited.

Addition of new articles and taxa

To incorporate new information as rapidly as possible into OSF, it would be helpful if authors could enter new articles under “just published” at the website of the Orthopterists’ Society, or send PDF copies directly to us. This would be especially useful for articles published in less well-known journals, which are sometimes difficult to obtain. Also, photographs of live individuals and type specimens are always welcome. Species pages with images look more beautiful and facilitate the identification of the users’ own specimens.

Missing or erroneous data

OSF now covers over 25,000 recent and almost 700 fossil species. We do our best to keep the data as accurate and up-to-date as possible, but some things are still inaccurate and incomplete. Please inform us if you find anything wrong or missing. We would like to express our thanks to the numerous orthopterists who, over the past few years sent comments, papers, and photographs and helped to improve OSF.

subfamily *Plagiotriptinae* Bolívar, 1914
 tribe *Plagiotriptini* Bolívar, 1914
 genus *Plagiotriptus* Karsch, 1889

species *Plagiotriptus discolor* Hemp, 2011

LSID urn:lsid:orthoptera.speciesfile.org:TaxonName:73143

Images:



Distribution:



Ecology:

Terrestrial.

Specimen records are available.

Citations:

Hemp, C. 2011. Jour. Orth. Res. 20(1):98 >> *Plagiotriptus discolor*

Type specimen information:

- Type locality: Africa, East Tropical Africa, Kenya, Taita Hills, Mt. Vuria, on shrubs at lower border of montane forest
- Kind of type: holotype
- Specimen category: male
- Location of type: ZMB Berlin Mus.

Here is an example of an LSID of a grasshopper species (shown in red box) and a complete URL (<http://lsid.speciesfile.org/urn:lsid:orthoptera.speciesfile.org:TaxonName:73143>) of a hyperlink that redirects to its page in OSF.

**HOLGER BRAUN
 & MARÍA MARTA CIGLIANO**
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Treasurer's Report

To the Members of the Orthopterists' Society:

I am pleased to submit my first report as your Treasurer. As shown in the Statement of Assets, we are in solid financial condition with assets worth \$104,594. Since the records are kept on a cash basis, we have no information about accrued liabilities. There are no borrowed funds to show as liabilities. The Statement of Cash Receipts and Expenditures shows a healthy \$8,188 excess of receipts over expenditures. We cannot assume these results are typical for a year. We have not yet received any

billing for the time of Pamm Mihm, who does the real accounting work, and 2013 with the International Congress of Orthopterology will be quite different.

Assuming the responsibility as Treasurer has been an interesting experience. It started when Pamm and I went to Ann Arbor so that Ted Cohn and Abby Alvarez could tell us all about what we were getting into. They have been most helpful at that time and continuing to answer our many questions. I thank them for their assistance and their years of managing the Treasurer responsibility. There were hassles in transferring authority for the

endowment accounts, but that is now accomplished. Pamm now has access to the database of our membership maintained by Piotr Naskrecki as part of the Society's web page. When the new arrangement is fully operational in a few months, this will improve our efficiency in tracking payment of dues and subscription fees and will somewhat reduce the workload of Chuck Bomar as Executive Secretary.

Respectfully submitted,
DAVID EADES
Treasurer

Orthopterists' Society

Statement of Assets

(as of December 31, 2011)

Cash

Paypal cash balance	\$1,805.74
Midland States Bank	<u>\$10,756.31</u>
	\$12,562.05

Investments at market value

Vanguard:	
Grants ¹	\$16,481.67
Operating ²	<u>\$36,431.76</u>
	\$52,913.43

Wells Fargo:	
AAAI ³	\$9,977.51
Endowment ⁴	\$15,766.55
Operating ²	<u>\$13,374.10</u>
	\$39,118.16

Total assets **\$104,593.64**

¹This fund is restricted and can only be used for research grants.

²This fund is nonrestricted.

³This fund can only be used for the Uvarov Award made at each int'l meeting.

⁴The income in this account is available for Society expenses; can extract capital but must have a plan for repaying it within 3 years.

Orthopterists' Society

Statement of Cash Receipts and Expenditures

(Twelve Months Ended December 31, 2011)

Cash Receipts

Royalty and revenue sharing	\$14,228.16
JOR page charges	\$1,317.93
Dues	\$5,860.00
Publications	\$6,698.95
Donations	\$13,564.61
Other	<u>\$1,374.32</u>
Total Cash Receipts	\$43,043.97

Cash Expenditures

Research grants	\$3,790.00
Publisher	\$7,714.87
Unit packaging	\$1,723.34
JOR editor	\$2,450.00
JOR assistance	\$14,942.00
Metaleptea remuneration	\$500.00
Webmaster remuneration	\$300.00
Executive director	\$1,500.00
Supplies	\$944.86
Other	<u>\$990.68</u>
Total Cash Expenditures	\$34,855.75

Excess of Cash Receipts over Cash Expenditures	\$8,188.22
Beginning Cash Balance	<u>\$4,373.83</u>
Ending Cash Balance	\$12,562.05

The Orthopterists' Society Grant Reports

Biodiversity of Orthoptera associated with macrophytes of the Middle Paraná River

The Paraná River is the second largest river in South America in terms of catchment area (1.51 million km²), the second longest (4,400 km from the headwater of Grande River in Brazil to the Río de la Plata estuary) and the third in terms of discharge (about 470 km³ of fresh-water carried to the sea annually).

The Middle Paraná River shows an aquatic vegetation dynamic that is closely related to the evolution and development of islands, where flood pulses and low waters determine the shapes and structures adopted by the different areas of an island (e.g. levee and flooding areas). The most important macrophytes in this river system are *Eichhornia crassipes*, *Salvinia herzogii*, *Ludwigia peploides*, *Paspalum repens*, *Echinochloa* sp. and *Polygonum* sp. However, *E. crassipes* (water hyacinth) is dominant in the floodplain wetlands with monthly average biomass from 8.6 to 24 t.ha⁻¹ dry weight (Neiff and Poi de Neiff, 1984). This plant originated in South America and has been introduced as an ornamental in Africa, Asia, Australia and North America where, as a result of its high dispersal rates and adaptability, it has spread at an alarming rate. For this reason, it is widely considered a weed, in both lentic and lotic water bodies (Julien and Griffiths, 1998; Julien et al., 2001).

The Orthoptera are a biologically successful group of terrestrial insects and occupy a wide variety of habitats and ecological niches. While the majority of orthopterans are not generally considered aquatic insects, some species have a close relationship with aquatic

environments (Bentos-Pereira and Lorier, 1991).

