

ISCE NEWSLETTER

Vol.2 No. 1 Spring 1985

International Society of Chemical Ecology

FROM THE EDITOR

We thank all members who have submitted material for inclusion in the ISCE Newsletter. We also wish to express our sincere thanks to Dr. Dale Norris who has done an outstanding job of preparing the program for the upcoming 2nd Annual ISCE Meeting to be held in Madison, Wisconsin, June 8-12, 1985. Topics to be covered include, Chemical Aspects of Symbiosis, Behavioral Adaptations to Chemical Cues, Marine Chemical Ecology and Evolutionary Ecology of Chemical Defense in Insects. The Meeting promises to be an outstanding one, so we look forward to all members attending. The continued success and growth of the society is highly dependent on attendance at the Annual ISCE Meetings. Also, we must remember that the success of the Newsletter and the Society is due, in part, to the continued exchange of research ideas and other issues relevant to Chemical Ecology. Therefore, keep sending all articles or notices that you feel should be included in the upcoming Newsletter. See you at the Madison ISCE Meeting!

Eloy Rodriguez

PRESIDENT'S MESSAGE

We are looking forward with great anticipation to the Second Annual ISCE Meeting to be held in Wisconsin this June under the competent direction of Dale Norris. I am also looking forward to seeing as many of you as possible at the meeting.

We are happy to report that ISCE is thriving. In December of last year, the Executive Committee, (Gunnar Bergström, Gerald Rosenthal, Milton Silverstein, Peter Canney, and myself), together with John Simeone, Martin Obin, and John Romeo, met in Gainesville for a very productive session. We were excited to learn that ISCE presently has 34 Life Members, and a capital fund of more than \$6000. The interest on this fund will be used to finance activities significant to Chemical Ecology. The Society is also exploring the possibility of U.S. and European private corporate contributions, and we may have some good news by June. Peter Canney, Chairman of the Student Affairs Committee, presented some innovative ideas involving senior-junior member interaction for the Wisconsin meeting. John Romeo is developing the membership directory in two stages, thereby assuring complete and accurate coverage of the Society's membership and interests. Milton Silverstein and John Simeone plan to devote one full number of the *Journal of Chemical Ecology* for the publication of articles based on the talks presented at the ISCE meeting. In the future we may want to develop this

particular Journal issue around a single theme, and members are invited to discuss this matter at the business session. I would also like to urge all members to submit papers to JCE to ensure interdisciplinary and international influence of ISCE.

The future looks promising for ISCE meetings. In August, 1986, our annual meeting will be held in California. Europe provides the next setting for 1987, Canada in 1988, and Sweden, 1989.

Jean Langenheim was nominated for Vice President, 1985-86. This will automatically make her President the following year. Because Gerald Rosenthal will be on sabbatical until 1986, we decided to combine the positions of Secretary and Treasurer for one year. Eloy Rodriguez has graciously accepted the nomination as indicated on the ISCE 1985 ballot. PLEASE VOTE! Return your ballot to Dr. Rosenthal.

Finally, keep in mind that the ISCE NEWSLETTER is a means of communication for members, and I urge everyone to use it as such.

Lincoln Brower

FROM THE TREASURER'S DESK

Society Finances

Payment of dues for the fiscal year of September 1, 1984 to August 31, 1985 have been poor. Since ISCE is a new organization, we do not have a secured financial base to meet our commitments while the dues slowly trickle in. We are operating with funds collected via the due notices sent to members in late September. We must collect all tardy dues in order to publish the ISCE Membership Directory and help underwrite the costs of our 1985 annual meeting in Madison. The Membership Directory, under the direction of Dr. John Romeo, can be published in time for the 1985 meeting. If you want to be included, you must pay your dues now and provide the information requested on the enclosed form. Individuals whose check and form have not been received by **April 15, 1985** will not be represented in the Directory. So if you have not already done so, please take the time to send your check immediately. We need your dues now!

