

sip

newsletter

society for invertebrate pathology

Volume V, Number 2
May 1973



**INTERNATIONAL COLLOQUIUM
ON INSECT PATHOLOGY AND
MICROBIAL CONTROL**

St. Catherine's College, Oxford, England



**ANNUAL MEETING OF
THE SOCIETY FOR
INVERTEBRATE PATHOLOGY**

September 3-7, 1973

ADDITIONAL DETAILS

SPECIALIST DISCUSSION GROUPS

Five proposals for specialist meetings have now been received. If you would like to contribute to any of these, please write to the Convenors as indicated below. The meetings will have to run concurrently with the main Colloquium sessions, and the proposed timing is suggested so as to avoid overlapping of interests as far as possible. However, this timetable is open to adjustment if necessary. Your comments will be welcome.

Microsporidia Symposium--details of which appeared in the January Newsletter. Convenor: Dr. E. U. Canning, Imperial College Field Station, Ashurst Lodge, Ascot, Berks, England. Time: Monday evening, 3 September.

Characterisation of Insect Viruses--during which the proposal to create a Working Group and its appropriate terms of reference will be discussed. Convenors: Dr. K. A. Harrap, Unit of Invertebrate Virology, Commonwealth Forestry Institute, South Parks Road, Oxford, England, and Dr. M. D. Summers, Botany Department, Cell Research Institute, University of Texas, Austin, Texas 78712, U.S.A. Suggested time: 15.50 hrs Tuesday, 4 September.

3rd SIP Working Group on Safety of Microbial Control Agents--to follow up the Working Group held in Minneapolis in August 1972. A major topic for discussion will be the Report, which should be published by September, of the WHO/FAO Working Party on Safety of Insect Viruses which met in Geneva in November, 1972. Chairman: Dr. Marshall Laird, Research Unit on Vector Pathology, Biology Department, Memorial University of Newfoundland, St. John's, Newfoundland, Canada. Suggested time: Monday morning, 3 September.

Symposium on Invertebrate Immunology--to continue the dialogue started at the two-day symposium on this topic held in Minneapolis in August, 1972. Convenor: Dr. E. L. Cooper, Anatomy Department, School of Medicine, Center for the Health Sciences, Los Angeles, California 90024, U.S.A. Suggested time: Thursday morning, 6 September.

Biochemistry of Parasitology--to provide a contact point for workers in this field of interest. Convenor: Dr. Aris Domnas, Botany Department, University of North Carolina, Chapel Hill, North Carolina 27514, U.S.A. Suggested time: Tuesday morning, 4 September.

LADIES PROGRAMME

Mrs. Barbara Tinsley is organising the Ladies Committee which will plan a number of activities and excursions to places of local interest for the members of families who will be accompanying delegates to the Colloquium. Excursions will include a visit to Blenheim Palace, home of the Duke of Marlborough, and the birthplace of Sir Winston Churchill, as well as a tour of some of the attractive Cotswold villages. The organiser hopes to arrange an evening visit to the Shakespeare Memorial Theatre in Stratford upon Avon.

Associate Membership of the Colloquium will be open to anyone wishing to participate in any of these activities. The fee for Associate Members, payable at Registration (or in advance if preferred), will be £ 4.50, to include the Conference Dinner and organisational costs not covered by subsidy. The cost of the individual excursions will be additional.

The Colloquium Treasurer, Mr. J. S. Robertson, will be pleased to receive advance payments for Associate Membership. These can be sent to him, together with payment for accommodation if you wish, at the Unit of Invertebrate Virology, Commonwealth Forestry Institute, South Parks Rd., Oxford OX1 3RB, England.

DIETARY REQUIREMENTS

St. Catherine's College can cater for vegetarian and other diets. If you have a special requirement, please inform the Secretary when returning your Reservation of Accommodation.