Determination of freshwater biodiversity first requires a precise definition of which organisms are to be considered aquatic. Various authors (Bachmann, 1995; Leveque et al., 2005) suggest that many animals depend on freshwater in various ways; either residing permanently in that environment, or relying on this habitat to complete their life cycle. In both cases, these organisms are considered aquatic animals. With respect to Orthoptera, the majority of studies refer to both species living in low and flood-prone areas and those that live on aquatic plants, as semi-aquatic species. Conversely, Amédégnato and Devriese (2008) propose that only

those Orthoptera which depend on macrophytes, either for the deposition of eggs and/or because their nymphal development is linked to them, should be considered as primarily aquatic insects.

The freshwater community of Orthoptera comprises mainly representatives of Acridomorpha, Acridoidea (Amédégnato and Devriese, 2008). However, some species of Tetrigoidea are also dependent on the water, at least in some stages of their life cycle. Within the Ensifera, certain species of the predatory genus *Phlugis* (Tettigoniidae: Meconematinae) specialize in feeding on the nymphs of aquatic Orthoptera (Nunes, 1996; Amédégnato and Devriese, 2008).

Very little is known about the

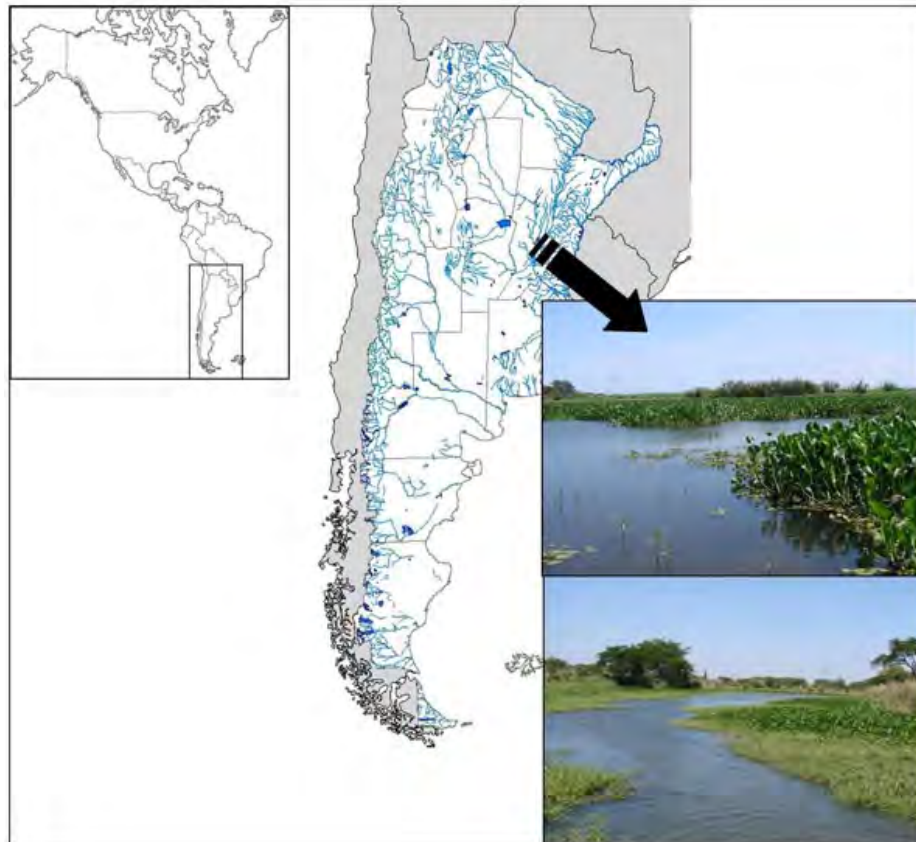


Figure 1. Hydrographic system of Argentina. The arrow indicates the location of this study on the Middle Paraná River. The photographs were taken at the sampling sites.

orthopterans that inhabit moist or wet environments because such species usually do not become pests (Squitier and Capinera, 2002). However, in the Paraná River system these grasshoppers are very important as selective primary consumers of macrophytes and components in the cycle of nutrients and energy. Due to very scarce knowledge in the Neotropical region, the aim of my study is to determine the biodiversity of orthopterans associated to macrophytes and to analyze the botanical composition of their diet.

Collecting took place between April 2006 and May 2007, within the floodplain of the Middle Paraná River (Fig. 1). The grasshoppers were collected fortnightly using sweep nets.

The species richness, abundance and constancy of Orthoptera were estimated according to Bodenheimer (1955). Based on the constancy index, the Orthoptera were included in some of the following categories taking into account the presence of each species on the total of the sampling carried out: *constants* (present in more than 50%), *accessory* (between 25% and 50%) and *accidental* (less than 25%).

To determine the grasshopper feeding habits, individuals of dif-

ferent species were placed in a paper tube for 24 h and the feces collected, clarified with 10% potassium hydroxide (KOH) and mounted on slides. Twenty microscope fields were random selected for each sample (feces of 1 individual) where at least one epidermic tissue piece could be observed. The feeding habits will be determined by comparing pellet composition with the epidermal characteristics of macrophytes species recorded in the field (Arriaga, 1986).

Orthopteran species richness registered during the study was 17 species (13 Caelifera and 4 Ensifera; Table 1). The maximum value of species richness registered was 15 during the summer, while the lowest value was 2 or 3 species recorded in winter. The total number of grasshoppers collected was 3,377 individuals. The highest values were recorded in summer (1,826 ind.), followed by spring (830 ind.), autumn (584 ind.) and winter (137 ind.) (Fig. 2).

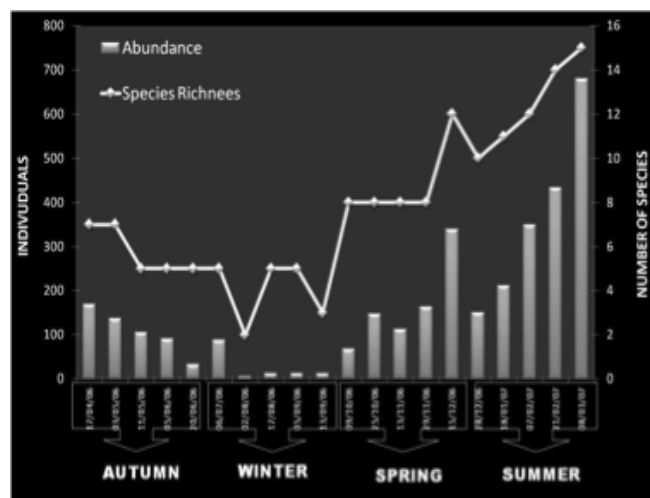


Figure 2. Species richness and abundance of Orthoptera throughout the year.

