

sip

newsletter

society for invertebrate pathology

Volume 16, Number 4
November 1984

SIP MEETING
SAULT STE. MARIE, ONTARIO, CANADA
AUGUST 4-8, 1985

The 18th Annual Meeting of the Society for Invertebrate Pathology will be held at Sault Ste. Marie, Ontario, Canada on August 4-8, 1985. For information on accommodation, meeting site and other attractions, see SIP Newsletter of September, 1984. The program committee has tentatively arranged the following interesting and informative symposia and workshops.

SYMPOSIA

1. Epizootiology - microbial population dynamics.
Co-conveners: Drs. David Perry and
Aaron Rosenfield
2. Applications of cell cultures for production and evaluation of pathogens.
Convener: Dr. James L. Vaughn
3. Structure and expression of the baculovirus genome.
Convener: Dr. Just M. Vlak
4. Some aspects of Bacillus thuringiensis.
Title and Convener to be decided.

WORKSHOPS

1. Modelling techniques in microbial control.
Convener: Dr. Richard S. Soper
2. Microsporidia of vertebrates and invertebrates other than insects.
Convener: Dr. T. Andreadis
3. Teaching invertebrate pathology.
Convener: Dr. Harry Kaya
4. Safety of microbial control agents.
Convener: Dr. L. Lacey
5. Tumors in invertebrates.
Convener: Dr. Georges Balouet
6. Monoclonal antibodies.
Convener: Dr. Michael Ma
7. Marine invertebrate tissue culture.
Convener: Dr. Ralph Elston

Other special events are also planned. See inclosed material and watch for further information in the next SIP Newsletter.

Contact John Cunningham for accommodation and other local arrangements, and Sardar Sohi for the Scientific Program at the address given below.

Terry J. Ennis, Chairman
Local Arrangements Committee, SIP 1985 Meeting
Forest Pest Management Institute
Canadian Forestry Service
P.O.Box 490
Sault Ste. Marie, Ontario
Canada P6A 5M7

MINUTES OF THE XVIIth ANNUAL BUSINESS MEETING OF SIP
HELD AT THE UNIVERSITY OF CALIFORNIA, DAVIS, CALIFORNIA,
AUGUST 8, 1984

The XVIIth Annual General Membership Meeting of the S.I.P. was called to order by President Wayne Brooks at 10:40 a.m. A motion to accept the minutes of the last General Membership meeting as published in the SIP Newsletter (Vol. 15, No. 4, November 1983) was seconded and passed. Individual reports will be published in the Newsletter and only highlights are given below.

Dr. Aaron Rosenfield presented the Treasurer's report and Auditor Dr. Robert M. Faust reported that he and Dr. James L. Vaughn found that the Treasurer's books are in order. A motion was made, seconded and passed to accept the Treasurer's Report.

Dr. Elizabeth W. Davidson, in her Publications Report, stressed the importance of obtaining more uniformity in the Proceedings of the SIP Colloquia and suggested that each Editor should get an International Library number for the Proceedings.

President Brooks praised Dr. Sohi's efforts on behalf of the Society as retiring Editor of the Newsletter, then presented the Journal of Invertebrate Pathology Report in Dr. Thomas Cheng's absence. This year 15 more manuscripts were published than last year, and the lag time on publication has been reduced to 6-9 months. There is still a problem with low numbers of subscriptions (864) since Academic Press needs 1000 subscriptions to make a profit. Only 111 members subscribe to the JIP. There have been ownership changes and discussion of moving to London.

Dr. James R. Fuxa reported that our present membership is 723 members of which 58 are delinquent in dues. His committee suggested that perhaps the Membership Committee could conduct a recruitment campaign every 2 years. An application form should also be included in the Newsletter each year, with a request to use it for obtaining new members.

Dr. Donald J. Roberts, in his Meetings Boards Report, noted a registration of 170 at the present meeting and asked for comments. Future meeting dates and sites are: 1985 - Aug. 4-8, Sault Ste. Marie, Local Arrangements and Program Committee Chairperson is Dr. Terry Ennis; 1986 - Aug. 18-22, Koningshof, The Netherlands (near Eindhoven) coordinated by Dr. Just Vlak; 1990 - Australia, coordinated by Dr. Dudley E. Pinnock. Invitations are being considered for 1987, 1988, and 1989. Dr. Robert Granados has joined the Meetings Board. Dr. Brian A. Federici distributed some advance leaflets on the upcoming IVth International Colloquium on Invertebrate Pathology. Dr. Joel Margalit then extended an oral invitation from Israel for the 1994 International Colloquium on Invertebrate Pathology.

Dr. John Briggs reported for the Founder's Lecture Committee that they expect the lecture to be given annually and that it will honor only individuals not organizations. He invited the membership to submit nominations for candidates and welcomed opinions from members concerning this lecture.

The Directory for Invertebrate Pathology is to be published in 1985, but Ohio State University no longer has the funds for this publication. Dr. Briggs acknowledged the generous contribution of Stauffer Chemical Company toward this expense. President Brooks noted that Council approved support for this publication with an additional \$1800 from SIP funds provided that SIP members will receive free copies and a copyright will be held by SIP.

Dr. Randy Gaugler presented the report of the Color Slide Atlas Committee. One hundred fifty sets of 200 slides have been prepared by the Ektachrome loop method, numbered, collated and boxed to sell for \$40.00 in U.S. and \$45.00 elsewhere.

The Membership Retention Committee report was presented by Dr. Phyllis Johnson. The efforts of the Central Dues Collectors and the increased use of Postal money orders saved the Society \$109 over last year's costs. Dr. Johnson expressed the desire that additional Central Dues Collectors will be enlisted in countries not mentioned in her report. She also requested that this Committee be disbanded but a coordinator is needed. Dr. Burges will handle this matter.

Dr. Wilson reported for the Division on Microsporidia that Taxonomy will be the subject of the 1986 Symposium in the IVth International Colloquium on Invertebrate Pathology. The Division of Microbial Control report was presented by Dr. Chris Payne and that for the Research Alliance Committee was given by Dr. Nelson Goodman.

Dr. Brooks noted that Council was very pleased with Dr. Martignoni's work on the "Terms Used in Invertebrate Pathology in Five Languages: English, French, German, Italian, Spanish," which will be published in August 1984 and will be available primarily to libraries.

Council voted to continue producing and distributing the Program and Abstracts of the Annual Scientific Meeting to the membership prior to the meeting. For International Colloquia, Abstracts will also be sent to the membership but Proceedings will be sold at cost. Dr. Rosenfield was commended for his preparation of the Proposed Budget 1984-85 which will be a big help to the new Council.

