



NORTH AMERICAN SECTION

# NAS/IUSSI NEWSLETTER

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NAS/IUSSI

FALL 2003

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## Officers 2002

President: Diana Wheeler  
President-elect: TBA (see attached ballot!)  
Past President: Bob Matthews

Secretary-Treasurer: Sean O'Donnell  
Archivist: Chris Starr

## Nominating Committee

Joan Strassmann  
Gene Robinson  
Dave Tarpy *at large*

## Eickwort Student

Award Committee: Phil Starks (Chair)  
Kenna MacKenzie  
Bryan Danforth

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## Outgoing President's Letter:

Greetings everyone,

Our annual business meeting was held 26-30 October in Cincinnati in conjunction with the Entomological Society of America meeting. Both were a great success, with the social insects prominently featured. Those of you in attendance were treated to an outstanding ESA Founder's Memorial Lecture honoring Walter Rothenbuler which was given by our past-president, Gene Robinson. (If you missed it, the text will be published in a forthcoming issue of the *American Entomologist*.) Rob Page and Mike Breed organized a fantastic symposium on insect sociogenomics that attracted a huge crowd and included several excellent presentations by our members. There also was a Program symposium honoring Howard Ensign Evans that Al Hook and I organized. Finally, one of our own, S. Brad Vinson of Texas A & M, was honored by the Entomological Foundation as one of a team of recipients of the Integrated Pest Management Award for his work on the imported fire ant.

Our business meeting featured updates on our forthcoming 'Spinoff' fall conference to be held in Arizona, Oct. 7-10, 2004. Host Bob Johnson of Arizona State University described the venue and issued a warm invitation to everyone to come. He and co-organizer Jennifer Fewell have an outstanding program planned. See <http://lswab.la.asu.edu/sirg/nasmeeting.htm> for more details. Anita Collins provided a progress report on the forthcoming International Congress of IUSSI to be held in late July or early August 2006 in Washington, DC. A web site is being organized [www.iussi.org/IUSSI2006.html](http://www.iussi.org/IUSSI2006.html). Bob Jeanne summarized the Russian section of IUSSI meeting that he attended in late September in St. Petersburg. Information items included updates on the ant short course (it will be held at La Selva, Costa Rica next year) and the International Congress of Entomology in Brisbane 15-21 August 2004. (Social Insects Section coordinators are Michael Schwarz and Raghavendra Gadagkar, with symposia scheduled by Ross Crozier, Ben Oldroyd, Madelene Beekman, and Mike Schwarz.)

As usual, the highpoint of our business meeting was the announcement of the Eickwort Award winners. This year the co-winners were Kurt Pickett of Ohio State University (a student of John Wenzel) and Dave Gilley of Cornell University (a student of Tom Seeley). Phil Starks, chair of the Eickwort Award Committee, presented the awards. Phil and committee members Kenna MacKenzie and Bryan Danforth are to be commended for an outstanding job.

After transferring the gavel to incoming president Diana Wheeler, we adjourned for the traditional refreshments and social hour. My appreciative thanks go to Diana for serving as acting secretary in Sean's absence. Meeting minutes can be found elsewhere in the newsletter.

As you've noticed, because the ESA meeting was held much earlier this year, the usual format for the NAS fall Newsletter has been altered. In the past, we have announced election results at the meeting, but this year we're enclosing a ballot for President Elect in this newsletter. We have two excellent and able candidates in Gard Otis and Ed Vargo. Don't delay; be sure to cast your vote today.

I would like to draw attention to the upcoming Second International Workshop on the Mathematics and Algorithms of Social Insects, to be held at the Georgia Institute of Technology (=Georgia Tech), Dec 15-17, 2003. This conference, co-organized by Tucker Balch and Carl Anderson, features some very interesting

analyses. See the web site [www.insects.gatech.edu](http://www.insects.gatech.edu) for a listing of speakers and posters and registration information.