Based on the results obtained, only 7 of the 17 orthopteran species found on the macrophytes can be considered constant species of aquatic habitats (Table 1). Three of them are acridids: *Paulinia acuminata*, *Cornops aquaticum* and *Tucayaca gracilis*. The first two species have been widely studied for use as potential biological control agents of weeds: *Salvinia auriculata* (Thomas, 1980; Sands and Kasulke, 1986; Vieira and Adis, 1992) and *Eichhornia crassipes* (Bennett and Zwolfer, 1969; Silveira Guido and Perkins, 1975; Hill and Oberholzer, 2000; Oberholzer and Hill, 2001; Adis and Junk, 2003; Capello et al., 2007; Capello et al., 2011), respectively. On the other hand, three of the ensiferan species registered (*Phlugis* sp., *Conocephalus* sp. and *Scudder* sp.), are also known to inhabit moist habitats near to the water (Nunes, 1996). The crickets recorded in this study were found by other authors on different aquatic plants with other tettigoniids (Carbonell, 1980; Albertoni et al., 2007) (Fig. 3).

It is important to emphasize the low recorded abundance of *Marellia remipes*. Despite the fact that this species has many adaptations to the aquatic environment (Uvarov, 1929; Carbonell, 1957; Bentos-Pereira and Lorier, 1991), only 30 grasshoppers were collected. This

Suborder	Species	Const	Acce	Acci
Caelifera	<i>Metaleptea adspersa</i> (Blanchard 1843)		X	
	<i>Aleuas lineatus</i> Stål 1878		X	
	<i>Dichromorpha australis</i> Bruner 1900			X
	<i>Leptysmia argentina</i> Bruner 1906			X
	<i>Tucayaca gracilis</i> (Giglio – Tos 1897)	X		
	<i>Cornops aquaticum</i> (Bruner 1906)	X		
	<i>Haroldgrantia lignosa</i> Carbonell, Ronderos, Mesa 1967			X
	<i>Dichroplus elongatus</i> Giglio – Tos 1894			X
	<i>Marellia remipes</i> Uvarov 1929		X	
	<i>Paulinia acuminata</i> (De Geer 1773)	X		
	<i>Chromacris speciosa</i> (Thunberg 1824)			X
	<i>Coryacris angustipennis</i> (Bruner 1900)		X	
	<i>Diponthus argentinus</i> Pictet & Saussure 1887			X
Ensifera	<i>Conocephalus</i> sp. Brongniart, 1897	X		
	<i>Phlugis</i> sp. Stål, 1861	X		
	<i>Scudder</i> sp. Stål, 1873	X		
	Gryllidae	X		

Table 1. Orthoptera species registered in the Middle Paraná River. Based on the Bodenheimer index, the species were separated into constants (present in more than 50%), accessory (between 25% and 50%) and accidental (less than 25%) taking into account the presence of each species on the total of the sampling carried out. Const.: constants; Acce.: accessory and Acci.: accidental species.

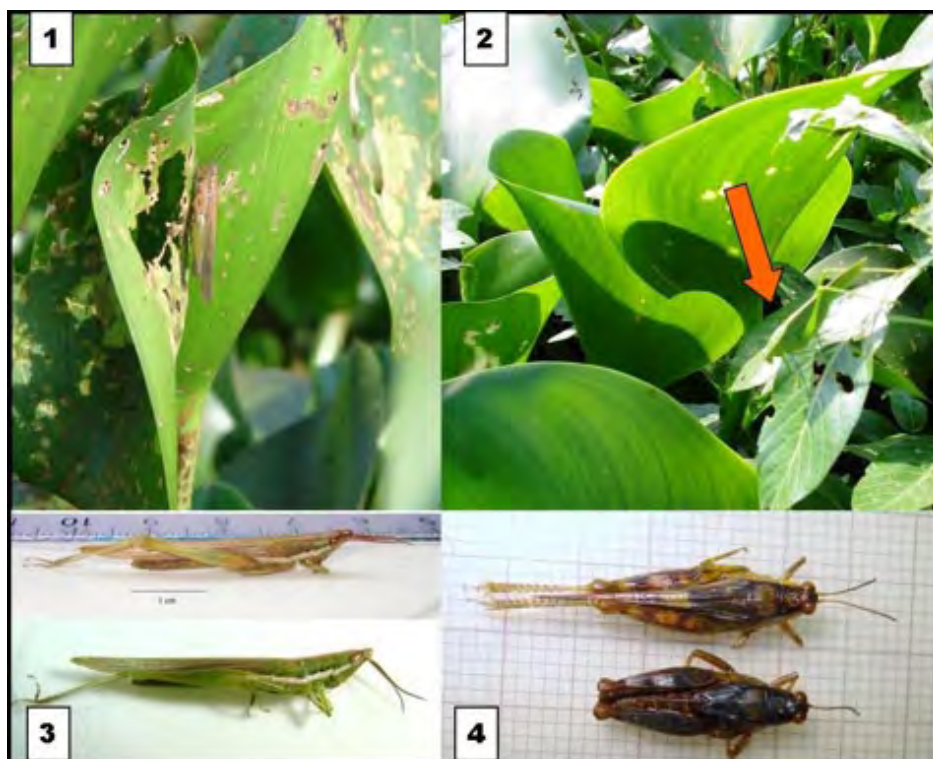


Figure 3. Some species considered constants that live on aquatic plants. 1: *Cornops aquaticum*. 2: *Scudderia* sp. 3: *Tucayaca gracilis*. 4: *Paulinia acuminata*.

situation might be that this grasshopper is closely associated with *Hydrocleis nymphoides* (Butomaceae), a stolonigerous and floating perennial aquatic plant that grows in clean and quiet water (Carbonell and Arrillaga, 1958), which was not very frequently found in the studied environments. The sites explored during this study are characterized by suspended sediments, high exposure to winds and a dynamic hydrosedimentological cycle, and are therefore, unsuited to the growth of *H. nymphoides*.

The diet of grasshoppers range varies from strict monophagy to extreme polyphagy. Between these extremes is a continuum of species exhibiting varying degrees of selectivity in the food that they eat. To try to corroborate these previous ideas, I analyzed the diet of the dominant Orthoptera and examined microscopically 568 pellets of 5 acridids (*C. aquaticum*, *P. acuminata*, *M. remipes*, *T. gracilis* and *Coryacris angustipennis*) and 2 tettigoniids (*Scudderia* sp. and *Conocephalus* sp.). *Phlugis* sp. was excluded from

this part of the study because it is a predatory species.