NEW BUSINESS

President Brooks presented the following items:

1. Suggestions were made to improve the balloting process in future elections by including the curriculum vitae of all candidates in the ballot mailing as well as publication in the Newsletter. The precise procedure stated in the Bylaws for handling of ballots will also be followed.
2. The membership list will be sent to members in a future issue of the SIP Newsletter. Council policy is not to sell the membership list.
3. Drs. John Briggs and Donald Roberts will solicit applications for travel support to the IV International Colloquium on Invertebrate Pathology.
4. Council voted to provide \$500 to be used by Dr. Denis Burges, if necessary, to protect culture collections at risk.
5. The nomination of Dr. Gary Wilson to succeed Dr. Sardar Sohi as SIP Newsletter Editor will be considered by the new Council.
6. Council agreed to underwrite a loss of up to \$4000 expenses of the Organizing Committee if some unforeseen event should reduce or prevent attendance at the IVth International Colloquium on Invertebrate Pathology in 1986 and to provide a loan of 2000 Sterling as seed money from the Brighton meeting.
7. The results of the election for Council Members are:
 President - Dr. H. Denis Burges
 Vice President - Dr. John C. Harshbarger
 Secretary - Dr. Elizabeth W. Davidson
 Treasurer - Dr. James R. Fuxa
 Trustee - Dr. Brian A. Federici
 Trustee - Dr. John A. Couch
 Honorary Member - Dr. John D. Briggs

Dr. Briggs expressed thanks to the retiring members of the Council especially to Dr. Wayne Brooks, Dr. Aaron Rosenfield, Dr. Jean Adams, Dr. Terry Couch, and Dr. Peter Luthy; particularly to Dr. Phyllis Johnson who has contributed so much behind the scenes to the smooth functioning of the Society; to Dr. Randy Gaugler for his fine efforts on the Color Slide Atlas, and to Dr. Sardar Sohi for the superb development and production of the Newsletter.

Dr. Wayne Brooks then turned the gavel over to Dr. Denis Burges who expressed his desire to work with each member to push the Society ahead in a very progressive way.

The meeting was adjourned at 11:50 a.m.

Respectfully submitted
 Jean R. Adams, Secretary

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. Applications 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, 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.

SIP COMMITTEE REPORTS

Secretary's Report

The Secretary performed the usual duties of handling correspondence and the preparation of the minutes of the SIP Council and Annual General Membership meetings. The remaining copies of the recently revised Constitution were bound according to Dr. Mauro Martignoni's suggestions. Copies are available from the Secretary upon request.

Election ballots were sent to all members and responses were received from 343 members. The results of the election were as follows:

Vice President: John C. Harshbarger
 Secretary: Elizabeth W. Davidson
 Treasurer:* James R. Fuxa
 Trustee: Brian A. Federici
 Trustee: John A. Couch
 Dr. John D. Briggs was elected to Honorary Membership.

*As a result of the late withdrawal of Ronald H. Goodwin as a candidate for Treasurer, James R. Fuxa was declared as the automatic winner of this office.

Council and Committee chairmen were contacted to request annual reports for the SIP Council meeting. Dr. James R. Fuxa was named as a proxy for Dr. Peter Luthy, the only Council member who was unable to attend.

Respectfully submitted,
 Jean R. Adams, Secretary

Financial Statement of SIP for the Period
 July 15, 1983 - July 15, 1984

Receipts

Balance on Hand July 15, 1983		\$19,219.97	
Membership Dues			
Regular	7,090.38		
Student	286.00		
Sustaining	400.00		
	<u>\$7,776.38</u>		7,776.38
Division of Microsporida			81.00
Division of Microbial Control			206.00
Journal of Invertebrate Pathology subscriptions			
U.S.	\$ 5,322.50		
Foreign	<u>5,657.50</u>		
(\$175 held in escrow)	\$10,980.00		\$10,980.00
Interest			1,851.62
Miscellaneous			
Donation for Invertebrate Pathology Directory	500.00		
Contributions	43.71		
AIBS(1982 delinquency-U.S. Member)	1.00		
Road Race	<u>241.03</u>		
	\$ 785.74		785.74
Central Collector's costs			-4.44
			<u>\$21,676.30</u>
			TOTAL \$40,896.27

Disbursements

Journal of Invertebrate Pathology			
Academic Press		\$10,806.00	
Newsletter			
Printing & envelopes	\$4035.65		
Postage	<u>2868.97</u>		
	\$6904.62		6,904.62
Pacific Science Association			25.00

Officers Expenses			
SIP Brochures (1000)	55.13		
Member Sheets	31.50		
Returned check	44.00		
Printing & Mailing Ballots	319.57		
Covers for Constitution & By-Laws	61.68		
Member billing & Postage	336.51		
Office supplies	81.41		
Postage	92.55		
Bank fees	175.44		
5 Km Race	<u>236.03</u>		
	\$1433.82		1,433.82
			<u>\$19,169.44</u>
Total Disbursements			

Cash on Hand - Talbot Bank (checking)	\$ 4712.71		
- Second National (savings)	\$17014.12		
Total Cash on Hand July 15/84	<u>\$21726.83</u>		\$21,726.83
			<u>\$40,896.27</u>

During the period July 15, 1983 - July 15, 1984, the treasury increased by an amount of approximately \$2500. Part of this increase over last year's cash on hand was largely due to interest earned on our savings account of approximately \$800; approximately \$668 from increased membership and back dues collection, and increased membership of the Divisions of Microsporida and Microbial Control. Some funds, amounting to approximately \$675, are results of money being held in reserve for journal purchase (\$175), and printing of a revised Directory of Invertebrate Pathology (\$500 from Stauffer Chemical). Another factor was lower bank collection costs of cashing foreign membership dues because of more easily convertible postal money orders were used, and the centralized collecting system, all of which helped to give a greater positive balance on hand this year than for the same period last year. These latter actions on the part of those who cooperated are much appreciated and proved to be extremely helpful.

The flow of income and disbursement was much greater this year as well. Larger expenses this year were due to costs of printing the Newsletter, meeting programs, Constitution and By-Laws expenses (covers), and mailing costs. Other expenses resulted from increased communications and mailing charges.

The Council's suggestion that a computerized system be developed to handle the financial accounts of the Society and other treasury data, unfortunately, could not be accomplished this year because of personal and work related time constraints and unavailability of other computer system related resources.

It is anticipated that there will be a \$5000 expenditure for preparation of a Color Slide Atlas. It is expected, however, that these expenses will be self-liquidating. It is even possible that a profit will be shown in future years because of Atlas sales to the membership, universities, libraries and others who have a need and interest in the materials.

The Internal Revenue Service (IRS) reporting requirement continues to be bothersome again this year. Apparently the IRS does not appreciate that we are a non-profit, non-political organization.

Not included in this financial statement are some \$6000 U.S. being held in escrow by incoming President Dr. D. Burges. These funds were derived from the Brighton meeting.

In summary, it appears that it has been a good year for the Society, and the Treasurer wishes to express his gratitude to his colleagues, Dr. Phyllis T. Johnson, and most importantly, to Mrs. Muriel McNelis, secretary to the Division of Pathobiology, NMFS, Oxford, MD, for their time, patience and concern as they assisted and

advised, etc., the Treasurer during his tenure in office.

