sip newsletter

society for invertebrate pathology

Volume X, Number 4
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SIP XIth ANNUAL MEETING

XIth ANNUAL BUSINESS MEETING MINUTES
Tuesday, September 12, 1978

President Angus called the meeting to order at 5:30 P.M.

The minutes of the Xth Annual Business Meeting held in East Lansing, Michigan were approved as previously published in Vol. IX, No. 4 of the SIP Newsletter (motion by Laird, second by Tanada).

Treasurer Paschke reported $14,297.60 in receipts, including $4,315.02 forward from the preceding year. Expenditures were $9,807.11 leaving a balance on hand of $4,490.49. Of the current membership of 686, only 380 members have paid dues for 1978. Members were urged to pay their current dues in order to avoid potential loss of membership as delinquent members. The report was approved as presented (motion by Johnson, second by Roberson).

In the absence of Permanent Program Chairman, A. Rosenfield, Pres. Angus highlighted his report and indicated that the Society would hold its XIIth Annual Meeting with the University of Florida, Gainesville, FL in August, 1979. Proposed sites for subsequent years are as follows: 1980 - with AIBS in Irvine, California; 1981 - with Montana State University, Bozeman, Montana; and 1982 - with the University of Sussex, England - this latter meeting will also be the Third International Colloquium on Invertebrate Pathology.

Pres. Angus also gave a brief perusal of the Editorial Board Report of T. Cheng. Members were again encouraged to take personal subscriptions to the JIP in order to strengthen the financial soundness of the Journal. A discussion followed on this topic with some concern expressed as to the possible relation of the quality of the Journal to membership subscription. As the Journal is the property of Academic Press, the SIP is not in a position to dictate policy matters. However, as the survival of the Journal is in the best interest of the Society, members were urged to support the Journal not only with their publication of research papers, but also in ordering personal subscriptions. Pres. Angus acknowledged the debt of the Society for the fine job Dr. T. Cheng continues to accomplish as editor.

Dr. Weiser was introduced and made a few remarks relative to the publication of the Proceedings of the meeting and other details.

Pres. Angus then covered the highlights of the Executive Council Meeting held September 10, 1978.

1. Extra copies of the program Abstracts and the Proceedings of the Prague meeting will be available for a small charge to Society members who did not attend the meeting. Proper notification will appear in the Newsletter.

2. On behalf of the Executive Council and the SIP, Pres. Angus expressed appreciation for the excellent job Dr. A. Domnas has done as Newsletter editor. Dr. Domnas will also serve in this capacity for 1978-80 at the invitation of the new secretary, Dr. J. Henry. Four issues of the Newsletter were published since the last meeting in Michigan at an approximate cost of $400.00 per issue.

3. The report of the chairman of the Divison on Microsporida was received. They had an active meeting in Michigan and have an excellent program planned for the Prague meeting.

4. The report of the Glossary Committee chairman, Dr. M. E. Martignoni was highlighted. The committee is near the completion of its task and the glossary should be ready in the near future.

5. The present status of the membership of the Society was summarized as given by the report of Treasurer J. Paschke. Members were urged to pay their current dues on time. The Council suggested that past members can renew their membership for the price of current dues only, but that delinquent members will be dropped as before in accord with the Society's Constitution and Bylaws.

6. Pres. Angus also presented a brief summary of the activity report of Dr. J. Briggs, IUBS representative. Dr. Briggs was commended for his excellent job in this capacity, and the Society was especially grateful for his effort which resulted in a travel grant for the participation of North American members in the Prague meeting from the Fogarty Center for International Medicine of the National Institutes of Health in the U.S.A.

7. After several years' deliberations on the topic of a Society logo, the Council decided that there was no urgent need for such a logo. The present society letterhead stationery and Newsletter logos were adequate and further action on the topic was tabled.

8. In response to continued interest on the possible formation of a Division on Microbial Control, the Council again confirmed that it was willing to act favorably on any such proposal prepared by interested members.

9. Council appointed Dr. P. Johnson as the AIBS representative for 1978-80 administration of Dr. J. Weiser since a U.S. citizen would be in a better position to handle the affairs involved.

10. The Council appointed out-going secretary, Dr. W. Brooks, as Society archivist for the interim period of 1978-80. He will attempt to collect and store appropriate material of potential historic interest to members of the Society.

11. Pres. Angus thanked the out-going members of the Executive Council for their service and introduced the new members:

President - J. Weiser
Vice President - P. Johnson
Secretary - J. Henry
Treasurer - J. Maddox
Trustee - H. D. Burges
Trustee - M. Mix

The meeting was adjourned at 6:45 P.M.

Wayne M. Brooks
Secretary

SIP COMMITTEE REPORTS

Annual Report of the Editor-in-Chief Journal of Invertebrate Pathology

The Journal of Invertebrate Pathology is rapidly becoming the principal journal devoted to the publication of original manuscripts pertaining to all aspects of the pathobiology of invertebrates. It is subscribed to in practically all countries of the world by general and specialized biological libraries as well as by individuals interested in a broad spectrum of biological specialities.

During the period extending from July 1, 1977 to August 1, 1978, a total of 189 manuscripts were received for processing. The figure for the same period last year was 183. Of the manuscripts received this year, 102 were reviewed and accepted for publication and have appeared or will soon be published. Of the remainder, 52 are still being processed, i.e., being reviewed or revised, and 35 have been rejected.

