

# ISCE NEWSLETTER

Vol. 7, No. 1, February, 1990

International Society of Chemical Ecology

## Seventh Annual ISCE Meeting CALL FOR PAPERS

The seventh annual meeting of the **International Society of Chemical Ecology** will convene August 11–15, 1990 with the **Phytochemical Society of North America** at Laval University, Québec City. Dr. Jeremy McNeil will host the meeting. Abstracts for those wishing to participate with an oral or poster presentation should be submitted on the enclosed abstract form no later than June 1, 1990 to: Dr. Jeremy N. McNeil, Département de biologie, Université Laval, Sainte-Foy, Qué., Canada G1K 7P4. There will be two symposia as well as contributed papers. ISCE is convening a symposium entitled "The Ecological Milieu of Chemical Defense and Communication." Invited speakers will include:

*I. Baldwin*, SUNY, Buffalo. Ecological constraints on plant chemical defenses: The case of nitrogen and nicotine in *Nicotiana*.

*D. Gosling*, Coupu Research Laboratory. The significance of scent marking in the assessment of opponents by male mammals.

*J. Himmelman*, Université Laval. Coupling marine invertebrate spawning with larval food abundance using chemical cues.

*V. Krischik*, University of Maryland. Generalized plant defenses: Effects on multiple taxa.

*D. Marshall*, University of New Mexico. The potential for chemical mediation of non-random mating in plants.

*N. Negus*, University of Utah. Plant chemical cues, phenotypic plasticity and population dynamics.

*M. Rowell-Rahier*, University of Basel. Chemical specialization on toxic plants as a defensive tool: ecological reality or fantasy.

**Phytochemical Society of North America** is convening a symposium entitled "Modern Phytochemical Methods." Invited speakers will include:

*N.H. Fischer*, Louisiana State University. New NMR methods in phytochemical studies.

*J.P. Foley*, Louisiana State University. Supercritical fluid chromatography in natural products analysis.

*J. Gershenzon*, Washington State University. Ecological function of trichome constituents in higher plants.

*K. Hostettmann*, University of Lausanne. New developments in the separation of natural products.

*C. Pidgeon*, Purdue University. Immobilized artificial membrane chromatography.

*J. St. Pyrek*, University of Kentucky. New mass spectral methods in natural products structure elucidations.

*D.L. Smith*, Purdue University. Methods of mass spectrometry for the structure elucidation of natural products.

*O. Spring*, University of Tubingen. Trichome microsampling of sesquiterpene lactones for the use of systematic studies.

The meeting will take place at the Université Laval campus. It will begin with registration at 1:00 p.m. on the 11th followed that evening by an opening reception. The meeting will end at noon on the 15th. Three-hundred-fifty single rooms have been reserved in the student residences from Saturday August 11 through Tuesday August 14. A limited number are also available for Wednesday, August 15. The rooms are available on a first-come, first-serve basis for \$27U.S./night. This includes breakfast and on-campus parking. The registration fee is \$100U.S. for regular members, \$40U.S. for student members. Non-members pay a slightly higher registration fee (see

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## From the Editor

Our winter issue is usually full of inserts and this winter issue is no exception. There are seven inserts dealing with our upcoming seventh annual meeting to be held in Québec City. Three of them have important information on *both* sides of the insert. There are also two posters announcing the meeting. We hope that you will display these or circulate them to colleagues that you think might be interested in the meeting. The Québec meeting will be a joint one with the **Phytochemical Society of North America**. This is a first for our society and we hope that you will support the meeting by attending. I look forward to seeing you in Québec!

*Nancy M. Targett*

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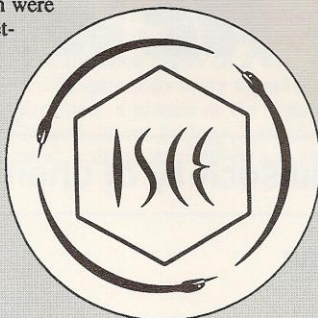
## ISCE Honors Two with Society Medal

Dr. Miriam Rothschild and Dr. Murray Blum were awarded society medals at the sixth annual meeting in Gothenburg, Sweden. Dr. Rothschild was honored "for her innovative research and seminal ideas, which have provided an incomparable stimulus to the development of chemical ecology." Dr. Blum was honored "for his pioneering exploration of insect defensive chemistry and groundbreaking studies on the chemical ecology of social insects."