Respectfully submitted,
Aaron Rosenfield, Treasurer

Journal of Invertebrate Pathology: Annual Report
July 1, 1983 - June 30, 1984

This has been another successful year for the Journal of Invertebrate Pathology. From all reports, the Journal continues to be the most prestigious one for the publication of manuscripts pertaining to the pathobiology of invertebrates. We receive inquiries from all over the world as to where the boundaries of Invertebrate Pathology lie. Such inquiries have their origin not only with potential contributors but also with the newer members of the Editorial Board. Consequently, an Editorial originally published in 1972 (J. Invertebr. Pathol., 20, iii-iv) is being reproduced here with minor changes.

"In introducing a new book on parasitology, I stated: 'As is the case in increasingly more of the branches of the biological sciences, parasitologists are examining the nature of their interests, that is, parasites and parasitism, at all levels of organization, ranging from populational and macroecological to microecological and biochemical levels. Herein lies the excitement of parasitology. The pursuit of knowledge regarding natural phenomena defies curbing by man-made disciplinary boundaries, and in keeping with the philosophy of scientific research, students of parasitology must recognize that manifestations of parasitism occur at the biochemical as well as at the organismal and populational levels.'

Since the discipline of Invertebrate Pathology includes, at least in part, the study of parasites (in the broadest sense of the term) and the manifestations of parasitism, the quotation given above also holds true in the study of disease processes in invertebrates, be these metabolic, immunologic, behavioral, or infectious. In order to promote and foster this philosophy, the Journal of Invertebrate Pathology welcomes contributions dealing with any aspect of the biology of infectious agents, metabolic processes as related to the abnormal state, reactions to foreign materials, etc., as these pertain to invertebrates. Such contributions may be in the form of taxonomic, morphologic, physiologic, biochemical, or ecologic studies as long as its relationship to invertebrate pathology in its broadest sense is apparent. Furthermore, such studies may be basic or applied, although reports that constitute fundamental contributions to the understanding of the nature of pathogens of invertebrates, their reactions to challenge by environmental factors and/or foreign agents, biotic or abiotic, metabolic diseases of invertebrates, and the ecology of disease are especially welcomed. There are journals available for the reporting of results that fall within the realm of applied technology, as examples, the Journal of Economic Entomology and Environmental Entomology.

In view of the above, invertebrate pathobiology, as envisioned by this Journal, encompasses contributions which traditionally would fall under such disciplinary areas as virology, bacteriology, mycology, rickettsiology, protozoan and metazoan parasitology, immunology, physiology, biochemistry, teratology, microscopy, genetics, epizootiology, biological control, and perhaps some others. However, the point of focus must be the direct or indirect implications of such studies on the pathobiology of invertebrates. This broad approach to the study of pathologic processes and related phenomena is implied in the term "pathobiology," which has come into increasingly more frequent use in recent years.

I am confident that all will agree that the bound-

aries of invertebrate pathobiology as outlined herein are sufficiently broad so that a variety of biologists can find some area of interest in this interdisciplinary approach and the pages of this Journal will continue to be filled with original contributions.

The primary reason for this editorial is to announce that it is our opinion that the scope of this Journal must be limited to studies that have some bearing on invertebrates. Because of the increased interest in employing biological agents for the control of invertebrate pests and vectors of diseases, it is both natural and logical that the question be asked as to whether potential biocontrol agents have any deleterious effects on vertebrates, especially mammals. Consequently, manuscripts have been received by this office dealing with the effects of pathogens of invertebrates, especially insects, on vertebrates and their cells maintained in vitro. Although these papers on the whole have been interesting, this Journal cannot entertain them for publication since they do not elucidate some aspect of invertebrate pathobiology. One can envision without too much imagination that plight of this Journal if someone insisted that we consider a manuscript dealing with the effects of malarial parasites or trypanosomes on humans just because these parasites are also pathogenic to their invertebrate hosts. Similarly, a parallel situation would occur relative to manuscripts dealing with the effects of arthropod-borne viruses on equines and humans, or the effects of adult helminths that have invertebrate intermediate hosts on vertebrates. There are appropriate journals for such reports, and although many members of the Society for Invertebrate Pathology, including your Editor, as well as other readers have personal interests in the real or potential pathogenicity of organisms shared by vertebrates and invertebrates and the possible effects of pathogens of invertebrates on vertebrates and their cells, the publishing of papers dealing with such topics is beyond the boundaries of both invertebrate pathobiology and the intent of this Journal."

Now, some statistics. During the period extending from July 1, 1983, through June 30, 1984, we received a total of 156 manuscripts for consideration. Of these, 78 were accepted and have either been published or in the process of being published, 43 were rejected, and 35 are still in the process of being reviewed or revised. The number of manuscripts received represents an increase from the 141 manuscripts received during the previous reporting period.

It gives me pleasure to report that the lag time in the appearance of an accepted manuscript has been reduced significantly. For example, in the July, 1984, number, of the 11 full articles included, one was published 6 months, three were published 7 months, three were published 8 months, and four were published 9 months from the date of acceptance. A survey among other national (and international) journals has revealed that our lag time is at least 4 months shorter. We intend to do everything possible to maintain, if not improve, this record.

Relative to subscriptions, the following information has been obtained from Academic Press.

	1982		1983		1984	
	Institutional	Individuals	Institutional	Individuals	Institutional	Individuals
U.S.A.	361	50	387	61	378	61
Foreign	340	52	296	48	275	50
Sub-totals	701	102	683	109	653	111
Totals	803		792		864	

It is apparent from the above that although the institutional subscriptions have dropped during the past year, the individual subscriptions were increased by two. This remains a major problem for JIP which, as I understand it, the council will be addressing at the Davis meetings.

The annual subscription rates for JIP for 1985 are given below. It will continue to be published in 2 volumes/year, each volume consisting of 400 pages.

	US & Canada	Other countries
SIP members	\$ 87.00	\$ 87.00
Institutional libraries	174.00	207.50

The Editor wishes to take this opportunity of thanking the members of the Editorial Board and the many authors for their fine cooperation during 1983-84.

Respectfully submitted,
Thomas C. Cheng, Editor-in-Chief

Report of the Membership and Journal Retention Committee, 1983 - 1984

The Committee coordinated efforts to ascertain whether members in various countries would be interested in having Central Dues Collectors. Members from Australia, France, Japan, New Zealand, and the United Kingdom expressed interest in such a method, and the following members kindly agreed to act as Central Dues Collectors:

Dr. R. E. Teakle - Australia
Prof. H. de Barjac - France
Dr. H. Watanabe - Japan
Dr. J. Kalmakoff - New Zealand
Dr. H. D. Burges - United Kingdom

The system worked well, and not only saved participating members the expense of purchasing foreign bank drafts or international postal money orders, but also saved SIP a large percentage of the collection fees that would have been imposed had all members sent in their dues separately.

Mainly because of the Central Dues Collectors, and because more members outside the U.S.A. used postal money orders, collection fees for 1983-84 were \$117 as opposed to \$226 for 1982-83.

