

newsletter

society for invertebrate pathology

Volume VIII, Number 1 January 1976

INTERNATIONAL COLLOQUIUM ON INVERTEBRATE PATHOLOGY IXTH ANNUAL MEETING, SOCIETY FOR INVERTEBRATE PATHOLOGY

Kingston, Ontario, Canada August 29 - September 2, 1976

The joint meeting of the Society and the International Colloquium on Invertebrate Pathology will be held at Queen's University, Kingston, Ontario, Canada, August 29-September 2, 1976. The meeting is scheduled for the week following the XV International Congress of Entomology in Washington, D.C., U.S.A., August 19-27. The organizers hope that the timing of the Society's meeting will permit many overseas colleagues to come to Canada. Kingston is situated at the eastern end of Lake Ontario and is roughly halfway between Montreal and Toronto. The location is the site of the 1976 Sailing Olympics and is close to the scenic Thousand Islands area of the St. Lawrence River and the Rideau Canal which links Kingston to Ottawa through a system of lakes and manmade canals. Persons attending the meeting from outside Canada should fly to Montreal or Toronto. Details of express buses and trains to Kingston will appear in the next Newsletter.

Program Co-Chairmen are:

Insect Pathology
Dr. T. A. Angus
Insect Pathology Research
Institute, P.O. Box 490
Sault Ste. Marie, Ontario
P6A 5M7, CANADA

Pathology of Invertebrates
Other than Insects
Dr. A. Rosenfield
National Marine Fisheries
Service, Oxford Laboratory
Oxford, Maryland 21654
USA

Registration and Local Coordinator

Dr. P. Faulkner
Department of Microbiology
and Immunology
Queen's University
Kingston, Ontario
K7L 3N6, CANADA

Scientific sessions will commence 0900 Monday, August 30, and will conclude during the afternoon of Thursday, September 2. The proposed scientific programme is as follows:

I. Plenary Symposia

- 1. Viruses of Invertebrates Convenors: K. A. Harrap
 P. T. Johnson
- Tissue Culture in Invertebrate Pathology Convenors: S. S. Sohi
 C. Vago

3. Epizootiology of Invertebrate Pathogens

*Convenors: P. F. Entwhistle

C. J. Sinderman

II. Symposia Running Concurrently

- 1a. Biocontrol: Regulation of Pest Species Convenor: J. D. Harper
- b. Microsporida Convenor: A. Cali
- 2a. Entomogenous Fungi Convenor: R. S. Soper
- b. Defense Mechanism of Invertebrates

 Convenor: J. D. Stewart
- 3a. Nematodes of Invertebrates Convenor: J. Weiser
 - b. Tumors of Invertebrates Convenor: J. Harshbarger
- III. Sessions of submitted papers

IV. Workshops

A generous grant from Environment Canada should make it possible for the proceedings to be published. In addition, the International Union of Biological Sciences has approved an application for a fund to partially assist some participants with expenses.

Once again this year the parent society hopes that there will be many occasions for informal discussion in workshop sessions and otherwise. The local coordinator will be able to arrange special meeting rooms provided advance notice is given. The afternoon and evening of Wednesday, September 1, are being held Continued on page 2

Because the recent Canadian mail strike and embargo prevented Canadian members from voting on a dues increase by December 15, the cutoff date for receipt of ballots is being extended to May 1 and the effective date for the dues increase will be delayed until January 1, 1977. If you have not yet returned your ballot for the dues increase, please include it with your ballot for the election of officers which will be provided in the March issue of the Newsletter.

IXth Annual Meeting Continued from page 1

free from formal scientific sessions so that tours to local points of interest can be arranged. Details will follow later.

Enclosed with this <u>Newsletter</u> is (1) a registration/accommodation form and (2) a sample abstract form.

REGISTRATION AND ACCOMMODATION

Persons planning to attend the Kingston meeting are encouraged to pre-register. The registration fees will be \$35 before June 1, 1976 and \$40 thereafter. This fee includes the cost of a banquet and the principal social events, but does not include the cost of accommodation. Spouses accompanying members may register as Associates at \$20, and partake in the social events. Graduate students wishing to participate in the scientific sessions only may pre-register for a fee of \$10. Their application must be accompanied by a statement from their department chairmen indicating their status as bona fide students. Single and double rooms are available on the campus of Queen's University in modern university residences. The cost of \$20/day/person includes meals. The university requires payment upon arrival for the number of nights that participants stay. There is normally no refund for early departures. Accommodation reservations can be taken until August 1, 1976.