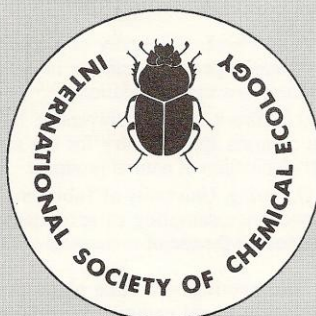
As a pioneer in the field, Miriam Rothschild has been a veritable catalyst of the discipline. A superb naturalist and field observer, she has built upon a broad spectrum of discoveries to generate novel ideas pertinent to chemical ecology as a whole. Her early work on cardiac glycosides and their defensive role in insects set the stage for an appreciation of the chemical subtleties of animal-plant interaction, an area that has become paramount in contemporary biology. Her documentation of how the reproductive physiology of parasitic fleas is regulated by the endocrinology of the rabbit host stands as a landmark contribution to chemical ecology. Miriam Rothschild has published over 300 papers and 7 books. As shown by her recent publication on pyrazines as warning odors, she remains a prolific contributor to the discipline.

Murray Blum was pioneering new frontiers of chemical ecology before it was recognized as a discipline and certainly is one of its preeminent ambassadors. He has made outstanding and continuous contributions to this field for more than 30 years. Among the first to use mass spectroscopy for the identification of organic compounds, he carried out basic investigations on the chemical communication systems of social Hymenoptera and ants. He was the first to discover that fire ants and other ant species contain alkaloid venoms that not only serve the ecological needs of the ants, but also form the basis for a chemotaxonomic description. He particularly promoted insect-insect interactions and understanding of insect-plant relations. An extensive number of graduate students and postdoctoral fellows now working in the area of chemical ecology owe their inspiring educator and mentor tremendous debt for his dedication and encouragement. Murray Blum has published over 350 papers and has authored "Chemical Defenses of Arthropods" a landmark achievement in chemical ecology.

Witko Francke



*One side of the 1989 Society Medal shows the initials of the society which form stylized "signs of communication." A surrounding hexagon represents chemistry which is framed by three snakes reminiscent of the old Egyptian Ouroboros Serpent biting its tail as a symbol of eternity or of the universe. The snakes represent the biological background, ecology-ethology-evolution or the elements air-water-soil (respectively, the basic alchemistic principles, sulfur, mercury and salt). The circle formed by the snakes may refer to the Platonic idea of unity of matter which formed one of the fundamentals of alchemical theory.*



*The backside of the medal shows a Scarabeus sacer, the holy, primeval animal of Old Egypt, which represents a whole microcosm of chemical ecology, holding together the first and last letter of a circle formed by the name of our society. The empty space is filled with the name of the awardee and the year.*

## CALL FOR PAPERS

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enclosed registration form). The registration fee includes the opening reception on Saturday evening and the banquet at the Chateau Frontenac on Tuesday, August 14. Arrangements for housing and registration can be made by filling out the registration and housing forms that are enclosed in the newsletter. Deadline for their receipt is June 1, 1990.

Québec City is easily accessible by bus, train, plane, or boat. Air Canada is the official airline of the conference. More details about the meeting and alternate accommodation possibilities will be forthcoming in the May newsletter.

## Student Travel Awards Québec, Canada 1990

Two thousand dollars in travel money has been earmarked by the ISCE for student travel awards to the society's seventh annual meeting to be held in Québec, Canada. Details about the meeting can be found in this issue of the newsletter. The funds are available on a competitive basis and are designed to encourage student participation at the meetings by helping to defray a portion of total travel costs. The number of grants awarded each year is determined by the total monies available to the committee and the value of each grant awarded. Award values are determined by the committee after considering the total travel costs of the individual student recipient. To be eligible for an ISCE travel award you must:

- Be a paid-up student member of the ISCE and still be enrolled as a full-time graduate student **OR** be a paid-up member of the ISCE and be a full-time postdoctoral research associate;
- Be presenting a paper or poster;
- Not have previously received an ISCE travel grant.

To apply, students or postdocs must complete the enclosed form and send **three** copies, postmarked no later than March 31, 1990 to Dr. Jeremy N. McNeil, Chair, Student Travel Awards Committee, Département de biologie, Université Laval, Ste-Foy, Québec, Canada G1K 7P4.

## Santiago IFS Workshop on "Chemical Interactions between Organisms" a Success

An IFS workshop on "Chemical Interactions between Organisms" was held in Santiago, Chile last November. Attending were participants from 14 countries. Twelve South and Central American countries were represented. The workshop began with a cocktail gathering on Sunday evening where participants met in a friendly atmosphere. This set the tone for the rest of the workshop by encouraging full commitment, enthusiasm, and collaboration from everyone.

The academic program included a series of minisymposia consisting of a lecture from an invited expert and several communications by IFS grantees or applicants. Among the topics covered were: The search for biologically active compounds from natural sources, the synthesis and reactivity of biologically active compounds, evolutionary aspects of plant-insect interactions, crop protection and plant-insect interactions, allelopathy, plant-fungi interactions, and biochemistry of pheromone reception. Also in the program were laboratory sessions in chromatography and in insect bioassays conducted by Peter Baeckstrom and Jan Pettersson respectively, with the help of staff and students from our laboratory. Both Peter and Jan came a few days early to set up the new instruments and their demonstration. It was an inspiring sight to see Jan running around the fields near the Faculty with a cohort of enthusiastic students, in search of aphids for the experiments, and Peter impressing all of us with his efficient and effortless chromatographic methods!