ISCE Members in Europe can send their dues to Dr. Gunnar Bergström, Department of Ecological Chemistry, Göteborg University, Box 33031, Göteborg S-40033 Sweden. Dr. Bergström will convert the checks, etc. into U.S. currency and mail it to the ISCE office. We are currently seeking someone to perform the same function for us throughout Asia.

Life Membership Program

Since it has not been possible for me to write to each member personally, as I had hoped, I

am using the Newsletter to ask everyone to think carefully about the intrinsic value that the ISCE Life Membership Program has to offer. The financial support of the graduate students to attend and participate in our annual meetings is of vital importance to the Society. The Society can also contribute to a student member's scholarship by developing programs to support graduate work which would include awarding direct grants for field work in Chemical Ecology. In addition, the Society could assist international members in travel funds to our annual meetings. To achieve these goals, ISCE seeks to establish an interest-yielding, perpetual fund. The great advantage of such a special fund is that it would give us creative leverage to move forward the kinds of activities that ISCE should be concerned with. The fund will be supported by a percentage of ISCE's annual income, contributions by private donors, and most importantly, The Life

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Editor: Eloy Rodriguez

Associate Editor:

Helena Maria Viramontes

ISCE NEWSLETTER, which will be published biannually, is financed through contributions from members of the INTERNATIONAL SOCIETY OF CHEMICAL ECOLOGY, Inc. None of the material contained herein may be reprinted without the proper written acknowledgement of the editor. Address all correspondence and Newsletter submissions to Dr. Eloy Rodriguez, Editor, ISCE NEWSLETTER, Phytochemical Laboratory, Department of Ecology and Biology, School of Biological Sciences, University of California, Irvine, California 92717. Deadline for September issue is August 1, 1985.

STUDENT AFFAIRS COMMITTEE REPORT

The Provisional Student Affairs Committee is comprised of the following people: Martin Obin, Ken Grace, Heidi Van t'Hof, and myself. Mr. Obin is in charge of finances and has a brief announcement concerning travel funds below. Mr. Grace is organizing our student election, and will process our questionnaire. Please fill out and return immediately. Ms Van t'Hof is planning and (in part) running student activities at the ISCE meeting. If you have any ideas, or want to help with the activities for the 1985 and 1986 meetings, please contact Ms. Van t'Hof.

At the December 1984 meeting, the Executive Committee was very concerned about international membership. SAC is also concerned about student members outside of the U.S. Funding was made available for students who wish to attend the meeting in Madison. (See Obin's announcement). We would also like to know how SAC can assist students outside the U.S. Please write me at B-08 Uris Hall, Cornell University, Ithaca, N.Y. 14853, if you have any ideas or questions concerning other student issues.

We are planning to have a Student Business Meeting at the next ISCE Meeting. Look for it in the program. We need to discuss and vote on the formal structure of SAC, the type of programs we should develop, and the apportioning of monies for travel and research awards. See you in Madison!

Peter Canney

STUDENT TRAVEL, AWARDS, AND EXCHANGES

Student Travel Awards. The Executive Committee has provided funds to assist students traveling to the 2nd Annual Meeting. Grants will be awarded to both domestic and foreign students who submit an Abstract of contributed paper, and an itemized account of probable travel costs by APRIL 1, 1985. Priority will be given to those individuals giving papers, organizing symposia or contributing substantially to the meeting. Please send written requests and submissions to Dale Norris, University of Wisconsin, 642 Russell Laboratories, Madison, WI 53706 U.S.A.

Student Research Grant. Competitive grants for student research will be awarded in 1986. The review process and criteria will be determined by a panel selected by the ISCE Executive Committee at the 2nd Annual Meeting. This subject will be a priority on our SAC agenda.

International Student Exchange. SAC is committed to fostering international student participation in the Society. To that end we have requested equal funding for domestic and foreign travel awards. In addition, we encourage all members affiliated with colleges and universities to investigate the 'exchange' programs offered at their institutions. Such programs provide an excellent opportunity for ISCE member exchange, and will help foster a truly international society. Please take the time to find out what programs exist at your institution and send information to me: Department of Zoology, University of Florida, Gainesville, FL. 32611 U.S.A. Thank you.