A recent conversation with Mrs. Roselle Coviello, Senior Vice President in charge of the Journal Department of Academic Press, revealed that the cost of production continues to soar. A part of the reason for this is because both the authors and your editor have insisted on the highest quality or reproduction of electron micrographs and photomicrographs. Consequently, we have been notified that the subscription rate to libraries during the coming year has been raised to $100 in the U.S. and $114 outside of the U.S. for two volumes. The individual subscription rate for members of the Society for Invertebrate Pathology remains at $40 for two volumes.

Academic Press has provided us with some subscription figures. The number of institutional subscriptions as of June 30, 1978, is 740, as compared to 752 during the same period during 1976-1977. The number of individual subscribers dropped from 125 to 121 during the past year. Of the individual subscriptions, 76 were from residents of the U.S. and 45 were foreign.

For comparison, the total number of subscriptions since 1969 are as follows:

1969	---	822
1970	---	911
1971	---	855
1972	---	845
1973	---	939
1974	---	930
1975	---	837
1976	---	877
1977	---	861

It is apparent from the above that the number of subscriptions is still short of the 1200 required to keep the Journal solvent. As in the past, a personal arrangement between your editor and Academic Press, which involves editing both the Journal of Invertebrate Pathology and Experimental Parasitology, has rendered our Journal a viable publication for the Press. Nevertheless, the Council should once again face the problem of low individual subscriptions and come to some decision. One possible solution that has been suggested in the past is to tie the journal subscription to the membership dues.

A few remarks about the time lag between receipt of a manuscript and its final publication. Periodically, this office receives letters or telephone calls inquiring why it has taken so long for a manuscript to be published. Also, occasionally some author wants to know if his or her manuscript could be published immediately, i.e., out of chronological sequence. As your editor has stated in the past, if an author prepares a manuscript meticulously, making certain that all of the "instructions to authors" are followed, including "key words," the lag between receipt and publication can be as brief as six months. This, of course, applies to scientifically sound contributions. Unfortunately, many authors are careless in preparing manuscripts, and the editor cannot take the hours needed to recast a paper. Therefore, weeks go by while the manuscript is sent back and forth for rewriting. This is one of the major reasons for delay.

Also, as each final copy of a manuscript is received, it is automatically placed on the bottom of a pile, and marked up for the publisher in order of receipt. Therefore, just because a manuscript was originally received on January 1, 1978, does not necessarily mean that it will be published before one originally received on March 1, 1978. If the author of the second paper is more rapid at making revisions, etc. his or her contribution will appear first. It is of interest to note that we have several manuscripts on hand that have taken the authors two years to revise.

JIP does not publish manuscripts out of chronological order, even if the author is willing to pay extra charges. To do so, in our opinion, would be unfair to those without large budgets.

Finally, a word about multi-authored manuscripts. Incidents have arisen where one author has included statements or data with which his or her colleagues do not concur. Heated correspondence and telephone calls generally follow. To alleviate the editor from being caught in the cross-fire, we now require that the covering letter accompanying manuscripts bearing more than one name be signed by all of the authors.

Recently, a letter appeared in Science written by an editor. He pointed out that on the day an author's manuscript is received in his office, it usually is one of several. This renders immediate and individualized processing not possible. Also, reviewers are usually individuals highly regarded by their professional peers. One of the reasons they are highly regarded is because they are highly productive and imaginative scientists. It is also such individuals who are the busiest. Consequently, the reviewing process may take several weeks. For us to select less highly regarded reviewers is to lower the standards of our Journal.

One favor please. Do not call the editor relative to journal matters and if he is not in request that he return the call. The long distance telephone bills at this office are getting out of hand, and these expenses are not covered by Academic Press. If you want to have the editor call back, leave a collect call number.

With the continued cooperation of everyone, this office will continue to elevate the reputation of JIP.

Thomas C. Cheng
Editor-in-Chief

Report of the Secretary

As the publication of the Newsletter is one of the more important responsibilities of the Secretary, I have been extremely pleased with the working relationship I have had with Dr. Aris Domnas, our Newsletter editor. We can both testify to the intricacies involved in such an endeavor. I think we are all pleased with the excellent job Aris has done as editor, and I am pleased to announce that Dr. John Henry, our in-coming Secretary, has requested that Dr. Domnas remain as editor for the next two years. His past experience should greatly facilitate the continued publication of the Newsletter and the coordination of publicity essential to the Society should be easier with the transition from the old to new Council officers.

While on the topic of the Newsletter, I should like to discuss briefly our efforts in publishing a special edition of the Newsletter for membership solicitation. An extra 800 copies of the November, 1977 (Vol. IX No. 4) issue were printed and most were finally distributed by February 1978. In addition to the Newsletter itself, a letter of invitation from Pres. Angus and a membership application form was included. As I had anticipated, coming up with names and addresses for an appropriate mailing list proved to be extremely difficult. Only about 30-40 names were suggested by various members of the Council or Committee Chairmen, and it was with much personal effort that approximately other 100 names were obtained. Dr. J. Briggs also provided 21 names of individuals located throughout the world to whom 25 copies each of the promotional issue were mailed. These persons were asked to distribute the copies to their students and interested colleagues in their respective communities and countries. The cost of producing and mailing out this special edition was high, approximately $500. Although I am not able to accurately report on the results of this campaign, my own records show that only 12 of 51 new members of the Society who have joined in 1978 were among those 140 persons to whom a special issue was mailed. It is impossible, of course, to estimate how many new members resulted from the bulk-mailing campaign. At any rate, this task was quite time consuming and costly. Future membership campaigns might best be carried out by placement of ads in Newsletters of other Societies or undertaken only if there is genuine interest and a willingness to share in the workload involved in such an endeavor. Certainly the task should not be left to the Secretary or Newsletter editor.

