

# newsletter

SOCIETY FOR INVERTEBRATE PATHOLOGY

Volume V, Number 1 January 31, 1973

# ANNOUNCEMENT AND CALL FOR PAPERS

FIFTH INTERNATIONAL COLLOQUIUM ON INSECT PATHOLOGY AND MICROBIAL CONTROL SIXTH ANNUAL MEETING OF THE SOCIETY FOR INVERTEBRATE PATHOLOGY

St. Catherine's College, Oxford, England September 3 - 7, 1973

As explained in the last NEWSLETTER, these meetings will be held as a combined event in September 1973 at St. Catherine's College, Oxford. St. Catherine's, built about ten years ago, is designed to serve a dual function as College and up-to-date Conference Centre. Thus, both residential and lecture-room accommodations are provided together on the same site. Dr. T. W. Tinsley is acting as Chairman of the Programme Committee for the conference, and all arrangements are being coordinated through Dr. Tinsley's Unit of Invertebrate Virology, where a member of the staff, Miss M. K. Arnold, is acting as Secretary of the Programme Committee.

An announcement brochure, giving full details and including forms for submission of papers and reservation of accommodations, has been printed. Unfortunately it has been necessary to reorder to fulfill the requirements for the brochure. As many brochures as possible have already been sent out, and the second batch will be dispatched as soon as possible. Under these circumstances the patience of United States members is requested. The essential information contained in the brochure is summarized below. If anyone does not receive this brochure by the end of February, please contact the Secretary of the Programme Committee.

### SESSIONS

Nine sessions will be held on: Microbial Toxins; Protozoa Parasitic in Invertebrates; Experimental Invertebrate Virology; Production and Formulation of Microorganisms; Ecological Concepts in Relation to Insect Pathogens; Infection Processes and Specificity of Insect Fathogenic Fungi; Mematode Parasites of Invertebrates; Pacteria; and Marine Invertebrate Pathology.



ST. CATHERINE'S COLLEGE, Central Quadrangle To the left is the residential block; Wolfson Library is in the center, with Bernard Sunley Building behind.

# CONTRIBUTED PAPERS

Please send the title and a 50 to 100 word English abstract of contributions proposed for all sessions except Marine Invertebrate Pathology, to the Secretary no later than April 1, 1973. Contributions proposed for the Marine session should be sert by the same date to Dr. A. K. Sparks, Gulf Coast Fisheries Center, 4700 Avenue U, Galveston, Texas, 77550, USA. Notice of acceptance will be returned by June 15, 1972.

A full programme will appear in the July/August
NEWSLETTER (continued on page 2)

# ANNOUNCEMENT AND CALL FOR PAPERS Continued from page 1

### CONFERENCE FEE

Please send the conference fee of £18 to the Secretary, together with abstracts of proposed papers by April 1, 1973. This covers all conference costs except travel and residential accommodation, and will be refunded should you be unable to attend.

### ACCOMMODATIONS

This will cost £4.00 per day (full board and including service, plus any small additional charge which may become necessary due to the new U.K. Value Added tax). Please notify the Secretary of your probable requirements by <u>May 1, 1973</u> so that we can reserve an adequate number of rooms at St. Catherine's. Reservations not confirmed and paid for by <u>July 1, 1973</u> cannot be guaranteed. Once reservations have been confirmed, we regret that we cannot make refunds because the organizers will be responsible to St. Catherine's College for the full cost of the rooms and meals booked.

### SPECIALIST DISCUSSION GROUPS

Several seminar rooms will be available throughout the conference period for small groups to discuss topics of special interest, so please let Dr. Tinsley or the Secretary have your suggestions for such meetings. Plans are already being made for a group to discuss problems associated with characterization of insect viruses.

