



NORTH AMERICAN SECTION

NAS/IUSSI NEWSLETTER



NORTH AMERICAN SECTION

NAS/IUSSI

SPRING/SUMMER 2000

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Society meetings in Montreal. I look forward to seeing many of you at the section meetings, and to hear the news from our members who were able to attend the Brazil Congress.

The office of President for our Society holds few responsibilities, and it is important that we recognize the hard work of the Secretary-Treasurer, who is the real workhorse. Ed Vargo has completed his first year in that office, and is doing a splendid job. Please don't make Ed's job any harder — pay up if you owe dues or subscription funds for 2000! Also, please encourage your students and colleagues to join our Section.

And now a word from our President

May 2, 2000

Dear colleagues,

The last few months have brought sad losses to the social insect community. One of the giants in our field, W. D. Hamilton, succumbed to malaria after fieldwork in Africa. Hamilton's early insights, followed by decades of pathbreaking theoretical work, have provided inspiration for many of us working on kin selection, sex allocation, and host-parasite biology. Shortly after Hamilton's death, a tragic boating accident off Baja California claimed the lives of three Japanese colleagues. Termite specialists in particular mourn the loss of Dr. Takuya Abe, Dr. Masahiko Higashi, and Dr. Shigeru Nakano. We extend our sympathy to all their colleagues and friends.

We have a busy year ahead for our North American Section. Quite a few members will be attending the International Congress of Entomology in Iguassu Falls, Brazil this August. Our own section will meet in Arkansas early in autumn, followed by a second meeting in conjunction with the Entomological

I am enjoying the tail end of a sabbatical leave in Scotland, but do get in touch if you have any questions, concerns, or suggestions about our Section. My email address is herbers@lamar.colostate.edu

Best wishes for a successful field season in 2000!

Sincerely,

Joan M. Herbers
President, North American Section
International Union for the Study of Social Insects

NAS/IUSSI Meeting Oct. 5-8, 2000

Every fourth year the NAS/IUSSI holds a meeting outside the yearly ESA venue. This tradition began years ago, but was discontinued for a period until 1997, when Mike Breed resurrected and organized an extra-ESA IUSSI conference in Nederland, Colorado, a spectacular site in the Rocky Mountains above Boulder. The attendees all had a great time, and voted to carry on the tradition of holding the meeting in a natural setting. We voted to have our next one in the Ozarks, in the fall, when the colors

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are spectacular and the chiggers are mostly gone. Please see <http://comp.uark.edu/~scameron/> for meeting information, registration and paper submission forms.

This year's meeting falls at a rather special time. Not to jump onto the proverbial bridge-to-the-20th-century bandwagon, we are nonetheless passing into a new era of social insect evolutionary studies. Sadly, the transition to a new century was marked by the death of Bill Hamilton earlier in the year. Bill's insights into the social evolutionary process were profound and ingenious and continue to guide much of our work in the field. He laid a cornerstone of social evolutionary theory that will remain fixed well into the future. At last year's XIIIth Intl Meeting in Adelaide Ross Crozier proclaimed that kin selection is the temple of social evolution. Whether everyone agrees with this or not, Bill's many ideas are solidly entrenched in an enormous body of experimental and theoretical literature. It seems that now would be a good time to review some of those ideas (and their earlier history) and then to look at the present to see where we are going into the future. Are there any new trains of thought or lines of investigation that broaden our past approaches to understanding social insects? Are there any important syntheses going on right now?

Another landmark this year: 25 years have passed since the publication of Wilson's *Sociobiology*. This book stimulated a whole new generation of students and touched off fervent debate concerning the genetic underpinnings of behavior, a debate which still continues in some circles today. It is an excellent time to discuss where we have come since the release of that book. To begin the dialog, Bernie Crespi has agreed to open the symposium with a talk in tribute to the memory of Bill and his ideas. Since Bernie knew him well, this will be a great opportunity for a lot of students who never knew Bill, or never heard him talk (hearing him was often a challenge), to find out what he was all about. Bernie will provide a link to the ideas of several generations of social evolutionists.

It will be exciting to have several generations mingling at the meeting. In addition to the individual talks and posters (get your titles and abstracts in soon) we can set up discussion sessions in various rooms surrounding the large symposium room. There will be opportunities to catch up with old friends at the opening reception in a wooded pavilion round a big open fire.

On Sunday, following the conference, there will be field trips to the Buffalo River, the nation's first National Scenic River. This is a beautiful area filled with hiking trails, caves and spectacular scenery.

We look forward to seeing all of you there.

