



## Report on the XIV International Bat Research Conference and 37<sup>th</sup> North American Symposium on Bat Research

Both the XIV International Bat Research Conference and the 37<sup>th</sup> North American Symposium on Bat Research were held at the Fiesta Americana Hotel in Yucatan, Merida, Mexico from August 19 to 23<sup>th</sup> 2007. "Bioconciencia, Bioconservación Educación y Ciencia A. C.", an NGO directed by Rodrigo A. Medellín (Institute of Ecology, UNAM) served as the local host. A total of 326 participants attended the meetings from 33 countries in the world and presented 325 papers as a whole, in spite of hurricane Dean.

These meetings broke a record, with more than 159 students, 48% of the meeting participants, not including the student members of the local committee. The majority of XIV IBRC and 37<sup>th</sup> NASBR attendants were affiliated to academic/scientific institutions (82%), mainly from United States (27%), Mexico (25%), Costa Rica (7%) and Germany (7%). Nevertheless, every continent was represented and up to 40% of attendees were from developing countries, achieving one of the most important objectives for this meeting and one of the reasons to hold them in Mexico: to bring together students and researchers from all over the world and show the good scientific work that people from Latin America and other developing countries are doing.

### Symposia

Symposia were established by invitation from the local committee, and from November 2006 to January 2007 a Call for Symposia was opened, out of which two symposia were selected (numbers 1 and 10). Around 98 papers plus round tables and opening and closing remarks were presented during the eleven symposia (organizers for every symposium are shown after the titles):

1. Adaptability and Functional Significance of echolocation behavior in bats: Elisabeth KV Kalko, (Institut of Experimental Ecology, University of Ulm, Germany).
2. Global Conservation of Bats: Frank Bonaccorso (USGS, Hawaii, USA); Rodrigo Medellín (Instituto de Ecología, UNAM, México); and Lindy Lumsden (Arthur Rylah Institute, Department of Sustainability and the Environment, Heidelberg, Victoria, Australia).
3. Wind Energy: Edward B. Arnett (Bat Conservation International, Texas, USA).
4. Social Organization and Bat Mating Systems: Jorge Ortega (Instituto de Ecología, UNAM, México) and Gerald S. Wilkinson (University of Maryland, USA)
5. Bat Conservation Efforts in Latin America: Luis F. Aguirre (Universidad. Mayor de San Simón, Bolivia); Rodrigo Medellín and Bernal Rodríguez (Instituto de Ecología, UNAM, México).
6. Ecology and Conservation of bats in Agroecosystems: Kimberly Williams Guillén (School of Natural Resources & Environment, University of Michigan, USA) and Thomas H. Kunz (Boston University, USA).
7. Bat Vocalizations and Applications of Echolocation Surveys for Inventory Bats: Luis F. Aguirre and Bernal Rodríguez Herrera.
8. Bats and Emerging Diseases-Rabies: Joaquín Arroyo-Cabrales (Instituto Nacional de Antropología e Historia, México), Alonso Aguirre (Wildlife Trus), Alejandro Jiménez Ramírez (DGSA, SENASICA, SAGARPA, México) and Gary McCracken (University of Tennessee, USA).
9. Blossom and Bats, Evolution and Ecology of Bat Pollinating Systems: Marco Tschapka (Institute of Experimental Ecology, University of Ulm, Germany) and James Hutcheon (Georgia Southern University, USA)
10. Phylogeography, from genes to Organisms: Emma Teeling (University College Dublin, Ireland) and Amy L. Russell (Arizona Research Laboratories, USA).
11. Environmental Education: Laura Navarro (Program for Conservation of Mexican Bats) and Isabel Galarza (Program for Conservation of Bolivian Bats).

All the symposia were very successful and the Environmental Education Symposium, which had never occurred at any bat meeting, was very well received in the bat scientific community and it generated an opportunity to discuss other aspects of bat conservation.



## Student Award Competitions and General Sessions

A total of 227 papers were presented during the meetings (not including the eleven symposia), out of which 110 were platform presentations (including 4 plenary speakers).

