



NORTH AMERICAN SECTION

NAS/IUSSI NEWSLETTER



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NAS/IUSSI

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XIVth Congress of the IUSSI

Sapporo, Japan
28 July - 3 August 2002

A list of symposia is inside the attached Second Announcement. All talks will be in one of the 27 symposia. Please note that the deadline for registration is Dec. 31, 2001.
(<http://www.coop.hokudai.ac.jp>)

Sapporo Partial Travel Grants

Thanks to the efforts of Gene Robinson and Joan Strassmann, the NAS/IUSSI is pleased to announce that it has been awarded an NSF travel grant to help support the attendance of students and postdocs at the upcoming IUSSI Congress in Sapporo, Japan. Thanks to Gene and Joan for all their effort! The \$20,000 award will be partially matched with an additional \$6,000 in society funds. We anticipate awarding 20 travel grants. These grants are not intended to cover the full cost of travel to the meeting, and recipients will need other sources of funds to attend the meeting. The selection committee will be comprised of the President-Elect (Gene Robinson), Past-President (Joan Herbers) and Secretary-Treasurer (Ed Vargo). Applications will be limited to students or recent postdocs (no more than 5 years past the Ph.D.) who are NAS/IUSSI members (you can still join or renew your membership). Applicants should submit the following items electronically: a brief CV, an abstract of the paper or poster to be presented in Sapporo, information about other funding available,

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and plans, if any, for research-related activities before or after the meeting. Send application materials before December 31, 2001 to:
Gene Robinson
Email: generobi@life.uiuc.edu

Social insect symposia at San Diego ESA meeting

There will be two excellent social insect symposia at the next ESA meeting Dec. 9-12 in San Diego.

Worldwide odyssey: the ecology of social insects, organized by Terry McGlynn and Nate Sanders. This symposium will bring together ecologists to synthesize their ideas to explain why a few species have become globally dominant. Speakers include Eldridge Adams, Nick Calderone, Brian Forschler, Deborah Gordon, David Holway, Krista Ingram, Peter Landolt, Lori Lach, Lloyd Morrison, Hal Reed, Andy Suarez and Walter Tschinkel. Tuesday, December 11, 1:30 - 5:30 pm in the Convention Center, level 1, Pacific Salons 1 and 2.

Insect Castes: Developmental Regulation and Evolutionary Pathways, organized by Colin Brent. Recent advances in genetic and neuroendocrine techniques have helped to reinvigorate research on the mechanisms regulating the development of behavioral and physiological castes in social insects. Not only has there been an increasing resolution in our understanding of individual species, but work on an increasing diversity of insects has provided a broader perspective on caste differentiation. Comparisons at various taxonomic levels are now illuminating aspects of the evolution of castes. The talks in this symposium focus on the proximate and ultimate causal factors in social insect caste differentiation, and bring together some of the people at the forefront of this exciting field. The species covered would include eusocial aphids, wasps, ants and termites. The speakers and their titles are:
Diana Wheeler - Recent progress in caste determination in social Hymenoptera.
Sean O'Donnell - Linking physiology, behavior and reproductive caste in primitively eusocial paper wasps.

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Ed Vargo: ed_vargo@ncsu.edu; Tel.: 919-513-2743; FAX: 919-515-7746

James Hunt - Caste ontogeny in social wasps: correlates, causes and consequences.

Sam Beshers - Caste differentiation in leaf-cutting ants: individual morphology and colony organization in *Atta colombica*.

Patrick Abbot - Altruism, cheating, and a cryptic caste in social aphid colonies.

David Schulz & Gene Robinson - Neurochemical modulation of division of labor in honey bee colonies.

Jay Evans - Gene expression profiles during honey bee larval development.

Harunobu Shibao - Social behavior and factors! affecting soldier production of eusocial aphids.

Judith Korb - Ultimate factors influencing developmental decisions in lower termites.

Barbara Thorne - Reproductive dynamics and developmental plasticity in basal Isoptera.

The symposium is scheduled for Sunday, December 9, and will begin promptly at 8 am.