Martin Obin

WANTED: FACULTY HOSTS FOR FACULTY/STUDENT BREAKFASTS

The Student Affairs Committee is sponsoring informal breakfast meetings with established scientists and student members at the ISCE meeting. This will provide an opportunity for a relaxed conversation with students who have chosen to sit at your table. If you would like to participate, please contact me at Div. Bio. Sci., University of Michigan, Ann Arbor, MI 48109 by APRIL 30th!

Heidi Van t'Hof

SPECIAL EVENT PROFESSOR VINCENT DETHIER

The University of Massachusetts at Amherst is honoring Professor Vincent Dethier with a Festschrift on May 13-14, 1985. Professor Dethier has been and continues to be a pioneer in insect neurobiology and behavioral research and has had a lasting impact on our understanding of vertebrate feeding behavior as well. Chemical ecologists are invited to attend this Festschrift celebrating Professor Dethier's 70th year. For further information, contact Dr. Ron Prokopy, Department of Entomology, University of Massachusetts, Amherst, MA 01003

ISCE MEMBER PROFILES



PROFESSOR IZURU YAMAMOTO is currently in the Department of Agricultural Chemistry, Tokyo University of Agriculture and is also Director of Research, NODAI Research Institute, Tokyo University of Agriculture, Tokyo, Japan.

RESEARCH INTERESTS: Dr. Yamamoto's research program focuses on the rational design of insect control chemicals based on the studies of the mechanisms and selectivity of insecticide action and the chemical basis of insect behavior.

Recent studies by Dr. Yamamoto involve the discovery of a new sex pheromone from the azuki bean weevil, *Callosobruchus chinensis*. The pheromone works at close range by inducing the male insect to extrude his genital organ and to attempt copulation. The natural compound has been appropriately named "erectin". The use of erectin to control bean weevil reproduction is currently under study. Results of Dr. Yamamoto's studies on the bean weevil were recently highlighted in *Chemical & Engineering News* (July 23, 1984). Chemical studies are also underway on the exudates produced by *C. chinensis* and *C. maculatus* that are used to reduce competition among larvae and to maximally utilize the host beans. Excess eggs are killed by using accumulated dosages of the exudate. Growth inhibitors from bean seed coats are also under investigation in order to provide beans that are free of weevils. Dr. Yamamoto is also conducting a systematic study of tropical plants in search of new ecochemicals through a cooperative program established by the Japanese government involving Japanese Universities and South-East Asian Universities.



PROFESSOR GERALD A. ROSENTHAL is currently in the T. H. Morgan School of Biological Sciences and the Graduate Center for Toxicology, University of Kentucky, Lexington, Kentucky, U.S.A.

RESEARCH INTERESTS: Dr. Rosenthal's research programs can be divided into two distinct but interrelated areas of biochemical research. Research sponsored by the National Science Foundation is concerned with the nitrogen metabolism of certain higher nonprotein amino acids and their role in chemical defense. Recent studies have been expanded to consider how canavanine is mobilized from storage organs and transported to the developing plant.

A second area of research is concerned with the potent insecticidal properties of nonprotein amino acids and their role in protecting plants against herbivores. Studies show that if the bruchid beetle, *Caryedes brasiliensis*, a highly adapted, canavanine-resistant insect is able to consume as much as 12% of its dry matter as canavanine. Research on the bruchid beetle were highlighted in an article that appeared in *Scientific American* 249:164, 1983). Overall, the chemical ecology investigations of canavanine seek to provide the first in-depth examination of a higher plant nonprotein amino acid and to understand its production, regulation and contribution to the nitrogen metabolism and chemical defense of the plant. Dr. Rosenthal is also concerned with the toxicology and pharmacology of nonprotein amino acids, in particular, structurally aberrant, canavanine-containing proteins. These studies are supported by the National Institutes of Health.



