

# sip

# newsletter

society for invertebrate pathology

Volume 17, Number 3  
September 1985

ICIP 86

IVth INTERNATIONAL COLLOQUIUM ON INVERTEBRATE PATHOLOGY  
in conjunction with the  
XIXth Annual Meeting of the Society for Invertebrate  
Pathology  
August 18-22, 1986  
in  
The Netherlands  
'Koningshof' Conference Center - Veldhoven

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18th ANNUAL MEETING OF THE  
SOCIETY FOR INVERTEBRATE PATHOLOGY  
Sault Ste. Marie, Ontario, Canada  
August 4-8, 1985

The 18th Annual Meeting of the Society for Invertebrate Pathology was the second one to be held in Canada, the first being in Kingston, Ontario in 1976. Attendance was similar to last year's meeting at Davis, California with 165 registered delegates compared to 170 in 1984. There were several scientists from countries other than Canada and the USA coming from Kenya, People's Republic of China, Japan, Australia, United Kingdom, France, Germany, Holland, Israel, Iraq and Switzerland. Some 30 to 40 of the delegates were affiliated with about 20 commercial organisations which is an encouraging omen for the future wellbeing of invertebrate pathology.

In a major break with the tradition of holding this meeting at a university campus, it was held in the 200-room Holiday Inn on Sault Ste. Marie's waterfront. Most of the delegates were housed in the hotel, but a few latecomers had to find beds nearby. There were 4 symposia, 7 workshops, 5 sessions of contributed papers and a poster session with 13 exhibits. To fit this program into two full days and two half days involved evening sessions on the first day and three concurrent sessions much of the time.

Generous donations received from five companies were used to enhance and supplement the social program. Our grateful thanks to:

Abbott Laboratories (USA)  
Chemagro Ltd. (Canada)  
Microbial Resources Ltd. (UK)  
MicroGeneSys Inc. (USA)  
Zoecon Industries Ltd. (Canada)

To get delegates mentally prepared for the demanding week ahead and to renew old and make new acquaintances, a mixer was held in the Holiday Inn on Sunday evening

with a variety of finger foods, beer and wine served. About 140 people attended. The meeting was opened on Monday morning by Dr. George Green, Director of the Forest Pest Management Institute who welcomed delegates. This was followed by the Presidential Address by Dr. Denis Burges who urged invertebrate pathologists to keep abreast with new technologies and to try to stimulate interest in insect pathology in developing nations. Then there was the Founder's Lecture by Dr. Tom Angus, honouring Dr. Gernot Bergold who worked in Sault Ste. Marie from 1949 to 1959. With his inimitable style and wit and profound research the previous week in Roget's Thesaurus, Tom delighted his audience with reminiscences of the early days of the Laboratory of Insect Pathology in Sault Ste. Marie. Dr. Bergold, incidentally, now aged 70, is still very much alive and well in Caracas, Venezuela. Following the lecture, Dr. John Briggs presented Tom with a commemorative scroll and a framed scroll is also being sent to Dr. Bergold to mark the occasion. At this point, the plenary session ended and the scientific sessions got underway in earnest.

The banquet was held in the Holiday Inn and 175 delegates and guests attended. Free drinks courtesy of our industrial sponsors got everyone in a jovial mood and a prime rib dinner with all the trimmings followed. The President was treated to a "bellygram" by Sault Ste. Marie's own middle eastern dancer, "Soraya". Denis took this caper in his stride and the audience was delighted. Disc jockeys called the "Music People" then provided the appropriate sound effects for a dance which lasted until after midnight.

Tours were offered on Wednesday afternoon which was "free" time. About 15 people went with Paul Fast to the Sea Lamprey Lab and the historic Sault Ste. Marie lock and about 70 toured the Forest Pest Management Institute in 5 groups. The annual 5 km road race later that afternoon is described in detail elsewhere in this Newsletter. Souvenir T-shirts were offered to non-runners as well as the race participants and a total of 114 were sold to delegates and staff at the Forest Pest Management Institute. A barbecue with about 180 people attending (we could not count heads) started at 6 pm. The weather had been dull and overcast earlier in the day, but it brightened up beautifully and made this event at picturesque Hiawatha Ski Lodge a memorable event. There was roast beef (again!) cooked on a spit because the manager refused to barbecue chicken! It looked dramatic and tasted great. There were also hamburgers, very hot German sausages, salads and draft beer. The beer was local Northern Breweries "Superior" and, with much help from the local committee, delegates and guests consumed three kegs for a total count of 45 US gallons. A volley ball game got underway and this as well as the 5 km run, appears to be becoming a tradition at SIP meetings.