I want to conclude my greeting by thanking everyone for all of their hard work for the NAS and for helping to make my year as your president both memorable and fun. I look forward to our continuing fellowship at future meetings. Our website <http://iussi.bees.net/> has many informative links including the other IUSI sections as well as many relevant and interesting sites featuring social insects. On behalf of all NAS members I want to thank Zachary Huang for his efforts in maintaining this web page.  
Sincerely, Bob Matthews

## News/Announcements

### **NAS/IUSI breakaway meeting in 2004**

(from Robert Johnson)

Everything is pretty much set for now, and we have a web page with most of the information on it. The web page address is: <http://lweb.la.asu.edu/sirg/nasmeeting.htm>

It is linked into the main web page for the North American IUSI. Please let me know if you need any additional questions, etc about the meeting. Cheers, Bob

### **New Gordon Conference on Genes and Behavior**

(from Jennifer Fewell)

There is a new Gordon Conference series called "Genes and Behavior." The goal is to foster a broad approach to this topic by bringing together scientists that primarily use model genetic systems to study behavior with scientists that primarily study model behavioral systems. The conference series seeks to foster a synthesis involving molecular biology, neuroscience, behavior, ecology and evolutionary biology; lab and field studies; and both mechanistic and evolutionary perspectives. Sessions for the first conference include the following topics: social structure; foraging and ingestive behavior; sensory systems and communication; behavior analysis in model genetic systems; nature/nurture; theoretical approaches to genes & behavior; and reproductive behavior. The first Gordon Conference on Genes and Behavior will be held 8-13 February 2004, in Ventura, California. Travel support is available for minority applicants. For information on registration please check <http://www.grc.org/>

Gene Robinson, Conference Chair; Bob Hitzeman, Vice-Chair; Chris Boake, Felix Breden, Allen Moore, Program Committee

### **Gordon Research Conference: Genes and Behavior PROGRAM**

Chairperson: Dr. Gene Robinson, University of Illinois

Vice-Chairperson: Dr. Robert Hitzeman, Oregon Health Sciences University

#### **Program overview**

The format of the program follows the long-established policies of GRCs: programmed sessions in the mornings and evenings, and afternoons free for informal discussion. Each session will have 3-5 speakers and 2 discussion co-leaders. Discussion co-leaders will be responsible for introducing their session, keeping it on schedule, and moderating the general discussion that follows each talk and at the end of the session. Discussion leaders and speakers for each session will meet ahead of time to discuss how to organize the session and come up with questions and observations to help spark discussion. The key elements in a GRC are excellent and stimulating speakers and well-run, inclusive, and animated discussions. For this reason, selection of the discussion leaders has been as careful as for the speakers.

All of the people named in the program that follows have agreed to participate and have been in communication with the Chairperson of the conference regarding details of their talks or plans for structuring their session. The response of the invitees was overwhelmingly positive; only five had to decline the invitation, due to prior commitments, and they were promptly replaced by other very willing participants.

Two poster sessions will be held during late afternoon hours, organized by Felix Breden, a member of the Program Committee. Corporate sponsorship has been secured by Co-Chair Robert Hitzeman, allowing the poster sessions to be held in conjunction with a wine & cheese social. The poster sessions can accommodate up to 60 posters. Each attendee will be welcome to present a poster, space permitting. If the number offered exceeds capacity, posters will be selected by Dr. Breden based on criteria similar to those given above.

Following GRC policy, a brief business meeting will be held during the Thursday morning session. The leadership of the next meeting in this new series will be elected. By tradition, the vice-chairperson of the current meeting will become the chair of the next one, and a new vice-chair will be elected to work with the chair. Dr. Robert Hitzeman, vice-chairperson of the first meeting, has already agreed to serve as chair for the second meeting (2007).

## Sessions

All talks are 25 min + 5 min discussion, and 30 min discussion at the end. Talks for the opening session are 40 min + 5 min discussion, and 30 min discussion at the end.

### **Session 1** **Visions of Synthesis** 8 Feb Sunday Evening 7:30-9:30

Discussion Leaders: Ralph Greenspan, Neurosciences Institute, San Diego  
Mary Jane West-Eberhard, University of Costa Rica

1. Tom Insel (Director, NIMH) Gene-Environment Interactions and the Regulation of Behavior
2. Rudy Raff (Indiana University) Gene-based Syntheses of Mechanism and Evolution: Lessons from Developmental Biology  
Discussion

### **Session 2** **Social Structure** 9 Feb Monday morning 9-12:30

Discussion Leaders: Penny Kukuk, University of Montana  
Andrew Bass, Cornell University

1. Steve Phelps (University of Florida) Neuropeptide Receptor Genes and Monogamy in Voles
2. Joan Strassmann (Rice University) Molecular Analysis of Altruism in Slime Molds  
Break 30 min  
Group Photo
3. Michael Krieger (University of Georgia) GP-9 and Queen Number in Fire Ant Colonies
4. Donald Edwards (Georgia State University) Serotonin Receptor Genes and Dominance in Crayfish
5. Hans Hoffman (Harvard University) Molecular Analyses of Social Regulation of Sexual Plasticity in Teleost Fish  
Discussion