PROFESSOR GUNNAR LARS BERGSTRÖM is currently Professor and Chairman of Ecological Chemistry, Department of Chemical Ecology, Göteborg University, Box 33031, Göteborg, Sweden. He is responsible for the Chemical Division, Uppsala University Ecological Station, Farjestaden, Sweden.

RESEARCH INTERESTS: Professor Bergström research projects involve the analysis of chemical signals between plants and insects. This includes complex behavior-guiding chemical signals in insects; odor signals for the control of pest insects and development of detailed analytical microchemical techniques.

In collaboration with Professors Einar and Stina Stenhagen (Medical Biochemistry, specialists in mass spectrometry) and Professor Bertil Kullenberg (entomologist interested in plant-insect interactions) a series of elegant studies were conducted on the pollination attractants from *Orphrys* orchids which are directed towards solitary bee males and special wasps.

In 1978, a large and multidisciplinary project was started in Sweden on odor signals that control agricultural and forest insect pests. Research continues on the chemical mimetism, microbehavior elicited by odor signals and host-parasite relationships mediated by volatile chemical signals.

Professor Bergström has published over 90 articles in the area of Chemical Ecology.

**INTERNATIONAL SOCIETY OF CHEMICAL ECOLOGY, INC.
SECOND ANNUAL MEETING**

June 8-12, 1985

Memorial Union, University of Wisconsin, Madison, 53706

— Deadline for all reservations and submissions is May 1, 1985 —

Program format will be similar to last year's. Information on planned morning symposia is provided. Afternoons and evenings will be reserved for oral papers and poster presentations. If you wish to make such a presentation, complete the following form, prepare the necessary abstract (see example) and return both with your registration fees to: Dale M. Norris, 642 Russell Labs., University of Wisconsin, Madison, WI 53706 (Phone: (608) 262-3626).

FEES: The registration fee is \$90 for Full Member, \$30 for Student Member. These fees cover the costs of the Meeting and entitle you to a copy of the printed abstract of each presentation including posters.

EVENTS: There will be a welcoming reception with open bar and hors d'oeuvre on Saturday evening. A mixer with open bar and hors d'oeuvre is scheduled for Sunday evening. The ISCE banquet is on Tuesday evening. Group meals are planned for each day. There will also be refreshment breaks and fellowship is offered for the lump sum of \$98.

ACCOMMODATIONS: Housing accommodation in University Residence Halls (i.e. Witte Hall) are detailed (see Accommodations). Residents of the Halls who need parking for an auto should indicate such a need on the registration form. The parking charge for the entire Meeting is \$10.

LODGING: Optional hotel lodging includes: University Inn (608,257-4881), single (\$33), double (\$41); and Howard Johnson's Executive Hotel (608,251-5511), single (\$38), double (\$45) plus tax. These hotels are within convenient walking distance of the Meeting location.

TRAVEL FUNDS: Limited funds are available to assist graduate students in attending the Meeting, and in presenting research findings orally or in poster. If you qualify and must have such assistance, please indicate such needs on the form.

ABSTRACTS: In preparing your abstract, you must keep all typing of title, authors and text within an area 6" wide and 4" high (no exceptions). Please produce the abstract, ready for reproduction, on a separate plain sheet of high quality paper. Use letter-quality printing, and only the following format:

CHEMICAL INTERDEPENDENCIES AMONG...

T.A. Jone, Wash. U., Columbia, WI 53999

Behavioral adaptations of *Glax mara* to α -pinene were analyzed in laboratory bioassays. The classical Franz essay was employed. α -Pinene at 10^{-4} M...

Gerald A. Rosenthal
University of Kentucky

L-canavanine: a model for probing plant - allelochemical-insect interactions.

The Absolute Deadline for all reservations and submissions is May 1, 1985.