Photographs of these events included in this Newsletter were selected on the basis of two criteria: a) the quality of the pictures judged by correct exposure and sharp focus which eliminated 75% of the prints and b) our ability to recognize the personalities in acceptable pictures which eliminated 50% of the remainder. On reviewing the few pictures we finally selected, one might assume that the meeting was attended principally by male scientists specialising in B.t. research. Apologies to marine invertebrate pathologists, insect virologists, mycologists and protozoologists, women and other underprivileged minority groups!

Most delegates departed on Thursday afternoon, but a few lingered on and went on the tour north along Lake Superior on Friday. The weather again co-operated, it was a great day and we are saving this story for the next issue of the Newsletter.

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IVth INTERNATIONAL COLLOQUIUM ON INVERTEBRATE PATHOLOGY,  
AUGUST 18-22, 1986  
THE NETHERLANDS

The Society for General Microbiology (SGM) has made a donation which is to be used to offer grants towards travel expenses and registration costs for students belonging to the SGM who wish to attend the above conference. Students wishing to take advantage of the SGM grant should write to Dr. C.C. Payne, Glasshouse Crops Research Institute, Worthing Road, Littlehampton, West Sussex, BN17 6LP, UK, before 31st January 1986, and include a letter from their supervisor or head of department confirming their student status and membership of the SGM.

For more details of the conference, contact:  
Conference Office ICIP 86, c/o Mrs. A.F.F. de Vries-Eras, Dept. of Virology, Agricultural University, P.O.B. 8045, 6700 EM Wageningen, The Netherlands.

Denis Burges

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#### SIP NEWSLETTER

The SIP Newsletter is produced four times a year by the Society for Invertebrate Pathology. Annual dues (U.S. funds) in the Society are: regular members, \$11.00; and students, \$4.00. Members receive the SIP Newsletter and a copy of the abstracts of all SIP Annual General meetings free, whether or not they attend. Application forms for membership in the Society may be obtained from the Treasurer, Dr. James R. Fuxa, Dept. of Entomology, Louisiana State University, Baton Rouge, Louisiana 70803-1710 U.S.A.

Council Officers of the Society are:

President	H. Denis Burges, England
Vice President	John C. Harshbarger, USA
Past President	Wayne M. Brooks, USA
Secretary	Elizabeth W. Davidson, USA
Treasurer	James R. Fuxa, USA
Trustees	John A. Couch, USA
	Brian A. Federici, USA
	John E. Henry, USA
	Hitoshi Watanabe, Japan

Send news items and other contributions to:

Gary G. Wilson, Editor  
SIP Newsletter  
Forest Pest Management Institute  
Canadian Forestry Service  
P.O. Box 490  
Sault Ste. Marie, Ontario, Canada P6A 5M7

DEADLINE NEXT ISSUE: NOV. 15, 1985

The Sixth International Congress of Parasitology (ICOPA VI) will take place August 24-30, 1986 at the University of Queensland in Brisbane, Australia. K.C. Bremner is Acting Chairman for the Organizing Committee.

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#### POSITION AVAILABLE

ENTOMOLOGIST/MOLECULAR BIOLOGIST. The Department of Entomology at the University of Kentucky invites applications for a tenure-track assistant professor position available December 1, 1985. The appointee will conduct a research program emphasizing application of molecular biology and genetic engineering methodologies in the development and/or enhancement of entomopathogens (90%) and contribute to the instructional program by teaching a graduate course in his/her area of expertise and supervising graduate students (10%). A Ph.D. degree in entomology of appropriate biological science is required. Salary is commensurate with qualifications and experience.

Applicants should send a letter of application, resume, transcripts, a statement of research/teaching goals, a list of publications including reprints, and four letters of reference by October 15, 1985 to Dr. B.C. Pass, Department of Entomology, University of Kentucky, Lexington, KY 40546.

The University of Kentucky is an equal opportunity employer.

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#### LABORATORY GUIDE

Laboratory Guide to Insect Pathogens and Parasites by G.O. Poinar, Jr. and G.M. Thomas published by Plenum Press 1984, 392 pp, \$35.00 US, ISBN:0-306-41680-8.

