

ISCE NEWSLETTER

Vol. 5, No. 1, January, 1988

International Society of Chemical Ecology

Student Travel Awards Georgia, 1988

To encourage student participation at the annual meetings of the ISCE, a number of travel grants are available annually to help 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. The amount given to each recipient depends on the total travel costs; for example, an Australian coming to the 1988 meetings in Georgia would receive a larger grant than a recipient from New York. To be eligible for a travel award, students must:

- be a paid-up student member of the ISCE and still be enrolled as a full-time graduate student at the time of the annual meeting,
- be giving a paper or poster, and
- not have previously received an ISCE travel grant.

To apply, students must complete the enclosed form and send *three* copies, postmarked no later than February 28, 1988, to: Dr. Jeremy N. McNeil, Chair, Student Travel Awards Committee, Département de Biologie, Université Laval, Ste-Foy, Québec, Canada G1K 7P4.

Jeremy McNeil

Fifth Annual ISCE Meeting Call for Papers

The fifth annual meeting of the **International Society of Chemical Ecology** will convene June 24-27, 1988, at the University of Georgia, Athens. Dr. Murray Blum 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 May 15 to: Dr. Murray Blum, Department of Entomology, University of Georgia, Athens, GA 30602, U.S.A. In addition to the contributed papers, four symposia are being organized. The general topic of each symposium and its organizer are listed below.

Symposium Titles	Organizer
Reptile Semiochemicals	Paul Weldon, Texas A&M
Chemotaxis in Microorganisms	Michael Manson, Texas A&M
Chemical Ecology in the Aquatic Environment	Donald Gerhart, Duke
Sequestration of Allelochemicals by Invertebrates	Murray Blum, University of Georgia

The meeting will take place in the Georgia Center for Continuing Education, located on the University of Georgia campus. *Limited* housing accommodations are available in the

Georgia Center and will be available on a first-come, first-served basis. Arrangements for housing and registration can be made by filling out the registration and accommodations form that is enclosed in the newsletter and returning it to Andrew Little (see form for address). The registration fee for this meeting will be \$100. This fee includes the ISCE banquet.

Athens is easily accessible by car for those in the southeastern and mid-Atlantic U.S. Those traveling by air will find it most convenient to travel to the Atlanta, Georgia, airport. From there, it is possible to catch a commuter plane to the Athens airport (Piedmont serves the Athens airport) or to use limousine service, available at the Atlanta airport, which will take you directly to the University of Georgia campus. More details about this in the May newsletter.

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From the Editor

Scientists in the field of chemical ecology were saddened to learn of Tony Swain's untimely death last September. Professor Jeffrey Harborne, longtime friend of Professor Swain's, pays tribute to him in an obituary printed in this issue.

Also in this issue you will find the Call for Papers for the fifth annual ISCE meeting which will be held in Athens, Georgia, in June, 1988. Please note that the abstract form, registration and accommodation form, and student travel award application form are loose additions in the center of the newsletter. This will be the only call for papers that will appear in an ISCE Newsletter. Our May issue, which will come out after the abstract deadline, will feature more details about the meeting. I want to thank all of you who have sent information to me for the newsletter. Please keep those informative notes coming!

Nancy M. Targett

A Tribute to Tony Swain 1922-1987

Tony Swain, founder editor of the journal *Phytochemistry*, died in a motorway accident on September 25, 1987, and the world of plant science lost one of its leading exponents. Born and bred in Yorkshire, England, he served his country during World War II as a Captain in the Royal Engineers in India. After studying chemistry at the University of Exeter, he joined the Low Temperature Research Station at Cambridge.

Tony's time at Cambridge was marked by a series of collaborative ventures into biosynthesis, enzymology, and tissue culture. Among important contributions to science from these active years of research were his tannin studies, especially their quantitative estimation.

In 1957 the group at Cambridge set up the Plant Phenolics Group with Tony as founder secretary and Eric Conn as the first chairman. This group rapidly grew, with many members from the continent, and it eventually became the Phytochemical Society of Europe that we know today. About this time, the need for a journal specifically devoted to plant biochemistry became more and more apparent. Tony Swain, in an historic meeting with Robert Maxwell and Gilbert Richards during the early days of Pergamon Press, rapidly convinced them of the need and the *Phytochemistry* was born. Tony carried the editorial load single-handed for the first 10 years, and it was only as his other responsibilities grew that he recruited an editorial team.