In all mentioned species there was great predominance in the consumption of aquatic plants although in different proportions (Fig. 4). *Cornops aquaticum*, *P. acuminata* and *M. remipes* consumed exclusively aquatic macrophytes, while others consumed terrestrial plants. For example, *Conocephalus*

sp. (38,30%) and *C. angustipennis* (27,84%) had higher intakes of terrestrial plants located on the shore of the Middle Paraná River, actively participating in the exchange of matter and energy between the aquatic and terrestrial systems.

Of the seven species of Orthoptera collected on aquatic plants using these macrophytes as a main food source however, the only plant consumed by all species was the water hyacinth (*E. crassipes*) (Table 2). Only the grass blades were of general importance to the grasshoppers as food. Some petioles were identified in some insects and so cannot have been very significant.

Polyphagy in grasshoppers depends on their ability to tolerate a wide range of compounds which act as feeding deterrents to species with more restricted feeding habits. Bernays and Chapman (1994) suggested that the essential difference between polyphagous, oligophagous and monophagous species is one of sensitivity to chemical deterrents. Nevertheless, the majority of grasshoppers are polyphagous (Bernays and Bright, 1991 1993). Coinciding with the abovementioned authors, this study concluded that all orthopterans that live on

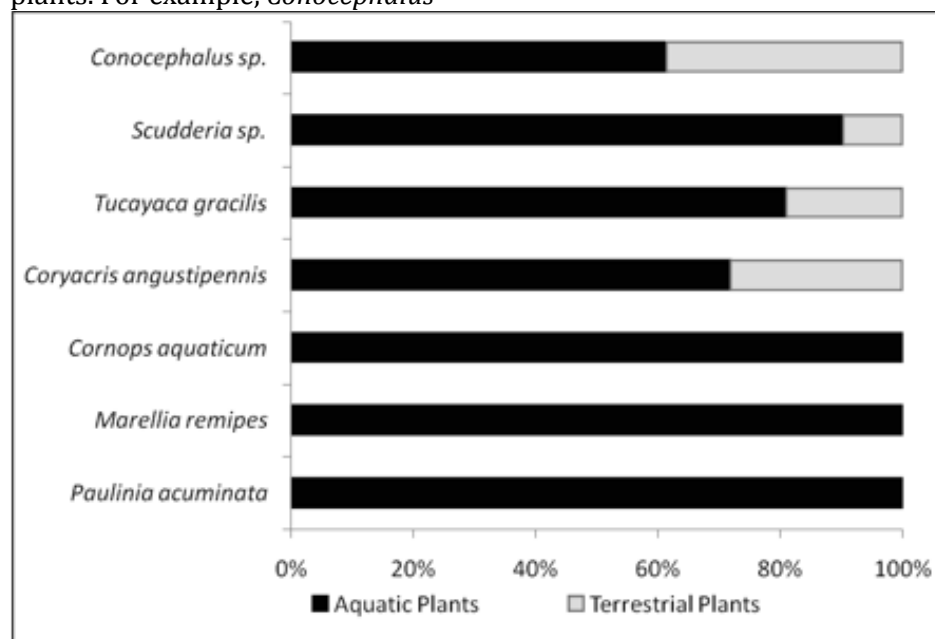


Figure 4. Proportion of terrestrial and aquatic plant consumed by grasshoppers and tettigoniids.

	<i>Paulinia acuminata</i>	<i>Marellia remipes</i>	<i>Cornops aquaticum</i>	<i>Coryacris angustipennis</i>	<i>Tucayaca gracilis</i>	<i>Scudderia sp.</i>	<i>Conocephalus sp.</i>
	N: 40	N: 30	N: 209	N: 64	N: 100	N: 65	N: 60
<i>Alternanthera sp.</i>	0	0	0	0.59	0	23	12.00
<i>Azolla sp.</i>	<u>51.13</u>	0	0	0	0	0	0
<i>Eichhornia crassipes</i>	4.31	18.65	<u>91.21</u>	<u>46.54</u>	15.90	12.20	7.90
<i>Hydrocleis nymphoides</i>	0	<u>77.18</u>	0	0	0	0	0
<i>Hidrocotyle sp.</i>	0	0	0	1.98	0	0	0
<i>Ludwigia peploides</i>	1.38	0	4.08	3.53	0	<u>54.00</u>	<u>41.80</u>
<i>Nymphoides sp.</i>	2.38	0	0	0	0	0	0
<i>Oxycarium cubense</i>	0	0	0	1.02	0	0	0
<i>Paspalum repens</i>	0	0.17	4.23	12.85	<u>65.3</u>	0	0
<i>Panicum prionites</i>	0	0	0.33	3.13	0	0	0
<i>Pistia stratiotes</i>	3.75	1.33	0	0	0	0	0
<i>Polygonum sp.</i>	0	0	0.15	2.54	0	1.30	0
<i>Salvinia sp.</i>	37.06	2.97	0	0	0	0	0
Terrestrials Plant	0	0	0	27.84	18.80	9.50	38.30

Table 2. Percentage consumed of each plant in the diets of Orthoptera (largest values are in italics and underlined). N: sample number analyzed of each species.

macrophytes are polyphagous by eating plants from different genders, even different families, orders and classes (Monocotyledonae and Dicotyledonae).

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Musings on Mexico: A Mexican Travelogue

Mexico. The name of this fascinating country conjures up a myriad differing mental images depending on the person. For myself, as a gringo (a citizen of the U.S.A.), I must confess that what typically came to mind when I thought of Mexico was cacti, desert, large hats, coca-cola in glass bottles, and, of course, Mexican food. However, I am now happy to report that just about all these thoughts have been shattered and rightfully replaced with fresh data straight from the source. You see, I recently returned from an 18-day adventure to southern Mexico and I am the better for it.

My name is Derek A. Woller and I am a Ph.D. student in the laboratory of Dr. Hojun Song at the University of Central Florida (UCF) in Orlando, Florida. My eye-opening excursion came about because my fellow Ph.D. student and lab mate, Ricardo Mariño Pérez, who is a native of Mexico City, was returning to his country for two reasons: 1) to visit his family and, perhaps, more importantly, 2) get a jump on his research. Ricardo is in the preliminary stage of his project, which will delve into the systematics of the acridomorph family, Pyrgomorphidae. Dr. Song graciously asked if I would like to accompany Ricardo on his

field trip and how could I refuse? So, the two of us boarded a plane on December 1st, 2011 and off we went. Our mission: to collect every orthopteran we encountered, especially pyrgomorphids, and preserve them in ethanol for later DNA extraction for molecular analyses.

Upon arrival in the Mexico City airport of my southern neighbor, we disembarked into a practically-empty customs zone and exited with ease. Next, we tracked down Ricardo's family, who gave me a warm welcome, and then attempted to locate the last two members of our collecting party: Dr. Paolo Fontana of the Istituto Agrario di San Michele All'adige and Dr. Paola Tirello of the Università di Padova, both from Italy. The next big step was to transform our budget from dollars to pesos, a seemingly easy feat, but one which, for whatever reason, took almost an hour combined for the four of us. I did learn a valuable lesson, however, and that is to check out all the booths and their differing exchange rates before committing (luckily, we did just that).