### **Poster Session I** 9 Feb Monday afternoon 3-5:00

Wine & Cheese reception sponsored by Sequenom

### **Session 3** **Foraging Behavior** 9 Feb Monday evening 7:30-9:30

Discussion Leaders: Robert Hitzeman, Oregon Health Sciences University  
Jennifer Fewell, Arizona State University

1. Mario deBono (Cambridge University) Social Foraging in *C. elegans*: Genes and Neural Circuits
  2. Robert Page (University of California, Davis) Genetic Architecture of Pollen Foraging in Honey Bees
  3. Marla Sokolowski (University of Toronto) Actions of the *foraging* Gene in *Drosophila*  
Discussion
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### **Session 4** **Nature/Nurture** 10 Feb Tuesday morning 9-12:30

Discussion Leaders: Alison Fleming, University of Toronto  
Izja Lederhendler, NIMH

1. Michael Meany (McGill University) Hereditary & Environmental Influences on Gene Expression and Maternal Behavior in Mice
  2. Jonathan Flint (Oxford University, UK) Anxiety  
Break 30 min
  3. Charles Whitfield (University of Illinois, Urbana-Champaign) Hereditary & Environmental Influences on Gene Expression and Division of Labor in Honey Bees
  4. Stephen Suomi (NIMH) Serotonin Transporter Gene Polymorphism and Maternal Behavior in Rhesus Monkeys
  5. Kenneth Kendler (Virginia Commonwealth University) Psychiatric Genetics  
Discussion
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### **Session 5** **Circadian Rhythms** 10 Feb Tuesday evening 7:30-9:30

Discussion Leaders: Guy Bloch, Hebrew University  
Amita Sehgal, University of Pennsylvania

1. Joseph Takahashi (Northwestern University) Molecular Analysis of Circadian Rhythms in Mice
2. Bambos Kyriacou (University of Leicester) Circadian Rhythms and Mating Behavior in *Drosophila*
3. Jay Hirsch (University of Virginia) Drug Addiction and Circadian Rhythms in *Drosophila*  
Discussion

### **Session 6** **Behavior Analysis in Model Genetic Systems** 11 Feb Wed. morning 9-12:30

Discussion Leaders: Martin Heisenberg, University of Wuerzburg  
Catherine Rankin, University of British Columbia

1. Trudy Mackay (North Carolina State University) Genetic Architecture and Genes for Odorant Guided Behavior
2. Tim Tully (Cold Spring Harbor Laboratories) Discovering Genes for Memory via Microarray Analysis  
Break 30 Min
3. Joseph Fetcho (State University of New York, Stony Brook) Escape Circuits in Zebra Fish.
4. Josh Dubnau (Cold Spring Harbor Laboratories) Anatomical Dissection of Memory Phases in *Drosophila*
5. John Crabbe (Oregon Health Sciences University) Behavioral Robustness in Mice  
Discussion

**Poster Session II**

11 Feb Wed. afternoon 3-5:00

Wine & Cheese reception sponsored by Sequenom

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**Session 7 Theoretical Approaches to Genes & Behavior** 11 Feb Wed. Eve. 7:30-9:30

Discussion Leaders: Allen Moore, University of Manchester  
Felix Breden, Simon Fraser University

1. David Haig (Harvard University) Intragenomic Conflict
2. Kern Reeve (Cornell University) Haplodiploidy and Intragenomic Conflict
3. Gerald Wilkinson (University of Maryland) Meiotic Drive and Sexual Selection

Discussion

**Session 8 Reproductive Behavior** 12 Feb Thursday morn. 9-12:30

Discussion Leaders: Mariana Wolfner, Cornell University  
Russell Fernald, Stanford University

1. Donald Pfaff (Rockefeller University) Genetic Influences on Behavioral Chains and Choices in Mice
2. Susan Alberts (Duke University) Genes and Baboon Reproduction

Break 30 min

3. Scott Edwards (University of Washington) MHC Genes and Mate Choice in Birds
4. Lisa Meffert (Rice University) Genetic Architecture of Mating Behavior in House Flies

Discussion

5. Business Meeting –15 min

**Session 9 Communication** 12 Feb Thursday evening 7:30-9:30

Discussion Leaders: David Clayton, University of Illinois  
Christine Boake, University of Tennessee

1. Claudio Mello (Oregon Health Sciences University) Immediate-Early Genes and Bird Song
2. Jeff Hall (Brandeis University) Molecular Analysis of Courtship Behavior in *Drosophila*
3. Kerry Shaw (University of Maryland) Genetic Architecture of Mate Recognition in Crickets

Discussion

**Memorial book of 14th IUSSI Congress in Sapporo** (from Seigo Higashi)

IUSSI Sections:

The following book in memory of the 14th IUSSI Sapporo Congress was recently issued from Hokkaido University Press, and would you please deliver the following information to all members of your IUSSI Section.