Centralized dues collection was successful in countries that used this method. The Committee recommends that members in other hard money countries be urged to set up this system.

Respectfully submitted,
J.V. Maddox
Y. Tanada
P.T. Johnson, Chair

Report of the SIP Program Board, 1983-84

The 1983 Society for Invertebrate Pathology Annual Meeting was held in Ithaca, New York August 7-11. The meeting was hosted by the Insect Pathology Resource Center consisting of Boyce Thompson Institute, US Department of Agriculture, and Cornell University insect pathologists located on the Cornell University campus. The Local Arrangements Committee was chaired by Robert R. Granados. The 175 attendees made this the largest non-colloquium SIP meeting to date.

The 1984 meeting is in the final stages of preparation. The very able and energetic Local Arrangements

Committee is chaired by Harry Kaya. The meeting will be held on the University of California campus at Davis from August 5-9. The program was prepared by the Program Board and includes 3 symposia, 5 workshops, and approximately 80 papers and posters. For the second year the printed PROGRAM AND ABSTRACTS (66 pages with 90 abstracts this year) was mailed to all members of SIP prior to the meeting.

The Forest Pest Management Institute, which includes one of the few insect pathology units in North America dating from the 1940's, will host the 1985 annual meeting in Sault Ste. Marie, Ontario, Canada August 4-8, 1985. The Annual Meeting Program Committee will be chaired by Terry J. Ennis. As reflected in its name, this committee will be responsible for the program as well as local arrangements. Society members with program suggestions should contact the Committee immediately.

The 1986 annual SIP meeting will be held in conjunction with the IVth International Colloquium on Invertebrate Pathology (ICIP 86) in the Koningshof Conference Center near Eindhoven, the Netherlands August 18-22, 1986. An Organizing Committee has been formally appointed with Just M. Vlak serving as Chairman and Robert Samson as Secretary. This group will be responsible for the program, publication of the Abstracts and Proceedings, and local arrangements. The Program Board, and presumably all SIP members, appreciate the generosity of our Dutch colleagues in volunteering their services for this very important task.

The Australian insect pathologists in attendance at the IIIRD International Colloquium on Invertebrate Pathology in Brighton, England in 1982 extended an informal invitation to hold the Vth Colloquium in 1990 in Australia. They were reasonably confident that the Australian government would supplement the meeting with funds for such items as travel. An organizing committee with Dudley Pinnock serving as chair, following discussions with the Australian Academy of Sciences, is optimistic that such will be the case.

The 1987 and later meeting sites, except for 1990, have not been selected. Suggestions or invitations to the Program Committee will be welcome.

Robert R. Granados was appointed to the Program Board in 1984.

The 1983-84 program year was a very successful one. The concept of holding our meetings separate from the American Institutes of Biological Sciences has been very viable both in terms of science and finances. Our meetings have been scientific, financial, and social successes. This is due to the great amount of commitment from the respective Local Arrangement Committees, industrial financial support, and the energetic participation of the members of our Society in the meetings.

Donald W. Roberts
Chair, Program Board

Report of the Local Arrangements Committee SIP Davis Meeting, August 5-9, 1984

The XVIIth Annual Meeting of the Society for Invertebrate Pathology was held at the University of California, Davis from August 5-9, 1984. A total of 170 registered for this meeting.

This meeting was supported generously by industry with contributions from Abbott Laboratories, Biochem Products, Biotechnology Ltd. (Australia), Sandoz (Zoecon), Shell Research, Tate and Lyle, and The Nematode Farm (TNF). Moreover, the College of Agricultural and Environmental Sciences and the Division of Biological Sciences were supportive of this meeting. Lower

rates for the meeting rooms were obtained because the Department of Entomology and Department of Bacteriology sponsored this meeting.

The support of graduate students, staff and faculty contributed immensely towards the success of the meeting. There were many volunteers for projectionists and drivers.

The Program Committee under the stewardship of Don Roberts put together a fine program which further enhanced the meeting. From a scientific standpoint, the meeting was successful.

Respectfully submitted,

Bruce Hammock Peter Stoddard
 Ronald Hedrick Robert Washino
 JaRue Manning Becky Westerdahl
 Harry Kaya,
 Chairman,
 Local Arrangements Committee

Report of the Membership Committee

The committee's actions in seeking new members were limited compared to the membership drive in 1983. Committee members continued to distribute brochures and application forms by hand at meetings and by mail when names were supplied by interested parties. A display with the SIP material was set up with other exhibits at the Entomological Society of America's annual meeting in Detroit.

As of 21 June 1984, the SIP had a total of 723 members in the following categories:

Regular	644 (56 new)
Student	63 (17 new)
Emeritus	13
Honorary	2
Sustaining	<u>1</u>
	723

Total membership has increased by 58 since 10 August 1983, with an increase of 32 regular members and 26 student members. Of the 644 regular members, 495 are in good standing at present, 113 owe dues for 1984, and 36 owe dues for 1983 and 1984. Of the 63 student members, 48 are in good standing, 11 owe dues for 1984, and 4 owe dues for 1983 and 1984. The committee approved requests by Drs. L. Bailey, M. Laird, P. H. Wolf, and J. Krywienzyk for emeritus membership.

We thank Dr. H. Watanabe for his efforts in recruiting new members.

Respectfully submitted,
 L.A. Lacey A. Rosenfield
 C.C. Payne J.R. Fuxa,
 J.S. Pillai Chairperson

Report of the Editorial Committee on "An Abridged Glossary of Terms used in Invertebrate Pathology", 1983-84

Committee Members

There were no changes in Committee membership during the past year. The list of Committee members, with their current addresses, is attached.

Work Progress

1. In July 1983, the Publications Committee of the Pacific Northwest Forest and Range Experiment Station approved publication of "Terms Used in Invertebrate Pathology in Five Languages: English, French, Ger-

many, Italian, Spanish," by M.E. Martignoni, A. Krieg, H.W. Rossmore, and C. Vago. During 1983 and the early part of 1984, the manuscript was edited and prepared for publication. The complete camera-ready layout, with an appropriate cover design, was sent to the U.S. Government Printing Office on June 11, 1984. Copies of the 200-page multilingual dictionary will be available for distribution in August 1984. Publication of this specialized vocabulary is the culmination of several years' intensive work by members of this Committee.

2. Work on the third edition of the Glossary proceeds at a slow pace. The Committee's activity focuses on revising and polishing definitions.