Forty five student platform papers participating in the competition were presented on Monday, and the rest were given in three concurrent sessions that began on Tuesday morning and continued through Thursday afternoon. Ninety-one posters were presented on Wednesday and Thursday and 26 of them entered the Student Poster Competition. The total of seventy-one student papers was the largest number ever submitted to the award competition in any NASBR or IBRC.

Graduate and undergraduate students were invited to enter their platform or poster papers in the competitions, where a special committee judged the scientific merits of their research. Six prizes were awarded to participants from all over the world by NASBR, as well as the *Villa Award*, which recognizes outstanding research by a student in a Mexican Institution since 2006 by funding travel, lodging, banquet and registration expenses to attend a NASBR meeting. In addition, prizes were granted to Latin-American students by the Local Committee, part of which were kindly donated by Titley Electronics.

## Banquet

Awards were presented at the Thursday evening banquet, which were attended by almost all the participants (95%). Prize winners were:

Name	Institution	Award	Paper Title
Hugo Rebelo	University of Bristol, England	Bat Conservation International	Combining predictive modeling with genetic analysis to determine post-glacial colonization routes in Europe
Sofia Lourenço	Centro de Biologia Ambiental, Universidade de Lisboa, Portugal.	Bat Research News	How do ectoparasitic nycteribiids locate their bat hosts?
Katja Rex	Leibniz-Institute for Zoo and Wildlife Research, Berlin, Germany.	Luis F. Bacardi Bat Conservation Award	Opportunistic omnivory: the key to the ecological success of the most speciose mammalian assemblages
Sun-Sook Kim	Department of Biology, Kyung Hee University, Seoul, Korea.	Basically Bats-Wildlife Conservation Society Award	The effect of temperature on the selection of hibernacula in seven bat species of Korea
Romeo A. Saldaña	Instituto de Ecología A.C., Xalapa, Veracruz, México	Speleobooks	Comparison of species richness, abundance, and composition of the Phyllostomidae bat family in fragments of tropical montane forest and shade-coffee plantations in central Veracruz, Mexico. Functional Wing Morphology in Phyllostomid Bats and its relation to feeding habits, foraging strategies, and forest type using Relative Warp Analysis.
Willy Pineda Lizano	University of Costa Rica, San Jose, Costa Rica	Latin American Award	Analysis of Echolocation Calls from 14 Species of Aerial Insectivorous Bats of Morelos State, México
Areli Rizo Aguilar	Instituto de Ecología, A.C., Xalapa, Veracruz, México	Latin American Award	Origins of diverse cave-bat faunas: the history and ecology of natalid biogeography
Adrián Tejedor	City University of New York and American Museum of Natural History, NY, USA	Karl F. Koopman Award	Of white architects: tent building patterns and process in <i>Ectophylla alba</i>
Bernal Rodríguez Herrera	Institute of Ecology, National Autonomous University of Mexico and Program for Conservation of Bats of Costa Rica	Villa Award	



Another two new prizes were awarded in these meetings, the *Spallanzani Award* to assist distinguished researchers from outside of North America (Mexico, Canada and the United States) to attend the NASBR, and the *Zotz Award* presented by the Local Committee to honor an individual or a group of people that have participated on integral actions for Bat Conservation. Awardees. The Zotz Award will awarded regularly at the IBRC. The award winners were:

#### Spallanzani Award

- Dr. Gilberto Silva-Taboada (Museum of Natural History, Havana, Cuba).
- Dr. G. R. Kim (Department of Microbiology, Catholic University Medical College, Seoul, Korea)
- Dr. Ara Monadjem (University of Swaziland)

#### Zotz Award

- Dr. M. Brock Fenton (University of Ontario, Canada)

Also during the banquet, Dr. Betsy Dumont presented the Aldo Leopold Award from the American Society of Mammalogists to Dr. Rodrigo A. Medellín. The new hosts for the XV International Bat Research Conference were announced to be in Czech Republic on 2010. The Auction, organized by Maarten Vonhof and Frank Bonaccorso, with Mark Brigham as the auctioneer, will direct its funds to the Spallanzani Award in order to bring outstanding people to the 38<sup>th</sup> NASBR to be held in Scranton, Pennsylvania, USA next year.