TO: Dr. Dale M. Norris
642 Russell Laboratories
University of Wisconsin
Madison, WI 53706

I shall attend the 2nd Annual Meeting of the International Society of Chemical Ecology, Inc. to be held June 8-12, 1985. Enclosed is my Meeting registration fee of \$ _____. Full Member, \$90; Student Member, \$30. Make check payable to: International Society of Chemical Ecology.

_____ Please enroll me in the Meeting, food, refreshment and fellowship plan, \$98. I may pay on arrival, but please reserve now.

_____ I plan to utilize housing in University Residence Halls and have returned the reservation form as instructed.

_____ I wish to present an oral paper. (One per person).

_____ I wish to present a poster.

_____ I am a graduate Student Member and require financial assistance to enable my participation in the Meeting.

_____ I need auto parking near University Residence Halls. I am enclosing an additional parking fee of \$10 for entire meeting.

_____ My abstract is enclosed.

RESERVATION FORM FOR ACCOMMODATIONS IN WITTE HALL
UNIVERSITY OF WISCONSIN-MADISON
International Society of Chemical Ecology
June 8-12, 1985

Name (Please Print) _____ Date _____
Street Address _____
City _____
State/Country _____ Zip _____
Male _____ Female _____

MAKE NO PAYMENT NOW - PAY WHEN YOU CHECK INTO WITTE HALL

Check one:

SINGLE ROOM:

- _____ without air conditioner.
_____ air conditioner preferred (additional charge of \$12.00 per room).

DOUBLE ROOM WITH ANOTHER PARTICIPANT WHOSE NAME IS:

- (Please Print**) _____
_____ without air conditioner
_____ air conditioner preferred (additional charge of \$6.00 per room occupant).

DOUBLE ROOM WITH ANOTHER PARTICIPANT YOU WILL ASSIGN:

- _____ without air conditioner.
_____ air conditioner preferred (additional charge of \$6.00 per room occupant).

DOUBLE ROOM WITH SPOUSE WHOSE NAME IS:

- (Please Print) _____
_____ without air conditioner.
_____ air conditioner preferred (additional charge of \$12.00 per room).

Arrival (date) _____ time _____ am
_____ pm
Departure (date) _____ time _____ am
_____ pm

**Please check with named person before sending reservation. Each person should send a reservation form.

To reserve accommodations in Witte Hall, return the form to Conference Groups Office, Slichter Hall, 625 Babcock Drive, Madison, WI 53706.

ACCOMMODATIONS IN UNIVERSITY RESIDENCE HALLS
University of Wisconsin-Madison
INTERNATIONAL SOCIETY OF CHEMICAL ECOLOGY
June 8-12, 1985

Reservations may now be made for accommodations in Witte Hall, a University residence hall located at 615 West Johnson Street, only a few blocks from the location of your conference program. Rooms for participants will be available for occupancy beginning at 1:30 p.m. Saturday, June 8 and continuing until 12:00 noon Wednesday, June 12.

- Most rooms in Witte are designed as doubles but will be available as either doubles or singles.
- All linens, blankets, towels and soap are furnished.
- Daily maid service is provided.
- Rooms have small refrigerators and private telephones.
- A limited number of window air conditioners will be available at an additional total charge of \$12.00 per room (\$6.00 per person in a double). Please make your request in advance.
- Rooms do not have private baths, but excellent bath facilities for men and women are conveniently located on each floor.

The housing accommodations fee is \$11.50 per person per night in a double room, and \$17.00 per night in a single room, payable upon arrival at Witte Hall. The additional total charge for an air conditioner will be \$12.00 per room (\$6.00 per person in a double room).

Food service will be available near Witte Hall in Tripp Commons of the Memorial Union. Conference sessions also will be held in the Memorial Union. A package contract for all meals must be made before or at the time of arrival (see registration form). All meals will be served to ISCE participants exclusively, thus, providing an excellent opportunity for informal conversation among participants.

Although charges will be adjusted for late arrivals or early departures, the University cannot make refunds for accommodations not used during the period arranged for a time of check-in. Do not send advance payment for housing.

To ensure availability of accommodations, advance reservations are necessary.