Title: "**Genes, Behaviors and Evolution of Social Insects**" (314 pp)

Edited by T. Kikuchi, N. Azuma and S. Higashi; Published by Hokkaido University Press

Contents:

Opening pages are for an article "The origin and early years of the IUSSI" by Ch.K. Starr

- 1) Molecular analysis of the honeybee sociality, by T. Kubo
- 2) What studies of communication have revealed about the minds of worker honeybees, by T.D. Seeley
- 3) One hundred years of caste determination in Hymenoptera, by D.E. Wheeler
- 4) Sociochemicals: more complicated than expected, by K.N. Slessor
- 5) Social complexity in the Hymenoptera, with special attention to the wasps, by R.L. Jeanne
- 6) Social mutualism and social parasitism: conflict and cooperation at the family and species level, by J.J. Boomsma

7) Cooperation and conflict in the social amoeba, *Dictyostelium discoideum*, by D.C. Queller et al.

8) Soldiers, altruistic dispersal and its consequences for aphid societies, by Sh. Aoki

9) The ecology and evolution of eusociality in sponge-dwelling shrimp, by J.E. Duffy

10) Recent findings in fungus-growing ants: evolution, ecology and behavior of a complex microbial symbiosis, by S.L. Price et al.

11) Coadaptation and coevolution of *Macaranga* trees and their symbiotic ants, by T. Itino et al.

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**[www.nsf.gov/pubs/2003/nsf03608/nsf03608.htm](http://www.nsf.gov/pubs/2003/nsf03608/nsf03608.htm)**

(EAPSI) provide U.S. graduate students in science and engineering 8 weeks of first-hand research experience in Australia, China, Japan, Korea, or Taiwan, an introduction to the science and science policy infrastructure of the respective location, and orientation to the culture and language. Awardees will receive an NSF stipend of \$3,000 that is meant to compensate in part for loss of summer employment. Awardees will also receive an international round-trip air ticket. Sponsoring organizations in East Asia and the Pacific will support living arrangements and expenses.

The primary goals of EAPSI are to introduce students to East Asia and Pacific science and engineering in the context of a research laboratory, and to initiate personal relationships that will better enable them to collaborate with foreign counterparts in the future.

To be eligible for EAPSI, as of the deadline date of the application year, applicants must be:

U.S. citizens or permanent residents;

Enrolled at U.S. institutions in 1) graduate programs (M.S. or Ph.D.) in science or engineering or 2) M.D. programs with an interest in biomedical research; and Pursuing studies in fields of science or engineering that are supported by the National Science Foundation (Biological Sciences; Education and Human Resources; Computer and Information Science and Engineering; Engineering; Geosciences; Mathematical and Physical Sciences; Polar Research; and Social, Behavioral, and Economic Sciences). For Japan, fields of study may also include those supported by the National Institutes of Health.

**NSF Travel Grant to ICE** (from Tanya Pankiw)

I'm one of the judges for the NSF Travel Grant competition to ICE. The committee will attempt to grant awards to as many ESA subsections as possible. Applications are pouring in. Would you please send an email to the IUSSI/NAS membership encouraging post-docs and graduate students to apply. The deadline is January 6, 2004. It's important to have a good response from section Cb. They can find application information at this URL: **<http://www.entsoc.org/ESA-Awards/ice/index.htm>**

## Meeting reports

### IUSSI NA Section, October 24, 2003, Business Meeting Minutes (compiled by Diana Wheeler)

**President** – Bob Matthews

**President elect** – Diana Wheeler, acting scribe

**Secretary Treasurer** Sean O'Donnell was unable to attend

-Bob Matthews welcomes the members. Visitors from other sections were recognized and welcomed.

-Sanford Porter, in his last hours as our embedded representative in Section C, presented his report. Program symposia will need to be submitted by December 17 on line. February 4 is the deadline for all other functions.