INSTRUCTIONAL KIT FOR INTRODUCTORY ENTOMOLOGY

The Entomological Society of America and Brigham Young University are pleased to announce that pre-production orders for an Instructional Kit suitable for use in a course in Introductory Entomology are now being accepted. The Instructional Kit will include:

A. Cassette lectures (29 or 30) prepared by entomologists with demonstrated research experience and expertise. The course outline and participants are given below:

I. Insects and Man

Insects and Disease	Robert Harwood
Insects and Food	Lee Jeppson
Economic Entomology	W. H. Luckmann
Insect Control	Robert L. Metcalf

II. Insect Systematics and Biogeography

Fossil History and Evolution	Frank Carpenter
Insect Classification	H. H. Ross
Insect Overview	E. S. Ross
Insect Biogeography	George F. Edmunds

III. Insects: Form and Function

Body Wall	Michael Locke
Nervous System	Gary Booth
Sensory Receptor Mechanisms	Joseph R. Larson
Digestion	David E. Bignell
Circulation	Thomas A. Miller
Excretion	Bodil Schmidt-Nielsen
Respiration	Armand Whitehead
Water Regulation	Eric Edney
Muscles and Locomotion	Graham Hoyle
Reproduction	K. G. Davey
Embryology	Nabil N. Youssef
Growth and Metamorphosis	Lawrence I. Gilbert
Post-embryonic Development	Leland R. Brown

IV. Insect Behavior and Ecology

Orientation and Photoperiod	Stanley Beck
Insect Sound	Tom Moore
Pheromones	Murray Blum
Social Insects	E. O. Wilson
Adaptive Coloration	C. Rettenmeyer
Dispersal	Hugh Dingle
Focalities of Populations	William R. Horsfall
Predators and Parasites	A. L. Doutt

B. Visual Materials:

A syllabus containing visual materials will be prepared. Outlines of all lectures will be included and illustrations will be placed at the appropriate place in each outline. A photo and brief vita for each lecturer will be included in the manual.

The syllabus will also include twelve (or perhaps more) laboratory exercises on physiology, behavior, insect control, etc. Thirty syllabi will be provided as a part of each instructional kit.

Over 200 color transparencies will support lectures for which color is critical. For example, lectures by Ross, Rettenmeyer and Brown (and perhaps others) will be profusely illustrated.

C. The cost will be dependent upon the amount of visual material to be reproduced and the number of sets produced. The intent is to keep the cost as low as possible. The tentative cost of one Instructional Kit is \$300.

D. Kits will be ready for mailing by 1 September 1973. A sample cassette, a sample transparency and one manual will be available for inspection by 1 June. Further information may be obtained by writing to:

Vernon J. Tipton, Chairman
Education Committee
Entomological Society of America
Department of Zoology, 575 WIDB
Brigham Young University
Provo, Utah 84601



ANNOUNCEMENTS

1973 ANNUAL AIBS MEETING

The Annual Meeting of the AIBS will be held in Amherst at the University of Massachusetts on June 17-22, 1973. Co-chairman for the SIP program in Amherst are Dr. M. R. Tripp and Dr. Gilbert B. Pauley; local representative is Dr. Lawrence S. Roberts. A brief summary of the program is given below:

Sunday, June 17; 3:00 P.M.
Executive Council Meeting

Monday, June 18; 9:00 A.M.
Symposium: Host Specificity of Invertebrate Pathogens

Monday, June 18; 2:00 P.M.
Panel Discussion: Legal and Social Aspects of
Biological Control

Monday, June 18; 5:30 P.M.
Hospitality Session

Tuesday, June 19; 9:00 A.M.
Diseases of Crustaceans

WORKSHOP ON PATHOLOGIC EFFECTS OF CHEMICALS ON AQUATIC ORGANISMS

This Workshop is sponsored by the Gulf Breeze Environmental Research Laboratory and will be held May 8 & 9, 1973 at the Ramada Inn in Pensacola, Florida. Dr. John A. Couch is the Workshop Coordinator. The Workshop will include four sessions and a panel discussion on Application of Pathobiologic Data to Solution of Pollution Problems.

Workshop sessions will cover the following topics:

KEYNOTE REPORT Effects of Environmental Stresses on
Bacterial Diseases of Fishes (S. F. Snieszko)

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THE FUN OF EDITING A JOURNAL

THOMAS C. CHENG
INSTITUTE FOR PATHOBIOLOGY
CENTER FOR HEALTH SCIENCES
LEHIGH UNIVERSITY
BETHLEHEM, PENNSYLVANIA 18015 USA