Respectfully submitted,

Mauro E. Martignoni, Editor
 Michael C. Mix, Associate Editor
 Thomas C. Cheng, Chairperson
 Publication Board
 Editorial Committee:
 L. Bailey Harold W. Rossmore
 S.Y. Feng Albert K. Sparks
 C. Vago John C. Harshbarger
 Harold E. Welch Phyllis T. Johnson
 Aloysius Krieg

Report of the SIP Newsletter Editor for the Period July 1983 to June 1984

Four Newsletters (Vol. 15, Nos. 3 and 4; Vol. 16, Nos. 1 and 2) comprising a total of 32 pages were produced, and were sent by Air Mail direct to individual members during the period July 1983 to June 1984. In addition, 10 copies of each issue were sent to the Archivist, and another 10 to the Treasurer. Also, 50 copies each of Vol. 15, Nos. 3 and 4 were sent to the World Health Organization, Geneva, Switzerland. The contract with W.H.O. was not renewed. Therefore, no copies of Vol. 16, Nos. 1 and 2 were shipped to W.H.O. The total cost of producing and mailing the four issues was U.S. \$4403.80 (Canadian \$5504.75; Average exchange rate: Can. \$1.00 = U.S. \$0.80) as per details given below.

Issue	Date	Pages	Print- In- serts	Enve- lopes U.S.\$	Postage U.S.\$	Total U.S.\$
15(3)	July 83	6	60-pg program	258.35	-	831.65 1090.00
15(4)	Nov. 83	12	-	341.34	86.33	340.85 768.52
16(1)	Feb. 84	10	4 sheets 8.5"x11"	519.49	68.11	503.66 1091.26
16(2)	May 84	4	68-pg program	132.11	111.45	1210.46 1454.02
Total Cost				1251.29	265.89	2886.62 4403.80

The program booklets for the 1983 and 1984 SIP Annual Meetings were also printed at Sault Ste. Marie for a cost of U.S. \$997.18 and U.S. \$1520.57 respectively. The 1983 program booklet was mailed with the July 83 Newsletter and the 1984 program was sent with the May 1984 Newsletter.

The total Newsletter cost for 1983-84 is almost double of the 1982-83 cost. The major difference is due to the fact that the 1982-83 report included the cost of only three issues as compared to four issues in the current (1983-84) report. There are three other reasons for the higher cost during 1983-84. Firstly, the July 1983 and May 1984 mailings included program booklets which more than doubled the postage costs for those mailings (see the table above). Secondly, the cost of printing went up slightly. Thirdly, the Canadian postal rates went up in 1983. So far we have been able to get the typing done free in the Canadian Forestry Service

Laboratories, but we may have to pay for typing in the future.

Some of the regional correspondents have contributed news items quite frequently. Others have not been quite so active. The regional correspondents are: Drs. K. Aizawa (Japan), H.D. Burges (United Kingdom), B. Gabriel (The Phillipines), J.S. Pillai (New Zealand), R. Teakle (Australia), H. Wassink (Latin America), K. Soderhall (Scandinavia) and C. Yamvriasis (Greece).

Sardar S. Sohi

Publications Committee Report, 1983-84

During the last year I have contacted the Editor of the Newsletter and the Editor of the last Colloquium Proceedings with questions concerning costs, numbers produced, and suggestions. The overall costs of these publications are substantial (\$1258 in 1983 for the Newsletter, ca. \$8500 for the Proceedings and Abstracts). These certainly constitute a very major expense to the Society. A concern is the fact that each Colloquium Proceedings seems to be produced "de novo" with little communication or suggestions from one four-year period to the next. Although I realize that the circumstances surrounding the publication of the Proceedings varies greatly from country to country (e.g. Prague to Brighton), still there are some general suggestions which could be made concerning these Proceedings. We could suggest a uniform format, for example, and determine whether abstracts of submitted papers are to be considered "proceedings". Among the most important suggestions coming from Dr. Burges is that the editor should obtain an International Library number in advance of publication, assuring the proper distribution and filing of the Proceedings by libraries. Perhaps a permanent number for this purpose could be obtained. At the least, this committee can foster better communication between the previous editor and the next editor, in making the editing of the Wageningen proceedings as smooth as possible.

The Newsletter seems to be doing quite well under Dr. Sohi's able direction.

There was considerable discussion at the last meeting concerning the appointment of an assistant or associate Editor to assist Dr. Cheng with the Journal. This suggestion was stimulated by the obviously heavy burden carried by Dr. Cheng in this position. Since I first brought this up with Dr. Cheng, some changes have occurred at Academic Press, which I am sure he will discuss with you at length. As I understand it, the Press has been purchased by Harcourt, which was then purchased by CBS. Parts may then have been sold off. Academic is not interested in the appointment of an Assistant/Associate Editor at this time, and in fact appears to have lessened the support given to Dr. Cheng for editing. Another of our members who is editing books for Academic is quite concerned with the changes which he is seeing at the Press; he was recently told that Academic Press is now no longer interested in books which do not provide a healthy return, regardless of scientific merit. Our journal certainly must be seen as one with low "profit margin". I strongly suggest that Council consider once again the possibility of tying Journal subscription to membership, at least for North American and Western European members. We should at least investigate this possibility through a poll of the membership. The alternative may be loss of the Journal.

Elizabeth W. Davidson

Report of the Society for Invertebrate Pathology Nominations Committee, 1982-84

The Nominations Committee was appointed by President

Brooks on December 2, 1982. Through phone and mail correspondence, each committee member made a list of recommendations for each office. These lists were compiled by the chair and resubmitted by mail to each committee member for voting and returned to the chair for canvassing. The chair and members of the committee then contacted the SIP members receiving the highest number of votes for each office to ask if they would be considered for nomination. If a member could not serve for any reason, the next person in line was contacted until two nominees were selected for the offices of vice-president, secretary, and treasurer, and four nominees for trustees.

The final slate of officers presented to Secretary Adams was as follows:

President-elect: Dr. H. Denis Burges
Vice-President: Dr. John C. Harshbarger
Dr. Marenes R. Tripp
Secretary: Dr. Elizabeth W. Davidson
Dr. S. Bradleigh Vinson
Treasurer: Dr. James R. Fuxa
Dr. Ronald H. Goodwin
Trustees: Dr. June Stephens Chadwick
Dr. John A. Couch
Dr. Brian A. Federici
Dr. Ann M. Lackie

Each candidate was asked to provide a short biographical sketch for publication in the SIP Newsletter prior to the election. These sketches were also forwarded to Secretary Adams.

Respectfully submitted,
Dr. C.Y. Bayne Dr. P. Faulkner
Dr. C.U. Canning Dr. J.D. Harper,
Chair

Report of the Safety Committee

The Safety Workshop was convened by Lawrence Lacey at 8:00 p.m. on August 6, 1984 (University of California-Davis). An announcement was made by Elizabeth Davidson regarding a book on the safety of microbial control agents which she and Marshall Laird will be editing.

The workshop speakers were: Dr. Denis Burges speaking on "Safety Test Requirements for Nematodes Used to Control Pests," and Dr. Brian Melin speaking on "The Safety of Beta-exotoxin."

Group discussion of recent reports of involvement of Bacillus thuringiensis in human and animal infections followed the formal presentations.

The Safety Committee adjourned at 9:30 p.m.

Report of the Division on Microsporidia

During the 1984 meeting of the Society for Invertebrate Pathology in Davis, California, the Division of Microsporidia held a workshop on microsporidia of vertebrates and invertebrates other than insects. Dr. A. Cali discussed her research with recent cases of human microsporidiosis and Dr. P. Takvorian reported on ultrastructural studies of Glugea stephani.