### USA CHARTER FLIGHT

Reservations have been made for a 60-seat "affinity group" plan with TWA, rather than chartering a flight which would require a guarantee of 130 persons. The charter flight from New York to London Heathrow would have a round-trip fare of \$250, while the "affinity group"fare is \$292. Rather than risk a commitment of 130 round-trip reservations, the "affinity group" reservations were made. The \$292 "affinity group" fare is a pleasant contrast to the regular individual round-trip fare (14 to 28-day excursion) New York to London cost of \$415.

We hope we have laid sound foundations for a viable conference, but its true success must depend on your contributions. So now we look forward to receiving your proposals and ideas. Please address all correspondence to:

Miss M. K. Arnold, Secretary, ICIP/SIP Meeting Unit of Invertebrate Virology Commonwealth Forestry Institute South Parks Road, Oxford OXI 3RB, ENGLAND

MICROSPORIDA SYMPOSIUM Monday, September 3, 1973 (see page 8 for details)

### SUPPORTERS

Generous contributions from the following organizations have been promised to insure the success of the joint meeting of the Fifth International Colloquium on Insect Pathology and Microbial Control and the Sixth Annual Meeting of the Society for Invertebrate Pathology:

World Health Organization
International Union of Biological Sciences
Royal Society
Shell International Petroleum Company, Ltd.
Imperial Chemical Industries, Ltd.
British Petroleum Co., Ltd.
Natural Environment Research Council

A complete list of sponsoring organizations will appear in the Abstracts of the meetings.



Prior to the VIth Annual Meeting of the Society for Invertebrate Pathology, an open house at the new facilities of the Glasshouse Crops Research Institute is planned for Friday, August 31. For those members of the Society wishing to take advantage of the "affinity group" fare of \$292, tentative arrangements have been made for a special bus from Heathrow airport to Littlehampton, Sussex. Dr. Burges and Dr. Hussey hope that accommodations for the group will be available at seaside hotels in Littlehampton. Those not participating in the Glasshouse hospitality can look forward to enjoying the Sussex countryside on Wednesday, Thursday, and Friday. On Saturday or Sunday departure for Oxford, by way of London, can be planned. Sunday, September 2, will be the first night of occupying facilities at St. Catherine's in Oxford.

It should be appreciated that this schedule is open except for the "affinity group" reservations and the tentative commitments for hotels in Littlehampton.

The Society is seeking financial support through several avenues to assist in defraying travel expenses for members attending the Oxford meetings. The availability of funds should be determined by late spring, well in advance of certain deadlines for air transportation. Ten percent of the air fare should be deposited with TWA 30 days in advance, with full payment 21 days in advance of departure. We will have flexibility for adding approximately 5 names to the existing reservation of 60 seats (40 is the minimum for an "affinity group" fare) if it appears necessary. (The fares quoted are only approximate and could be reduced, depending on the outcome of fare negotiations for trans-Atlantic flights in the spring of 1973)

Do plan to attend the Oxford meetings and take advantage of the reduced fares. If you believe you may take advantage of this opportunity or know definitely that you will, please inform John D. Briggs, The Ohio State University, 1735 Neil Avenue, Columbus, Ohio 43210.

### **PATHOLOGUE**

In 1973 the Society will make a major effort to reach out to serve a greater community of invertebrate pathologists. One mechanism is the plan to have two major program efforts. First, the Society will provide a program at the American Institute of Biological Sciences (AIBS) annual meeting at the University of Massachusetts, Amherst, in June. Second will be our official annual meeting in conjunction with the Colloquium on Insect Pathology and Microbial Control at Oxford in September.

I was stimulated to initiate the participation of the Society with AIBS because of the convenient location of the AIBS meetings in the northeastern United States, the several months separating the AIBS meetings from the earlier planned SIP Oxford meetings, and the need to maintain the momentum generated for invertebrate pathology generally through the symposia and excellent personal exchange of ideas that took place in the Society meetings at Minnesota in 1972.