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XIVth Congress of the IUSSI

Sapporo, Japan

28 July – 3 August 2002

First Announcement is enclosed. Please note end of July 2000 deadline for symposia proposals

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. [00,00] means you are all paid up for both your membership dues and your *Insectes Sociaux* subscription for this year. You can breathe easy until I hit you up again late in the year. [99,-] means we last received your membership dues for 1999 and you are not a subscriber to *Insectes Sociaux*. If your membership dues are not current, your guilty conscience will eat at you and the data gods will frown on you until your account is up to date.

Animal Behavior Society Meeting August 5-9, 2000

The ANIMAL BEHAVIOR SOCIETY ANNUAL MEETING will be held 5-9 August 2000 in Atlanta, GA, co-hosted by Morehouse College and ZooAtlanta. Along with contributed talks and posters, the meetings will include special symposia on 'Dispersal Behavior' and invited papers on 'Comparisons between Primates and Cetaceans'. Plenary speakers include Chris Boake, Hugh Drummond, & Dee Boersma. For further information see <http://www.animalbehavior.org/ABS/Program/>

Thank you,

Linda S. Rayor
Chairman, Public Affairs
Animal Behavior Society

Two new social insect books out

Please see attached announcements

TERMITES: EVOLUTION, SOCIALITY, SYMBIOSIS, ECOLOGY

A new book from Kluwer Academic Publishers, due July 2000

Edited by Takuya Abe, David E. Bignell and Masahiko Higashi

The book is a new compendium in which leading termite scientists review the advances of the last 30 years in our understanding of phylogeny, fossil records, relationships with cockroaches, social evolution, nesting, behaviour, mutualisms with Archaea, bacteria, protists and fungi, energy metabolism, population and community biology, soil conditioning, greenhouse gas production and pest status in buildings and structures.

There is a strong emphasis on the gains made from modern technologies and contemporary concepts, for example molecular and morphological phylogenies, social theory, the culture of fastidious microorganisms, microelectrode probing, natural stable isotope analysis and protein purification. Seven chapters are devoted to the mutualistic relationships of termites and the book concludes with the environmental impacts of termites.

The target readership includes scientists and advanced students engaged in termite research, both pure and applied, as well as termite control practitioners.

TERMITES: EVOLUTION, SOCIALITY, SYMBIOSIS, ECOLOGY

Eds. Takuya Abe, David E. Bignell, Masahiko Higashi

Kluwer Academic Publishers, Dordrecht, 466pp.

20 chapters, 11 plates, 12-page index.

Publication: July 2000

Price: approximately \$US 190.00 / £115.00

CHAPTERS AND AUTHORS:

1. **Taxonomy and Phylogeny of Termites** (Srinivas Kambhampati and Paul Eggleton).
2. **Global Patterns of Termite Diversity** (Paul Eggleton).
3. **Characterizing the Ancestors: Paedomorphosis and Termite Evolution** (Christine Nalepa and Claudio Bandi).
4. **Early Fossil History of the Termites** (Barbara Thorne, David Grimaldi and Kumar Krishna).
5. **Diversity and Evolution of Caste Patterns** (Yves Roisin).
6. **Termite Nests: Architecture, Regulation and Defence** (Charles Noirot and Johanna Darlington).
7. **Behavior and Ecology of Foraging in Termites** (James Traniello and Reinhard Leuthold).
8. **Theories on the Sociality of Termites** (Masahiko Higashi, Norio Yamamura and Takuya Abe).
9. **Introduction to Symbiosis** (David Bignell).
10. **Ecology of Prokaryotic Microbes in the Guts of Wood- and Litter-Feeding Termites** (John Breznak).
11. **Soil-feeding Termites: Biology, Microbial Associations and Digestive Mechanisms** (Alain Brauman, David Bignell and Ichiro Tayasu).
12. **Intracellular Symbiosis in Termites** (Claudio Bandi and Luciano Sacchi).
13. **Symbiotic Associations with Protists** (Tetsushi Inoue, Osamu Kitade, Tsuyoshi Yoshimura and Ikuo Yamaoka).
14. **Symbiosis with Fungi** (Corinne Rouland-Lefèvre).
15. **Energy Metabolism in the Termite and its Gut Microbiota** (Michael Slaytor).
16. **Population Dynamics of Termites** (Michel Lepage and Johanna Darlington).
17. **Termites in Ecosystems** (David Bignell and Paul Eggleton).
18. **Termites and Soil Properties** (John Holt and Michel Lepage).
19. **Global Impact of Termites on the Carbon Cycle and Atmospheric Trace Gases** (Atsuko Sugimoto, David Bignell and Jannette MacDonald).
20. **Termites as Pests of Buildings** (Nan-Yao Su and Rudolph Scheffrahn).

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