Having completed our final air-



From left to right: Paola Tirello, Paolo Fontana, Ricardo Mariño Pérez, and Derek A. Woller. Near Suchixtepec, Oaxaca.

port job, we headed out into the city and what a city it is! I have traveled many places during my life and have seen many a metropolis (I've even braved New York City traffic in my own car), but I was still astonished by the sheer size, scope, and crowdedness of Mexico City. The next thing I know, we've picked up our rental car and I'm actually driving in this monstrous city in the dark and, naturally, with all the signs in Spanish. I should now point out that I have actually journeyed to Mexico thrice prior, but not to what I like to refer to as the "real" Mexico. I have been to two border towns just across from Texas and Cozumel; in other words, I had only seen the tourist side of things. I am also

able to get by well enough when speaking Spanish, but my mastery of reading Spanish is far greater, which is why no one in our group panicked when I took the wheel.

I must tell you, though, that driving in Mexico is a far more interesting experience than driving in the U.S. because you must be constantly alert (something I am, I promise, when driving in the country of my birth, but not to this degree) due to a lack of well-marked lanes, odd lights and signs, people hanging out in the streets, and toques. How I do not miss you, toques. For those not in the know, a toque is a “speed bump” and for those unfamiliar with that moniker as well, picture a moderate bump of varying colors rising from the road, often appearing from out of nowhere and being placed on just about every road in Mexico. Additionally, the gaps between them are usually only a few hundred meters, so, you see, a sleepy eye is a dead eye in the land of the toque.

We spent our first night at Ricardo’s home, which is nestled deep within the southern part of the city in a bustling neighborhood filled with the sounds, sights, and smells of a street market during, thankfully, the daylight hours. After a trip to Ricardo’s previous school, the Universidad Nacional Autónoma de México (UNAM), which hosts an im-

pressively sprawling and an assortment of interesting architecture, our expedition truly got underway as we slowly made our way south out of the city (traffic, of course). Our first destination was the state of Puebla, the first of seven states we would ultimately make our way through.

After many hours of driving, we made it to the Hotel Koría and I swiftly received a crash-course of what to expect at Mexican hotels. Upon check-in, you almost always pay a very modest sum for lodgings, which, overall, were quite decent for the whole trip, but which can differ greatly in terms of size and comfort level (and hot water is a luxury, not a given). The hotel clerk also hands you a roll of toilet paper, a bar of soap, the television remote, and an “old-fashioned” key (I’m from the land of hotels that now only the electronic key card) attached to a large object, usually a wooden block.

After little sleep (thankfully, a pattern that was rarely repeated), our taskmaster, Dr. Fontana, got us out the door and onto the open road again. We headed deeper south into Puebla and soon found our first site: an area not far from the road and which had been utilized at one point by humans (usually for agricultural reasons); the type of site that we would collect in



Collecting in a grassland near Esperanza, Puebla.

again and again with stellar results. Thus, we started collecting chapulines, the Mexican Spanish word for grasshopper that means, in Náhuatl (Aztec), “insect that jumps like a rubber ball”. In all, we collected orthopterans from 36 different sites covering a wide range of habitats, which is one of the things that surprised me the most about Mexico. For example, later in the trip, in a single day, we traveled from a xeric landscape to the beach on the Pacific Ocean and then up into a pine forest high on a mountain.

I digress from the narrative, however, and now return us to our next destination: a brief stop in the state of Veracruz where I got to explore my first tropical rainforest in much depth. In addition to assisting in the capture of a massive tettigoniid. I got to see huge *Morpho* butterflies up close and personal (although they eluded my pathetic netting attempts for the duration of the trip), and examine a host of bizarre plants, many of which seemed to only be interested in keeping mammals away, what with their spines, thorns, stickers, and itchy oils. The state of Tabasco was next on the agenda and we were able to visit our first set of ruins (all told, we visited 7 different sites on our journey, the remnants of 6 very diverse cultures) left behind by the Olmecs. We explored giant stone heads,



Visiting Mayan ruins in Palenque, Chiapas.

totems, and a sacrificial altar atop a high hill while collecting numerous acridomorphans with our hands, checking out a termite mound far up in a tree (had NO idea they did that), and watching leafcutter ants carry their leafy fragments to and fro along their well-worn roadways.

Then, it was on to Chiapas, the state in which we spent quite a bit of time as there were so many good collecting sites. Believe it or not, in the town of Palenque, Dr. Fontana ran into two of his neighbors from his small village, Isola Vicentina in Veneto, Italy. The probability of such an event occurring are extraordinarily small, so we were all quite perplexed by the coincidence. We also managed to check out two Mayan ruins sites, one in Palenque and the other in Bonampak. Both sites were very much like the ones I had seen in movies and history books: large, imposing, incredibly-detailed, and they literally took my breath away as I climbed up and down many temple steps. From an entomological standpoint, the best part of visiting Palenque's ruins was the re-discovery (Dr. Fontana had found it on a previous trip) of a very small, damp patch of grass and rocks that was home to a species of Ripterygidae. I was amazed at how small they were and their brilliant orange, white, and black coloration was simply incredible. While we were doing our best to catch some using vials, some of the locals wished to know what we were up to and the next thing you know, they were swiftly bringing us grasshoppers from all over the ruins. When in doubt, always ask a local.



Ripteryx sp., Palenque, Chiapas.

While in Chiapas, we also stayed in a quaint village, Lacanjá Chan Sayab, where the primary language was Mayan and Spanish was learned as a second language. The village also had a long gravel road running through it that was once used as a landing strip. I have yet to remark on the wondrous food that I partook in while in Mexico, mostly because I loved all of it and writing on the joys of real Mexican food (not the poor imitation U.S. version that I'd only ever been exposed to (but which I love on its own merits)) would take another travel essay. However, I'd like to touch on the 46 cheese and chicken quesadillas that we consumed in a tiny house/restaurant in this village because, although the food was simple, it was extraordinarily tasty, probably due to a combination of our hunger, our weariness, and because it just was. A local woman kept the quesadillas coming while we conversed with her husband about the village's conservation efforts to preserve their tropical rainforest surroundings.

We were quite amazed at how well-organized the village was in order to make their primary living from ecotourism. For instance, they utilize the hundreds of seed types that exist in the area to construct earring and necklaces, the wood from various trees to make small jaguar figures, and in a small table of their home/restaurant was "A Guide to the Birds of Mexico and Northern Central America" by Howell and Webb. Using resources such as that book, the villagers organize nature workshops around the year for tourists and have set up small cottages in the middle of the rainforest with many near-by trails for



Sorting specimens at night.

trekking.