Although the results of the election of officers have been announced, I would like to comment on the election process from my perspective as Secretary. First, I was grateful for the excellent cooperation of our Nomination's Committee Chairman, Dr. A. Sparks, who successfully met the necessary time schedules for conducting the election in accord with the Society's Constitution and Bylaws. The publication schedule of the Newsletter was such that I was unable to announce the nominations to the members prior to February 1. However, as no other nominations were received from the membership at large, the balloting process proceeded as scheduled. I believe the process of mailing out individual ballots is worth both the effort and the expense over that involved with the alternative process of including the ballot as an insert in the current issue of the Newsletter. For example, the election of 1976 was of this latter type, and only 144 ballots were cast out of about 750 members at the time. In contrast, individually mailed ballots in 1978 were returned by 253 persons out of only about 620 members. Thus, I feel that members are much more likely to vote when the ballot is received as an individual piece of mail and is more likely to be misplaced or forgotten when it is included in the Newsletter. Other forms of mail requiring a vote of the membership (e.g., ballots on dues increases, special membership elections, etc.) are also more likely to succeed if handled directly by mail.

I would also encourage the new Council members to read carefully the copy of the Constitution and Bylaws that was mailed to you earlier this year. In some cases specific duties of an officer are mandated in this document, and you will probably feel more confident in your role as an officer if you are acting in accord with the Society's Bylaws.

The Council may also be interested to note that 93 delinquent members were notified of their status in January, 1978, and most were subsequently dropped from our membership role. Both your Treasurer and I hope that the new Treasurer and Secretary will find relatively few members delinquent beyond 1 or 2 years and that our membership can grow rather than decrease as it did in our administration. A reassessment of the dues status of the membership should be taken by the Treasurer in December of each year and the Secretary notified so that appropriate action can be taken the first of each year to contact all delinquent members in accord with Article III - 14 of our Constitution.

Wayne M. Brooks
Secretary

SIP Financial Statement - July 1, 1977 to June 30, 1978

Receipts

Bank Balance, Lafayette National Bank		
Savings	$3,551.62	
Checking	763.40	
		$ 4,315.02
Membership Dues		
Regular	2,534.54	
Student	66.00	
Sustaining	400.00	
Microsporida Division	63.00	
		3,063.54
A.I.B.S. Affiliation Dues		201.00
Journal Subscriptions		
Domestic	3,429.50	
Foreign	2,070.00	
Back Volumes	261.25	
Balance of Payments	55.70	
		5,816.45
Bank Interest		
Savings		152.61
Miscellaneous:		
Dues in Arrears, Refunds, etc.		748.98
TOTAL		$14,297.60

Disbursements

1977 SIP Meeting, East Lansing, Michigan, Banquet, Local Arrangements		$ 253.02
A.I.B.S.		
Affiliation Dues	$ 600.00	
Product Costs	163.53	
		763.53

Academic Press		
Journal Orders (Vols. 31,32 and back issues)		5,848.10
Triangle Press		
SIP Newsletter, Programs and Abstracts		1,354.09
Postage		
Newsletter	1,139.58	
Member Billing, etc.	209.31	
Mail Ballot	121.32	
		1,470.21
Purdue Duplicating		
Letterhead		46.46
Miscellaneous:		
Bank Charges		71.70
TOTAL		$9,807.11
Balance on Hand June 30, 1978		4,490.49
TOTAL		$14,297.60

Of the current membership of 686 only 380 members are paid up through 1978 or beyond. The balance of the membership is in arrears for one or more years and should be notified by the new treasurer of their current status. Some of the members in arrears are subject to being dropped from the Society if delinquent dues are not paid up immediately.

A total of 137 Journal orders have been placed with Academic Press for Vols. 31 and 32. Of the total 51 are foreign subscribers. This is a total increase of 48 subscribers over those of 1977. Additional persuasion should be brought on the members to support their Journal.

The cost of 1979 Vols. 33 and 34 will be $40 for all members and the institutional rates are $100 in the USA and $114 outside of the United States.

Our affiliation with A.I.B.S. is a rather costly association. We pay $600 per year for our dues in A.I.B.S., and the dues are based on our total membership of approximately 600 members. As will be noted from the financial statement we acquired about $200 in dues from our members in the United States. Last year this figure was slightly higher but as long as our membership in the United States is less than the total membership the Society will show a deficit in this category. It costs the Society about $400 per year to belong to A.I.B.S.

The benefits in belonging to A.I.B.S. should be considered against the annual costs.

J. D. Paschke
Treasurer

Report of the Permanent Program Committee

The Permanent Program Committee met on several occasions over the past year to develop plans and activities for the XIth Annual Meeting and the International Colloquium on Invertebrate Pathology. Several other meetings also were held to develop a Regional Workshop for North American members unable to attend the Official Meeting and Colloquium. The Regional Workshop was sponsored in conjunction with the American Institute of Biological Sciences (AIBS) at the University of Georgia in Athens, Georgia, August 20-24, 1978. Four Workshop sessions and three Contributed Paper sessions were held during the 3-day period.