The office of the Treasurer was handicapped in the latter weeks of 1972 by the difficulty that I experienced in developing an accurate renewal notice for Dr. Tanada to send to members. After printing a complete set of renewal notices, with a price for subscriptions to the Journal of Invertebrate Pathology, and delivering the notices to Dr. Tanada, I was alerted to a change in subscription rates. Further, you will notice that the additional charge for affiliation of the Society with the AIBS is specified to apply only to regular members in the USA. The vote of the membership to affiliate with the AIBS specified North American members, without any indication of who we meant by North Americans and whether or not students would be obliged to pay the extra fee. I have taken the liberty this first year that the extra fee is to be included on the renewal form to limit its application pending clarification by the Society Council. As these and other matters are clarified with respect to the financial obligations of members, I will convey the decisions through the Newsletter to avoid any confusion in the future.

The Newsletter has a new appearance beginning in 1973 that results from the innovations of our new editor. In attempting to contact a larger community of invertebrate pathologists, a number of extra copies of this issue of the Newsletter have been published to circulate to potential members and to stimulate interest on the part of institutes, laboratories, libraries, and other organizations who may be interested in simply subscribing regularly to the Newsletter. We have much in common with a number of other professional organizations, and our Society will attempt a regular exchange of Newsletters to assure the necessary communications with those organizations. For example, the Society for Industrial Microbiology will be continuing their interest in microbial insecticides.

The Society has officially associated itself with the World Federation of Parasitologists. As a result of this association, we have agreed to develop a section of the program for the International Congress of Parasitology to be held in Munich in 1974. In the near future persons responsible for the programming for the Parasitology Congress will be identified. Your thoughts on this matter will be important to assure the successful development of this new dimension for the Society.

In the Autumn of 1972 I participated in the deliberations of an <u>ad hoc</u> panel for the Institute for Laboratory Animal Resources of the U.S. National Academy of Sciences/National Research Council. As a result of these deliberations, a series of programs have been tentatively planned on the "Husbandry of Invertebrates" at the annual meeting of the Federation of American Societies for Experimental Biology (FASEB) in the United States. An important element of this series of programs that should be included annually for the next several years, will be the infectious and non-infectious diseases of invertebrate animals. A notice of the program for 1973 is included in this Newsletter.

Similar actities on the part of both governmental and non-governmental bodies in other countries should be encouraged. If you know of meetings of this nature planned, it will be valuable for all of us to alert the membership of the Society through the Newsletter. Several nations have implemented organizations to facilitate research and legislation affecting the quality of the environment. The United States moved in this direction with the establishment of the Environmental Protection Agency (EPA). Since that time the government of Poland has organized a similar activity. The results of these activities should affect every facet of invertebrate pathology. In addition to the obvious interests in seeking alternatives to the exclusive use of chemical pesticides, we are aware of special interests in these programs which concern the health of invertebrate animals. A good example is the workshop to be sponsored by the U.S. Environmental Protection Agency through the Gulf Breeze Laboratory on the subject of "Pathologic Effects of Chemicals on Aquatic Organisms." Notification of similar programs in other nations will be important to all of us since many of these meetings generate documents pertinent to our research and educational interests.

Outside of formal meetings sponsored by the Society and outside of the pages of the <u>Journal</u>, the <u>Newsletter</u> is our principal means of information exchange. The Society as an organization must continue to seek ways to serve its members and attempt to implement those activities which are possible with whatever influence the Society may be able to bring to the effort.

The <u>Newsletter</u> reaches all members of the Society and it should be considered as a forum presenting your ideas for the activities of the Society or simply to ask the question "Why not?"

# AIBS TASK FORCE ON COMMUNICATION AND INFORMATION SERVICES IN BIOLOGY

Biology has long suffered from a lack of effective controls on the production and use of its literature and data. In order to rectify this situation, the Executive Committee of the American Institute of Biological Sciences has established a Task Force on Communication and Information Services in Biology. Each AIRS adherent and affiliate society has been invited to appoint a representative to the Task Force. The objectives of the Task Force include identifying information needs common to all biologists, exploring the ways in which various discipline-oriented Societies might cooperate in solving the information problems of their own members, proposing an educational program to make biologists aware of the problems and means for their solution, and recommending to the AIBS Executive Committee and Governing Board a program for meeting the information requirements of biologists.