This volume is a revised and expanded edition of "Diagnostic Manual for the Identification of Insect Pathogens", published in 1978. The latter was in its second printing and in 1983 was translated into Chinese and published as a separate Chinese edition.

Aside from updating and expanding the original sections on viruses, rickettsias, bacteria, fungi and protozoa infecting insects, new sections covering the nematode parasites and immature stages of insect endoparasites were added. Also included in the new volume is a color plate of diseased insects and a section on the availability of insect pathogens and endoparasites. The guide is unique in covering all groups of biotic agents found inside insects which cause them injury or disease.

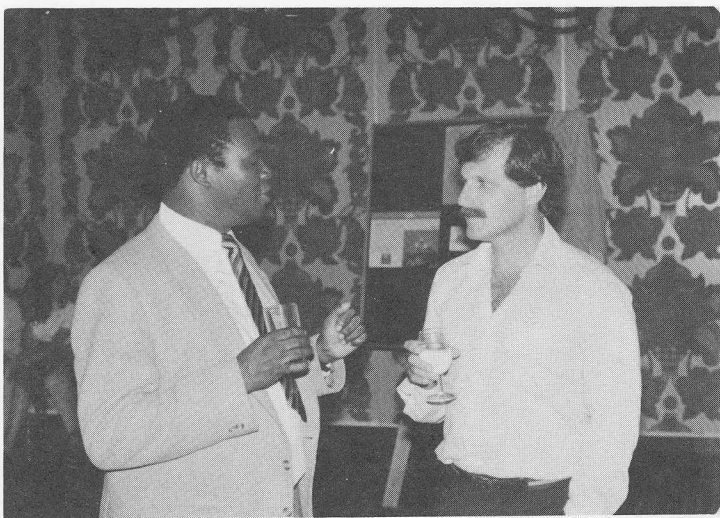
For each biotic category included in the guide, a brief discussion of the following topics is included: (1) types of associations with insects, (2) taxonomic status, (3) life cycles, (4) characteristics of infected insects, (5) methods of examination, (6) isolation and cultivation, (7) characters for identification, (8) testing for infectivity, (9) storage, (10) literature, and (11) an illustrated key to the families or genera.

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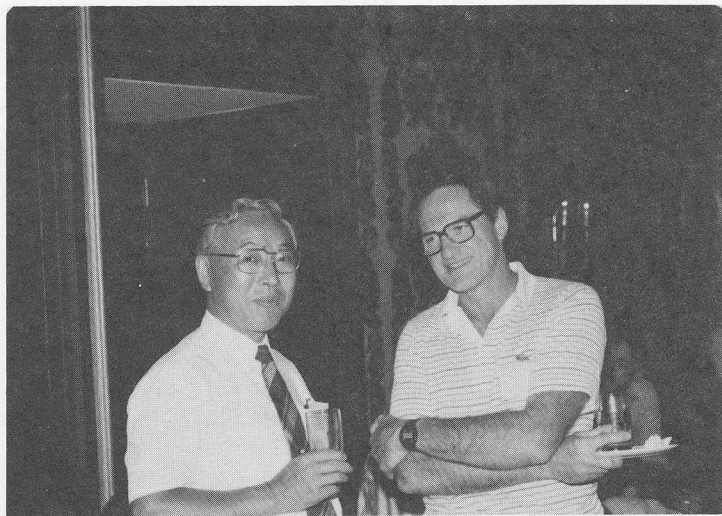
#### SIP COMMITTEE REPORTS

Report of the SIP Newsletter Editor for the Period June 1984 to June 1985.

Four newsletters were prepared and sent Air Mail direct to individual members during the period June 1984



At the mixer, Godwin Kaaya from Kenya chats to Larry Lacey from Gainesville.



Toshiko Iizuka from Sapporo, Japan with John Aronson, SUNY, N.Y.



Paul Fast of the local committee shares a ribald joke with David Wilcox of Abbott Laboratories, Illinois.



Who is the mystery man with Harry Kaya of Davis, California and John Podgwaite and Norm Dubois of Hamden, Connecticut? Norm is advertising Canada's best selling brew - Labatt's Blue!



Following the Founder's Lecture, Tom Angus is presented with a commemorative scroll by John Briggs.