The Committee wishes to thank Drs. R.E. Gingrich, W.C. Yearian, D.V. Lightner, and O.N. Morris for convening the Workshop-Discussion sessions; and Drs. G.R. Carner, D.M. MacLeod, and R.S. Brown for chairing Contributed Paper sessions. Also, the Committee thanks Dr. C. Tsao, Department of Entomology, University of Georgia, for acting as the Committee Liaison and Local Representative to AIBS.

Some interest was shown in having a couple of the Workshop-Discussion Reports published in a special publication. The Committee will examine this possibility with the Journal S.I.P., Editor Cheng and others.

The Committee wishes to report that $140 was expended for the regional Workshop; $40 for postage, and $100 for a Membership-Student Mixer and refreshments for intermission periods of the scientific sessions. The Committee requests reimbursement of $40 directly from the Society Treasury to bring its expense fund back up to its authorized $100 level.

The Committee wishes to acknowledge its deepest gratitude to Dr. J. Weiser and his colleagues on the Local Program Committee for organizing the XIth Annual Meeting and International Symposium for Invertebrate Pathology. We thank them for the prodigious amount of work they accomplished; their efficiency and dedication in making excellent meeting and social accommodations. We also extend our deepest thanks to Dr. John Briggs and his colleagues (particularly Sheila Milligan) for publishing the abstracts and for acting as the Committee's liaison with World Health Organization's Committee for Safety of Microbial Agents. Dr. Briggs and Dr. Arata's agreement to schedule the Safety Committee meeting in Prague helped immeasurably to bring several participants to this Colloquium and Meeting. Furthermore, Dr. Briggs was instrumental in obtaining funds from the Fogarty Foundation which permitted at least 15 North American members to attend these Proceedings. Dr. Briggs and his staff, and Dr. Weiser, acting with the Local Organizing Committee, was responsible for the work necessary to produce an excellent set of abstracts and arrange and schedule events. The staff of the Oxford Laboratory and Smithsonian Institution Tumor Registry are to be recognized for their assistance in producing the Official Program Booklet. The Committee also wishes to thank the many convenors/organizers for the several symposia and workshops and also extends its thanks to the chairmen over the various Symposia and Contributed Paper sessions.

On the Subject of Future Meetings:

The Committee has been in contact with representatives from the University of Florida with regard to its agreement to hold the XIIth Annual Meeting in Gainesville, Florida, U.S.A., in 1979. As necessary and appropriate, the Committee will keep the Society Council and Membership informed of its progress in developing programs and making other arrangements.

The Committee received several invitations from institutions in the United States and Europe to host future meetings. The Committee recommended the following future meeting sites to Council:

1980 - with AIBS, University of California
1981 - Montana State University, Bozeman
1982 - University of Sussex, Brighton, U.K.

The Council approved the 1980 meeting be held with AIBS at the University of California, the exact campus to be announced later. Sites for other future meetings in 1981 and 1982 are still being negotiated with final Council approval to be decided upon in 1979 at Gainesville.

John Harshbarger
John Henry
Reto Engler
Aaron Rosenfield, Chairman

Report of the Division on Microsporida

A business meeting was held at the previous SIP meeting in East Lansing, Michigan, U.S.A. Among the items discussed were the development of storage techniques for preserving the spores of microsporidia. Dr. J. Maddox has been instrumental in assessing various storage techniques and has offered to store small quantities of spores in his storage facilities. Also, the American Type Culture Collection has offered to undertake storage of donated spore samples. The Division has received notification from B. Pilley that the microsporidian data storage and retrieval system is operational and for very nominal fees will provide printouts of publications dealing with requested topics. The Division sponsored a symposium on the Ultrastructure of the Development of Microsporidia at the Prague meeting. This symposium was convened by E. Hazard and chaired by Dr. E.U. Canning. A workshop on methods for ultrastructural studies on Microsporidia was also organized by J. Maddox with significant contributions from E. Hazard, E. Canning and A. Cali. The new officers of the Division are:

Dr. J. Weiser - Chairman
Dr. J. Maddox - Vice Chairman
Dr. A. Undeen - Secretary
Dr. R.J. Milner - Council Member
Dr. J. Maurand - Council Member

J.E. Henry, Chairman
Division on Microsporida

Report of the SIP Membership Committee

Action taken by the Secretary on the advice of the Treasurer resulted in dropping 93 former members of the Society because they were delinquent in payment of dues for two years or more. Of those notified only a few responded with payment of back dues.

During the year the Society gained 64 new members of which 33 were students. The current (June 30, 1978) membership of the Society is 686.

The Division on Microsporida has 63 paid members this year, and this is approximately the same as during 1977.

J.D. Paschke
Chairman

Report of the SIP Newsletter

Four newsletters were prepared and distributed to our members from the period November 1977 to August 1978 (Vol. IX, #4, Vol. X, #1,2,3) at an average printing cost of $276 and an average mailing cost of $80; or an average of $356 per number. The costs were down this year in comparison to last year (1977), primarily because of the removal of non-paying members from the list. In addition a special new membership newsletter was printed and distributed for a total of approximately $500 and a special change of abstract deadline card was also sent, which cost $50.

Dr. K. Aizawa (Japan), Dr. S.V. Amonkar (India), Dr. L.P.S. van der Geest (Europe), and Dr. R. Teakle (Australia and New Zealand) are continuing to assist in the rapid delivery of the Newsletter to members outside of the U.S. and Canada.