Excerpted from the <u>Journal of the American Society for Information Science</u>, July/August 1972

### REPOSITORY FOR SAFETY DATA

Dr. Reto Engler of the Toxicology Branch, Pesticides Tolerances Division, U.S. Environmental Protection Agency has provided the first contribution to the Repository for Safety Data (Working Group on the Safety of Microbial Control Agents). Copies of Dr. Engler's text can be provided by Dr. Marshall Laird (Research Unit on Vector Pathology, Memorial University of Newfoundland, Canada) with the understanding that the document not be quoted in formal publications without Dr. Engler's permission. Other topical material available to the Repository will be similarly made available by Dr. Laird.

# SCIENTIFIC FILMS ON INVERTEBRATE PATHOLOGY

A new film has been produced lately by Professor C. Vago and Dr. A. Vey (Montpellier, France) on "Mycoses of Invertebrates" (16 mm sound, color). Several fungal diseases of insects and crustacea are presented. Dynamics of the pathogenesis of hyphomycete and zygomycete infections are depicted in tissues and hemolymph, especially in relation to phagocytosis and granuloma (phase contrast, long lapse-time sequences and electron microscopy).

This film belongs to the series of scientific films produced by Professor Vago on invertebrate pathology which include the 30-minute films "Invertebrate Tissue Culture" (1964) and "Insect Polyhedroses" (1967).

Shorter scientific research films have been edited such as "Infection Process in Gut by Polyhedra," "Hemocytic Reactions and Granuloma Formation."

These films are the first series of scientific films on invertebrate pathology, and can be obtained for short periods at the French Embassy or Consulate in several countries or directly upon application (loans and purchases) to the "Service du Film Scientifique," 96 Boulevard Raspail, 75006, Paris, France.

### PROTOZOAN TYPE SLIDE COLLECTION

The Division on Microsporida is pleased to announce the recent establishment of an International Protozoan Type Slide Collection to be housed at the National Museum of Natural History of the Smithsonian Institution. All interested investigators are encouraged to contribute. While special treatment will be given to type material, all protozoan specimens, both free-living and parasitic, are welcome. Specimens become subject to the rules and regulations of the National Museum upon deposition.

For your information, an abbreviated version of the proposed guidelines for the contributor and the Museum are included:

### Responsibilities of the Contributor

- 1. All material for deposition must be sent directly to Dr. Klaus Reutzler, Division of Echinoderms and Lower Invertebrates, National Museum of Natural History, Smithsonian Institution, Washington, D.C. 20560, USA. Dr. Reutzler must be contacted in advance of shipment.

  2. All material must be permanently mounted on glass microscope slides, supplied with permanent labels listing: genus, species, author and year; material type (paratype, lectotype, etc.); collection locality; genus, species and class of host, if parasitic; space for a seven digit accession number; space for a seven digit catalogue number.
- 3. Slides must be arranged in order and be accompanied by a listing of this additional information in triplicate; stain, collector, number of specimens, original field number, identifier, pertinent remarks, higher classification.
- 4. Type material will form a separate collection and must be accompanied by a separate data sheet.
- 5. Descriptive paper of type material must be accepted for publication or be in press before type specimens are submitted to the Museum.

# Responsibilities of the National Museum Responsibilities of the National Museum

- 1. The Museum will accession material immediately and affix an accession number to each slide. Collections will be stored numerically by accession number in "Technicon" slide cabinets. Type specimens will be segregated and stored separately.
- 2. Collections will be loaned in full or in part to investigators or institutions, the duration of the loan being arrived at by negotiation, but not to exceed one year. Ioans are renewable annually upon request with justification. Utmost care of materials loaned is assumed.
- 3. Ideally all slides should be assigned catalogue numbers in addition to accession numbers; however, the shortage of funds and staff does not allow such thoroughness. Slides requiring catalogue numbers for forthcoming publications will be accommodated with all possible dispatch.