Naturally, social activities were programmed among the brain-storming academic sessions. We were twice out for dinner, visited a winery, and made a barbecue excursion to a National Park near Santiago. Here, we were guided by expert botanists through the park and we had a chance to bathe in the cool but immaculately clean waters of the river flowing through it.

The workshop was a great experience to all of us. It was an intense week, in which close academic and personal contacts were established. After a few weeks of frantic preparations, during which the laboratory looked and sounded like a beehive, we are now slowly returning to normality. But not normality as we knew it before. The workshop has changed us all. It has united the members of the group, showed them a way towards integration with other labs. It has, in a sense forged a destiny for our laboratory. On the other hand, we feel confident that one of the outcomes of the workshop will be a more intense collaboration between scientists in the region working in chemical ecology, and also an even stronger commitment of IFS in this area of science in Latin America. We hope this united family of scientists which has been created will soon incorporate new members!

An IFS provisional report will come out soon containing lectures and communications. To those interested in receiving a copy, please write directly to Dr. Lennart Prage, at IFS, Grev Turegatan, S-114 38 Stockholm, Sweden.

*Hermann M. Niemeyer*

### Take Time to Renew Your ISCE Membership

ISCE membership dues for the 1990 calendar year were due January 1. If you have neglected to renew your membership please do so as soon as possible by sending your dues in U.S. dollars to: Dr. Jim Nation, 202 Newell Hall, Department of Entomology and Nematology, University of Florida, Gainesville, Florida 32611, U.S.A. or your dues in Swiss Francs to Dr. Martine Rowell-Rahier, Zoological Institut, Uni. Basel, Rheinsprung 9, CH 4051 Basel, Switzerland. *Members who are not current with their dues have a yellow dot affixed to the newsletter mailing label. If you see the yellow dot, it means that our records show that you have not paid dues for 1990.*

Regular membership in the society for members in Australia, Canada, Japan, New Zealand, South Africa, United States, and Western Europe is \$25 U.S. or 45 SF. Regular membership for members in all other countries is \$10 U.S. or 18 SF. Student membership for students in Australia, Canada, Japan, New Zealand, South Africa, United States, and Western Europe is \$10 U.S. or 18 SF. Student membership for all other countries is \$5.00 U.S. or 9 SF. Life membership is \$400 U.S.

## Upcoming Meetings



**February 27 – March 2, 1990.**

Primer Simposia Ecuatoriano de Ethnobotanica y Botonica Económica, Quito, Ecuador. Contact Herbario (QCA), Departamento de Ciencias Biológicas de la Pontificia Universidad Católica del Ecuador, Apartado 2184, Quito, Ecuador. Teléfono: 529240 x279.

**August 12 – 18, 1990.** Conference

on Insect Chemical Ecology, Tabor Czechoslovakia. Contact Dr. Zdenek Wimmer, Institute of Organic Chemistry and Biochemistry, Czechoslovak Academy of Sciences, Flemingovo nám. 2, 166 10 Prague 6, Czechoslovakia.

**September 2 – 6, 1990.** 4th Brazilian

Meeting on Organic Synthesis, State of Rio de Janeiro, Brazil. Main Themes: Fine Chemical Synthesis, Natural Products Synthesis, Strategies in Organic Synthesis, Synthetic Methodologies, Organo-metallic Chemistry. Contact Dr. Vitor Francisco Ferreira, Universidade Federal Do Rio De Janeiro, Núcleo De Pesquisas De Produtos Naturals, Centro De Ciencias da Saúde—Bloco H, Rio De Janeiro-Brasil—CEP 21941.

**September 9 – 15, 1990.** Pheromones in Mediterranean Pest Management, Granada, Spain. Contact OILB Pheromone Meeting, Estación Experimental del Zaidín, c/ Profesor Albareda s/n, Apdo. 419, E-18008 Granada, Spain.

## Books of Interest



R.K. Vander Meer, K. Jaffee, and A. Cedeño (eds). *Applied Myrmecology: A World Perspective*. Westview Press. Boulder, CO. 736pp. \$85.00.

*Applied Myrmecology* is an inclusive look at the pest ants of the world. Covering species found in South America, Africa, Australia, India, Europe, and North America the book draws on a wide variety of disciplines to bring together, for the first time, a picture of the systematics; reproduction; biology, behavioral, chemical, and applied ecology; and prob-

lems of control of pest ants. With both species-specific studies and broad synthetic overviews, this is a useful book for entomologists, ethologists, biochemists, agricultural scientists, ecologists, and others interested in the interactions between insects and the environment and human attempts to control those interactions.

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