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

K. Aizawa, Japan
S. V. Amonkar, India
H. Boman, Scandinavia
H. D. Burges, United Kingdom
P. Ferron, France
B. Gabriel, The Philippines
E. Jahn, Austria
F. Jimenz-Millan, Spain
R. Kenneth, Israel
J.I.S. Pillai, New Zealand
V. Pristavko, USSR
J. E. Stewart, Canada
R. Teakle, Australia
L.P.S. van der Geest, The Netherlands
C. Yamvrias, Greece

A.J. Domnas, Editor
SIP Newsletter

Report of the Ad Hoc Committee

During the International Colloquium on Invertebrate Pathology held in Prague, September 1978, a workshop, World Status of Production and Registration of Biological Agents, and World Cooperation in Biological Control was convened by Dr. G. E. Allen, Integrated Pest Management Coordinator, CR/SEA, United States Department of Agriculture, Washington, D.C. This report provides a brief resume of one of the essential ideas discussed.

The development and use of biological control agents for the suppression and management of disease vectors and plant pests is receiving increased attention around the world. While biological control is recognized as an essential component of integrated pest control, it is a very specialized area and must continue to be treated as a distinct entity so as to facilitate its orderly and rapid development. Within the area of biological control, pathogens are distinct from parasites and predators and require different expertise for their development and use. The development of microbiological control has been slow and some of the problems interfering with progress include concerns about safety, insufficient funding for research and development, and the isolation, production, standardization and registration of the most useful pathogens. The consensus of the discussions was that more effort is needed to expose problem areas and provide mechanisms to deal with them. This may be accomplished through the formation of interdisciplinary groups with representation in addition to insect pathologists, by key individuals from other interacting professions such as public health, both human and veterinary medicine, virology, environmental sciences, vector control, as well as agricultural and forest pest management specialists. The formation of such groups at national, regional, and international levels could establish the dialogue and provide the guidance needed by government agencies and the private sectors interested in implementing and applying the use of microbiological control.

A. A. Arata, Switzerland
L. A. Falcon, U.S.A.
J. M. Franz, Germany Federal Republic
M. Laird, Canada

AN ABRIDGED GLOSSARY OF TERMS USED IN INVERTEBRATE PATHOLOGY
Report of the Editor (1977-1978)

A. *Editorial Committee Membership*

There were no changes in Committee membership during the past year.

B. Work Progress

1. Definitions

Approximately 50 terms remain to be defined and/or reviewed. This task is continuing with the cooperation of Committee members and of outside specialists.

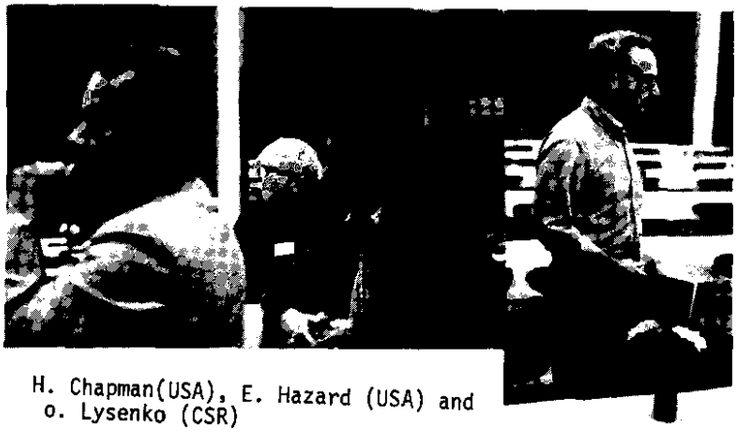
2. Translations

Under the supervision of the Glossary Editor, the English terms and their translations in four languages (French, German, Italian, and Spanish) have been processed by means of the new IBM System 6 and are now on magnetic tape. This IBM word processing system prints lowercase as well as capital letters. The tape lists over 2,500 entries, synonyms and cross references included. The input has been corrected by the Editor and printouts are being mailed for review to those members of the Glossary Committee who served as translators. This is the first time that the translators have an opportunity of seeing the collated English entries and the four translations in IBM printout format.

C. Future Plans

The Committee intends to correct and edit the translations of the terms without much delay and to make them available to invertebrate pathologists. In the meantime, the slower process of defining and reviewing new Glossary entries will continue. If the new IBM system proves adequate for our purposes, we may produce the third edition of the Glossary in a format more attractive than conventional computer printout.

Mauro E. Martignoni
Glossary Editor



H. Chapman(USA), E. Hazard (USA) and O. Lysenko (CSR)

J. Maddox
USA

MEETING ANNOUNCEMENT

International Conference on Invertebrate Tissue Culture (5th). Rigi-Kaltbad near Luzern, Switzerland. April 24-27, 1979

K. Maramorosch, Waksman Institute of Microbiology, Rutgers University, P.O. Box 759, Piscataway, New Jersey, 14614, U.S.A.