These guidelines may sound intricate, but they are meant to insure the protection of valuable specimens for the use of all interested parties. Due to the shortage of specialists in the National Museum, it

(continued on page 7)



### PATHOLOGY OF HONEY BEES

Two informal conferences on pathology of honey bees were held during the joint meetings of the Entomological Societies of Canada, Quebec, and America, in Montreal during November 26-30, 1972. The first conference, November 26, on Nosema disease, was a continuation of Canada-U.S. joint conferences on this subject held at intervals from 1962 onwards.

Dr. H. Shimanuki, USDA, outlined studies on effects of transport of bees in cages on the subsequent levels of Nosema in the colonies after they were established in Canada. Populations of adult bees developed high levels of Nosema apis infection after they were hived in Canada, even though pretreated with fumagillin, and even though populations in the parent colonies in the south showed a rapid decline of infection over the same period. Transmission of infection from the initial adult population to newly emerged bees in the north was shown by including a queen of a race different from the initial package population. When the progeny of the queen were sampled after emergence, a second peak of infection was observed.

Dr. L. Bailey, Rothamsted Experimental Station, England, reviewed his findings that increased temperature in summer was not the factor that caused spontaneous recovery, as summer bees artificially infected in active colonies developed as many spores as winter bees.

Dr. T. A. Gochnauer, CDA, presented preliminary findings on the germination and biochemical aspects of N. apis spores. Washed spores in suspension were germinated by: either 0.01% NaCl or KCl in 3% H202, but not by other salts or oxidants tested; or by suspension in honey bee midgut extract. The spores were effectively disrupted by sonication in a suspension containing Heat Systems 0.5 mm glass beads; supernatants from the suspension were devoid of proteases.

The second conference, Pathobiology of Bees, held on November 27, was introduced by Dr. Bailey. He reviewed the development of modern research on chronic and acute paralysis and sacbrood viruses of bees (CBPV, ABPV, and SBV) and described recent work in Arkansas where he isolated a previously undescribed virus from bees. He also reviewed his work on the chalkbrood fungus, Ascosphaera apis, which showed the fungus had anaerobic and aerobic growth stages, and that infected larvae were not killed unless they were chilled slightly while they were preparing to pupate.

Dr. G. M. Thomas, of the University of California at Berkeley, reported on the distribution of chalk-brood disease in California, indicating its range had increased substantially since the first record in 1968. The disease had appeared to be severe in its effects on the colonies, contrary to reports from Europe, and control studies are being conducted with sorbic acid and other antifungal agents. Studies on the efficacy of currently available antibiotic formulations for Bacillus larvae infections (American foulbrood of bees) are in progress. Dr. Bailey commented that N. American bees may be less resistant than European bees; for example, they may not need to be chilled so much for the fungus to be able to multiply quickly and kill the infected larvae.

Dr. Robert Argauer, USDA, ARS, Beltsville, described his studies on the determination of fluorescent oxytetracycline residues in honey bees. A straight line relationship between oxytetracycline concentration and fluorescence intensity was found with a minimum detectable level at 3 ug per 10 bees analyzed. The work is being done with samples taken from treated hives at Tucson in collaboration with Martha Gilliam in an effort to determine distribution and retention of the antibiotic in the treated hive. An effort will be made to extend the method to honey analysis.

Dr. T. A. Gochnauer described the distribution of chalkbrood disease which is now nationwide in Canada, and illustrated the discussion with phase and scanning electron micrographs of the nutriocysts, spore balls and spores obtained, which correspond to the descriptions of Ascosphaera apis. Thus this fungus has either pre-existed in North America in an unrecognized state or has spread rapidly since the first reports in honey bees in 1968. The nutriocysts observed by SEM techniques appeared to have blebs on the exterior surface not displayed in phase microscopy.