SYMPOSIUM PROGRAM

Sunday, June 9

"CHEMICAL ASPECTS OF SYMBIOSIS"

Jerome Kukor University of Michigan	Role of microbial enzymes in invertebrate nutritional ecology.
Clarence A. Ryan Washington State University	Activation of plant defense genes by plant and fungal cell wall fragments.
Winston Brill Agracetus Corporation	Chemical interactions between nitrogen-fixing bacteria and higher plants.
William T. Starmer Syracuse University	Coadaptation of <i>Drosophila</i> and yeasts in their natural habitat.

Monday, June 10

"BEHAVIORAL ADAPTATIONS TO CHEMICAL CUES"

Ronald Prokopy University of Massachusetts	Interaction of plant chemical and physical stimuli in insect host finding and acceptance behavior.
Robert L. Metcalf University of Illinois	Behavioral adaptations of cucumber beetles and corn rootworm beetles (<i>Coleoptera: Diabroticina</i>) to cucurbitacins.
Daniel Sonenshine Old Dominion University	Pheromone-allomone mediated behavior in the Acari: adaptations for finding hosts and mates.
Julius Adler University of Wisconsin	Behavioral responses to chemical cues by bacteria.

Tuesday, June 11

"MARINE CHEMICAL ECOLOGY"

Gerald Bakus University of Southern California, and Nancy Targett University of Delaware	An overview of marine chemical ecology.
William Fenical and Valerie Paul Scripps Institute of Oceanography	Antiherbivory.
William E. Carr Whitney Marine Laboratory, Charles Derby Georgia State University	Complex odorants.
Joseph Bonaventura and Dan Rittschof of Duke University Marine Laboratory	Macromolecules in marine chemical ecology.

Wednesday, June 12

"THE EVOLUTIONARY ECOLOGY OF CHEMICAL DEFENSE IN INSECTS"

Lincoln P. Brower University of Florida, Carolyn Nelson University of Sydney, and James N. Seiber University of California, Davis	The chemical ecology of cardenolides in milkweed butterflies.
Murray B. Isman, G.G.E. Scudder and Lynn Moore U. of British Columbia	Sequestration of cardenolides in <i>Oncopeltus</i> : morphological and physiological adaptations.
Martine Rowell-Rahier Universitat Basel, and J.M. Pasteels Universite Libre de Bruxelles	Economics of chemical defense in Chrysomelinae.
Gerald A. Rosenthal University of Kentucky	<i>L-canavanine</i> : a model for probing plant-allelochemical-insect interactions.

CHEMICAL ECOLOGY:
THE INTERNATIONAL
SOCIETY AND THE JOURNAL

Chemical Ecology has evolved as a full-fledged discipline, and the *Journal of Chemical Ecology* has served as a communication medium for this discipline since 1975. The Journal's stated purpose is to "promote an understanding of the origin, function, and significance of natural chemicals that mediate interactions within and between organisms."

The Journal is now the official organ of the International Society of Chemical Ecology, and we urge the members to make full use by subscribing (at a discount) and by submitting manuscripts. These are the advantages:

1. The Journal is published by Plenum Press, which holds the copyright and does a professional job. The co-editor arrangement provides the necessary interdisciplinary coverage.
2. The Editorial Board, at present, consists of 35 rotating members selected by the Co-editors according to the demands imposed by the types of manuscripts received, and with due regard to geographic distribution. It is a most distinguished group to whom the Co-editors are constantly indebted. Many of the members are pioneers in the field.
3. There are no page charges. Page allotments have increased rapidly over the past ten years from 500 pages to 1800 pages.
4. Society members can currently receive one year's subscription at the greatly reduced price of \$35 (\$42 for non U.S. members) by sending the appropriate amount to Dr. Gerald Rosenthal, ISCE Treasurer, School of Biological Sciences, 101 T.H. Morgan Building, University of Kentucky, Lexington, KY 40506-0225.