un-fatigable Secretariat

C. Rivers (England) and M. Laird (Canada)

Pearls from Prague

Had an absolutely hilarious time listening to Ed Hazard's anecdotes about his student days in Prague . . . trying to slice a loaf of bread in Don Robert's room without a hacksaw . . . Tom Angus' fine speech at the banquet when he passed the gavel to new president Weiser . . . Aaron Rosenfield walking wounded and D. Burges wounded but not walking, hope you guys are feeling better . . . les français chantant à la table après le banquet (j'ai assisté avec J-P Latgé, ça fait toujours plaisir) . . . riding Czech buses for several days before figuring out how to make the ticket punch work, got a lot of free rides that way . . . those joggers pushing things to the limit, Cali, Brooks, Maddox and Granados, but noticed that the contingent was considerably reduced after some of those evening workshops (?) . . . enjoyed meeting some of my correspondents, and I also put faces to a lot of address labels that I have been sticking on Newsletters . . . a large number of uneaten peaches . . . the mystery of the coffee-hour . . . Praha is a beautiful city, lovely views from Hradcany Castle and Karlovy Most . . . Fine beer, good Prazdroj, drank a lot of it, and also had some good dark beer at U Flekü . . . morning curfew with lights out at 8:00 A.M. caught me in an awkward situation . . . enjoyed the evening Vodka Klatch sessions and B. Federici's clowning . . . Chappie Chapman sewing on a button that was already sewed on . . . riding the buses and finding out how that new subway works . . . enjoyed watching the apostles march at the lovely old clock . . . absolutely amazed at the energy that J. Briggs turns out for these meetings, we'd be lost without his help . . . the evening rush to get to the International Hotel for coffee and whatever . . . the French contingent had a real blast on Thursday evening, I hear some guys hadn't made it back when I left on Saturday . . . most people gone by Friday and Saturday . . . the last day people had some marvelous tours in the country-side as I was informed by one of my correspondents. Looking forward to seeing all my old and many of my new acquaintances next year.

BOOK REVIEWS

Aphids as Virus Vectors. Edited by Kerry F. Harris and Karl Maramorosch. Academic Press, Inc., New York, A Subsidiary of Harcourt Brace Jovanovich, 1977, 559 p., $29.

Reviewed by John D. Briggs in American Society for Microbiology News. Vol. 44, #8, p. 434, August 1978.

Regional News - Canada

The Environment Minister, Mr. L. Marchand (Canada), said that scientists of the Canadian Forestry Services believe that they are close to developing a safe non-polluting biological control agent for the spruce budworm. As the minister indicated, the spruce budworm now threatens the forest economy of several regions and that they were only able to restrict the pest by means of aerial chemical insecticide spraying. The development of the biological control agent, Bacillus thuringiensis (B.t.), has been a high priority for the Canadian Forestry Service, and this organism causes a fatal disease in budworm larvae. B.t. has been long recognized as safe for humans and animals because it attacks only a restricted group of defoliating insects (Lepidoptera). Dr. W.A. Smirnoff, research scientist at Canada's Environment Laurentian Forest Research Center (Ste Foye, Quebec), has studied the application of B.t., and results of his experiments have been very encouraging in the last three years.

He has developed a formulation employing water-bases of B.t., an anti-evaporant, an adhesive and a chitinase which intensifies the bacterial effect. Aerial applications at the rate of 4.7 liters/hectare have been very effective, reducing larval populations by 90% and providing foliage protection ranging from "acceptable" to "very good" depending on the larval populations and the extent of defoliation in previous years. Of great importance is the recovery and restoration to vigorous growth of fir stands that were very extensively defoliated after two consecutive years of B.t. treatment. These stands were originally considered close to death. Mr. Marchand said that questions of cost and operational techniques for large-scale application are under study; however, the results of recent years were considered extremely encouraging.

W. A. Smirnoff
Environment Canada
Environmental Management

V. Poltev (USSR), R. Grigorova (Bulgaria) and M. Shabanov (Bulgaria)

ANNOUNCEMENT

The complete abstracts for the Invertebrate Pathology Colloquium convened in Prague, 11-14 September 1978, are available at below cost to the Society and to you for $3.00. The price includes postage. Please send a check or money order payable to the Society for Invertebrate Pathology.

c/o John D. Briggs
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1735 Neil Avenue
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World Health Organization Scientific Working Group

The second meeting of the Scientific Working Group for the biological control of vectors which serves as one of the 10 working groups for the World Health Organization Special Program was convened 4-8 September in Prague. The Working Group reviewed the documented progress in the development of selected biological agents with and without contract support for the past 12 months, and reaffirmed priorities for certain micro-organisms as subjects for continuing and new research in the next biennium.

Vectors of malaria, mosquito- and black fly-borne filariasis, dipteran and hemipteran vectors of trypanosomiasis, and intermediate hosts of parasites responsible for schistosomiasis are the targets for which the biological agents are to be developed.

In addition to fungus, bacterial, protozoan, and nematode agents which can affect vectors, invertebrate predators, especially predaceous mosquitos will receive priority for funding of contracts for support of research.

The 5 groups of biological agents in which contract research support is expected to be invested in 1979 and 1980 are:

BACTERIA
- Bacillus sphaericus strain 1593
- Bacillus thuringinesis strain 1897

FUNGI
- Coelomomyces species
- Metarhizium anisopliae
- Lagenidium giganteum
- Culicinomyces clavisporus

PROTOZOA
- Nosema algerae
- Vavaria (Pleistophora) culicis

NEMATODES
- Romanomermis culicivorax
- Octomyomermis muspratti

PREDACEOUS INVERTEBRATES

Among areas of research which can be considered for contract support are the establishment of international units of activity for biological agents, the conduct of small-plot field studies with biological agents, investigations of the formulation and delivery of biological agents, determination of the compatibility of biological agents with both chemical agents and other biological agents, an understanding of the biological and physical factors in larval vector habitats responsible for the establishment of nematodes and Coelomomyces, investigations of the effect of biological agents on non-target organisms in areas of the world in which field tests can be projected, and the detection and isolation of additional biological agents.