As we left behind the rainforest and headed onwards, my initial thoughts about Mexico continued to be challenged as we drove through a number of diverse habitats from grasslands to pine/oak forests to deciduous tropical forests to xeric landscapes filled with cacti. We also got to experience a raging wildfire first-hand when we came around a bend on an elevated roadway and were forced to drive past the inferno that was consuming a portion of the forest. Although the fire was immediately adjacent to the road and we could feel the searing heat through the glass, we were able to drive quickly past and report our find to a near-by army checkpoint.

As for the cause of the fire, well, we have some thoughts on that. You see, throughout the trip, it was astonishing to see thousands of peregrinos (pilgrims) heading to and from Mexico City on a quest to pray to the Virgin of Guadalupe in a special church built upon a spot near Mexico City where she is said to have once appeared. On the 12th of December, when it's said that an image of the Virgin was imprinted onto a cloak, almost 7 million people converge on the church for a special day of devotion. Some of these travelers spend weeks on this massive religious pilgrimage and the majority of them walk or run there relay-race style and pass



Rhicnoderma (R.) basalis, near Tehuantepec, Oaxaca.

on their lit metal torch (topped by a small cross) to one of their comrades (who follow close behind in decorated vehicles) when they get tired. Armed with this knowledge of peregrinos and combined with the fact that a large contingent of them was seen by us carrying torches up the hill before we came back down, I'll allow you to connect the dots.

Not long after the fire incident, we crossed over into Oaxaca, the next state on our journey. Oaxaca possessed some of the most diverse ecosystems of the trip and I soon found myself in an actual cloud forest, something that, again, I had only seen in pictures prior to that point. We also stayed one night in an alluring little town perched high atop a mountain that goes by the name Pluma Hidalgo. As it was pitch black, it took us a while to find it, especially since our map was a bit outdated and the way was quite rough and windy. However, find it we did, although we had to drive up a single-lane, well-worn and undulating street at an almost 50 degree angle to do it. The lodgings were superb and the local scenery more-so. We arrived the day before a town festival and all of the residents were flitting about in preparation. The most interesting sight, to me, was watching some men put the finishing touches of colorful paint

on the town's regulation-size basketball court (a very popular sport in Mexico), which had a perfect view of the mountain ranges that lay beyond. In fact, the back end of the court was outfitted with a strong web of netting to insure that the balls did not vanish forever. I was told

by Ricardo and Dr. Fontana, that during a previous visit, over a hundred tettigoniids of the super-sized variety had been collected with ease as they were found all over the town, but, alas, it had just rained and the streets were almost devoid of insect life.

A ways into Oaxaca, we stayed in another wonderful tiny town by the name of San Jose del Pacifico, which is well-known in the area for its abundance of mushrooms as it located on top of a mountain (apparently, I have a thing for mountain towns) surrounded by a pine forest. We rested for the night in one of the most fantastic places I have ever stayed, "La Puerta" (the sunset), which deserves a free plug because the cabin we stayed in was perfect, the hospitality great, and they made us a fire to sleep by in the cabin's fireplace. In the morning, we awoke to an incredible view of the mountains surrounded by a hazy mist. I highly recommend a stay in this town if you ever find yourself

wandering through Oaxaca.

Of further note is that approximately 26 km outside of San Jose is the spot where the four of us made an important scientific discovery: a new species. The appearance of this grasshopper was baffling compared to Mexico's other orthopteran fauna due to its large size combined with its brilliant aposematic coloration of reds on blacks with a smattering of yellow. In all honesty, this creature appeared as though it should be living in Africa and despite its gaudy colors, we still had a difficult time finding it amongst the green plants with red flowers on which it seemed to live, which still astounds me. We also took the advice I threw out earlier and showed it to a local in San Jose who informed us that they call it "the monk" due to the similarity of its pronotum to a monk's hood.

Although, all four members of our expedition were instrumental in gathering specimens of this unusual species, I must credit Dr. Fontana with actually finding it in the first place. Never have I been in the field with an entomologist who possessed a more honed sense of intuition and a sharper eye. Frequently, he would have a hunch that we should stop alongside the road to collect and there we would find a veritable treasure trove of orthopteran life forms. I would also,



Sphenarium mexicanum histrio, near Tapanatepec, Oaxaca.

quite often, see him point towards a clump of brush many meters away, announce "I see a phasmid" (in Italian, Spanish, or English no less), and the next thing you know he has it in his hands. Amazing.

At the tail end of our travels through Oaxaca, we stopped to check out the ruins of Monte Albán, which are perched atop a towering plateau. As with the other ruins, they were quite impressive and ran the length of the plateau. What astounded me the most here was the lack of a visible water source and the realization that the quarries from which the rock must have come to construct the many imposing edifices were most likely nearer to the base of the plateau, no simple trip. While on-site, Dr. Tirello and I used our hands and hats to collect a bevy of acridomorphids that we stumbled across in a weedy patch on the backside of a temple. Nothing whips a budding orthopterist, like myself, into hopper-collecting shape than being forced to depend solely on quick hands and a keen eye.

Prior to leaving Oaxaca for the state of Puebla, I had the opportunity to finally eat what I had been

collecting for days: grasshoppers, specifically in the genus *Sphenarium* (Pyrgomorphidae). We ate on the patio of a restaurant just off the main square of the city of Oaxaca and were brought bowls of appetizers in the form of roasted adult *Sphenarium*.

As I am a gringo and have only a limited amount of experience with entomophagy, I was unsure of what to expect, but found them to be surprisingly scrumptious, most likely due to the added seasonings. While eating, I also had the pleasure of being electrocuted (to a degree). Ricardo called over a man carrying an unusual apparatus and we paid the fellow to first allow Dr. Fontana and then myself to hold on tightly to smooth silver tubes placed in each hand that were wired to his electronic gear. Then, the man slowly turned up the flow of electricity from his machine to the hand grips as the two of us, in turn, attempted to stand the eerie tingling sensation as long as we could. Personally, I stopped when the muscles in my hands began to contort, but, alas, I am a lesser man than Dr. Fontana, who was able to calmly hold on for much longer. As with many things in Mexico that I encountered and did not fully comprehend, I say this about the experience: "Viva Mexico!"