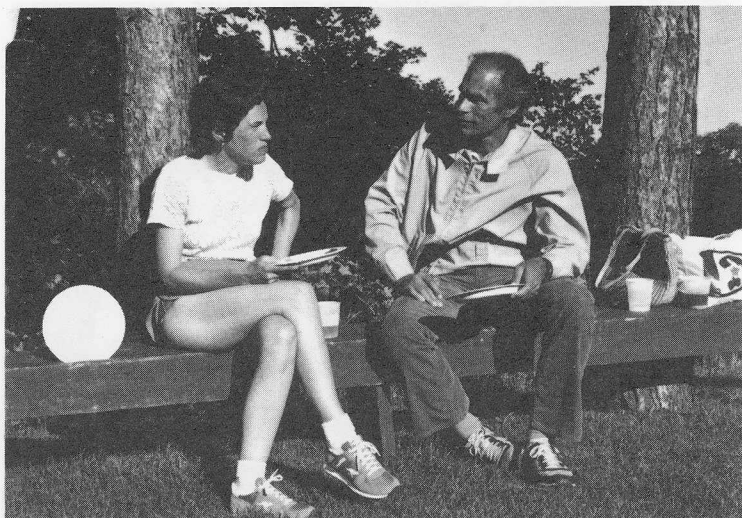


At the banquet, President-elect Denis Burges gets his "treat" from Soraya.

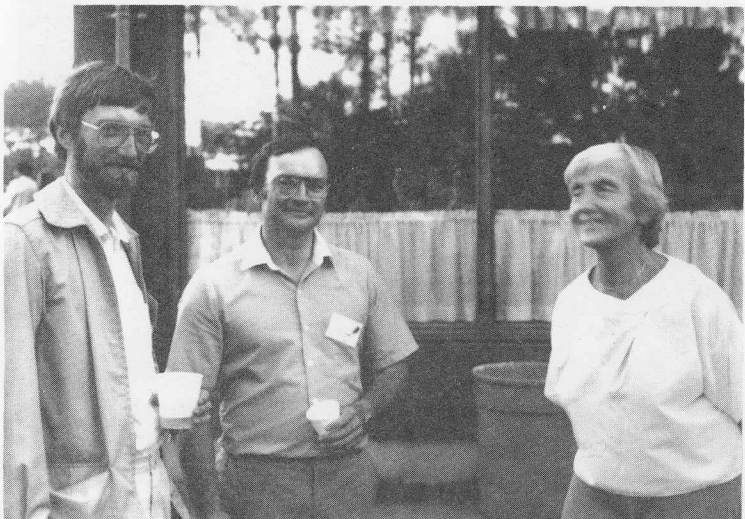
BARBECUE, HIAWATHA LODGE



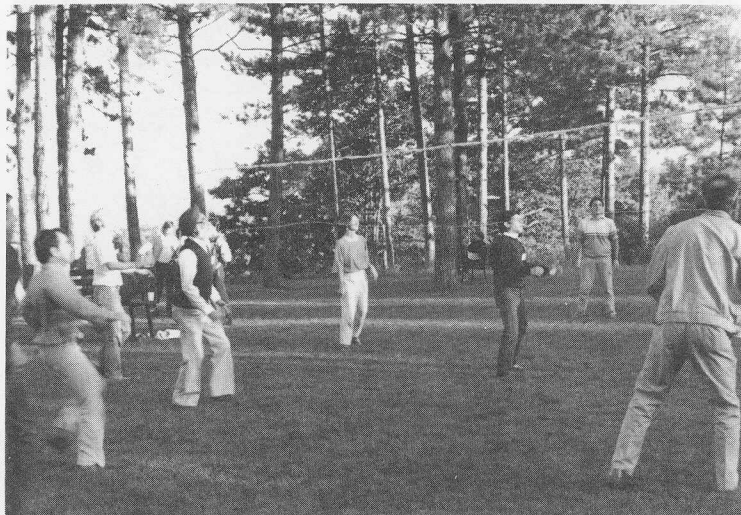
Roast beef on a spit was the main culinary attraction, although very hot sausage was also popular.