-Bob Johnson was asked to report on progress in planning our 2004 breakaway meeting. The meeting is now scheduled for October 7-10 at Camp Tontozona, which is an ASU facility about 2.5 h from Phoenix. The cost is estimated to be \$150 for students and \$200 for non-students. There are both dorms and cabins. Cost includes meals from Thursday night through Sunday morning. Hölldobler has been invited but has not yet committed to attend. If he cannot, other people to invite will be considered. Stefan Cover has agreed to come. There will be a post-meeting field trip to the White Mountains. The registration deadline will be about July for abstracts. Everything will be done on line. One issue remaining is whether or not to arrange group transportation to and from Phoenix. Registration will include a query about the need for this option. Bob Johnson is the primary contact for questions about the meeting. The meeting web site can be reached through <http://lweb.la.asu.edu/sirg/> and the NAS IUSSI web site.

-Bob Johnson also took the opportunity to announce that the Ant Course next year will be held in Costa Rica ([http://www.calacademy.org/research/entomology/ant\\_course](http://www.calacademy.org/research/entomology/ant_course)).

-Bob Jeanne was asked to report on the Russian Section Meeting of the IUSSI in St. Petersburg (see Bob's writeup in this newsletter). The theme was Life Cycles in Social Insects. There were 40 registrants from about 16 countries.

-Anita Collins was asked to report on the progress in planning for the International Congress of IUSSI to be held in Washington in 2006. One pending constraint is that we do not know the balance of the international union's treasury after the Sapporo meeting. A logo is in development. The hotel is picked out; it is near the zoo. The dates will be in late July or early August. The web site is in development and publishers have been contacted. Volunteers are needed for the program committees and by mid summer, we want to have some idea of major symposia and speakers. Mary Jane has pointed out that visas to the US may be a problem for scientists in some countries. So people should not be putting off putting in visa applications.

-One issue tabled last year was resolved. The nominating committee is made up of the two most recent presidents and an at large member. The at large member has been serving one year. It had been suggested that a 2 year term would be more effective. Joan Herbers pointed out it is the at large member that is in charge of herding the past presidents and keeping them aware of deadlines and timetables. Gene Robinson nominated Dave Tarpay. The motion as seconded and passed. Dave Tarpay agreed to serve.

-SYMPOSIA TOPICS for the 2004 ESA meeting

Mike Breed reported that he and Kate Loudon at Kansas had been discussing developing a symposium on biomechanics pertinent to insects, including at least 3 talks on social insects (beeswax, paper, air circulation/thermoregulation). Other topics would be the role of metals in cuticle, jumping mechanisms, and attachment mechanisms. The tentative title, with an eye next year's theme 'Our Heritage, Our Future' is Engineering our future – mechanical properties of insect structures and materials

-Teresa Singer and Bryan Danforth suggested another proposal on Evolution of Pollination Biology in Solitary and Social Bees that would be cosponsored by Sections A and Cd.

-The motion was made that the Singer/Danforth proposal be submitted for a program symposium and the Breed/Loudon proposal submitted for a section symposium. This proposition passed unanimously.

-AND IT STILL ISNT TOO LATE TO PROPOSE – note deadlines above

-Next, Sanford Porter proposed that the President give a short address on a topic of his/her choosing. This would give the President something substantial to do and a formal talk would get us listed more prominently in the ESA program. Gene Robinson commented that even non-members might be attracted. The proposition passed with 1 negative vote cast by the president elect.

-It was announced that the 2004 International Congress of Entomology will take place the week of August 15. The coordinators for social insects are Mike Schwarz and Raghavendra Gadagkar. Four symposium are scheduled. People interested in participating in these should contact Mike and Raghavendra now.

-Several aspects of the George Eickwort award were brought up for discussion. First, it was proposed that the monetary award be increased from \$300 to \$500. Second, it was proposed that the nominating committee be given the option of making two awards in one year if unusual circumstances warranted it.

-Bob Matthews read the Treasurer's report at this time to confirm that the society was sufficiently solvent to afford a \$200 increase. The motion was made to increase the award to \$500 and it passed unanimously.

-Discussion was mixed on the second issue. Some suggested that having two awardees would cheapen the award. But it would fulfill the goal of promoting our students. Can the society afford this on a regular basis and is this more important than providing travel funds? After a ranging and repetitive discussion, a vote was taken on the proposition to give the Eickwort committee this option. The proposition failed 22 to 21.

-Gene Robinson proposed that the executive committee consider establishing a second award. Teresa Singer suggested that an award for student talks at the meeting would be good. The logistics are daunting but Teresa and Gene will come up with proposal for this.