Many years ago, while still a graduate student at the University of Virginia, I spent a summer studying the parasites of bats at Mountain Lake Biological Station. Those were the days of "classical biology," when investigators searched diligently for new species of organisms-- in my case protozoa and helminths. After an entire summer of looking through the intestines of hundreds of bats which were collected by climbing into limestone caves, I thought I had accomplished something when detailed microscopical examination of thousands of specimens of trematodes revealed what was believed to be a new species. After searching the literature in the library of the nearby Virginia Polytechnic Institute, I started to put a manuscript together. With the third draft, I thought I had developed a rather respectable paper. It was carefully typed on an ancient typewriter, and the accompanying drawings were made on Bristol board with pen and India ink. With the enthusiasm and eagerness of a soon-to-be author, I drove to the nearest post office and mailed the manuscript to the editor of the Journal of Parasitology. A few weeks went by without a letter from him and I became nervous. "These editors," I told myself, "are a bunch of inconsiderate people who are intentionally holding back progress in science and my fame as a scientist." Finally, on a Saturday morning, the mailman delivered a large brown envelope, and I hastily opened it. Much to my dismay and severely injured ego, my manuscript had been returned-- rejected! There were the usual referees' comments and a polite, but stern, letter from the editor. The writing was atrocious and, furthermore, someone had already described that parasite. All I could think about was the end of my scientific career.

Almost twenty years have now passed and, (without meaning to sound egotistical) having since published over 140 papers and 7 books, I find myself the editor of two journals, an annual series, and a member of the Editorial Board of the Journal of Parasitology. Yet, just a few weeks ago I wrote to our most capable Treasurer, Dr. Y. Tanada of Berkeley, that a manuscript by a former graduate student and myself had been rejected by the Journal of Parasitology. It didn't hurt as much this time since I was aware of the shortcomings of the manuscript and had mentioned them to my student. However, he, in his eagerness, insisted that we submit it. Not surprisingly, the referees also recognized the shortcomings and the manuscript was returned. The difference between my first rejected manuscript and my last is that I didn't curse the reviewers this time. I praised them--whomever they may be. They were obviously keen scientists who knew what they were doing.

The years have taught me something about writing manuscripts that the more seasoned authors all know-- sometimes painfully. When our President, Dr. John Briggs of Ohio State, asked me to write an article for the Newsletter, I asked him what he wanted me to write about. "The Journal of Invertebrate Pathology, of course, and

manuscript preparation," he replied. Perhaps the following comments will be of some help to a few not-so-seasoned authors.

All manuscripts submitted to the Journal of Invertebrate Pathology are sent out to at least two reviewers after they have been recorded in this office. This includes manuscripts submitted by the Editor-in-Chief (our Past President, Dr. Albert K. Sparks, and other members of the Board can vouch for this). The referees are not limited to members of the Editorial Board. If we receive a manuscript dealing with a topic not covered by the expertise of members of the Board, or even if one or more members had been asked to review too many manuscripts that month, it is sent to experts who are not on the Board.

If both reviewers agree that the manuscript should be published, even if revisions are requested, the manuscript is accepted. However, if the two readers disagree, the manuscript is sent out to a third reviewer to break the tie. All this takes time, sometimes weeks, especially if the reviewer is not in North America or if he or she is travelling. Reviewers are busy people which is why they have become recognized as authorities. They have their own laboratories to administer, experiments to perform, and even manuscripts to write. My opinion is that we are extremely fortunate to have reviewers who promptly return manuscripts.

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Dr. John Couch (left), Environmental Protection Agency Laboratory, Gulf Breeze, Florida, USA with Dr. C. Vago, Directeur, Station de Recherches Cytopathologiques, Institut National de la Recherche Agronomique, 30 St. Christol (Ales), France at the WHO Conference on the Safety of Biological Agents for Arthropod Control in Atlanta, Georgia

EDITING A JOURNAL Continued

Upon receipt of the reviews, the manuscripts are returned to the authors for revision. Approximately 90% of the manuscripts accepted by the Journal of Invertebrate Pathology require revision. As each revised manuscript is received, it is placed in a "to-be-edited" box. Your Editor also has a laboratory to run, courses to teach, funds to raise (and that is no mean task these days), federal agencies to consult with, and trips to take. Nevertheless, revised manuscripts usually sit for no more than two weeks, at which time they are edited on weekends. By "editing" I mean rewriting sentences and paragraphs, checking each reference, graph, and table, and marking for the printer. It takes at least one hour to go through each manuscript. Meanwhile, the weekend has passed and another red felt pen has to be thrown away.