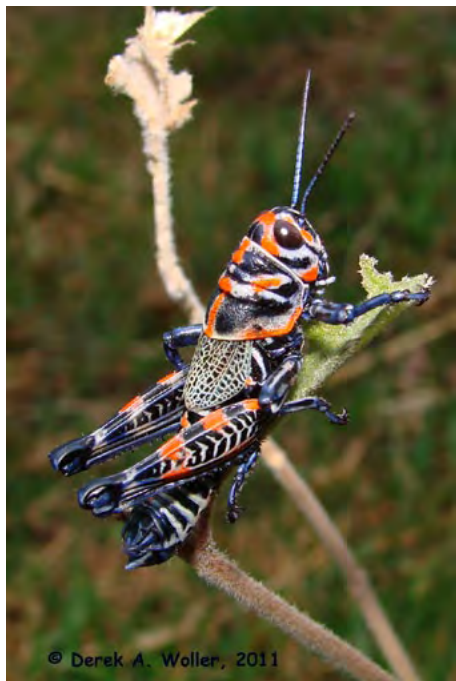
As we entered Puebla the next day, I finally laid eyes upon the cactus that I had always pictured dominating Mexico and they were everywhere: large, tall, green, and covered in needles. However, contrary to my previous vision, there was no true desert associated with these cacti, but rolling hills



Edible grasshoppers (*Sphenarium* sp.), Oaxaca City, Oaxaca.

covered in scrubby brush. As we went along through this fascinating habitat, the collecting became difficult, most likely, we surmised, to the very dry nature of the area and the late season. Rather than feel dismayed, we followed a rumor of an Italian-dominated town to said place: Chipilo. Now, such a thing should not really surprise me since I encounter people from all around the world on a regular basis in the U.S. (or Gringolandia, as some Mexicans might say), but after 13 days in Mexico and seeing almost no other non-Mexicans except for my Italian colleagues, I was taken aback a bit to see almost an entire town of transplanted Italians who had been there for over a hundred years. To my untrained ears, their Spanish sounded akin to that which I had heard all over during our trip, but Ricardo told me that their dialect was a strange one even though most residents did not speak Italian. We stopped briefly in an Italian deli and Dr. Tirello was quite astounded to hear her village's dialect being spoken by the woman behind the counter who was selling her fresh Provalone cheese. After this and Dr. Fontana's amazing run-in earlier in the trip, I half-expected to come across someone I knew as well (although nothing of the sort occurred).

We returned to Mexico City not



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Dactylotum bicolor bicolor, Tecamatlán, Hidalgo.

long after our Chipilo side stop and then immediately headed off on the efficient subway system to the city's center where we saw the last surviving remnants of the Aztec ruins that once stood where the city now does. On our ride over, I also had the displeasure of observing one of the most gruesome sights of my otherwise-wonderful trip: disturbed people who inhabit the subway cars, hurl themselves upon broken glass (carried around in old shirts), and then ask riders for money. I never saw a single person give them so much as a peso and yet I encountered three of these weirdos on two trains. Perhaps, most interesting, was the reaction of the city's citizens, which was to simply sit in stony silence and stare impassively off into the distance. I suppose that's one response and, quite possibly, the best one.

The Italians left later in the day on the 14th of December and, so, that morning we headed off to one last ancient civilization site: the ruins of Teotihuacan in the state of Mexico. Since, at this point, I had already visited a number of similar locations, I thought it might be on par, but, no, I was unprepared for its massive majesty. I want to first make it known that I had never heard of this culture despite the fact that it existed long before the more well-known Aztecs and Mayans. The place was incredibly huge in terms of length and breadth and its tallest structure, the Pyramid of the Sun, could be seen from the highway long before we arrived. I was ecstatic that I was able to climb to its peak and survey the surrounding scenery. To think that such an advanced culture lived and thrived for hundreds of years before modern civilization arose still astounds me. In its time, it was one of the biggest cities in the world.

After Dr's Fontana and Tirello departed for their homeland, Ricardo and I headed for his country home

in the town of Tecamatlan in the state of Hidalgo. While there, we raised some ruckus with ATVs, collected many more species of acridomorphans and a lone tettigoniid, and attempted to do some black lighting (twas far too cold, a feeling I experienced many times while there much to my surprise given, of course, my original thoughts on Mexico). Also, it turns out that Ricardo's father and brother are charros, or Mexican cowboys, and have a small horse arena on their property. I was somehow convinced by Ricardo and some local charros to ride a cow, something I thought would be a mundane experience since the cow in question was not much more than a calf and looked tame enough. Rarely have I ever been so wrong.

I knew something was amiss when one charro gave me his authentic hat to wear (finally, a large hat!) and he and some friends began to bind my hands to the cow's back with some strong rope. Next thing I know they've opened the gate of the pen holding the cow and off we went at great speed and full-tilt towards a wall. Luckily, Ricardo informed me, as I was leaving, that to release myself I needed only to relax my hands and so I did with a great crunch as I stopped myself with the gravelly



Sorting specimens, near Coatzacoalcas, Veracruz.

soil of the arena. I came away from the fall with a skinned elbow, my only lasting reminder of my Mexican journey despite the numerous cuts, scrapes, pricks, strange rashes, insect bites, chigger wounds, and other assorted minor wounds I accumulated throughout the trip.

Following our semi-relaxing stay in Hidalgo, it finally came time for me to say goodbye to my neighboring country and head back home to Florida. Ricardo and I spent some time ensuring that all the material we had collected was protected in a safe and sturdy manner. All of the specimens from each site were kept in a number of protective bags and placed within a large Pelican case for safe transport throughout the trip. Each night, the first task in every hotel was to sort and organize the day's haul. All in all, we collected well over a thousand specimens and at least 80 species.

Given the amount of valuable material I was planning to bring back, I had some trepidation about going through customs. My fears, however, were almost unfounded as the trip was smooth sailing except for a small hiccup after I passed through Mexico City's security checkpoint and had to explain, in Spanish, why I had so many dead insects in my suitcase.

As it turns out, I should have been more worried about leaving the country, in general, because, apparently, to fly out again you must have a small piece of paper that was separated from the customs form you fill out while on the plane entering Mexico. I recalled that this "exit pass" had been loosely inserted into my passport upon

entry, but where it went after that I had no idea and spent many frantic minutes looking for it. After coming up empty, I spent almost two hours in the immigration office waiting for a new copy and marveling at how slowly the wheels of bureaucracy turn in both of our countries. The good news is that I finally made it home, but only because I was at the airport four hours early because, and here comes the bad news, Ricardo was headed to a wedding after he dropped me off. Suffice it to say, he did not make it in time.

Upon reflection of my long journey, some things come to mind: 1) I know I definitely want to go on another, 2) I acquired a wealth of orthopteran knowledge, which will serve me well, 3) Dr. Song is, so far,

an excellent advisor, 4) I will never ride a bull, and 5) I was at least correct in regards to my pre-perception of the material of choice for bottling coca-cola. I now see Mexico in a whole new light as our discussions while on our trip were not only about the differences in food and culture, but also veered into political and religious territories. I strongly encourage anyone reading this travelogue to embark upon a journey of their own to another land, whether it's to Mexico or elsewhere. Every country, nay, every region, has its own story to tell, so go listen.