-Phil Starks, representing the Eickwort nominating committee announced that there were 2 winners of the Eickwort award this year. These are Kurt Pickett, who was in the audience, and David Gilley, who was not. A resume of the students accomplishments was read and appreciated. Former recipients of the award were asked to stand.

-General announcements: 1. Gene Robinson has organized a Gordon Conference of Genes and Behavior, which will be held 8-13 Feb 2004. <http://www.grc.org/>

2. -Harry Laidlaw died in September at the age of 96.

3. Gard Otis announced a probable apiculture position at the University of Guelph.

4. Gene Robinson was congratulated for giving the Founder's Award address at this ESA meeting.

-Bob Matthews passed the gavel to Diana Wheeler, who adjourned the meeting. Informal discussions began in earnest.

**2003 NAS/IUSSI Secretary/Treasurer Report  
Presented at the NAS/IUSSI Business meeting  
ESA 2003 National meetings, Cincinnati**

Paid Memberships as of 24 October 2003 (last year's figures, and % change)

Total regular	130 (35; 371% increase)	with journal*	68 (22; 309% increase)
Total family	3 (not available)	with journal	2
Total student	31 (5; 620% increase)	with journal	7 (1; 700% increase)

\*Includes 5 gratis subscriptions for editorial board members and Eickwort award winner

2003 financial history (to nearest dollar)

<b>Inflows</b>	
Carryover	1857
Dues	
Regular	1950
Family	60
Student	217
Subscriptions	
Regular	5005
Student	333
Pheromone book royalties	481
Interest	1

Total inflows	8046
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<b>Outflows</b>	
Capitation to IUSSI International	776
Subscriptions to IUSSI International	5340
Support for FORMIS	300

Total outflows	6416
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Balance	3486
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**Report on the International Symposium, “Life Cycles in Social Insects: Behavioral, Ecological, and Evolutionary Approach”** St. Petersburg, Russia 22-27 September 2003 (from Bob Jeanne)

The symposium, sponsored by the Russian section of the IUSI, was ably organized by Drs. Vladilen Kipyatkov and Elena Lopatina. Both are on the faculty of the University of St. Petersburg, the venue of the symposium. St. Petersburg, a thriving city of 5 million, was especially enchanting because it was celebrating the 300<sup>th</sup> anniversary of its founding by Peter the Great. The city is built on the delta where the Neva River meets the Gulf of Finland. The university, the oldest in Russia, was founded in 1724 by Peter the Great, who took a keen interest in science.

There were some 40 participants representing more than 15 countries. Approximately ten of these were students from Russia, the Ukraine, and elsewhere in Europe. North American Section members in attendance included Blaine Cole, Diane Wiernasz, Frank Drummond, Eleanor Groden, Jim Hunt, Bob Jeanne, Chris Starr, and Fernando Noll. In addition to the two dozen or so oral presentations, there were about a dozen poster presentations.

The opening session of the symposium was held in the ornate ‘Peter the Great Hall’ in the main university building. With a marble bust of Peter himself looking on, Vladilen opened the symposium. Randall Hepburn (South Africa) then spoke on ecological correlates of absconding, migration, and swarming in honey bees. He was followed by Raghavendra Gadagkar (India), who described his research into how division of labor is regulated in *Ropalidia marginata*. Subsequent sessions were held in the conference center of the University of St. Petersburg. Three meals a day were served to us in the elegant dining room adjacent to the meeting room. Completing a convenient triangle was a comfortable lounge where participants could chat and sample Russian beer, wine, and vodka during the breaks and before meals.

Most social insect taxa were covered by at least one speaker. Bill Foster (UK), speaking on social aphids, argued that a defensible gall is a prerequisite for the evolution of the soldier caste, and that investment in soldiers is negatively correlated with rate of colony growth and level of attendance by ants. Speaking for the social thrips, Tom Chapman (Australia) gave evidence that altruistic soldiers are likely to evolve in species that occupy small galls, have high reproductive skew, and low rates of inbreeding.

In addition to Randall Hepburn’s talk on *Apis*, Yaacov Lensky (Israel) described how he narrowed the list of active components in the alarm pheromone of *Apis mellifera* to 11 volatiles. Paul Schmid-Hempel (Switzerland), arguing that parasites affect virtually all aspects of the life histories of their hosts, made a strong case for the need to include the effects of parasites in any study of life histories of social insects.