When each manuscript is edited, it is forwarded to the publisher, Academic Press, and the author is notified. Recently, we have also been sending out "key word" cards, to be filled in by the author, which are mailed directly to Academic Press. The Subject Index is composed from the "key words." Before this practice, your Editor had to read through his set of the page proofs and make up the Subject Index. This took at least a week for each volume, and there are two volumes per year! It just got to be too much. Consequently, through the cooperation of Academic Press, the new system was implemented.

When Academic Press receives an edited manuscript, a specific person in the Journal Production Department is responsible for re-editing, checking for style, abbreviations, punctuations, etc., after which the manuscript is sent to the printing company. It is after the manuscript has been set in type that the author receives the galley proofs. The author is solely responsible for making all of the corrections. I recheck spelling and punctuation. Of course this takes time also--at least 20 minutes per proof. If errors are found, my set of the proof is returned to Academic Press. Beyond this point everything is in the hands of Benevolence and the printer. I have received complaints about footnotes being erroneously placed, photomicrographs unsatisfactorily reproduced, etc. Your Editor has no control over these matters.

At this point I would like to make some remarks about the economics of the Journal. JIP is published by Academic Press, the legal owners, at no expense to the Society for Invertebrate Pathology. In addition to this benefit, members of the Society may subscribe at a reduced rate.

One unhappy author recently suggested that we change publishers. This, of course, was a result of misunderstanding. The Society does not own the Journal. Academic Press does, and they select the printer and pay the bills. They hope to make the publication of JIP profitable by selling enough subscriptions. To date, the Journal, with approximately 860 subscribers, is still not profitable. With rising costs and cancellation of subscriptions by individuals and libraries with tight budgets, there is real danger of the termination of JIP. Therefore, may I take this opportunity to once again urge that each member of the Society subscribe to the Journal through our Treasurer and also ask his institutional library to subscribe. If the Journal is phased out because it

is unprofitable to Academic Press (and some journals published by them have recently met this fate), we will all suffer. Believe me, the Society cannot afford to publish its own journal.

While on the topic of the termination of publications, I wish to announce that Academic Press has decided to stop the publication of Current Topics in Comparative Pathobiology because it was not profitable. Maybe, in time, when the officers of Academic Press feel that it can be profitable, that series will be reinitiated.

How are members of the Editorial Board of the Journal of Invertebrate Pathology selected? Do I simply choose my friends? The answer is that the Board is selected by all of the members of the Board present at the annual meetings of the Society. Once a year the current members of the Board meet at a luncheon at the expense of Academic Press. Among other policy matters, names of prospective members are proposed as replacements for retiring ones. Each member serves for a three-year term, unless his or her service is totally unsatisfactory. After considering the scientific reputation and area of specialty of the nominated individuals, the replacements are selected and notified by me about November. Being an international journal, consideration is given to having non-American representatives on the Board.

I was asked by a junior member of Lehigh's faculty if I got paid for being the Editor. The answer is "no."

Finally, some suggestions relative to the preparation of manuscripts. My first rejection by an editor has taught me that I must write and rewrite each manuscript at least four times. Make sure that every comma, sentence, and paragraph is perfect. There is nothing more frustrating to an editor than to read a poorly written paper, especially since entire weekends have to be spent editing. Make sure to check all of the instructions given on the inside back cover of each number of the Journal. These must be followed in every detail without exception. Pay particular attention to the way references are cited in regular papers and in Research Notes--the styles are different! Each manuscript must be typed, double-spaced, on 8½" x 11" white paper, and three copies are to be submitted. This also means three copies of all tables, graphs, and illustrations. One copy is maintained in the editorial office under lock and key. The other two copies are sent to reviewers.

Much of the expense in Xeroxing reviewers' comments to be returned to authors is borne by this Institute (and I don't mean Lehigh University). So, from the financial standpoint the "fun" of being your Editor is a losing proposition. There is no need to even bring up the topic of angry letters and phone calls from authors of rejected manuscripts or from reviewers who see an article in press that they had rejected (remember the "break the tie" policy). Of course your Editor is to blame in every case; and an editor friend of mine who has had almost 15 years of experience told me recently--not that I didn't already know--that an editor does not make friends. I have the scars to vouch for this fact.