The annual meeting for the Division of Microsporidia was held at the University of California, Davis campus on 7 August, 1984. Dr. G. Wilson, Division vice-chairperson, called the meeting to order at 7:15 a.m. The minutes from the 1983 Division meeting were read by

Dr. D. Streett and approved by the members present.

Dr. Wilson, under old business, inquired whether the members present at the meeting had received a copy of the inventory of viable microsporidia. He also extended the Division's appreciation to Dr. J. Maddox, acting as our representative, in selecting slides for the Invertebrate Pathology Slide Collection Atlas and Dr. G. Nordin for coordination of the nominating committee in preparing a slate of officers for the 1984 meeting.

The nomination committee presented a list of candidates for election as officers to the Division of Microsporidia.

Chairperson	Dr. G. Wilson
Vice-chairperson	Dr. T. Andreadis
Secretary	Dr. N. Alger
Council member	Dr. J. Hamm
Council member	Dr. R. Ishihara

A discussion followed on a possible workshop topic for the 1985 meeting and Dr. J.E. Henry suggested we consider a continuation of the 1984 workshop on "microsporidia of vertebrates and invertebrates other than insects." Dr. A. Cali proposed we consider aspects relevant to microsporidia taxonomy, although after further discussion this topic was considered more appropriate for the 1986 meeting. Dr. W. Brooks made a recommendation that Dr. A. Cali coordinate the 1985 workshop on "microsporidia of vertebrates and invertebrates other than insects."

In additional business, Dr. D. Burges mentioned the establishment of a new culture collection committee with a member representing each pathogen group. Following a general discussion, Dr. A. Cali proposed Dr. J. Maddox be considered for this committee.

Dr. W. Brooks recommended we prepare a more descriptive report of the division meeting and begin making preparations in selecting an organizing committee for the 1986 workshop and division meeting in Eindhoven, Netherlands.

Dr. G. Wilson adjourned the meeting at 7:35 a.m.

Douglas A. Streett, Secretary

Report of the Division of Microbial Control

The Division of Microbial Control workshop and business meeting was called to order at 8:30 a.m. on August 8, 1984 (University of California-Davis Campus), by Chairman Chris Payne. The minutes were read by Secretary-Treasurer Lawrence Lacey.

There was no old business. Dr. Payne move that Dr. Dudley Pinnock be approved to serve a second term as Member at Large of the Division. The motion was seconded and unanimously approved. Dr. Payne then suggested that the workshop topic, "The significance of host range in selecting microbial control agents," and a system for collecting, collating and distributing information on host range be considered as new business for the Division.

The workshop speakers were: Dr. Denis Burges on Bacteria, Dr. Drion Boucias on Fungi and Dr. Payne on Viruses. At the conclusion of his talk Dr. Payne proposed that the Division through its membership serve as a collator of information on virus, bacteria and fungi host range. He suggested that information could be collected via a questionnaire distributed among the

Division membership for a number of crops. He proposed that cotton might be a good starting point, with a listing of its pests and pathogens associated with them. This collated information would help us focus in on the areas where we need more information and would help us select the most appropriate pathogens for use.

The workshop and business meeting were concluded at 10:30 a.m.

Report of the Ad hoc Color Slide Atlas of Invertebrate Pathology Committee

The Council approved funds for preparation of a color slide atlas of invertebrate pathology at the Ithaca meeting. Subcommittee chairs representing each of the six major pathogen groups solicited slides for inclusion. Two hundred color transparencies were submitted for duplication and 150 sets were produced, yielding a total of 30,000 slides. The Ektrachrome loop method of slide reproduction was used, allowing sale for \$40/set of 200 (\$0.20/slide). A master negative of each slide has been retained for producing additional sets or as part of a revised slide series. All slides are numbered, collated, boxed and come with a 19 page syllabus identifying subjects and contributors. The Atlas will be available for examination at the Davis meeting.

E. Davidson	J. Maddox
C. Kawanishi	G. Poinar
J. Hamm	R. Gaugler,
D. Boucias	Chair

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RESEARCH ALLIANCES COMMITTEE

The Ad Hoc Committee on Research Alliances was formed because of perceived problems in the field of biological control of insect pests. The keynote speaker for the Invertebrate Pathology meetings in Brighton, U.K. (1982), saw a need for defining research approaches and coordinating research efforts. Another participant expressed need for a broader, fundamental base of knowledge relating to pathogen and host relationships. Specific problems were discussed during the Brighton Symposium, "Progress in the development and use of industrialized microbial control agents for insect pest control in agriculture in the western hemisphere." The first speaker pointed to problems with Hirsutiella thompsonii for mite control, and an industrial representative in the audience indicated this product was being withdrawn from the market. We were also told that only 2,000 pounds of Verticillium was forecast for use in the U.K. to control white flies. The next speaker said, "If user reluctance to apply preventive control had been realized initially, it is doubtful that Nosema locustae would have been considered as a microbial insecticide." Next we heard about dessication problems hurting nematode field tests. Another industrial representative discussed the factors causing a halt in the production of Heliothis NPV. At the 1984 SIP meeting, the statement was made that Malaria control people will not use Bacillus thuringiensis var. israelensis. Thus, almost all major potential control agents are experiencing problems.

The Ad hoc Committee on Research Alliances wrote, "Today's farmer does not have the general availability or diversity of products that could be used as insecticides or as biological components of IPM systems" (SIP Newsletter, May, 1984). Since its inception in 1983, the Committee has formed a panel and published concerns in the SIP and Forest Pest Management Newsletters.

Martin Rogoff developed and distributed a questionnaire based on the Committee's concerns. The Committee is in the process of collating and analyzing the re-

sults. The questions were in three areas:

- I. Problem Definition
- II. Constraints on Supply of Biological Control Agents (BCA's).
- III. Roles and Responsibilities of Government, University and Private Sectors.

A tentative consensus of the respondents indicates that the problems are real and progress is being impeded in terms of the practical use and integration of BCA's. The government is seen as needing to develop a BC program for broad regional or national pests but should not be responsible for production of such agents. A more responsive private sector will also be required. Responsibility for breaking the "supply barrier" remains unassumed and the future of BCA's should not rest in the marketplace alone.

Committee recommendations to be submitted in the near future will suggest potential roles the Society may wish to consider such as establishing standing committees to encourage governments to assume a role in handling problems, and develop BCA policies. The committee would serve as a catalyst for encouraging industrial cooperation, and would serve in the formulation of educational efforts to provide support for the use of BCA's in pest control programs.

Respectfully submitted,
Nelson Goodman, Chairperson

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CULTURE COLLECTION COMMITTEE

A. History of the Committee

Four years ago, it was proposed that the Society investigate ways to insure that no valuable collection of insect pathogens be lost due to the death or retirement of its curator or to fire or other accident. The Council gave me the charge of organizing a committee to study this problem. Since I believed that the problems of maintaining culture collections of the widely different types of pathogens were too diverse to be handled by a single committee, I sought, and received, permission to divide the overall committee into four subcommittees, each with its own chairman. The following subcommittees were formed.