The wasps were also represented. Catherine Bridge (UK) showed that while females on the small colonies of *Liostenogaster flavolineata* normally exhibit an age-based queue for the inheritance of dominance and reproductive rights, ‘queue-jumping’ occasionally occurs. Stefano Turillazzi (Italy) described his lab’s work on behavioral and physiological adaptations to social parasitism in *Polistes* social parasites. For example, parasite larvae get more visits from host workers, yet secrete less saliva, than host larvae. Lidia Rusina (Ukraine) compared colony survival and productivity in three *Polistes* species from southern Ukraine. Differences among them in nesting site, mode of colony founding, and predators lead to different responses to year-to-year variations in climate. Jim Hunt (USA, on leave in Berlin) tracked the major transitions in the evolution of eusociality in wasps by mapping salient traits onto the phylogeny of the group. Fernando Noll (Brazil) showed how the swarm-founding wasps (Epiponini) fall into five groups according to degree of caste differentiation. Bob Jeanne (USA) provided evidence that ‘Michener’s paradox’ does not hold for swarm-founding wasps.

Back on the ground with the ants and termites, Juergen Heinze (Germany) described how variations in life history traits among species of *Leptothorax* match predictions made by concession models. Kazuki Tsuji (Japan) modeled life history evolution in social insects with perennial colonies, taking spatial structure and colony dynamics into account. Blaine Cole (USA) teased apart the relationships between mating frequency, growth, size, productivity, and fitness in colonies of *Pogonomyrmex occidentalis* in western Colorado. Diane Wiernasz (USA) followed up with a description of her work on sex allocation in the same population of *P. occidentalis*. Graham Elmes (UK) analyzed adaptations of *Myrmica* brood cycles to cold, fluctuating climates. Moving closer to the venue of the symposium, Vladilen Kipyatkov (Russia) discussed the evolution of seasonal life cycles in boreal ants, and Elena Lopatina (Russia) described her investigations into the control by *Myrmica* queens over the development of larvae. Noting that permanent workers had at least three independent origins in the termites, Yves Roisin (Belgium) presented evidence that a prerequisite for the evolution of the worker caste was foraging for food away from the nest. In a second presentation, Yves offered an alternative to the Boomsma-Grafen model for the evolution of split sex ratios in ants. Serge Aron (Belgium) presented results that miniaturization in inquiline parasitic ants does not explain how the sexuals of these parasites escape culling by host workers.

The presentations varied in how closely they focused on life histories of social insects, the central theme of the symposium. Blaine Cole raised the issue fittingly by quoting John Tyler Bonner that “the life cycle is the central unit in biology.” Kazuki Tsuji put it right in our laps by pointing out that “life history is a blind spot in insect sociobiology.” In the same vein, Juergen Heinze lamented that books on social insects rarely cover life history issues, and, conversely, the standard life history texts (e.g., Stearns, Roff) barely mention social insects. In his overview of the oral presentations, Chris Starr (Trinidad and Tobago) reiterated these points and called for a ‘general theory of the colony cycle’ in social insects. Acknowledging Juergen’s observation, Chris argued that



what is missing is a database, and he challenged IUSSI to establish and support an online depository for life history data on social insects. A lively discussion of the pros and cons of this proposal developed and was carried next door to the bar. How about it, NASers—a good idea or not?

Entertainment included a welcome party, an enjoyable performance by an ensemble playing Russian folk instruments, and an Italian opera. Two tours during the week gave us a chance to see a few of the many beautiful palaces and cathedrals for which St. Petersburg is famous. Most of us found time to make our way across the Neva at least once to sample the amazing collections of Western art in the Hermitage. On Saturday most of the group opted to spend the day with Vladilen and Elena at one of their field sites in the taiga habitat south of the city.

The capstone social event was the banquet Friday evening at the Podvorie Restaurant in Pavlovsk, a small town just to the south of the city. In this beautiful, rustic, wooden building we spent a delightful evening enjoying multiple courses of excellent Russian cuisine, listening to serenades by folksingers wandering by our tables, and toasting each other into happy oblivion with bottomless shots of good Russian vodka and bottles of Georgian wine.

All in all, I think most who attended would agree with me that the meeting was a success. There was good scientific content, the sharing of exciting recent results as well as provocative ideas, and, not least, the opportunity to get to know and interact with our Russian colleagues. Our hats are off to Vladilen and Elena for doing such an excellent job of organizing and hosting the gathering. Peter the Great would have approved.

The symposium program, with abstracts is available in PDF format at the symposium website at <http://www.bio.pu.ru/win/entomol/Kipyatkov/iussi/2003/index.shtml>

## Vote for a candidate for 2003 NAS/IUSSI president:

The nominating committee has chosen and contacted two candidates. Their autobiographies are below, in reverse alphabetical order by surname.