What other advice can I give to a prospective author? If you don't own one, purchase a dictionary. All too often I have heard the criticism from colleagues in the humanities that scientists have lost their sense of scholarship to test tubes, graphs, and jargon. I, as an academician and as an editor, hope this is not true, although sometimes I tend to agree. Please remember that scientific writing is basically no different from any other type of writing. It calls for proper sentence construction and the usage of proper

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EDITING A JOURNAL
Continued

verb tenses. Leave out the jargon. A good friend of mine at a distinguished university on the West Coast (of the United States) told me a couple of years ago that, in his capacity of Associate Dean, he has to interview numerous candidates for faculty positions. Through the years he has established the habit of reading critically the applicants' correspondence and checking for the proper use of the written word. In addition, during the interview he pays special attention to the applicants' command of the spoken word. He told me that he has found a direct correlation between poor scholarship (including teaching) and poor writing and the usage of slang. Since talking to him I have paid particular attention to these hints, and he is right! The moral of this story is that if you want to make a good impression on those who will be reviewing your manuscript, write English as it is meant to be written. The same holds true if you want your Editor to welcome your manuscripts. Scholarship is of prime importance with the Journal of Invertebrate Pathology. There is a correlation between careless writing and plate preparation and poor science. Speaking of plate preparation, all graphs and other illustrative materials must be lettered with a lettering set or, more conveniently, with stick-on letters. Typewritten numerals and letters will not do!

If what I have conveyed sounds harsh and heartless, it's because I do not want young authors to go through the experience that I did years ago--that of receiving a rejected manuscript. And I want those who have a professional and emotional tie to our Journal to continue to take pride in a prestige publication. The Editorial Board welcomes manuscripts from everyone and from every nation, provided the manuscript is in agreement with the policy statement that recently appeared in the Journal (1972, 20:ii-iv). If you want to increase the chances of your manuscript being published, please subscribe to the guidelines provided. If everything is in acceptable form, we can get your contribution published in six months!



INVERTEBRATE PATHOLOGISTS

Dr. Oreste Triggiani from the Institute of Entomology, University of Bari, Italy, has spent three months (July 27 through October 22, 1972) at the Laboratory of Biological Control, Institute of Plant Protection, Poznan, Poland, receiving training in insect pathology. After his return to Italy, Dr. Triggiani intends to undertake study on virus and protozoan diseases of various insects, especially olive pests; e.g., Dacus oleae and Prays oleae.

Recently Dr. Jerry Lee Fowler completed a post-doctoral appointment as International Research Associate at the University of Maryland Program in Salvador, Bahia, Brazil. His responsibilities included collection and identification of mosquito larvae and their parasites. The primary objective was the isolation and maintenance of mosquito pathogenic virus for use in bioregulation of vector species. Dr. Fowler is interested in obtaining a position and can be contacted at: Braz-Am Biomed Program, Am Con Salvador Bah, APO New York 09676 USA.

The World Health Organization unit for Vector Biology and Control convened an international conference at the Center for Disease Control (CDC), Atlanta, Georgia, USA, 16-20 April. Invertebrate pathology and comparative pathology were the center of interest for this working conference on "Safety of Biological Agents for Arthropod Control." Among the 47 participating scientists from six nations, approximately one half were members of the Society for Invertebrate Pathology.

The impetus for the working conference was the joint FAO/WHO concern for the effects of insect pathogens on non-target organisms, particularly aquatic and estuarine invertebrates and mammals.

During the same week in Atlantic City, a symposium was held, in the meetings of the Federated Association of Societies of Experimental Biology, on Animal Models for Biomedical Research--Invertebrates. Centering on the marine invertebrates, one consequence of the symposium was a resolution to initiate special consideration in local and federal regulations for collectors and distributors of invertebrates used for research purposes. At present these specialized collectors are considered a commercial fishing activity. Here is an issue that should be supported by our Society to facilitate service to the scientific community.

I am pleased to announce the appointment of the nominating committee for officers of the Society. Chaired by Dr. Denis Burges (United Kingdom), the Committee includes Dr. Marenes Tripp (USA), Dr. Jerzy Lipa (Poland), and Dr. Hitoshi Watanabe (Japan).