### **Additional Activities, New Collaborations and Potential Products**

The Symposium of Bat Conservation Efforts in Latin America provided a great opportunity for the representatives of isolated local bat conservation programs from Latin America, as well as researchers working in the area, to come together and take action as a group. Thus, one of the achievements during the meetings was the signature of an agreement for the Latin American Network for Bat Conservation (*Red Latinoamericana para la conservación de Murciélagos*, RELCOM) by representatives from Bolivia, Brazil, Costa Rica, Guatemala and Mexico. This collaboration agreement aims to identify, plan and implement joint actions for the conservation of bats in Latin America.

A paper gathering the experiences from all the groups that participated in the Environmental Education Symposium will be prepared for publication, including research groups that have worked in Environmental Education efforts in Canada, Costa Rica, UK, Lube Foundation, Brazil, Malaysia and Africa.

#### Pre-Post Tours

The aim of the organized tours was not only to show the archaeological zones, cenotes, natural protected areas and grottos, they were also an opportunity to explore local biological diversity, especially bats. In order to achieve this, in each of five pre-tours and three post-tours there were mist netting efforts from sunset to 9pm.

#### Bat Netting Nights

The Local Committee and volunteers organized Bat Netting activities at the Botanical Garden of Merida "Centro de Investigaciones Científicas de Yucatán" (CICY) on August 20, 21 and 22<sup>nd</sup>. Some of the participants had never been in touch with neotropical bats, so this was a good opportunity for them. Each of 76 attendants on the three nights received a copy of the field guide to the Botanical Garden and a lunch. Representatives from Titley Electronics brought equipment for detection and interpretation of ultrasonic bat calls and ECOTONE offered the mist nets to perform the captures.

The following species were caught during the tours and the bat nights: *Sturnira lilium*, *Artibeus jamaicensis*, *Artibeus lituratus*, *Glossophaga soricina*, *Myotis keaysi*, *Rhogessa aeneus*, *Lasiurus intermedius*, *Nyctinomops laticaudatus*, *Natalus stramineus*, *Pteronotus davyi*, *Mormoops megalophylla*, and *Molossus rufus*.

#### Post-conference Courses

A total of 22 participants took the Bioacoustics course presented by Dr. Elizabeth Kalko (University of Ulm, Germany) at the Botanical Garden (CICY) from August 24<sup>th</sup> to 26<sup>th</sup>. The theoretical sessions were during the day, and the practical sessions (recording of bat calls and mist netting) during the two nights of the course. The main objective was to show the use of bioacoustics as a tool in ecological and behavioral bat research, as well as employ the different kind of bat detectors and learn how to use the Avisoft software to analyze the bat calls.

Laura Navarro was the one in charge of the Environmental Education course; unfortunately, there were cancellations because the hurricane Dean and the course was suspended.



### Traveling exhibit “Bats: a myth in our culture” and Radio shows “Adventures at flight”

In order to expand the meeting's impact through the local community and not only within the academic/scientific arena, we designed a communication strategy which consisted on the placement of an itinerant exhibit about bats in the Museum of Natural History of Merida on August 19<sup>th</sup>. It will remain there until November, showing the basic biology of bats and the environmental services they provide to the general public. Together with this, several radio capsules have been transmitted every Saturday, two weeks before the conference (August 5<sup>th</sup>) and will remain on the air until they are all transmitted. The radio capsules consist of 20 clips that demonstrate the life of bats from the bat's point of view in a fun and interesting way. They have been particularly designed for children and have been awarded with international prizes in the past.

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For more information and photos of all the activities during the Merida Bat Conference, please check the bati-congress news at:

<http://batconference.confhost.net>