CALL FOR ABSTRACTS (Deadline--March 15, 1976)

Tuesday afternoon has been set aside for the presentation of ten-minute scientific papers. Projection facilities for standard 2" x 2" (5.1 x 5.1 cm) slides only will be available. Participants wishing to present papers are urged to prepare their talks carefully to stay within the alloted time period.

The Abstracts of the Annual Meeting of the Society for Invertebrate Pathology will be prepared by direct reproduction of the abstract submitted by each author. There will be no editing of the author's copy. Thus, every error which appears in the submitted abstract will also appear in the printed Abstracts. The Program Co-Chairmen recommend the following procedure for the preparation of the abstract:

- Use a typewriter, preferably electric, with a carbon ribbon. If such a typewriter is unavailable, use a typewriter with a fairly new black ribbon.
- Place the enclosed sample abstract form under a blank typing sheet, and insert in the typewriter.
 The dark lines will show through the usual grades of typing paper.
- 3. Single space all typing. The title, authorship, affiliation, and text must be within the boxes as outlined on the enclosed sample form. Leave no top or left margin within the boxes. Type only within the space outlined on the sample form.

 Each abstract must be limited to one single page.
- 4. The Style Manual for Biological Journals, published by the American Institute of Biological Sciences, should be used as a guide to abbreviations and symbols. Proprietary and trade names must be accompanied, at first mention, by the established or generic names. When using abbreviations for compounds, the name must be spelled in full at the first mention.

- 5. Remember! Your abstract will be printed exactly as submitted. Any smudges, errors, and misspellings on your copy will be evident also in the published Abstracts!
- 6. Poorly typed abstracts, unsuitable for direct reproduction, will be returned to the authors for retyping. Unless these abstracts are retyped promptly, they may miss the printer's deadline and may not appear in the published Abstracts.
- Send your abstract and registration fee no later than March 15, 1976, to Dr. P. Faulkner.

Editor's Note: Amounts given above are in Canadian dollars.



PUBLICATIONS

Baculoviruses for Insect Pest Control: Safety
Considerations, Max D. Summers, Reto Engler,
Louis A. Falcon, and Patrick Vail (eds.),
American Society for Microbiology, 1975,
186 pp.

Baculoviruses for Insect Pest Control comprises the proceedings of a symposium sponsored by the Environmental Protection Agency and the U.S. Department of Agriculture. It focuses on the prospect of registering pest management techniques and compounds that are more selective, less persistent, and more environmentally acceptable than broad-spectrum toxicants. The dangers, or potential long-term dangers, of pest control with viruses are examined, as well as the positive aspects of such programs.

The contents of the book include an introduction, sections on Biology and Biochemistry of Baculoviruses, Exposure of Environment and Humans to Nuclear Polyhedrosis and Granulosis Viruses, Safety Aspects of Production and Use of Baculoviruses and reports and recommendations of discussion panels.

The book is available at \$9.00 a copy (\$5.00 for ASM members) from:

Publications Office American Society for Microbiology 1913 I Street, N.W. Washington, D.C. 20006 USA

Payment should be remitted with order.

ELECTION OF OFFICERS

The SIP Constitution and By-Laws state:

On or before the first day of January of the year in which officers are to be elected, the Nominating Committee shall certify . . nominations to the Secretary, who shall announce them along with brief biographical sketches to the members of the Society on or before the next succeeding first day of February. Additional nominations for office may be made, but such nominations shall be valid only if presented in a petition form over the signature of at least ten members in good standing, and if received by the Secretary on or before the fifteenth day of March.

A nominating committee composed of Dr. Keio Aizawa, Dr. P. Ferron, Dr. Irvin M. Hall, Dr. Don Lightner, and Dr. Victor Sprague (Chairman) has submitted the following nominations for Council:

PRESIDENT:

Thomas A. Angus

VICE PRESIDENT:

Keio Aizawa Jaroslav Weiser

SECRETARY:

Wayne M. Brooks H. D. Burges Jerzy J. Lipa

TREASURER:

George E. Cantwell

J. D. Paschke M. R. Tripp

TRUSTEES:

A. Burgerjon Howard J. Dulmage C. Austin Farley J. E. Stewart Y. Tanada L. Vasiljevic

The March issue of the Newsletter will contain a final ballot for election of officers.