Dr. John Shadduck (left), Department of Comparative Medicine, Southwestern Medical School, University of Texas, Dallas, Texas, USA and Dr. Jaroslav Weiser, Head, Laboratory of Insect Pathology, Academy of Sciences, Prague, Czechoslovakia

NOMINEES FOR HONORARY MEMBERSHIP

PROFESSOR PAUL BUCHNER

The proposal to honor Dr. Paul Buchner may seem a little unusual to the members of the Society for Invertebrate Pathology because Paul Buchner is very well known for his excellent investigation of the intracellular symbiotes. We are guided in this choice by the fact that new approaches in invertebrate pathology should be recognized and one of these approaches is in the discipline of symbiosis. Today it is questionable if it is still possible to draw a clear line between pathogenicity and tolerated or symbiotic behavior of intracellular viruses, bacteria and mycoplasmas when we know of the existence of latency and activation of viruses, or incomplete forms or other persistent forms which remain inactive during long periods or through many generations. We are convinced that the unification of effort between pathologists and those specialists in the field of symbiosis would provide a very fertile area of study in invertebrate pathology.

If the members of the Society for Invertebrate Pathology agree with this approach, there would be no better way to materialize this unification than to provide honorary membership to one of the foremost promoters of the study of symbiosis.

Professor Paul Buchner, born in 1886 in Germany, is a pioneer in the extensive study of symbiosis; he is certainly one of those responsible for the original development of that science. Apart from a great number of publications concerning morphology, structure and life cycle of an impressive number of intracellular microorganisms of invertebrates and vertebrates, we owe to Buchner the monumental work, "Endosymbiosis of animals with plant microorganisms," first published in Germany in 1927, again in 1933 and 1953, and translated into English in 1965. It is an indispensable reference book of symbiosis to every biologist. The investigations of Buchner have added essential contributions to every section of that science. Even today at the age of 87, retired in Italy on Ischia, this scientist's activity is shown by the regular appearance of new publications.

His image has added to the stimulation of numerous colleagues in their work, and we think it would be fitting to accept Professor Buchner in the Society of Invertebrate Pathology as an honorary member.

SUSTAINING MEMBERS

WE ARE PLEASED TO ADD THE NAMES OF THREE COMPANIES TO OUR SUSTAINING MEMBERSHIP:

Nutriline Products Inc.
5600 Beach Boulevard
Buena Park, California 90620

International Minerals and Chemical Corp.
Growth Sciences Center
Libertyville, Illinois 60098

Thompson-Hayward Chemical Co.
5200 Speaker Road
P.O. Box 2383
Kansas City, Kansas 66110

JOHN G. MACKIN

Dr. Mackin could truthfully be called the father of the pathology of infectious disease in oysters. In his pioneering work in Labyrinthomyxa (Democystidium) marinum he introduced the use of histological techniques for the diagnosis of oyster disease. He worked out, along with his colleagues, the histopathology and ecology of Democystidium disease of oysters in Louisiana, the first instance in which the causative organism for an oyster epizootic was identified and thoroughly understood. Although the disease was later found to be widely distributed along the Gulf Coast and the Atlantic Coast of North America, little additional information on the pathology was left to be added to Mackin's contributions.

As his research on Democystidium and other oyster diseases in Louisiana became known, Dr. Mackin was called upon for help by oyster biologists confronted with disease problems from all over the world, serving as a consultant to the national fishery department of Australia, Holland and the United States as well as a number of state fishery departments in the United States and industrial concerns. In studying slides of oysters from epizootics from virtually all over the world, Dr. Mackin unquestionably has more knowledge and has contributed more through his own publications and through advice to other investigators in the field of oyster disease than any other individual.

Dr. Mackin, who was born in 1903 in Waxahachie, Texas, was awarded his Ph.D. from the University of Illinois in 1933. He has served as Associate Professor at the College of William and Mary and the Virginia Fisheries Institute, as Limnologist and Professor of Zoology at the University of Oklahoma, and as Professor and Head of the Department of Biology at the Texas A & M University. Dr. Mackin is a founding member of the Society for Invertebrate Pathology and a charter member of the Society for Limnology and Oceanography in addition to his membership in the American Microscopical Society and the American Society of Zoologists. He is a Fellow of the Oklahoma Academy of Science and the Texas Academy of Science. In 1967, Dr. Mackin received an award for excellence in research from the Former Students Association of the Texas A & M University. He has served as a consultant to Australian Fisheries, Dutch Fisheries, the U.S. Fish and Wildlife Service, the states of Texas, New Jersey, Florida, and Alabama and numerous industrial concerns. Dr. Mackin has more than 50 published research papers and 200 technical report documents prepared at the request of government agencies and the National Shellfisheries Association.