I. Bacterial Subcommittee

H. D. Burges (Chairman)
K. Aizawa
H. deBarjac
R. Colwell
D. Dean
H. Dulmage
A. Krieg
O. Lysenko

III. Fungal Subcommittee

R. S. Soper (Chairman)
R. Kenneth
R. Milner
W. Otieno
N. Wilding

II. Virus Subcommittee

J. L. Vaughn (Chairman)
J. A. Couch
M. Martignoni
V. M. Pawar
P. D. Scotti
T. W. Tinsley
C. Vago

IV. Protozoan Subcommittee

J. V. Maddox
P. N. Dagget
R. Ishihara
J. Vavra
J. Weiser

B. Conclusions and Recommendations

I am turning over to the Council the conclusions and recommendations of each subcommittee. I believe it might be useful to publish each report in the Newsletter. However, I am, in this report, summarizing these recommendations.

1. All committees stressed the need for some procedure to guarantee that culture collections are not lost. In one way or another, each committee stressed that culture should be stored in more than one culture collection. The use of national collections such as the ATCC was proposed. The cost of submitting isolates to national collections might limit the number of isolates that could be stored in such collections. However, they are valuable.

2. Each culture kept in a culture collection should be identified by source, scientist who found it, any previous culture number, and microbiological and/or biochemical characteristics.

3. It would be difficult, if not impossible, to dictate to any curator how to preserve his cultures. However, it might be useful for the SIP to publish recommended procedures for preservation of the various types of microbes.

C. Chairman's Suggestions

(These suggestions derive from conversations of the Committee Chairman with Subcommittee Chairmen.)

1. The consensus of the members seems to be that the original purpose of the committee has been fulfilled: The problems have been spotlighted and the importance of assuring the safety of culture collections has been emphasized.

2. The need for the committee to continue as presently constituted is doubtful. Each group (bacterial, viral, fungal, and protozoan) has its own particular problems and its own ways of solving them. One group, the Bacterial Subcommittee, is developing a large-scale interchange of cultures and a new committee restricted to bacterial culture collections could serve a very useful function. The other groups should not be disbanded completely, but it might be best for the council to appoint a single representative from scientists of each of the various groups to coordinate the flow of information about culture collections within his group. At any time that the appointed representative from a given group believes his work could be better handled by a full committee he would be authorized to do so. Each group, including the bacterial group, would be charged to report to the Council at the Annual Meeting.

3. It would be useful for the SIP to recommend procedures for the preservation of the various microbial groups, and the Society should consider ways to do this. However, it would not be wise to attempt to dictate methods.

Respectively submitted,
H. T. Dulmage

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SECOND ANNUAL 5K SIP RUN RESULTS

The Second Annual 5K SIP Run was held on August 9, 1984 on the University of California, Davis Campus. The run was along Putah Creek in the UC Arboretum. The run started at 7:00 a.m. to avoid the heat of the day. There were 17 male and 4 female runners. Prizes were awarded to the first and second place runners in the male and female division. The prize for first place was a bottle of premium champagne and a blue ribbon; the second place prize was a bottle of wine and a red ribbon. The runners and their finishing times are listed below:

1. Vance Kramer	17 min 36 sec**
2. Norman Crook	18 min 37 sec*
3. Gerald Carner	19 min 42 sec
4. Robert Smith	21 min 41 sec

A discussion group on Comparative Tumor Pathology has for the first time taken place during the last SIP meeting in Davis, California, last August. Its aim was to provoke exchanges between pathologists interested in the field of tumor pathology, and to try to reach agreement about definitions, domain and perspectives of research devoted to neoplasms in invertebrates.

1. During this informal and very positive session, it has been agreed that the word malignant tumor (= malignant neoplasm = cancer) excludes pseudotumors or benign lesions (xenic tumors, hyperplastic tumor - like growths) and true benign tumors. It has to be reserved for lesions characterised by the presence of deviant populations of cells whose heritable abnormalities result in some degree of independent proliferation, autonomous behaviour and anaplastic differentiation. It has also been admitted that, whatever their causes may be, a genome change seems to be always present in their determination, and provokes the succession of classic stages of initiation, promotion and progression.

For tumor classification, histological and cytological criteria are accepted as the basis for diagnosis, taking into account the present lack of knowledge concerning, in most cases, final evolution, transplantation and more generally biological (for example, immunological...) criteria. The importance of metastasis for the evaluation of malignant lesions from benign tumors has been emphasized. Nevertheless, these secondary neoplastic foci are not always present, and not necessary for assertion of the malignant process. For hematopoietic tumors, frequent among invertebrate cancers, especially in molluscs, it must be remembered that these lesions are, by definition, systemic diseases with continuous spread involving all the circulatory and connective tissues, without separated lesions as observed in malignant solid tumors.

2. In the distribution of cancers in invertebrates, molluscs and particularly marine bivalves are obviously a major group for study of neoplasms; in insects, only a few species are apparently concerned, but this phylum has certainly a great interest for study of experimental cancers (genetic changes). The question then arises as to why no malignant tumors have so far been reported in the well documented group of crustaceans.

3. Among etiological factors, the process of a multistep carcinogenesis is definitely admitted. Viruses and chemicals are at present the easiest to demonstrate, but it seems difficult to focus the research on to one of these factors when a new neoplasm is found in one species. We have to be opportunistic researchers, and prefer a wide choice of techniques. Among them, cell cultures have been so far generally unsuccessful in molluscs, and bioassays (in insects ?) are probably a better way to achieve a single step. For chemicals, the metabolism of carcinogens has to be especially investigated.

4. It is clearly accepted that all malignant neoplasms correspond, all along the phyletic scale, to the same basic process. To the question "is invertebrate tumor pathology able to give useful information for the understanding of the neoplastic process?", many participants thought that the best information will derive from study of higher vertebrates, and especially human cancers... Nevertheless, the difference of expression in tumors in lower animals is recognized as of great interest for the knowledge of cell differentiation and basic phenomena of immune host reactions.

Finally, it is planned to inform, directly, and through the SIP Newsletter scientists of the results of this first session, and to extend it by production of a general review of the current status of the question of invertebrate tumors, as well as by regular full sessions in annual SIP meetings.

Interested members can contact either Dr. John Harshbarger (RTLA - Smithsonian Institution - Washington DC. 20560) or myself.

Professeur Georges Balouet
Laboratoire de Pathologie
Faculte de Medecine
29279 Brest Cedex, France.

NATURAL ANTIMICROBIAL SYSTEMS

A four-day symposium will be held at the University of Bath, 9-13 September 1985. It is sponsored by the Federation of European Microbiological Societies, Society for Applied Bacteriology, British Society for Plant Pathology and International Dairy Federation. Recognised leaders in the field of Natural Antimicrobial Systems will present papers on systems found in warm blooded animals, in insects, algae, fungi, yeast, cyanobacteria. Delegates will have the opportunity to present posters. The main contributions and abstracts of posters will be published in book form. Further details from: R.G.Board, School of Biological Sciences, University of Bath, Claverton Down, Bath BA2 7AY, U.K.