BIOGRAPHIES

President

Thomas A. Angus

B.S.A., 1949; M.S.A., 1950 (University of Toronto, Canada) Treasurer
Ph.D., 1955 (McCill University of Toronto, Canada) Ph.D., 1955 (McGill University, Canada) Borm: Toronto, Ontario, Canada, 1915

Experience: Research on bacterial pathogens of insects with emphasis on Bacillus thuringiensis varieties against forest insect pests, 1949-1970; Associate Director, Insect Pathology Research Institute, Canadian Forestry Service, Sault St. Marie, Ontario, Canada, 1970-74; Director, Insect Pathology Research Institute, 1974-present

Membership; Founding member SIP; Editorial Board, Journal of Invertebrate Pathology; Scientific Committee, International Colloquium on Insect Pathology and Microbial President, Professional Apiculturists Association

Control

Secretary

Wayne M. Brooks

B.S.; Ph.D., 1966 (University of California, Berkeley, USA) Born: 1939

Experience: Assistant, Associate Professor, Department of Entomology, North Carolina State University, Raleigh, USA, 1966-present

Membership: SIP Division Committee; SIP Organizational Committee for Division on Microsporida; Secretary, Division on Microsporida, 1972-present; SIP Permanent Program Committee, Co-Chairman

Interests: Microsporida and other protozoan infections of insects, host-parasite-pathogen interrelationships, fungal epizootiology

Objectives: To assist SIP members, both regular and student, in locating potential positions of employment suitable for invertebrate pathologists

H. Denis Burges

Ph.D., 1956 (London University, England) Born: 1927

Experience: Scientific Officer and Principal Scientific Officer, Pest Infestation Control Laboratory, Slough, England, 1957-1969; Visiting Scientist, Department of Insect Pathology, University of California, Berkeley, 1963; Principal Scientific Officer, Glasshouse Crops Research Institute, Littlehampton, England, 1970-76 Membership: Association of Applied Biologists and Royal Entomological Society of London, England; Chairman, SIP Nominating Committee, 1974; Editor, Microbial Control of Insects and Mites, Academic Press,

Interests: Pathogens of glasshouse, cereal and stored products invertebrates, with emphasis on Bacillus thuringiensis and protozoa; use of pathogens to control invertebrate pests; bioassay and standardization of products containing pathogens; general invertebrate pathology

Objectives: Vigorous encouragement of facilities for preserving pathogen culture collections and providing computerized literature retrieval service; encouragement of cooperation between organizations and nations because many invertebrate pathology projects are too large for the limited resources of individual organizations, carrying the activities of the Society to the members with the object of maintaining the greatest possible interest

George E. Cantwell

B.S.; M.A.; Ph.D., 1960 (University of Maryland, USA) Born: 1929

Experience: Research Entomologist, USDA, 1958-1964; Director, Tumor Registry, Smithsonian Institution, 1964-65; Research Entomologist, USDA, 1965-present; Lecturer, Prince George's Community College, 1961-present; Entomologist, USAR Surgeon General's Office, USA

Membership: Founding Member SIP; Past Chairman, Membership Committee, Entomological Society of Washington; Past

Continued on page 4

for the Advancement of Science

J. D. Paschke

B.S., Ph.D., 1958 (University of California, Berkeley, USA) Born: Upland, California, USA; 1925 Experience: Professor of Entomology, Department of Entomology Purdue University, Indiana, USA, 1960-present; Sabbatical Leave, Invertebrate Virology-Insect Pathology Unit, Commonwealth Institute of Forestry, University of Oxford, UK, 1968-69; Assistant Entomologist, Illinois State Natural History Survey, USA, 1958-60 Membership: Editorial Board, Journal of Invertebrate Pathology, mechanisms of marine invertebrates, specifically 1969-72; NIH Tropical Medicine and Parasitology Study Section, 1968-72; Past Chairman, Section C, Entomological Society of America; Sigma Xi; Founding Member SIP; American Association

Interests: Basic studies in insect virology, pathogenic viruses of mosquitoes utilizing in vivo and in vitro models

Objectives: Promotion of invertebrate pathology as a scientific discipline on an international basis through increased membership and participation by scientists involved with pathological processes in invertebrate animals, sound fiscal mamagement of Society funds in an effort to continue the financial success of the Society.