Professor Walter Rothenbuhler, Ohio State University, Columbus, summarized the studies on hairless-black syndrome occurring in colonies on that campus, indicating his belief that this is not chronic or acute bee paralysis. Three generations of genetic selection have resulted in lines that differ in resistance to hairless-black syndrome.

T. E. Rinderer, Ohio State University, described his studies on the effects of addition of pollen to larval food on the susceptibility of honey bee larvae to infection with known numbers of spores of <a href="Bacillus larvae">Bacillus larvae</a>. Significant reductions in mortality were recorded, which support his prior observations that drone larvae were less susceptible than either queen or worker larvae; the former receive more pollen in the diet under natural conditions than either of the latter two castes.

T. A. Gochnauer

### **MEETINGS**

Microbial Inst to be held Tuesda ymposium
University, Evanston, Illinois, during the annual meeting
of the Society of Industrial Microbiologists. The
symposium will be chaired by Dr. Samuel Singer (Western
Illinois University) and will include:

Bacillus thuringiensis, Its History and Mode of Action Dr. Paul Fast, Insect Pathology Research Institute, Canada

Entomogenous Bacilli Against the Mosquito Larvae Dr. Samuel Singer, Western Illinois University, Macomb, Illinois

Viral Insecticides

Dr. Carlo Ignoffo, USDA, Columbia, Missouri
Bacillus thuringiensis and other Insecticides
Dr. Martin H. Rogoff, International Minerals and
Chemical Corporation, Libertyville, Illinois
Government Regulations and Requirements for the Safe
Use of Microbial Pesticides

Dr. Reto Engler, Environmental Protection Agency, Washington, D.C.

1st International Congress of Ecology Structure, Function and Management of Ecosystems The Hague, The Netherlands 8-14 September 1974

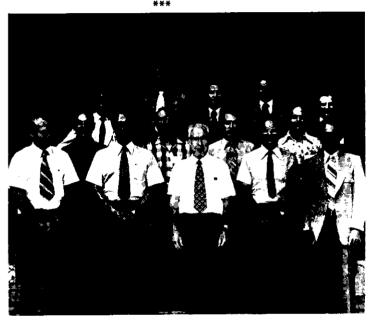
The Congress represents the Division of Environmental Biology of the International Union of Biological Sciences (IUBS), with the International Association for Ecology (INTECOL) as the organizer. Unifying concepts of botany, zoology, limnology, marine biology, microbiology, and agronomy in the field of ecology are to be discussed through the mechanism of five themes for the Congress: Flow of Energy and Matter between Trophic Levels; Comparative Productivity in Ecosystems; Diversity, Stability and Maturity in Natural Ecosystems; Diversity, Stability and Maturity in Systems Influenced by Human Activities; Strategies for Management of Natural and Man-made Ecosystems. Information regarding this 1st International Congress can be obtained by writing to the Royal Netherlands Academy of Sciences and Letters, Kloveniersburgwal 29, Amsterdam, The Netherlands.

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The first workshop devoted exclusively to Pathologic Effects of Chemicals on Aquatic Organisms will be held on May 8 and 9, 1973 at the Ramada Inn, Pensacola, Florida. Emphasis will be placed on the pathologic effects of pesticides, heavy metals, hydrocarbons, nitrites and nitrosamines, and other potential pollutant chemicals on aquatic organisms. The Gulf Breeze Environmental Research Laboratory of the U.S. Environmental Protection Agency will sponsor the meeting. Since this meeting will last only two days, the number of reports will be limited. However, those wishing to attend and present a report should contact Dr. John A. Couch at the Gulf Breeze Laboratory (Gulf Breeze, Florida, 32561).

The goal of the workshop will be free communication among the widely scattered pathobiologists working on aquatic organisms and pollution. It is hoped that an air of productive informality will reign, while at the same time reports given will demonstrate a representative overview of the state of research on the subject.