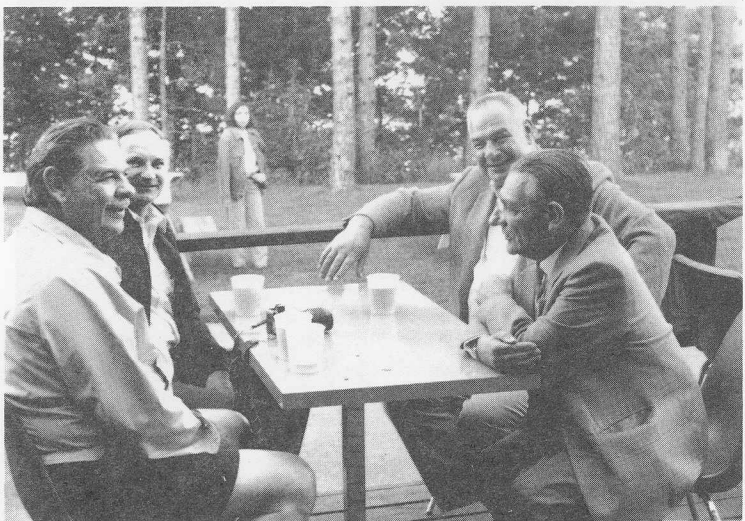
B.J. Ellis (Obenchain) from Virginia tells Al Undeen of Gainesville how she crossed the race finishing line going in the wrong direction!



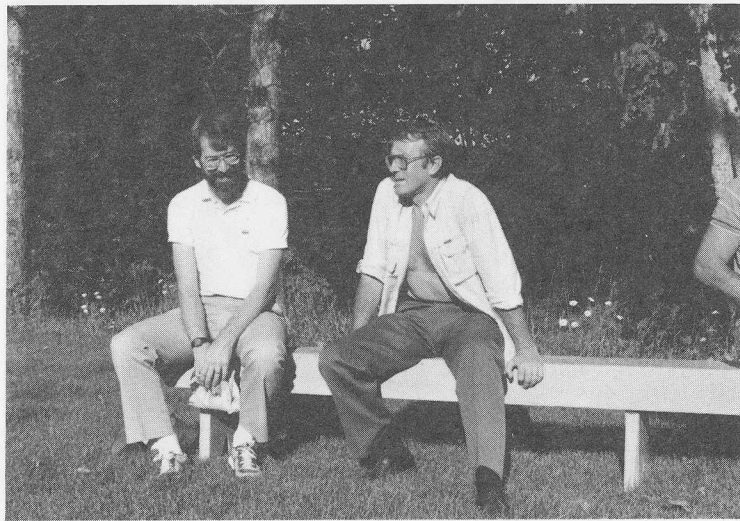
Terry Ennis, chairman of the local committee enjoying the local brewery's draft with George Puritch from Victoria and Janina Krywienzyk, recently retired from FPMI.



As the sun sets, the volley ball game flourishes. We can identify the back of Imre Otvos's head, Kartar Singh in the turban and Jane Drummond.



Al Sparks from Seattle, John Harshbarger from Washington, D.C. and James Stewart from Halifax chat with Denis Burges.



George Soares from San Diego, California chats to Peter Luthy from Zurich, Switzerland.

to June 1985 (Vol. 16, No. 3 & 4; Vol. 17, No. 1 & 2). Extra copies were sent to the Archivist and Treasurer. The four issues comprised a total of 34 pages. The registration material for the 1985 SIP meeting was mailed with Vol. 17(1), and the program booklet for this meeting with Vol. 17(2). The total printing, collating and inserting cost for the four issues of the newsletter was \$2,221.85, with mailing costs of \$3,003.00. The Canadian postal rates increased again as of June 24, 1985 and this was reflected in mailing costs of the May issue of the newsletters (Vol. 17(2) ), which included the program booklets. The total cost for the purchase of envelopes (open end white for North American members and eyelet for Overseas) was \$748.58. Thus the total cost of producing and mailing the four issues was \$5,973.43. This is an increase over last year's figure of \$5,504.75. In addition the program booklets for the 1985 SIP Annual Meeting were printed at Sault Ste. Marie for a total cost of \$2,183.73. As was the case last year we have been able to get the typing done free in the Forest Pest Management Institute.

The following members have agreed to serve or continue to serve as regional correspondents:

K. Aizawa (Japan), S. Amonkar (India), H. Burges (UK), J. Chadwick (Canada), B. Gabriel (Philippines), R. Kenneth (Israel), J. Pillai (New Zealand), G. Riba (France), K. Soderhall (Scandinavia), R. Teakle (Australia), H. Wassink (Latin America) and C. Yamvrias (Greece).

Note: All costs in this report are given in Canadian dollars.