Tony at this time was closely involved in the development of chemosystematics. His edited book *Chemical Plant Taxonomy* — which arose from a memorable NATO-sponsored symposium held in Paris in 1962, together with the text of Alston and Turner — provided the framework from which this new field of plant research grew. It was through Tony's initiative that an IUPAC Commission was set up on the subject and it was eventually, again, Tony who founded the first journal (with E. Schoffeniels) devoted specifically to the subject *Biochemical Systematics and Ecology*, the ecology being added later as an afterthought.

In 1965, Tony was recruited by Lord Zuckerman to serve in the Cabinet Office as scientific advisor, which he did until 1968. In order to ease his return to science, Tony then spent two years on sabbatical leave at Harvard and Yale successively and, on his return to England, he set up a biochemical laboratory, under A.F.R.C. funding, at the Royal Botanic Gardens, Kew. These years at Kew were among the happiest and most productive of his life and focused more and more on the purpose and function in plants of phenolic constituents.

Tony's research interests in ecological biochemistry were continued at Boston University, where he moved in 1975 as chairman of the biology department. In 1986 he reached retirement and returned as an Honorary Research Fellow to Kew, where he was working with colleagues on microbial metabolites when he met his untimely death.

Tony was married twice, having three sons by his first wife and inheriting a stepson and stepdaughter with his second wife.

In this account of Tony's research career, I have not been able to mention a multitude of other scientists and many students that he worked with or influenced during his lifetime. He was an inspiring research leader, a generous host, and a most congenial companion. He had an abiding love and command of the English language. This was expressed in the books he edited, the many scientific papers he wrote, and in his meticulous attention to detail as journal editor. It was to the considerable regret of his close friends that he never completed the book that was waiting to be written by him. He was a complex character who devoted himself above all else to science. A generalist in the best sense of the word, he had a remarkable gift of spanning the gap between chemistry and biology. He had the added gifts of contributing to and communicating to others the excitement of scientific discovery. We can but join with Hamlet and say that we shall not look upon his like again.

Jeffrey B. Harborne

Marine and Freshwater Chemical Ecologists — Take Note

Chemical ecologists working with marine or freshwater organisms are urged to participate in next summer's ISCE meeting at the University of Georgia. Preparations already are underway for a symposium highlighting various aspects of the chemical ecology of aquatic environments. Contributed

papers in this area also are sought. These can be either oral or poster presentations. For more information, contact: Dr. Donald Gerhart, Duke University Marine Laboratory, Pivers Island, Beaufort, NC 28516, U.S.A.; telephone (919) 728-2111, ext. 259.

Donald Gerhart

President's Message

ISCE is about halfway through its fifth year. We are continuing our efforts to develop the various activities of ISCE, both independently and in collaboration with other Societies. Fiscally, we are in a much better position than last year, and soon we will be embarking on a major corporate fund-raising effort. In the last newsletter I requested slides for our proposed fund-raising brochure, and this stimulated some of you to respond. I would like to again request that those who might have a few slides that could be used to illustrate their work in chemical ecology consider submitting them for use in the brochure. They should be sent to either Professor Jerrold Meinwald, Department of Chemistry, Baker Laboratory, Cornell University, Ithaca, NY 14853-1301, U.S.A. or me, Professor David A. Jones, Department of Plant Biology and Genetics, University of Hull, Hull HU6 7RX, England. The slides should be accompanied with a covering explanation and, where possible, reprints.

I hope that we will have a record attendance at the meeting in Athens, Georgia. The efforts of Murray Blum deserve the support of all of us.

David A. Jones

ISCE News Notes

- Plenum offers a 25 percent discount on its books to ISCE members.
- Returns of the student award questionnaire printed in the last issue of the newsletter are running 2 to 1 in favor of student awards. This issue will be discussed at the executive/council meeting, which will take place in Athens. If you have an opinion, but have not expressed it, there is still time to make your opinion known by sending it to the newsletter editor.
- Plans are underway for the first joint ISCE/Phytochemical Society of North America meeting. It will take place in Quebec in 1990.
- The *Journal of Insect Physiology* is publishing a special issue on phytophagous insects. This symposium publication will contain 13 articles dealing with adult insect/plant interactions in areas such as sensory morphology and physiology, behavior, learning, plant chemistry, etc., in insects from various orders. It can be purchased for \$35 US by writing: Dr. A.J. Colborne, Managing Editor, *Life Sciences and Medicine*, Pergamon Journals Limited, Headington Hill Hall, Oxford OX3 0BW, England.