Journal policy calls for two reviews of a submitted manuscript. Editorial Board members are heavily, but not exclusively, involved in these reviews. The rate of outright rejection has been held to a minimum by thorough, constructive, conscientious reviews, and the marked improvements of the revised manuscripts has been a tribute to the peer-review process and a deep source of satisfaction to the Co-editors.

The rapid development of the study of insect communication has been reflected in the large number of "pheromology" papers in the Journal. However, there has been a steady growth in the number of papers describing diverse interactions among other organisms, and this diversity will increase as members make greater use of the Journal. For example, the August 1983 issue, 358 pages in length, was devoted to the Proceedings of the North American Symposium on Allelopathy and was made available to the participants and attendees at a cost of \$14.00. Similar special issues will be produced in the future, perhaps one issue each year if ISCE members so desire.

The Co-editors look forward to serving the International Society of Chemical Ecology.

R.M. Silverstein
J.B. Simeone
Editors
JOURNAL OF
CHEMICAL ECOLOGY

continued from page 1

Membership Program. ISCE would like to extend special thanks to the following Life members:

Bergström, Gunnar	Sweden
Borden, John	Canada
Chou, C. —H.	Taiwan
Hutzinger, Otto	West Germany
McNeil, Jeremy	Canada
Pasteels, J.	Belgium
Schoonhoven, L.M.	Netherlands
Stadler, Erich	Switzerland
Tengö, Jan	Sweden
Yamamoto, Izuru	Japan
Ave, D.A.	U.S.A.
Balandrian, Manuel	U.S.A.
Bowers, W.S.	U.S.A.
Cameron, E. Alan	U.S.A.
Cheng, H.H.	U.S.A.
Eisner, Tom	U.S.A.
Einhellig, Frank	U.S.A.
Feeny, Paul	U.S.A.
Hummel, Hans E.	U.S.A.
Ivie, G.W.	U.S.A.
Janzen, Daniel	U.S.A.
Kare, Morley	U.S.A.
Kubo, Isao	U.S.A.
Leather, Gerald	U.S.A.
Martin, Michael	U.S.A.
Meinwald, Jerrold	U.S.A.
Norris, Dale	U.S.A.
Rodriguez, Eloy	U.S.A.
Rosenthal, Gerald	U.S.A.
Ryan, Clarence	U.S.A.
Silverstein, Milton	U.S.A.
Simeone, John	U.S.A.
Stipanovic, Robert	U.S.A.
Trumble, John	U.S.A.

If you prefer, you can divide your payment in half over a two year period. The balance would not be due until the 1985-86 fiscal year. Moreover if you have any questions concerning the program, please feel free to call me at (606) 275-2652. Your investment will have a dramatic impact in fostering worthwhile professional activities in Chemical Ecology.

Upcoming Annual Meeting

Plans are well underway for future ISCE meetings. Dr. David Wood has agreed to host the ISCE meeting in Berkeley, California. In 1987, Drs. David Jones, Michael Boppre and Gunnar Bergström are considering hosting our first meeting in England or Central Europe. Eastern Canada

will serve as the site for the 1988 meeting. We will return to Europe in 1989 to enjoy the hospitality of Dr. Gunnar Bergström in Sweden. Details will appear in the newsletter when they become available. In response to ecological colleagues who find their field work conflicting with June meetings, we will alternate between June and August after 1985. We hope this will accommodate our members and encourage their participation in future annual meetings.

Gerald A. Rosenthal

EXCHANGE

Dr. Robert Adams of Harden-Simmons University, Science Research Center in Utah, is interested in establishing a liaison with an entomologist, or other zoologists interested in anti-feedant/repellent properties of volatile oils. Those interested in cross disciplinary research are asked to write him at 8555 South Escalante Dr., Sandy, Utah 84092 U.S.A.