Election time

Once again it's election time. This year, we will elect two new officers: President-Elect and Secretary-Treasurer. Candidates for President-Elect are Zachary Huang and Robert Matthews. Candidates for Secretary-Treasurer are Eldridge Adams and Sean O'Donnell. To be counted, your ballot must reach me by December 6. You can vote by mail, email, fax, or telephone. Results will be announced at the NAS/IUSSI business meeting in San Diego. Shortly after the meeting, I will also send out an email announcement for the benefit of members not attending the San Diego meeting. Below are short bios for each candidate followed by your official ballot. Thanks. Ed Vargo

President-Elect

Zachary Huang. *Department of Entomology, Michigan State University.* Like the honey bees I study, my name has gone through complete metamorphosis. I grew up as "Zhiyong" in China, never actually tasted honey in my whole life until in 1982 when I decided to get some bee experience. I then migrated to Canada, started my graduate school life and became "Huang". After that it took me another 10 years to grow wings and eclose with a new name "Zachary". My interest in social insects never changed during the last 19 years though. I joined IUSSI since 1985 and attended the Munich and Paris meetings. I am organizing a symposium in the forthcoming meeting in Japan. I have been chair, president, or vice-president at a few other organizations (Section Cb, ESA, Apiculture Club at University of Guelph, Overseas Chinese Entomologist Association and Sino-Ecologists Overseas Club) but never held any office yet at IUSSI. Like a honey bee worker, I am eager to serve this social organization. Besides studying bees, teaching, and travelling around with extension activities, most of my other time has been at the cyberplace. You can get a glimpse of my various activities from some of my insect-related pages: <http://eat.bees.net>, <http://bees.msu.edu>, <http://www.cyberbee.net>, <http://sfi.cyberbee.net>, and finally the newest page: <http://www.mitezapper.com>.

Robert W. Matthews. *University of Georgia.* I completed my Ph.D. at Harvard University in 1969 under the direction of H. E. Evans. The University of Georgia has been my academic home since, with the exception of two sabbatical leaves, one in 1979-80 to Cornell University where I affiliated with Roger Morse's group, and most recently to Australia (1998-99), based at C.S.I.R.O. in Canberra. My research interests center on the behavior of wasps, social, solitary, and parasitic. One focus is the 'primitively' social sphecid wasps, in particular Neotropical *Microstigmus* and the Australian *Arpactophilus*. Recent studies have provided new insights into population structure and kinship. To facilitate further comparative studies I am currently describing several new species in both genera. Yellowjacket wasps (*Vespa* spp.) also have been a long term interest; most recently I have been collaborating with Mike Goodisman and others on population genetics of the European wasp in Australia. In Georgia, I am particularly interested in 'monster' yellowjacket nests, that have overwintered and continued to expand into a second or third season. With my wife, I wrote "*Insect Behavior*" in 1979; in 1991 I co-edited "*Social Wasps*" with Ken Ross. I have been an active member of IUSSI for at least 20 years. For a summary of current research and

instructional activities and a list of recent publications visit

<http://entomology.ent.uga.edu/personnel/faculty/matthews.htm>.

Secretary-Treasurer

Eldridge S. Adams. Associate Professor;
*Department of Ecology and Evolutionary Biology,
University of Connecticut.*

I became interested in social insects while an undergraduate at Harvard, where I studied ant ecology and behavior with Bert Hölldobler and James Traniello. Following graduate work at U.C. Berkeley (with Roy Caldwell) and postdoctoral research at the Smithsonian Tropical Research Institute (with Mary Jane West-Eberhard), I began working on fire ants with Walter Tschinkel at Florida State University. Walter still allows me to visit his laboratory during the balmy Tallahassee summers. I joined the Biology faculty of the University of Rochester in 1991, and moved to the Department of Ecology and Evolutionary Biology at the University of Connecticut in 1997. My research interests include the effects of competition and other biotic interactions on the structure of societies, populations, and communities, especially in ants and termites. I have long been a member of NAS-IUSSI, participating in and occasionally helping to organize symposia for national or international meetings. My favorite ant is the beautiful and mysterious *Cephalotes (=Zacryptocerus) foliaceus*.

Sean O'Donnell. Assistant Professor of
Psychology, Animal

Behavior Area, University of Washington.
I have been an active participant in NAS/IUSSI since my late larval instars as a graduate student at the University of Wisconsin. After pupating comfortably in the silken postdoctoral cell of U.C. Davis, I have enjoyed the imaginal caste-determining vigor of academia at U. Washington. My research focuses on factors that influence individual behavioral differences and division of labor in eusocial Hymenoptera, principally in paper wasps and bumble bees. I have been an active if outspoken NAS member, and greatly enjoy interacting with my IUSSI Colleagues. I recently served on the NAS nominating committee, and recently completed a stint as Ent. Soc. of America subsection Cb executive officer. I attend ESA and IUSSI meetings regularly, and I have organized several symposia on social insect biology. I would be honored to serve the NAS as Secretary/Treasurer.

NAS/IUSSI 2001 Elections

Candidates for President-Elect:

Zachary Huang

Robert W. Matthews

Write-in: _____

Candidates for Secretary-Treasurer:

Eldridge S. Adams

Sean O'Donnell

Write-in: _____

Circle your choice (or name write-in choice). Your vote must reach me by December 5, 2001. You may use mail, email, fax or telephone.