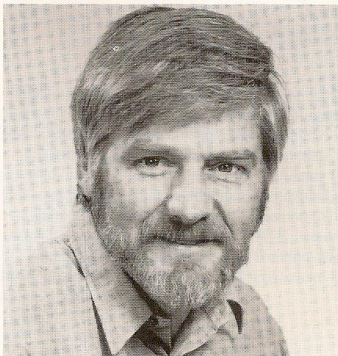
Looking Ahead: Sweden, 1989

The sixth annual meeting of the **International Society of Chemical Ecology** will be held August 7-11 at the University of Gothenburg, Sweden. Gunnar Bergström will host this meeting, which will take place at the Nordic School of Public Health located on the outskirts of the city. The ISCE meeting has been arranged so that it will convene just after the 32nd IUPAC Congress (see **Upcoming Meetings**, p.4) in Stockholm. The IUPAC Congress will feature a section on Chemical Communication and Interaction between Organisms that will be organized by Torbjörn Norin. More information about both meetings will be available in subsequent newsletters, and through circulars and posters that will be available around mid-1988. Everyone is most welcome to this meeting and you are encouraged to begin thinking about travel grants well in advance. Letters of invitation are available upon request to: Dr. Gunnar Bergström, Department of Chemical Ecology, University of Gothenburg, Box 33031, S-40033 Gothenburg, Sweden.

Gunnar Bergström

Jeremy McNeil Honored by ESC

Congratulations to ISCE Councilor and Travel Awards Committee Chairman Dr. Jeremy McNeil, Département de Biologie, Université Laval, Québec, who has recently been chosen the 1987 winner of the Entomological Society of Canada's Gold Medal for Outstanding Achievement in Canadian Entomology. Dr. McNeil is being honored in recognition of his contributions to the teaching of entomology in Canada and his pioneering research on the ecological aspects of insect pheromone communication.



Dues Reminder

The current fiscal year for the ISCE began in September. Members are reminded that membership renewals were due at that time. If you have neglected to renew your membership, please do so as soon as possible by sending your dues to: ISCE **Treasurer** Dr. Jim Nation, 202 Newell Hall, Department of Entomology and Nematology, University of Florida, Gainesville, Florida 32611, U.S.A.

Regular membership in the Society for members in Australia, Canada, Japan, New Zealand, South Africa, United States, and Western Europe is \$25 US. Regular membership for members in all other countries is \$10 US. Student membership for students in Australia, Canada, Japan, New Zealand, South Africa, United States, and Western Europe is \$10 US. Student membership for all other countries is \$5 US. Life membership is \$400 US. The **Journal of Chemical Ecology** is available at reduced member rates of \$40 US for United States residents and \$50 US for non-U.S. residents.

We have also tried to begin accommodating those members who would find it easier to pay their dues in other than U.S. currency. At present, payments can also be made in Swiss francs by Eurocheck or Girocheck. These payments should be sent to the ISCE treasurer's representative in Switzerland: Dr. Martine Rowell-Rahier, Zoological Institut, Uni. Basel, Rheinsprung 9, CH 4051 Basel, Switzerland. The two-tier dues scale for regular members is 45 SF and 18 SF respectively. Dues for student members are 18 SF and 9 SF respectively.

Books of Interest

Fokkema, N.J. and J. van den Heuvel (eds.) 1986. **Microbiology of the Phyllosphere**. Cambridge University Press, New York, viii + \$ 392 pp. \$54.50

This book contains review papers presented at the Fourth International Symposium on the Microbiology of the Phyllosphere held in late 1985. The phyllosphere, the three-dimensional environment created by the leaf and colonized by fungi, bacteria, and mycoplasmas, lends itself to interdisciplinary analysis, and hence plant pathologists, mycologists and microbial ecologists were invited as symposium contributors. Much thought-provoking information, however, can be found in this volume for the chemical ecologist interested in plant/insect/microbial

interactions as well as for those interested in biological pest control. For example, evidence is presented that phyllosphere fungi in grasses can produce toxins that confer resistance to the plant from insect herbivores. In fact, in trees it is hypothesized that the leaf fungal endophytes are mutualists which provide an acquired chemical defense against both insect herbivores and fungal pathogens. An understanding of these complex relationships is also discussed in the context of their being utilized in biological control — and even the feasibility of genetic engineering some of the microbes as biocontrol agents. This volume provides a range of research from molecular to community levels and is a useful reference for the rapidly evolving research area concerned with the role of chemicals produced by microbes as defensive compounds in the phyllosphere of host plants.