M. R. Tripp

A.B., 1953; M.S., 1956; Ph.D., 1958 (Rutgers University, New Jersey, USA)

Born: Poughkeepsie, New York, USA, 1931 Experience: Research Fellow, Tropical Public Health, Harvard University, 1958-60; Assistant Professor, Biological Science, University of Delaware, USA, 1960-66; Associate Professor, University of Delaware, 1966-71; Professor, University of Delaware, 1971-present Membership: American Society of Parasitology; Society for Invertebrate Pathology; American Society of Zoology; Reticuloendothelial Society; Editorial Board, Journal of Invertebrate Pathology, 1969-75; American editor, Marine Biology, 1974-79; Program Chairman, SIP meeting at Amherst, Massachusetts

Interests: Invertebrate defense mechanisms Objectives: Encourage SIP membership and provide counsel to the SIP president; keeping adequate, up-to-date financial records

Trustee

Howard T. Dulmage

B.S., 1947; Ph.D., 1951 (Rutgers University, New Jersey,

Born: 1923

Experience: Abbott Laboratories, 1950-62; Director of Research, Nutrilite Products, 1962-67; Research Microbiologist and Project Leader, Insect Pathology, USDA, 1967-present

Interests: Development of microbiological agents for use in the control of insects, principally Bacillus thuringiensis and formulations of nuclear polyhedral viruses

Objectives: Assisting the Society to grow and continue its leadership in the development of insect pathology as a vigorous and active field of science

James E. Stewart

B.S., 1952; M.S.A., 1954; Ph.D., 1958 (Iowa State University, USA) Born: 1928

Experience: Scientist Associate and Senior Scientist, Halifax Laboratory, 1958-68; Assistant Director, Acting Director, 1968-71, Halifax Laboratory; Program Manager, Aquaculture Group, Halifax Laboratory, Canada Department of the Environment, Halifax, Nova Scotia, Canada, 1971-76 Membership: Canadian Society of Microbiologists, Chapter President; Nova Scotian Institute of Science, Treasurer and Council Member; Editorial Board, Journal of Invertebrate Pathology; International Council for the Exploration of the Sea; American Society for Microbiology; Society for Invertebrate Pathology; AAAS Interests: Diseases of aquatic species; defense marine crustaceans, notably the lobster; microbial degradation of hydrocarbons Objectives: Emphasis on greater interaction between people studying insects and those working on invertebrates other than insects through more sessions focussed on topics which cross discipline and species

Yoshinori Tanada

lines

B.S., M.S. (University of Hawaii); Ph.D., (University of California, Berkeley, USA) Born: 1917

Experience: University of Hawaii, 1942-56; University of California, Berkeley, 1956-present--Professor of Entomology and Insect Pathologist Membership: Treasurer, Society for Invertebrate Pathology, 1972-74; Pacific Science Board, National Research Council; U.N. Developmental Program; U.N. Food and Agriculture Organization, Consultant Objectives: Encourage increased participation by members in the Society's programs

Additional biographies will appear in the March issue of the SIP Newsletter.

DUES, <u>JOURNAL</u> SUBSCRIPTIONS, ADDRESS CHANGES, MEMBERSHIPS

All correspondence regarding subscriptions to the Journal of Invertebrate Pathology, membership in the Society for Invertebrate Pathology, dues payment, and changes of address should be directed to:

> Dr. Gordon R. Stairs, SIP Treasurer Department of Entomology, OSU 1735 Neil Avenue Columbus, Ohio 43210 USA Telephone: A.C. 614/422-1953

Please note that dues for 1976 have not changed:

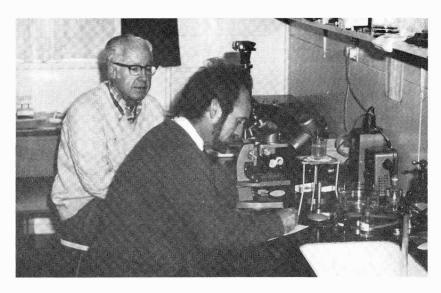
Regular member, outside U.S.	\$4.00
Regular member, U.S. (including AIBS)	5.00
Student member	2.00
Division of Microsporida member	1.00

Subscription rates for the Journal for Invertebrate Pathology are 50% the commercial rate for SIP members:

1976 (Vols. 27 & 28)

U.S. and Canada \$36.50 Outside U.S. and Canada 44.50

Remittance for dues and Journal subscriptions should be in U.S. dollars and forwarded to Dr. Stairs. Dues are payable in advance. Receipts will be provided upon request.