See enclosed ballot

JIP SUBSCRIPTION RATE

Academic Press has announced that the price of the Journal of Invertebrate Pathology will be \$13.00 per volume or \$26.00 per year after July 1, 1973 for all members throughout the world. This is a reduction in price for member subscribers of the Journal outside the United States and Canada. The new rate applies to 1973 subscriptions.

OBITUARY

Leslie Alfred Stauber
1907-1973

Leslie Stauber was born in Newark, New Jersey on June 6, 1907. He entered Rutgers University, received his B.S. in 1929 and his M.S. in 1930. Dr. Thurlow C. Nelson, a biologist of extraordinary experience and perception, sparked Stauber's interest in many areas of biology but particularly in parasitology. Entering the University of Chicago, Stauber came under the tutelage of Dr. William H. Taliaferro and began to pursue in earnest his interest in host-parasite relationships. He studied the effects of host activity in malaria parasite periodicity in spite of serious illness. He also served as an assistant to the Taliaferro's on a field trip to study malaria in monkeys of Panama. That memorable trip served as a source of scientific ideas and nonscientific stories for the rest of his career. After his years in Chicago he was committed to learning the details of existence of parasites found within the cells of their hosts. In later years he used *Leishmania* as his experimental tool and made numerous significant contributions to our understanding of these intracellular parasites.

In the fall of 1935 the Staubers returned to New Jersey where Les assumed his new responsibilities as Assistant Biologist at the Oyster Research Laboratory at Port Norris. With characteristic energy, both physical and intellectual, he turned to the study of oysters, their enemies and diseases. This marked the beginning of a second major biologic area in which he was to make substantial contributions over many years. Working under laboratory conditions that might have seemed intolerable to lesser men (and impossible to many now) he patiently accumulated data on oyster drills and various other invertebrate associates of oysters. In 1937, his thesis completed, the University of Chicago awarded him the Ph.D. His first two publications (see Trager, W., 1972, *Exp. Parasitol.* 32:1-10, for list of publications and related information) appeared that year, one on malaria and one on oyster drill control. This duality of scientific interest set the pattern for the rest of his scientific career.

During the early days of World War II Stauber joined the Squibb Institute for Medical Research to study malaria chemotherapy and to investigate the possibility of malaria immunization. In 1944 he returned to his alma mater, Rutgers University, as a member of the faculty of the Department of Zoology. He taught invertebrate zoology and parasitology to large numbers of veterans with the dedication and enthusiasm so characteristic of everything he did. He served as chairman of the department from 1959 to 1964 and again from 1965 to 1967, leading it through times of great change. He was very active professionally during this period as he served on the Parasitology and Tropical Medicine Study Section of the National Institutes of Health from 1954 to 1959 and as chairman from 1957 to 1959, as a member of the Committee on Malaria and Parasitic Diseases of the Armed Forces Epidemiology Board and later as a member of Microbiology Training Grant Committee of NIH from 1960 to 1965. He served also as consultant for the National Science Foundation and various pharmaceutical companies. Stauber's experience in diverse areas of biology and his ability to extract important principles from complex data gave him a perspective and expertise that was extremely valuable in these situations.

At the time of his death Dr. Stauber was a nominee for Honorary Membership in the Society for Invertebrate Pathology.

Professional societies valued his services as well. He served as President of the Theobald Smith Society, Vice President of the National Shellfisheries Association, President of the New York Society of Tropical Medicine and President of the American Society of Parasitologists in 1962. In addition he served as counselor to the American Society of Tropical Medicine and Hygiene, and on the editorial boards of the *Journals of Parasitology and Experimental Parasitology*. In short, he was asked by his colleagues to perform all the tasks that require the highest level of professional expertise. This was a mark not only of their respect for his professional competence, but a measure of his wisdom and leadership ability.

Undoubtedly the most lasting contribution any academician can make is to train students to carry on research. Les Stauber was unusually successful in this. His own productive research was an excellent model for students; his friendly supportive nature helped many students reach the very high standards he set.