Jean H. Langenheim

Labeyrie, V. G. Fabres, D. Lachaise (eds.) 1987. **Insect Plants**. Series Entomologica, Vol. 41. Dr. W. Junk Publishers-Kluwer Academic Publishers, Dordrecht, Netherlands, 459 pp.

This book reports the *Proceedings of the Sixth International Symposium on Insect-Plant Relationships* held in Pau, France, during the first week in July, 1986. The seven chapters comprise 52 oral presentations and 55 summaries of poster presentations, which represent various interesting aspects of relationships between plants and insects. In addition, there are highly readable contributions by V. Labeyrie ("Towards a synthetic approach to insect-plant relationships"), K. Slama ("Insect hormones and bioanalogs in plants") and V. Dethier ("Concluding remarks"). Altogether, the book is highly recommended for anyone interested in this active area of interorganismic research.

Gunnar Bergström

Interested in allelopathy? Here are some recent book titles that you might want to suggest to your librarian or add to your personal collection.

Allelochemicals: Role in Agriculture and Forestry, G.R. Waller, editor, ACS Symposium Series No. 330, American Chemical Society, Washington, D.C., 1987. ISBN-0-8412-0992-8. (606 pp.)

The Science of Allelopathy, A.R. Putnam and C.S. Tang, editors, John Wiley and Sons, Inc., 1986. ISBN 0-471-83027-5. (317 pp.)

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The Chemistry of Allelopathy: Biochemical Interactions Among Plants, A.C. Thompson, editor, ACS Symposium Series No. 268, American Chemical Society, Washington, D.C., 1985. ISBN 0-8412-0886-7. (470 pp.)

Allelopathy, E.L. Rice, Academic Press, Inc., 2nd Edition, Orlando, Florida, 1984. ISBN 0-12-587055-8. (422 pp.)

Frank Einhellig

Upcoming Meetings

June 26-30, 1988. **Phytochemical Society of North America**, Iowa City, Iowa, U.S.A. Symposium: Plant Nitrogen Metabolism. Contact Dr. Jonathan E. Poulton, University of Iowa, or Dr. John T. Romeo, University of South Florida, Department of Biology, Tampa, FL 33620, U.S.A.

July 18-22, 1988. **European Chemoreception Research Organization Congress (ECRO 8'88)**, Warwick, England. Contact: Dr. Steve Van Toller, Department of Psychology, University of Warwick, Coventry CV4 7AL, U.K.

August 7-11, 1988. **Chemical Signals in Vertebrates**, Oxford, England. Contact: Dr. David Macdonald, Department of Zoology, University of Oxford, South Parks Road, Oxford, OX1 3PS, U.K.

August 2-7, 1989. **32nd IUPAC Congress**, Stockholm, Sweden. Featuring a section of Chemical Communication and Interaction between Organisms. Contact for circular: IUPAC, c/o Stockholm Convention Bureau, Box 6911, S-102 39 Stockholm, SWEDEN.

August 23-30, 1990. **International Congress of Ecology**, Yokohama City, Kanagawa Prefecture, Japan. Theme: Ecological Perspectives in the 21st Century. Contact for circular: Prof. Akira Miyawaki, Institute of Environmental Science and Technology, Yokohama National University, 156 Pokiwadai, Hodogaya-Ku, Yokohama 240, JAPAN.

Job Opportunities

Postdoctoral Fellowship — Toxicity of Botanical Insecticides. Full-time

support is available for a postdoctoral fellow to collaborate in the investigations of efficacy and systemic action of new botanical insecticides to agricultural pests. The successful candidate should have a Ph.D. in entomology or a related discipline with training in insect-plant chemical interactions and/or quantitative toxicology. Knowledge of insect physiology and plant biochemistry and experience with analytical HPLC and/or radioisotopes as biological tracers is highly desirable. The position is available 2/1/88. Applicants should submit a CV, reprints and preprints, abstracts of theses, unofficial transcripts, and the names, addresses, and phone numbers of three references to: Dr. Murray B. Isman, Department of Plant Science, University of British Columbia, Vancouver, BC., CANADA V6T 2A2; telephone (604) 228-22329.

Pre-doctoral Research Assistant — Research to focus on roles of allelochemicals and insect detoxication mechanisms as mediators of interactions between deciduous trees and leaf-feeding Lepidoptera. Contact: Rick Lindroth, Department of Entomology, University of Wisconsin, 1630 Linden Drive, Madison, WI 53706, U.S.A.

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