DEREK A. WOLLER
RICARDO MARIÑO PÉREZ
University of Central Florida

In Memoriam: **Vernon Randolph** **Vickery (1921-2011)**

Vernon Randolph Vickery passed away in Kentville, Nova Scotia on August 30, 2011. Born on June 6, 1921 in South Ohio, Yarmouth County, Nova Scotia, he received his teaching licence from the Nova Scotia Provincial Normal College in 1940, and taught briefly in a one-room school before enlisting in the Royal Air Force where he saw active duty in the U.K., North Africa and Italy.

After demobilization, he resumed his studies, first at the Nova Scotia Agricultural College and then at Macdonald College of McGill University: B.Sc. (Agr.) 1949, M.Sc. (Agr.) 1957, Ph.D. 1964. He spent 12 years (1949–1961) as a provincial Government extension entomologist based at the Nova Scotia Agricultural College in Truro. There

he was active in the practical and research aspects of economic entomology and established himself as a grasshopper and cricket taxonomist. He also became widely acclaimed as an expert in apiculture. As any academic should be, Vernon was versatile, with a broad perspective and expertise in more than a single narrow field. He was appointed Assistant Professor in the Department of Entomology and Plant Pathology at the Macdonald Campus of McGill University in 1961. He was also appointed as the first curator of what was then known as the Lyman



Entomological Collection, and his first task was to transfer that collection from Montreal to the Macdonald Campus (where it became the Lyman Entomological Museum after the incorporation of the Macdonald College insect collection in 1962). He was promoted to a Full

Professor in 1975 and served as a Pro-Dean of the Graduate Faculty Council from 1970–1981.

In addition to his curatorial duties, Vernon maintained an active research program and taught a full course load. He established the first course in beekeeping at Macdonald Campus. Later he developed a bee research program, in the course of which a practical, economical method of over-wintering honey-bees in eastern Canada was established.

Vernon published 313 papers, but the one that most reflected his work with the museum was that co-authored with Dr. Keith Kevan, the two volume (1400 page) "Monograph of the Orthopteroid insects of Canada and Adjacent Regions", illustrated by Chia-Chi Hsiung and published by the Lyman Entomological Museum in 1983. An abridged version was later published by Agriculture Canada. He directed the research of nine Masters of Science and thirteen Doctoral students, and mentored one Postdoctoral Fellow.

Among his many services to the scientific community, Vernon Vickery was the Editor of *The Canadian Entomologist* from 1972–1973, fellow (1985) and Vice-President and Director of the Montreal Branch

of the Entomological Society of Quebec. Internationally, Vernon was widely acclaimed and was president of the Orthopterists' Society (formerly Pan American Acridological Society, of which he was a founder member) from 1985–1989; Past President, 1989–1993, and Honorary Member 1989.

Vernon also had broad interests outside of entomology. He actively participated in the Boy Scouts (1984–1985) and the Sea Scouts of Canada, and was an Anglican Church Warden (1966–1968) and Church Council Member (1966–1971; 1973–1976). He was also a collector of coins, stamps and an expert on certain antiques.

He retired in 1986 and was appointed Emeritus Curator of the Lyman Entomological Museum and Research Laboratory of McGill University (1986–2011). He continued to be a fountain of knowledge and advice (and sometimes strong opinions!) to ensure the continued good health and successes of the museum. He worked even harder on research and published 129 papers following his retirement. His last paper as a co-author with C.P. Sandoval, "Description of Three New Species of *Timema* (Phasmatoptera:

Timematodea: Timematidae) and notes on three other species" was published in the *Journal of Orthoptera Research* (10[1]: 53–61) in 2001.

Vernon Vickery and his wife Muriel left Quebec and moved to Kentville, Nova Scotia in 1998. He still continued a little research and spent most his time working in the house and garden while caring for Muriel, who was quite ill.

All of us who worked closely with Vernon Vickery in the Lyman Museum knew him as a hard working, unassuming individual, who was always ready to share his knowledge. He was a very kind man and although occasionally short-tempered, always a true and loyal friend. He will be sorely missed by all of us.

He is survived by his wife of 64 years, Muriel Jewl Vickery (nee McAloney), a daughter, Susan (Peter) Arntfield of Winnipeg, Manitoba, two sons, William (Judith Nowlan) of Sainte Anne de Bellevue, Quebec, and Edwin (Amy Creighton) of Westmont, Quebec, and grandchildren, Karen, Allison, Margot, Laura and Lexington. Vernon also leaves behind his sister-in-law, Linda and brother-in-law, Victor Greene. He was predeceased by two sisters, Pearl and Leona, and a brother, George. Our sympathies goes out to his family and we share in their loss.

CHIA-CHI HSIUNG
Former Curator (1993-2000)
Lyman Entomological Museum
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From left to right: Dr. M. Sanborne, Dr. C.C. (George) Hsiung, Dr. D.K. McE Kevan, Miss N. Brown, Miss X.B. Jin, Mr. F. Genier, Mr. J. Clavijo, Dr. V.R. Vickery (Photo credit: C.C. Hsiung)

Editorial

I wish all of you a happy and productive 2012, the Year of Black Dragon! As we start a new year, I would like to challenge our members to contribute more to *Metalep-tea*. The quality of the newsletter is completely dependent upon member contribution. In this issue, I asked (or gently forced) my student Derek Woller to produce a travelogue of his recent trip to Mexico, which turned out to be a fantastic read for the newsletter. I think that students are the future of the society and I highly encourage all of you who are students, and those who work with students who are interested in Orthoptera to be involved in the society business. And the first step is to contribute an article to *Metalep-tea*!

As always, I thank all the members who contributed to this issue as well as my associate editor Sam Heads who provides excellent editorial support in a timely manner.

To be published in *Metalep-tea*, please send me any articles, photographs or anything related to Orthoptera at song@ucf.edu with a subject line starting with [Metalep-tea]. MS Word document is preferred and images should be in JPEG

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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 *Metalep-tea* will be in May 2012 and please send me the articles promptly. Also, please

do not hesitate to send me feedback regarding *Metalep-tea*. I look forward to hearing from you soon.

HOJUN SONG
Editor



Petasida ephippigera White, 1845. Commonly known as the Australia's most colorful grasshopper, this pyrgomorph species has another common name, Leichhardt's Grasshopper, named after the explorer, Ludwig Leichhardt. (Photo credit: H. Song)