In November 1978 a new Scientific Working Group will be established for Ecology and Behavior of Vectors.

For complete information and applications for contract support of research:

Secretary
Scientific Working Group for
Biological Control of Vectors

or

Ecology and Behavior of Vectors
W.H.O. Special Program
1211 Geneva 27
Switzerland

T. Angus
Past President

S. Milligan (U.S.A.) and
J. Weiser C.S.R.), President

CSRS - REGIONAL RESEARCH PROJECT ON MICROBIAL CONTROL

As reported in Newsletter 10, 3, a regional research project on "Development of Microbial Agents for Use in Integrated Pest Management Systems" was officially approved by CSRS effective October 1, 1978. The initial meeting of the project will be held at the Airport Howard Johnson's Motor Lodge in Atlanta on February 19-20, 1979.

The advisory committee for this project, consisting of S. Young III, W. Yearian, W. Brooks, C. McCoy, and J. Harper met with EPA officials M. Rogoff, C. Mitchell, M. Dover, and C. Reese on September 28, 1978. Also present were CSRS representative, G. Allen and USDA, ARS representative A. Heimpel. The purpose of the meeting was for members of the advisory committee to alert EPA to the purpose and goals of the regional project and for EPA to advise the committee on their anticipated policy relative to registration of microbial agents.

Rogoff opened the meeting by saying that he has accepted the responsibility for preparing future EPA policy regarding the registration of "unconventional pesticides." These will include insect pathogens, pathogens of other pests, hormones, pheromones, etc. Rogoff stated that all aspects of the policy will be complete and ready for implementation in two years. The development program will require four major steps as follows:

1. To develop a general policy statement regarding the registration of unconventional pesticides.
2. To develop a set of registration guidelines that will accommodate all types of unconventional pesticides. These will be designed to require clear demonstration of unconventional pesticide safety based on an indepth knowledge of the specific characteristics of each. They will be designed to make this demonstration much more efficient than in the past. The guidelines will require data on (a) human safety, (b) environmental fate, (c) efficacy, and (d) ecological effects. Human safety guidelines will be developed in part by an AIBS panel with considerable input from medical virologists.
3. To establish the roles and responsibilities of USDA - USDI and EPA relative to registration and regulation. Progress is currently being made toward exclusion of parasites, including insectivorous nematodes, predators, vertebrates, etc. from regulation by the EPA.
4. To work with the Research and Development Section of EPA in order to encourage research which will be directed toward solution of problems posed in the guidelines relative to insect pathogens and all other unconventional pesticides.

Rogoff indicated that successful development of these steps should lead to expeditious registration of microbials in the future without the prolonged uncertainty encountered by past registrants. The interim two year period, however, will still be characterized by uncertainty in some areas.

P. Johnson
Vice-President
U.S.A.

Rogoff further indicated that he hoped that the Regional Project S-135 would be guided somewhat in its efforts by the knowledge that EPA will expect information in the areas stated in (2) above in order to satisfy registration requirements under the new policy. Of greatest concern will be risk and safety assessments, followed by efficacy assessment. Natural environmental load of a microbial pesticide candidate before treatment and load after treatment will be one criterion used for registration. All microbial products will be required to have a microbial activity measurement based on bioassay against the target insect instead of a percent active ingredient statement as used in the past. To this end, Heimpel stated that the Insect Pathology Laboratory at Beltsville had produced a clean preparation of Autographa californica NPV which would be made available as an activity standard for use by others producing the same virus.

Rogoff said that he hoped that research and development by pathologists would be directed toward answering the above questions. Seth Young, speaking for the entire committee, pointed out that one of the reasons for forming the S-135 Regional Project was the lack of coordination between pathologists, field entomologists and basic research scientists in striving for a common goal. He indicated that the project will pull together a national team on microbials and that they would welcome the opportunity to cooperate with EPA. There was unanimous agreement on this point.

Each of the subcommmittee chairmen then presented information on the status of specific microbials relative to their registration potential. Rogoff indicated that when experimental use permits for unconventional pesticides are requested in the future, an EPA product manager will be assigned to each. This person will aid in all aspects of the registration process for the candidate pesticides assigned to him. This procedure will hopefully eliminate the discontinuity which has marked registration procedures in the past relative to microbial pesticides. All present were highly enthusiastic over this point.

SAFETY OF MICROBIAL CONTROL AGENTS, *AS REGARDS NON-TARGET INVERTEBRATES*

The eighth annual session of SIP's Working Group on the Safety of Microbial Control Agents took place in Prague during the SIP meeting in September. The 58 participants elected a Steering Committee (Louis A. Falcon, Ozzie N. Morris, and Terry Couch) and a Chairman (Marshall Laird).

Invited presentations on the title theme were given by Elizabeth W. Davidson (Bacillus sphaericus), Donald W. Roberts (fungi), Albert H. Undeen (microsporidia, protozoa), and Harold C. Chapman (Romanomermis culicivorax).

Davidson indicated that of the several strains of B. sphaericus now isolated from mosquitoes, no. 1593-4 may well be the first one selected for commercialization. Safety-testing has been conducted in the USA and Nigeria. Adverse effects were not noted with aquatic insects (Odonata and Hemiptera) or crayfish (Decapoda). Feeding to honeybees did not reduce either longevity of adults or brood production of colonies.