A symposium on Animal Models for Biomedical Research V--Invertebrates has been planned by an ad hoc committee of the Institute of Laboratory Animal Resources of the National Research Council to be presented at the 1973 Federation meetings. This ILAR symposium is to be held on April 19 and is co-sponsored by the American Society for Experimental Pathology and the American Physiological Society. The program will include topics in neurophysiology, immunology, endocrinology, aquaria, squid, learning, memory and behavior, and oncology.



Pictured are (left to right): (Row 1) C. W. McCoy, A. M. Heimpel, I. M. Hall, A. A. Bell, W. R. Kellen (Row 2) T. A. Angus, S. R. Dutke, J. D. Briggs, J. D. Harper (Row 3) L. A. Falcon, C. M. Ignoffo, H. Huang. R. McLaughlin, P. P. Sikorowski

The event which resulted in the accompanying photograph was the Summer Institute on Biological Control of Plant Insects and Diseases, sponsored by the Southern Regional Education Board (SREB). SREB is a coalition of educators, government officials and civic leaders interested in advancing knowledge and improving the social and economic life of the southern U.S. Through SREB, states can arrange to share each other's scarce educational resources.

The Summer Institute on Biological Control of Plant Insects and Diseases was held during the week of June 19, 1972 at State College Mississippi, Mississippi State University. Proceedings are now in press.

### **LETTERS**

A Plea for the Strict use of "Feed," "Inject," and "Inoculate"

It would be invidious to give examples, but both in the Journal of Invertebrate Pathology and elsewhere in papers on insect pathology it is often impossible to determine from the Summaries exactly how the pathogen was administered to the host. Sometimes even the body of the paper has to be read very carefully before this fundamental point can be established.

This difficulty could be overcome if authors would use the following terms:

Fed when the pathogen is given orally; e.g., with the food.

Micro-fed to describe the special case when a small volume of the pathogen preparation is introduced into the gut through the mouth by means of a syringe fitted with a blunt needle or a measured, small dose is fed in some other way (E. A. Steinhaus and M. Martignoni, 1970, "An Abridged Glossary of Terms Used in Invertebrate Pathology", 2nd Edition, USDA Forest Service).

Inject only when the pathogen is administered to the host through a puncture which is made mechanically in the integument by a suitable instrument and never when "micro-fed" is meant.

Inoculate only when a general term to cover all routes of administration is required and the route is irrelevant. It could also be used in conjunction with a suitable explanation to cover special methods of administering the pathogen.

W. A. L. David Head, Insect Virus Group Glasshouse Crops Research Institute Sussex

### FROM THE EDITOR

As Editor of the SIP <u>Newsletter</u>, Dr. Van der Geest initiated the mechanism of using "Newsletter Correspondents" to keep the Society informed of the activities of its membership. I hope the correspondents will be able to continue providing this service.

Without contributions from the membership, the Newsletter is only a sterile exercise in communication. If every "correspondent" gleans only one newsworthy activity from his region, the Newsletter will be a vital informative publication. Items describing innovative research efforts, meetings, conferences, international cooperative efforts, professional study tours, opinions, ideas, and personal achievements will be gratefully accepted. Deadlines for submission of contributions will be March 15, May 15, July 15, October 15, and December 15. The Newsletter is a vehicle for you to make yourselves heard. Please use it.

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### **NEW ADDRESSES**

L. van der Geest P. A. van der Laan H. J. M. Wassink

Laboratorium voor Toegepaste Entomologie der Universiteit van Amsterdam Kruislaan 302 Amsterdam THE NETHERLANDS

Dr. Klass Veen
Philips-Duphar GMBH
4000 Dusseldorf
Heerdter Landstrasse 199
FEDERAL REPUBLIC OF GERMANY

Dr. Elizabeth W. Davidson Department of Biology University of Rochester Rochester, New York

Dr. Gilbert B. Pauley
Eastern Fish Disease Laboratory
Route I, Box 17A
Kearneysville, West Virginia 25430