UPCOMING SYMPOSIA AND CONFERENCES

March 5-7, 1985. **Research Conference on Fire Ants and Leaf-Cutting Ants.** USDA—ARS, and Florida Cooperative Service and Department of Entomology & Nematology, University of Florida, Gainesville, Florida. Write Office of Conferences and Institutes, 1041 McCarty Hall, Institute of Food and Agricultural Sciences, University of Florida, Gainesville, FL 32611

April 29-30, 1985. **Chemistry and Biochemistry of Natural Resistance of Plants to Pests and Diseases.** American Chemical Society, Division of Pesticide Chemistry, Miami, Florida. Contact: Dr. Paul Hedin, Boll Weevil Research Lab. P.O. Box 5367, Mississippi State, MS 39762

June 12-16, 1985. **Shikimate Pathway, Recent Developments.** 25th (Silver Anniversary) Annual Meeting of the Phytochemical Society of North America. To be held at the Asilomar Conference Center, Pacific Grove, CA 93950. Contact: Bock G. Chan, Plant Protection Phytochemistry, WRRRC, ARS, USDA, 800 Buchanan St., Albany CA 94710.

July 7-12, 1985. **International Research Congress on Natural Products.** American Society of Pharmacognosy and European Pharmacognosy and Phytochemical Societies. Contact: Professor David Kingston, Department of Chemistry, Virginia Polytechnic Institute & State University, Blacksburg Virginia 24062.

September 8-13, 1985. **Allelochemicals: Role in Agriculture, Forestry and Ecology.** American Chemical Society, Agriculture and Food Chemistry Division. Contact: Dr. George Waller, Chairman, ACS Symposium, Department of Biochemistry, Oklahoma State University, Stillwater, Oklahoma.

August 11-16, 1985. **8th World Congress on Animal, Plant and Microbial Toxins.** Newcastle Upon Tyne, England. International Society on Toxinology. Contact: Dr. Dietrich Mebs, Zentrum der Rechtsmedizin, University of Frankfurt, Kennedyallee 104, D-6000 Frankfurt 70, Federal Republic of Germany

October 20-25, 1985. **Arid Lands, Today and Tomorrow.** Contact: Conference Coordinator, Office of Arid Lands Studies, College of Agriculture, University of Arizona, 845 North Park Ave. Tucson, Arizona 85719.

Publications of Interest

BIOLOGY AND CHEMISTRY OF PLANT TRICHOMES. E. Rodriguez, P. Healey and I. Mehta (eds.) Plenum Press, N.Y. (1984).

TECHNIQUES IN PHEROMONE RESEARCH. H.E. Hummel and T.A. Miller. Springer Series in Experimental Entomology (1984).

CHEMICAL ECOLOGY OF INSECTS. W.J. Bell and A.J. Carde. Sineauer Associates, Mass. (1984).

PLANT NON-PROTEIN AMINO AND IMINO ACIDS-BIOLOGICAL, BIOCHEMICAL AND TOXICOLOGICAL PROPERTIES. G. Rosenthal. Academic Press, N.Y. (1982).

ADULT-OBTAINED PYRROLIZIDINE ALKALOIDS DEFEND ITHOMIINE BUTTERFLIES AGAINST A SPIDER PREDATOR. K. Brown. Nature, 309: 707-709 (1984).

Members are encouraged to send reprints, titles of books and other materials that they wish to have included in the ISCE Newsletter.

Grant Deadlines

National Science Foundation (Washington D.C.)

Ecology. Contact Dr. Patrick Flanagan. Division of Biotic Systems and Resources. October 1, 1985.

Population Biology and Physiological Ecology. Contact Dr. Louis Pitelka. Division of Biotic Systems and Resources. October 1, 1985.

Systematic Biology. Contact Dr. James Rodman. Division of Biotic Systems and Resources. October 1, 1985.

Synthetic Organic and Natural Products Chemistry. Contact Dr. John Showell. (No deadline set).

Members should also request information from the division of International Programs for establishing international collaborations.

Dr. Eloy Rodriguez, Editor
ISCE Newsletter
Dept. of Ecology & Evolutionary Biology
University of California
Irvine, CA 92715
U.S.A.

BULK RATE

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