Readers of the SIP <u>Newsletter</u> will need no introduction to Dr. Irvin M. Hall, Professor of Biological Control, University of California, Riverside, who has been visiting New Zealand recently. Irv arrived last year to take up a Senior National Research Fellowship. He has spent his time working at the Ruakura Research Station of the Ministry of Forest and Agriculture at Hamilton in the North Island. In the nine months he has spent here, he has been working on the pathogens of <u>Costelytra zelandica</u>, the New Zealand Grass Grub, one of our major pasture pests.

Irv has been able to isolate five or more species of Microsporida from the grass grub. Some of these appear to be potential candidates for biological control. As a result of Irv's effort, an "Insect Control Group" has been established at Ruakura which will carry on the work.

The photograph shows Irv on the left assisted by one of his collaborators, Hugh Oliver.



Pasture pest control is also the specialty of Dr. Jim Kalmakoff and his group of the Department of Microbiology, University of Otago, Dunedin. Jim is concerned with the lepidopterans Wiseana spp., the main pasture pests in the South Island of New Zealand. He has been working on the use of an endemic NPV as a control agent and has been able to show that if pastures are left undisturbed, the NPV becomes firmly established and reduces the pest population.

The picture shows Jim on the left discussing problems with graduate student Alan Crawford.

MEETINGS

First Meeting of the International Organization of Mycoplasmologists, University of Glasgow, Scotland, 17-18 September 1976

The International Organization of Mycoplasmologists (IOM) was formed at the International Congress on Mycoplasmas at Bordeaux, France, in September 1974. The organization will perpetuate the purpose of the Bordeaux Congress: establishment of international cooperation between researchers studying plant, insect, animal, and human mycoplasms. The first meeting of the IOM will be held at the University of Glasgow, Scotland, on Friday and Saturday, 17 & 18 September 1976, in association with the 77th Ordinary Meeting of the Society for General Microbiology (SCM) to be held at the same location on 15, 16, and 17 September 1976. There will be an IOM Symposium on 17 September, and sessions for original papers on 17 and 18 September. The SGM has arranged a Symposium on Mycoplasmas for 15 September and original paper sessions for Mycoplasmas on 16 September. Accommodations for IOM meeting participants will be available in Glasgow, with details announced later.

Admission to scientific sessions at the SCM meeting will be open to IOM members and vice versa. Members of either organization may submit original papers on mycoplasmas to the SCM session (September 16) or to IOM sessions (September 17 and 18). Non-members may join the IOM at the meeting, or may join in advance by mailing dues of \$20.00 to:

Dr. Joseph Tully Building 7 National Institutes of Health Bethesda, Maryland 20014 USA

Abstracts for presentation at IOM sessions should be sent to:

Dr. David Taylor-Robinson MRC Clinical Research Centre Northwick Park Hospital Harrow, Middlesex HA1 3UJ ENGLAND

to arrive not later than May 3, 1976. Abstracts should not exceed 300 words, including references (which should be within the text) but excluding the author's name and address. Presentations concerning plant and insect mycoplasmas, mycoplasma-cell interactions, mixed infections, mechanisms of pathogenicity and molecular biology would be most welcome.

> Robert F. Whitcomb Research Entomologist Insect Pathology Laboratory USDA, ARS Beltsville, Maryland 20705 USA

"Microbial Pathogens of Insects and Nematodes," University of Warwick, England, 24-25 March 1976

The Association of Applied Biologists and the British Mycological Society have jointly organized a meeting on "Microbial Pathogens of Insects and Nematodes."