Gary G. Wilson, Editor  
SIP Newsletter

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#### Report of the Membership Committee

July 19, 1985

The drive for new members is still in progress. The current strategy is to concentrate on recruiting new members in those countries without currency exchange problems. SIP brochures and application forms have been mailed to researchers working in fields in or related to invertebrate pathology who are not currently members and to SIP members whose professional positions (professors, directors, etc.) enable them to proselytize for our Society. Dudley Pinnock is responsible for the Australia and New Zealand areas, Isabelle Larget-Thiery is responsible for western Europe, Dr. M.R. Tripp is responsible for recruiting marine invertebrate pathologists and I am covering North America and Southeast Asia. The drive is still in progress.

Efforts to recruit members in some soft currency countries of eastern Europe, Asia and South America were met with similar responses: the desire to join the Society is there; the financial wherewithal is not. Dr. John Briggs is our member at large who is working on a solution to this problem.

As of July 19, 1985 the SIP had a total of 761 members in the following categories:

Regular	670	(39 new)
Student	70	(16 new)
Emeritus	13	
Honorary	2	
Sustaining	6	

Total membership has increased by 38 since June 21, 1983, with a net increase of 26 regular members, 7 student members, and 5 sustaining members. Of the 670 regular members, 549 are in good standing at present,

85 owe dues for 1985 and 36 owe dues for 1984, and 1985. Of the 70 student members, 59 are in good standing, 9 owe dues for 1985 and 2 owe dues for 1984 and 1985.

J. R. Fuxa  
D. E. Pinnock  
I. L. Thiery  
M. R. Trip  
L. A. Lacey, Chairperson

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#### Report of the Division of Microbial Control

Minutes of Business Meeting  
August 7, 1985, 8:40 a.m.

The business meeting of the S.I.P. Microbial Control Division was called to order by Acting Chairman, Lawrence Lacey, at 8:40 a.m., August 7, 1985.

The minutes of the previous meeting were read and approved. Dr. Lacey read the report on the Microbial Control Division from Dr. Chris Payne. There are 211 members of the Division.

Dr. Lacey read the proposed slate of new officers and asked for additional nominations from the floor. Since there were none, the nominations were closed and the proposed slate of officers was accepted: Dr. D.W. Roberts is the chairperson, Dr. P.F. Entwistle is chairperson-elect, Dr. R. R. Granados is secretary-treasurer, Drs. D. E. Pinnock and J. C. Cunningham (alternating year) are members-at-large. Ex-officio members are Drs. C. C. Payne and L. A. Lacey (also chairperson of Safety Working Group).

Dr. H. D. Burges reviewed the need for a bibliography on Safety of Microbial Control Agents and suggested that the Division of Microbial Control might want to put up some of our money for funding the typing of the manuscript, after some discussion from the floor a figure of ca. \$100.00 was indicated and the motion passed unanimously.

Dr. Burges offered to send out a questionnaire on Bacillus thuringiensis strain potency on insect pest of vegetables and to prepare a report on the results. This proposal was seconded and passed.

After considerable discussion, "Status of Research on Entomopathogens, and Microbial Control in Developing Countries", was chosen as the topic for the Division Workshop at the 1986 meeting. The meeting was adjourned at 9:33 a.m.

JOHN J. HAMM  
Acting Recording Secretary

#### Report of the Safety Committee

The Safety Committee and Workshop was covered by Lawrence Lacey at 8:00 p.m. on August 5, 1985, at the Annual Meeting of the Society for Invertebrate Pathology (Sault Ste Marie).

The Committee unanimously supported the proposal to produce an annotated bibliography on the safety aspects of entomopathogens. The bibliography would provide more information than a simple bibliography by way of a 3-4 sentence comment/annotation on each reference. A brief 1-2 paragraphs of introduction for each subject area would provide additional background. Each

"chapter" would be critically reviewed by 3 or 4 of the other authors. A list of subjects and potential authors compiled by Denis Burges and Lawrence Lacey was distributed to the attendees. The possibility of publication of the bibliography in the USDA technical bulletin is being investigated by Dr. Lacey.

Drs. Clinton Kawaniski and David Miller spoke on environmental safety and impact of genetically engineered microorganisms. A contributed paper was presented by Mr. J. Valero on Bacillus thuringiensis.

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#### Report of the Division on Microsporidia

The annual meeting for the Division of Microsporidia was held at Sault Ste. Marie, Ontario, Canada on August 8, 1985. The business meeting was called to order at 7:05 AM by chairperson, Dr. G. Wilson. The minutes of the last meeting were read by Dr. D. Streett and accepted by the Division members present.