Mr. Everett A. Tolley, Executive Director Shellfish Institute of North America Suite 9, 212 Washington Avenue Baltimore, Maryland 21204

# CORRECTIONS

Dr. Kenneth M. Smith was inadvertently listed in the July 15 NEWSLETTER as a regular member. He is an honorary member

Dr. Lowell V. Larson was listed as a new member, rather than as a change of address. He is a charter member. His new address is:
Abbott Laboratories, 14th and Sheridan,
North Chicago, Illinois 60062

# PROTOZOAN TYPE SLIDE COLLECTION (continued from page 4)

might be beneficial to establish some special groups of consultants from among the ranks of the investigators so that the Museum may refer problems they feel are out of their sphere of expertise.

New developments will be conveyed periodically through the SIP <u>Newsletter</u>. It would be greatly appreciated if potential contributors would contact the Division on Microsporida so that a preliminary estimate of forthcoming depositions can be made to the Museum. Please forward all correspondence concerning the Collection to:

Burdette W. Erickson, Jr. Division on Microsporida Department of Coology University of Maryland College Park, Maryland 20742

### 1973 ANNUAL AIBS MEETING

The Society for Invertebrate Pathology will be participating among other societies in the AIBS annual meeting in Amherst at the University of Massachusetts on June 17-22, 1973, in addition to the meeting with the Colloquium in Oxford.

Co-chairmen for the SIP program in Amherst are Dr. M. R. Tripp and Dr. Gilbert B. Pauley. The local representative is Dr. Lawrence S. Roberts.

Two symposia on infectious and non-infectious diseases of invertebrates are planned.

Participating societies include:
American Fern Society
Animal Behavior Society
Biometric Society, ENAR
Botanical Society of America
Ecological Society of America
Mycological Society of America
Phycological Society of America
Torrey Botanical Club
Society for the Study of Evolution

Details will be available in the next issue of the Newsletter.  $% \left( 1\right) =\left( 1\right) \left( 1\right)$ 

### AIBS EXPERIMENTAL "REVENUE SHARING" PLAN

The AIBS Executive Committee approved a motion which reads: "That AIBS establish as an experimental plan with one or more societies to be carefully selected, a scheme of rebating to the society a fixed sum for each society member who joins AIBS each year, and that it be tried for a period of two years."

The plan will become effective 1 February 1973 and the Society for Invertebrate Pathology is one of the "carefully selected" societies participating. During the 1973-74 AIBS membership years, AIBS will remit to the SIP the amount of \$2.00 for each SIP member who joins AIBS as an individual member and \$1.00 for each SIP member who joins AIBS as a student member. In addition, SIP will be reimbursed for each Society member who joins AIBS for 1973 and rejoins for 1974, as well as for Society members who join initially in 1974.

A special mailing from the AIBS will be made to all SIP members inviting them to join the Institute. We are grateful to be included in this experimental "revenue sharing" plan with AIBS, and hope that many members will take advantage of this opportunity.

### MICROSPORIDA SYMPOSIUM, Monday Evening 3 September 1973

An initial discussion will direct attention to the special problems of taxonomy and spore germination The scope of the symposium will not be limited. Contributions on topics related to the Microsporida will be welcomed.

If you desire to participate, please send the title of your contribution by June 15 and the abstract or complete text by August 1 to:

Dr. E. U. Canning Imperial College Field Station, Ashurst Lodge ASCOT, Berks, England

### MEMBERSHIP APPLICATION

Individuals desiring membership in the Society for Invertebrate Pathology should write to:

Dr. Y. Tanada Department of Entomology University of California Berkeley, California 94720

# NEWSLETTER SUBSCRIPTION

Subscriptions to the <u>Newsletter</u> are available to non-members at a cost of \$6.00 for five issues. Information regarding such subscriptions should be obtained from:

Dr. John D. Briggs Faculty of Entomology The Ohio State University Columbus, Ohio 43210

# NEWSLETTER, Society for Invertebrate Pathology

Editor: Beatrice A. Weaver
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