The program includes sessions on:

- -- Coelomomyces on mosquito, M. F. Madelin
- -- Histopathology of Entomorphthora spp. infecting insects, P. J. Probin
- -- Biology of Entomorphthora spp. infecting insects, N. Wilding

- --Control of glasshouse aphid pests by the fungus Verticillium lecanii, R. A. Hall
- -The development of Nosema necatrix (Microsporida: protozoa) in Spodoptera exerysta (Lepidoptera: noctuidae), Barbara M. Pilley
- -- Research on entomogenous fungi in Europe, P. Ferron -- Fungal pathogens of the elm bark beetle Scolytus scolytus, J. Doberski
- --Fungal pathogens of nematodes, R. C. Cooke --Fungi on nematode cysts, H. T. Tribe
- -- The role of fungi in regulating populations of the cereal cyst-nematode, <u>Heterodera</u> avenae Woll, *B. Kerry* Control of glasshouse lepidoptera by <u>Bacillus</u>
- thuringiensis and a comparison of the pathogenicity of different bacterial strains, H. D. Burges
- --Bacillus thuringiensis toxin or wider aspects of
- of insect toxins produced by bacteria, H. J. Somervill

 -The spread and persistence of Bacillus thuringiensis
 in colonies of Ephestia kuhniella, N. H. E. Gibson
- --Control of the greater wax moth (Galleria mellonella) with Bacillus thuringiensis, H. D. Burges
 --Viruses of Tipula spp, J. B. Carter
- -- Uptake of granulosis virus from the gut of P. brassicae, W. A. L. David
- -- The ecology of a nuclear polyhedrosis virus of the European spruce saw fly (Gilpinia hercyniae) in Welsh forests, P. F. Entwistle
- -- The epidemiology of microbial pathogens of bees, L. Bailey
- -- Research into a commercial method of producing insect baculoviruses by tissue culture, G. R. Gardiner and H. Stockdale
- --Problems and prospects of using viruses as a substitute or adjunct to existing methods of control, T. W. Tinsley

H. D. Burges, Regional Correspondent Glasshouse Crops Research Institute Worthing Road, Rustington Littlehampton, Sussex BN16 3PU, ENGLAND

Symposium on "The Biological Aspects of Nosema Disease, Merelbeke (Ghent), Belgium, 14-16 July 1976

The general theme, "Biological Aspects of Nosema Disease," will permit a number of researchers in various fields to take part in the symposium. As an example the organizers mention the following subjects: morphology, ultrastructure and physiology of the digestive tract of the bee; influence of nourishment on the development of Nosema apis; biological cycle and ultrastructure of Nosema apis; area of distribution of the parasite; Nosema disease and bee races; in vitro culture of the parasite; prophylaxis; means of control within the biological system; etc.

Those who wish to give a lecture during the symposium are requested to communicate as soon as possible, and at least before 1 March 1975, the title of their lecture and to send the organizers before 1 April 1976 a typed summary of approximately 30 lines.

Papers must be written in one of the three official languages of the symposium (English, French, and German). The lectures may be held in one of the other languages used by APIMONDIA (Spanish and Russian) provided the number of participants belonging to these language groups is sufficiently large. The organizers request that the complete text of lectures be presented in advance or at the secretary's office upon arrival.

All correspondence should be sent to:

Secretary's Office of the Symposium Van Gansberghelaan 96 B-9220, Merelbeke BELGIUM

ANNOUNCEMENTS

National Registry of Marine Pathology (ROMP), US Department of Commerce, NOAA, Middle Atlantic Coastal Fisheries Center, Oxford, Maryland 21654, USA

A Registry of Marine Pathology has been established at the Oxford Laboratory of NOAA's Middle Atlantic Coastal Pisheries Center to offer the growing community of marine and estuarine biologists and pathologists a counterpart to some of the reference services so abundantly available to their land-locked colleagues.

While it is premature to predict the ultimate form and function of ROMP, the initial intention is to solicit, catalogue, and maintain accessions representative of pathology and abnormality in marine and estuarine biota as well as pertinent references to published literature. The Registry is designed to offer a safe, permanent repository where the scientific community can deposit, retrieve, and study such materials. However, it is not the function of ROMP to serve as a museum of commensals unrelated to pathology, nor to duplicate or compete with other established collections or registries, but to offer a retrievable body of information for diagnostic pathology of marine animals.

At present ROMP consists basically of three slide collections illustrating pathology, parasitism or anomalies in nine species of bivalve mollusks, eleven fishes and one decapod crustacean. The first two represent domestic and exotic diseases mostly of bivalve mollusks encountered at Oxford during more than ten years of surveys and diagnostic services. The third consists largely of helminth parasites in fishes from Raritan Bay, New Jersey.