OBITUARY

We are saddened to announce the sudden death of Dr. F.T. (Ted) Bird on October 2, 1984, in Sault Ste. Marie, Ontario.

Dr. Bird, who retired in 1980 after 35 years in the Federal Forestry Service, was a pioneer in the field of insect pathology, and was instrumental in establishing the Insect Pathology Research Institute (now the Forest Pest Management Institute) as one of the world's largest leading centres for research in insect virology. His research on the use of a virus to control the European spruce sawfly, *Gilpinia Hercyniae*, resulted in the first documented case of an important forest insect pest being controlled by a virus.

The quality of Dr. Bird's research and his dedication gained him wide recognition throughout the international research community. He was, indeed, one of the founders of modern insect virology.



Dr. F.T.(Ted) Bird

A new biotechnology company, Microbial Resources Limited, has been launched to exploit the fast-growing area of biological products for crop protection and pests which carry human disease. Microbial Resources was founded with over £2 million of venture capital to establish a research, development and manufacturing facility for microbial pesticides and similar "agrobiologicals" made by fermentation. This is one of the first companies created with its prime objective to commercialize agricultural biotechnology in Britain. The company has already acquired the microbial pesticide interests of Tate and Lyle, which includes the transfer of five senior scientific staff with expertise in a number of critical areas and experience in the development of such products.

These products, applied to pest control and improving plant yield, could offer a more natural alternative to conventional chemicals. Although at present, agrobiologicals take only a small share of the almost \$13 billion pesticide market, the company sees microbial pesticides becoming more important in response to consumer concern over the use of persistent chemicals.

The five products already developed and on the market are among the first crop protection agents based on microorganisms to be registered for use in the United Kingdom. VERTALEC and MYCOTAL are fungal preparations which control aphids and whitefly in glasshouses. VIROX was the first viral insecticide to be used commercially in Britain and is effective against pine sawfly in forestry plantations. BIOBIT and SKEETAL, two products based on bacteria, attack caterpillars in agriculture, and mosquito larvae, including those carrying malaria. All these products are harmless to humans and natural wildlife and attack only their target insects.

The new company plans to extend the research and development pioneered by Tate and Lyle to other agrobiologicals produced by fermentation. All the current products are based on naturally occurring microorganisms, and only a fraction of the potentially useful ones have yet been identified. In addition, Microbial Resources plans to exploit genetic engineering to create a new range of biological products for crop protection and plant growth.

Microbial Resources Limited is the first company formed by Plant Resources Limited, a venture capital management company recently established to organise investments into the agricultural applications of biotechnology.

For further information contact Steve Lisanky, 0734-861361 or Ian Kent or Bob Love, 0223-322114, Microbial Resources Limited, 10-12 Deacon Way, Reading, Berkshire RG3 6AZ.

POSITION AVAILABLE

Insect Pathologist - research associate position for M.S. level insect pathologist to work in research and development of microbial insecticides. Applicants should have background in entomology and microbiology with strong interest in insect pathology; M.S. in entomology or microbiology preferred. Competitive salary commensurate with experience. Send resume and names of 3 references by January 15, 1985 to Dr. G.G. Soares, Mycogen Corporation, 5451 Oberlin Drive, San Diego, California 92121. An equal opportunity employer.

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X SEASON'S GREETINGS X
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Greetings during my first few months as President.

Throughout my two-year term, I shall be pleased to receive constructive suggestions, comments and complaints. I wish to maintain the closest possible contact with you all.

Just one plea - since this may prove a crisis period for the "Journal of Invertebrate Pathology", during which improvement of sales may be paramount, please help if possible by taking the journal yourself or by persuading your institute or library (and possibly others) to take the journal.

I am sure our next two meetings, at Sault Ste. Marie in 1985 and in the Netherlands in 1986, will be worthy of your participation. I urge you to think ahead if you have ideas for topics, workshops, activities, etc. For anyone who can spend an extended period abroad in 1986, 3 days after our SIP meeting in 1986, is the "Third European Congress of Entomology" in Amsterdam. Information is available from "Secretary for Congress of Entomology, Congress Office Vrije Universiteit, Postbus 7161, 1007 MC Amsterdam, Holland".

Denis Burges

A WORD FROM YOUR EDITOR

It is with some trepidation that I take over the Editorship of the SIP Newsletter. However I have one major advantage, our most able past Editor Dr. Sardar S. Sohi and his staff (see photo) are in the same Institute as I. I am sure I will be calling on Sardar often.

To keep the Newsletter successful I will be looking for news items and other contributions from SIP members. Also to make my job a little easier I would ask that you note the following instructions for preparing camera ready copies. The SIP Newsletter is produced by offset printing. Width of typed material should be no more than five inches, but use most of this width to conserve space. Type single space and provide a clean, clear original. For general format follow a recent copy of the Newsletter. Thank you.

Gary G. Wilson



SIP Newsletter Editorial and Production Staff (1980-84). L. to R. Seated: Susanne Lauzon, Barbara Cook; Standing: Arun Khurad, Sardar Sohi, Alfredo Ceccarelli, Guido Caputo.



THE CORPORATION OF THE CITY OF SAULT STE. MARIE

DONALD M. MACGREGOR
MAYOR

November 19, 1984

INTERNATIONAL SOCIETY FOR INVERTEBRATE PATHOLOGY

Dear Society Members:

On behalf of the city of Sault Ste. Marie, it is our pleasure to extend a warm welcome to you and express our thanks for choosing our city to hold your 1985 convention.

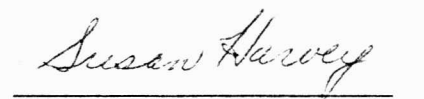
August is a particularly beautiful time to visit Sault Ste. Marie, and we look forward to showing you our brand of "Northern Hospitality". In August we can offer a number of pleasant diversions from your important business sessions, and for spouse programs during the convention. The city's two major attractions are a must. The one day wilderness train excursion to magnificent Agawa Canyon and the two hour narrated boat cruises of the Canadian and American Lock system, the busiest in the world should not be passed up. In addition, we would recommend the two hour narrated tours of our city on old English double decker buses, with a stretch stop in beautiful Bellevue Park.

Should your group be interested in any of these tours or other suggestions regarding the many things to see and do in the city and area, please contact Dr. John Cunningham at the Forest Pest Management Institute for further information.

I am sure you can understand why we are extremely pleased to have the opportunity to show off our community and we look forward to seeing you in Sault Ste. Marie, Ontario

Sincerely


Donald M. Macgregor
MAYOR


Susan Harvey
Group Sales Co-Ordinator
HOSPITALITY & TRAVEL
SAULT STE. MARIE, ONTARIO