### Ed Vargo

Daring fire ants and boiled peanuts, I began my career as a social insect biologist under the guidance of David Fletcher and Murray Blum at the University of Georgia. From there I did a short postdoc with Larry Gilbert at the University of Texas continuing to brave fire ants, then a not so short postdoc with Luc Passera in Toulouse, France studying the much tamer Argentine ant, followed by a really long fire ant-filled postdoc back in Austin. Seeking something new and exciting, I jumped across several states and most of the hexapod lineage to my current position as Assistant Professor in the Department of Entomology at North Carolina State University, where I focus on colony and population genetics of subterranean termites. I've managed to overcome my strong formicid bias and have discovered that despite their rather plain appearance and unremarkable behavior termites are actually cool. I have been a long-time member of the NAS/IUSSI serving one term as Secretary-Treasurer (1998-2001), twice as At-Large Member of the Nominations Committee, on the ad hoc Elections Committee, and, most importantly, numerous times on the undercover Business Meeting Refreshment Committee.

### Gard Otis

I first became aware of the IUSSI when C.D. Michener returned to the Kansas University campus from the 1978 congress in Wagenin in and reported on some of the many exciting developments in social insect biology. I was in the process of completing my PhD on the population biology of Africanized honey bees in northern South America. I had been captured by the lure of insect societies and IUSSI to me was the pinnacle of scientific organizations to which I could belong.

After a year in Venezuela studying mating biology of honey bees, I was hired by the University of Guelph, Ontario, Canada, in 1982. I teach an Insect Behavior course and Introductory Apiculture to both arts and science students. It is hugely fun and rewarding to instill in students my enthusiasm for the insect that has captivated me for so long. Over the years my graduate and undergraduate students and I have studied honey bee ecology and behaviour, tracheal and varroa mite parasites, the lesser known honey bee species of Asia, and the effects of pollen shortages on bees and their colonies. I am presently intrigued by the huge variability in drone quality and by the different components of drone fitness.

But back to IUSSI. It remains the best of the organizations to which I belong. It attracts a cadre of superb biologists who are also genuinely nice people! I have attended every congress I could, from Cocoyoc, Mexico to Colorado, Germany, India, Australia, and Japan, and the breakaway meeting in the mountains of Colorado. I have served the society in a variety of ways, as a member of the symposium committee, as a reviewer of the applications for the Eickwort award, as a reviewer of manuscripts for *Insectes Sociaux*, and as a member of the organizing committee for the 2006 congress in Washington, D.C. If I am at ESA, I always attend the IUSSI business meeting--they're actually fun! It would be an honour to serve as the President of the North American Section of the only union to which I belong! Thanks for the nomination.

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## I will provide two ways for you to vote on the NAS/IUSSI 2005 president:

1. (Preferred): Send me an email message indicating your choice of president and meeting venue. **Your identity must be clearly indicated in your email message (e.g., in the signature line) for your vote to count.** If you desire complete anonymity in voting, you can send me an attachment file indicated your choices but not your identity, which I can download and tally without knowing who it came from.

Send an email message with your vote only to:

sodonnell@u.washington.edu

2. You can fill out and mail me a hard copy of the voting form, below. **You must indicate your identity on the envelope for your vote to count.**

My regular mail address is:

Sean O'Donnell  
NAS/IUSSI Secretary/Treasurer  
Psychology Box 351525  
University of Washington  
Seattle, WA 98195 USA

## Fall 2003 NAS/IUSSI ballot

Ballots will be accepted until 2 January 2004

Vote for one candidate for 2003 IUSSI President (reverse alphabetical by last name)

\_\_\_\_\_ Ed Vargo

\_\_\_\_\_ Gard Otis

Write-in: \_\_\_\_\_

To vote by **email**, send a message or anonymous attachment to:

sodonnell@u.washington.edu

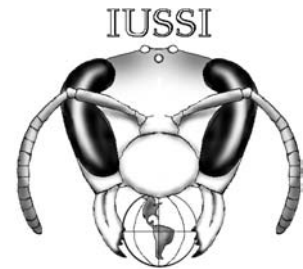
To vote by **mail** send this form to:

Sean O'Donnell  
NAS/IUSSI Secretary/Treasurer  
Psychology Box 351525  
University of Washington  
Seattle, WA 98195 USA



NORTH AMERICAN SECTION

# MEMBERSHIP RENEWAL 2004



NORTH AMERICAN SECTION

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