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Raleigh, NC 27695-7613

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William Donald Hamilton memorial Issue of the *Annales Zoologici Fennici*.

The Finnish Zoological and Botanical Publishing Board is proud to announce the printing of the William Donald Hamilton Memorial Issue of the *Annales Zoologici Fennici*. The memorial issue contains 12 original papers (see below) stemming from the WD Hamilton Symposium held Oct. 20-21, 2000 at the University of California at Berkeley. The Symposium, covered by *Science* (2000, 290: 1077),

contained 24 invited talks given by researchers from all over the Globe. The contents of the memorial issue:

- Starks PT: Alternative reproductive tactics in the paper wasp *Polistes dominulus* with special focus on the sit-and-wait tactic
- Ratnieks, FLW, Monnin T & Foster KR: Inclusive fitness theory: novel predictions and tests in social Hymenoptera
- Kaitala V & Kaitala A: Altruism, intraspecific parasitism and reciprocity: egg carrying in the golden egg bug

- Foster KR, Wenseleers T & Ratnieks FLW: Spite: Hamilton's unproven theory
- Nonacs P: A life-history approach to group living and social contracts between individuals
- Tarpy DR & Page RE Jr.: The curious promesquity of queen honey bees (*Apis mellifera*): evolutionary and behavioral mechanisms
- Crozier RH & Fjerdingstad EJ: Polyandry in social Hymenoptera – disunity in diversity?
- Daly M & Wilson M: An assessment of some proposed exceptions to the phenomenon of nepotistic discrimination against stepchildren
- Basolo AL: The effect of intrasexual fitness differences on genotype frequency stability at Fisherian sex ratio equilibrium
- Galvani AP, Coleman RM & Ferguson NM: Antigenic diversity and the selective value of sex in parasites
- Getz WM: Competition, extinction, and the sexuality of species
- Please contact Dr. Krzysztof Raciborski (sekj@helsinki.fi) if you have interest in this special memorial issue in honor of WD Hamilton.

The *Annales Zoologici Fennici* (AZF) has a long tradition of publishing high quality papers on all topics relating to zoology. AZF welcomes submissions of original work performed on any level of biological organization. AZF especially welcomes manuscripts dealing with the ecology, behavior, or evolutionary patterns of animals. AZF also encourages submission of important research relating to conservation biology and wildlife management. Visit the AZF website for more information (<http://sekj.pc.helsinki.fi/>).

Graduate Research Assistantship in Behavior

A graduate research assistantship (RA) is available in the Department of Entomology, beginning January, July, or September 2002. The project focuses on foraging behavior in the German yellowjacket, *Vespula germanica*. The primary responsibility of the RA will be to conduct field and laboratory experiments into (1) the behavioral mechanisms behind the ability of foragers to recruit nestmates to a food source, and (2) the role and source of scent-marking used in the nest and at food sites, as well as to pursue other interesting leads that may arise. The work will lead to the MS or PhD degree. Appointment is for 12 months per year. Annual stipend of \$16,529 includes tuition waiver and health insurance. For more information contact Prof. Robert L. Jeanne, Dept. Entomology, University of Wisconsin, 1630 Linden Drive, Madison, WI 53706, e-mail: jeanne@entomology.wisc.edu; telephone: 608-262-0899; fax: 608-262-3322.

New *Insectes Sociaux* subscription rates

For the first time in several years, there has been a slight change in subscription rates to *Insectes Sociaux*. At the last NAS/IUSSI business meeting, we decided to tie our subscription rates to the price charged by the Swiss publisher Birkhauser. At the meeting we agreed to factor in a \$5 cushion for regular member subscriptions, while student members would pay cost for subscriptions. The new subscription rates are \$72 for regular members, down from \$73. Student rates have increased slightly from \$46 to \$47.50. Membership dues to NAS/IUSSI will remain at \$15 regular members and \$7 for student members.

What's my status?

Once again, I've indicated on your mail label the most current year for which we have received your dues and subscription fees. The first number in the brackets refers to your membership status and the second indicates your subscription status. A "-" in either place means there's no record of being paid up for either category. [01,01] means you were all paid up for both your membership dues and your *Insectes Sociaux* subscription for 2001, but now it's time to pony up for the coming year. We have a number of members subscribed to *Insectes Sociaux* who are at risk of losing their subscription due to delinquent payment. Don't let your subscription lapse.



MEMBERSHIP RENEWAL 2002



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Students – Please have your advisor or chair certify your status.

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