A. Dommas (U.S.A.), D. Roberts (U.S.A.), and H. Boman (Sweden)

K. Shang-Yin (People's Republic of China) and Ann Cali (U.S.A.)

Roberts emphasized that the host range of entomopathogenic fungi varies widely. Most Coelomomyces spp. are restricted to mosquitoes and micro-crustacean alternate hosts. Lagenidium giganteum has been reported infecting daphnids, but the strain chosen for development as a control agent of mosquitoes is essentially restricted to Culicidae. Hirsutella thompsonii, for which an experimental use permit has been granted by the U.S. Environmental Protection Agency, appears to be restricted to mites. Nomuraea rileyi, which is under investigation for control of noctuid larvae in soybeans, does not appear to be of threat to non-target, beneficial invertebrates.

The fungus probably closest to widespread commercialization at this time for vector control is Metarhizium anisopliae; and while because of the known breadth of its natural host-range this organism requires testing against important non-target organisms (e.g., in aquatic ecosystems), we must note that it and Beauveria bassiana have already seen considerable field use against crop pests in the U.S.S.R. without reports of safety problems developing. Also, considerable host specificity (at the subfamily level) has been noted recently for several strains of M. anisopliae.

Undeen stressed that while some microsporidia have rather a wide natural host-range, others show close host-specificity. Injection of Nosema algerae spores and other microsporidia into the hemocoel of insects taxonomically distant from the natural hosts has led to improved in vivo mass-production of spores and to the realization that relevant routes of invasion require much fuller elucidation than in the past. While at one extreme N. algerae has been shown capable of infecting Diptera, the Lepidoptera and Hemiptera per os; at the other, those members of the microsporidian genera Pleistophora and Tuzetia and the entire family Thelohaniidae as represented in aquatic insects cannot yet even be experimentally transmitted to their normal hosts by means of spores. Nosema locustae has now seen intensive aerial application against rangeland grasshoppers in Montana, without any adverse health or environmental consequences being reported.

Chapman's subject was the warm-water mosquito mermithid, Romanomermis culicivorax. Thanks to past efforts by Fairfax Biological Laboratory, Inc. of Clinton Corners, New York (which obtained the first registration for a product based upon this nematode, "Skeeter Doom"), and to current ones by Nutrilite Products, Inc. of Lakeview, California, R. culicivorax is the leading biocontrol candidate for use against any insect of public health importance. This parasitic worm has not been shown to cause the death of non-mosquito hosts other than chaoborines. It will, however, penetrate a few other insects - notably blackflies, in which some development has been demonstrated, as has the detachment and downstream drift of penetrated larvae and even of larvae merely in process of attack. This includes Africa's chief onchocerciasis vector, Simulium damnosum. R. culicivorax can penetrate at least three groups of insects (chironomids, and hydrophilid and dytiscid beetles) without ill effect (the invading preparasites dying within a day, without mortality among the unnatural hosts). With the exceptions noted, test aquatic invertebrates (ranging from Cladocera, Amphipoda and Oligochaeta to Hemiptera of three families, Odonata, Plecoptera and Decapoda) were not harmed by R. culicivorax.

The presentations were followed by discussions. These were too extensive to be detailed here, but some topics included were: Papers describing safety evaluations, because of their basically negative results, are disappointingly difficult to place in scientific journals. Informed selection of non-target invertebrates for safety-testing is now a major priority. With pathogens of vectors, this kind of testing, it was felt, should be concentrated upon major invertebrate predators of the vectors. The data resulting from laboratory and field tests would both answer environmental impact questions and favor the designing of effective integrated control methodologies with biocontrol components.

To counter unjustified worries about the prospects for adverse effects of practical microbial control upon non-target invertebrates, it was recollected that such consequences have not emerged from more than two decades of very widespread application of products based on Bacillus thuringiensis.

With further reference to B. thuringiensis and as evidence of the rapid progress now being made in public health aspects of microbial control, it was noted that the recently described B.t. var. israelensis is pathogenic to larval mosquitoes and blackflies. This emphasizes the need for testing new varieties of organisms against a wide range of pest insects.

There is obvious need for standardization of procedures as well as of the relevant pathogen strains themselves. These are questions to which the World Health Organization is currently addressing itself through the biological control component of the Organization's Special Program for Research and Training in Tropical Diseases.

Diagnostic Manual for the Identification of Insect Pathogens. George O. Poinar, Jr. and Gerard M. Thomas. Plenum Publishing Corp., New York, 1978, 218 p., $19.50

Reviewed by Irvin M. Hall in American Society for Microbiology News. Vol. 44, #9, p. 504, September 1978.

DIRECTORY COMPILATION

A directory of scientists currently interested in all entomogenous fungi except the Entomophthorales is being compiled by Donald W. Roberts and A. A. Evlakhova. They will appreciate receiving (a) names, (b) addresses, and (c) very brief (less than one sentence) descriptions of the research interests of any persons who wish to be included. They also would appreciate receiving information on scientists you think might be missed in such a list because they have not appeared in previous directories of insect pathologists, are new to the field, work in out-of-way localities, etc. Please send the information to Boyce Thompson Institute, at Cornell University, Tower Road, Ithaca, New York 14853 (Roberts), or All-Union Institute of Plant Protection, Leningrad-Pushkin, USSR (Evlakhova).

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