Accessions are solicited in the following order of preference: 1) slides, photographs, and publications; 2) tissue blocks; 3) fixed tissues. Indexed catalogues will be issued annually or at more frequent intervals, as circumstances warrant. An initial catalogue listing approximately 175 accessions and 90 pathogens, parasites or diseases will be available on request. Qualified investigators are invited both to donate suitable material to ROMP and to avail themselves of its facilities.

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The International Union of Biological Sciences mourns the death of its Treasurer, Karl Egle.

The Treasurer's office has been transferred temporarily to the IUBS office in Boulevard de Montmorency. All correspondence should be addressed to:

The Secretariat, IUBS 51 Boulevard de Montmorency 75016 Paris FRANCE

The IUBS Executive Secretary, Paul Bonnel is authorized to sign for financial transaction of the Union.

ACTIVITIES REPORT-DIVISION ON MICROSPORIDA

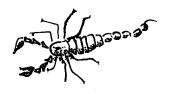
Although attendance was relatively low, the meetings of the Division on Microsporida at the recent AIBS meeting in Corvallis, Oregon, were very successful. A symposium entitled "Nosema, Some Aspects of Study" was conducted under the auspices of the Division and appeared to be well received. Efforts are also being made to publish the papers presented in the symposium in the near future.

At the business meeting of the Division, a taped address from E. U. Canning was presented and plans already under development should ensure a stimulating program for the meetings next year in Kingston, Ontario. Reports were also presented by the chairman of the standing committee on Type Slide Collection, Data Storage and Retrieval, Atlas of Electron Micrographs, and Methods and Materials. Of particular interest, a list of primary and secondary journals which publish papers on Microsporida has been formulated and is to be scanned at periodic intervals for the preparation of lists on current literature. Members were also asked to submit reprints of their past and current papers to B. Pilley to assist in backdating the literature. Efforts were being made to establish a repository for the storage of viable microsporidan spores with the American Type Culture Collection and to prepare guidelines for the deposition of such material. Members are encouraged to submit any materials suitable for the Atlas of Electron Micrographs

Dr. A. Cali
Department of Zoology and Physiology
Rutgers University
Boyden Hall, 195 University Avenue
Newark, New Jersey
USA

The microrporidan workshop conducted by A. Cali was highlighted by an excellent visual display on the pathology of infection by a microsporidan hyperparasite of the fluke, Diplostomum spathacium.

W. M. Brooks, Secretary Division on Microsporida Department of Entomology North Carolina State University Box 5215 Raleigh, North Carolina 27607 USA



SIP NEWSLETTER

Beatrice A. Weaver, Editor
c/o Department of Entomology, OSU
1735 Neil Avenue
Columbus, Ohio 43210 USA
Published in January, March, June, September, and
November by the Society for Invertebrate Pathology.
Deadline for submission of contributions is the 15th of the preceding month.

Dear Colleagues:

The Society serves as the Commission on Invertebrate Pathology in the International Union of Biological Sciences (IUBS). In 1975 we became a sustaining member of the Norld Federation of Culture Collections (WFCC). The WFCC serves the IUBS as the Multidisciplinary Commission on Culture Collections. The Society will begin its service in WFCC by attempting to detect the existence of the culture collections of microbial pathogens of invertebrates, and the collections of cell lines from invertebrate animals. Our immediate objective can be met by the compilation of the information to be sent to me on the form below. It is one of our long range objectives to encourage recognition by each nation of these unique national resources and to help institutes and universities by providing support for the perpetuation of culture collections. This is the first of several communications on culture collections. I will respond to each notice of a culture collection to obtain further information.

NOTICE OF CULTURE COLLECTION
Description: Kind(s) of Organism(s):
Method(s) of Maintenance:
Total Number of Accessions or Holdings of Different Organisms:
Is a list or catalog of the culture collection available?
Is the list or catalog revised regularly?On What Schedule?
Is the Culture Collection now associated with the WFCC?
Is the Culture Collection now associated with a national culture collection? Where?
What is your policy for making cultures available?
Location (Address):
Responsible Individual:

Please Return To:

John D. Briggs Ohio State University 1735 Neil Avenue Columbus, Ohio 43210 U.S.A.