Discussion on various topics ensued with the following action to take place. Dr. S. Jaronski will contact Division members about updating the inventory of viable microsporidia. Dr. A. Cali will chair a committee to consider producing an atlas of ultrastructure for microsporidia. A list of proposed topics for the 1986 workshop on microsporidia was presented at the meeting. The Division members present recommended that Division Vice-chairperson, Dr. T. Andreadis select - Phylogenetic relationships among microsporidia and/or Polymorphism and its influence on microsporidian taxonomy as topics for the workshop. A nominating committee chaired by Dr. S. Jaronski will propose a slate of officers for nomination at the 1986 Division meeting. The meeting was adjourned at 8:00 AM.

During the 1985 meeting of the Society for Invertebrate Pathology in Sault Ste. Marie the Division on Microsporidia held a workshop on microsporidia of vertebrates and invertebrates other than insects. Dr. J. Becnel reported on the role of intermediate hosts and life cycle of various microsporidia. Dr. W. Brooks discussed the various microsporidia in Amphipods and Dr. A. Cali presented information on cases of human microsporidiosis.

Gary G. Wilson

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#### Report of the Local Organizing Committee SIP, Sault Ste. Marie Meeting, August 4-8, 1985.

The XVIIth Annual Meeting of the Society for Invertebrate Pathology was held in Sault Ste. Marie, Ontario, Canada from August 4 to 8, 1985. The meeting was hosted by the Forest Pest Management Institute, Canadian Forestry Service. The local organizing committee was responsible for both the program and local arrangements. Final registration was 160.

The meeting was generously supported by industrial contributions from Abbott Laboratories (USA), Chemagro Limited (Canada), Microbial Resources Ltd. (U.K.), MicroGenesys (USA) and Zoecon Industries Ltd. (Canada). Their contributions, plus registration fees and some assistance from Hospitality and Travel Service of Sault Ste. Marie provided funding to support a full scientific and social program. Meetings were held at the Holiday Inn, Sault Ste. Marie.

The Forest Pest Management Institute provided transportation, projection equipment and many secretarial, mailing and distribution services. The

efforts of many of the staff assisted greatly in making the meeting a success.

This was the first time both program and local arrangements were handled by the local committee. The increased workload was handled effectively and there were obvious benefits of use of coordination between the two areas.

Respectfully submitted,

Basil Arif  
Paul Fast  
John Cunningham  
Terry Ennis  
Karen Griffiths  
Peter Jamieson  
Bill Kaupp  
Sardar Sohi  
Gary Wilson  
and staff of FPMI

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#### OBITUARY

We are saddened to report the sudden death of Dr. Truman B. Clark on August 18, 1984. Dr. Clark died in Guadalajara, Mexico, while on a trip to collect pathogens of the corn rootworm. He was employed at the Insect Pathology Laboratory, USDA/ARS, in Beltsville, Maryland at the time. Dr. Clark has also been an Assistant Professor at Iowa State University, and has worked at various state and USDA laboratories in California and Louisiana.

Dr. Clark was an internationally recognized pioneer in insect pathology, a true "microbe hunter". He was trained as a parasitologist at the University of Minnesota, and was the first to demonstrate the presence of the contractile vacuole, cytosome, and cytopharynx in trypanosomes. He discovered Lambornella clarki, was the first to demonstrate that fungi in the genus Pythium could invade mosquitoes, discovered the first Nearctic species of the fungus, Lankesteria, and the first iridovirus, reovirus, and baculovirus of mosquitoes. In 1976, he discovered a spiroplasma that he proved to be a pathogen of the honey bee. Perhaps his greatest scientific contribution was to demonstrate that spiroplasmas and related Mollicutes are, far from being a minor division of the Prokaryotae, a numerically major taxon. In 1973, he received USDA recognition for demonstrating the role of flies in transmission of Newcastle disease in chickens.

Dr. Clark had a rare commodity in a scientist - he was interested not only in his own work, but also truly excited about the work of others. His upbeat, optimistic personality was an inspiration to all who had the fortune to know him. He would surely have agreed with E.O. Wilson, who, contemplating a handful of soil, wrote "To the extent that each person can feel as a naturalist, the old excitement of the untrammelled world will be regained. I offer this then as a formula of reenchantment to reinforce poetry and myth: Mysterious and little known organisms still live within reach of where you sit. Splendor awaits in minute proportions."

Kevin Hackett

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