Les Stauber did another important kind of teaching as well. He had the knack of the cogent comment, the ability to pull together scattered ideas or to introduce a new idea that might unite isolated observations. He did this often at national meetings of professional societies, but nowhere was this ability used more effectively than at the Oyster Mortality Conferences held during the 1960's. These were workshop sessions attended by many invertebrate pathologists particularly those interested in the MSX disease of oysters and first discovered by Stauber, H. H. Haskin and John Mackin. These informal meetings not only led to greater understanding of the disease caused by *Minchinia nelsoni* but to renewed emphasis on understanding principles of pathogenesis in invertebrates.

Dr. Stauber died March 27, 1973. He is survived by his wife Mabel, and his three children Amy, William and Nelson. He will be missed by all who were fortunate enough to have known him.

M. R. Tripp
University of Delaware

LETTERS

I would like to add "infect" and "infection to the list given by Dr. David (*SIP Newsletter*, 5:1, 1973; p. 7). I find that quite often "infect" is used instead of "inoculate," and "infection" instead of "inoculation." It is important that clear distinction be made in the use of these words as shown below:

Infection denotes the successful invasion by a pathogenic microorganism of a susceptible host, resulting in the presence of the microorganism within the body of the host, whether or not this causes detectable pathologic effects (E. A. Steinhaus and M. Martignoni, 1962, "An abridged glossary of terms used in insect pathology").

The important criterion in this case is the successful invasion by the microorganism of the host tissue.

Infect should be used in the same sense as "infection."

Inoculate means the administration of the pathogen to the host (David, 1973, *SIP Newsletter* 5:1, p. 7).

Inoculation should be used in the same sense as "inoculate." Inoculation may or may not result in infection.

Sardar S. Sohi
Research Scientist
Canadian Forestry Service

UPDATE: AFFINITY GROUP TO LONDON

Workshop (continued)

FIRST SESSION (Chairman, J. D. Briggs)

- Relations between Disease Syndromes and Waste Water Discharges in Southern California (A. J. Mearns and M. J. Sherwood)
Effects of Herbicides on Aquatic Plants (G. E. Walsh)
The Influence of Genetic Factors on Pathologic Effects in Aquatic Organisms (C. S. Richards)
"Inert" Mineral Compounds as Potential Agents of Tissue Damage and Toxic Transport among Estuarine Fishes (J. M. O'Conner and J. A. Sherk, Jr.)
The Uptake and Elimination of Foreign Abiotic Particulate Matter Injected into the White Shrimp (C. T. Fontaine)

SECOND SESSION (Chairman, M. R. Tripp)

- Effects of Organophosphate Pesticides on Adult Oysters (M. R. Tripp)
Histology and Ultrastructure of Hepatopancreas of Pink Shrimp Exposed to Polychlorinated Biphenyls (J. A. Couch and D. R. Nimmo)
Effects of Feeding Two Antibiotics to Laboratory-Reared Shrimp (D. V. Lightner and J. P. Corliss)
Physiological Consequences of Polychlorinated Biphenyl Contamination and Salinity Stress in Shrimp (D. R. Nimmo and J. A. Couch)
The Effect of Water Chemistry on the Toxicity of Malachite Green (R. P. Phelps)
Acute Effects of Organochlorines upon Elements of a Marine Food Chain (E. J. Zillioux and L. L. Farmer)

THIRD SESSION (Chairman, F. Perkins)

- Hepatic Alterations in Channel Catfish Exposed to Methyl Mercury: A Light and Electron Microscopic Study (D. E. Hinton)
The Chronic Toxicity of Methyl Mercury to the Channel Catfish: Pathologic Effects (J. H. Tucker and G. L. Phipps)
Histopathology of Cunner after Acute Exposure to Cadmium (M. W. Newman)
The Accumulation and Depuration of Mercuric Acetate in Adult Oysters (P. A. Cunningham)
Cellular Changes in Transporting Epithelia in Flatfish after Exposure to Mercury (R. T. Jones)

FOURTH SESSION (Chairman, J. C. Harshbarger)

- Hepatotoxic Effects of Dimethylnitrosamine on *Fundulus heteroclitus* (L. A. Ferraro and R. W. Wolke)
Effects of N-Nitrosodimethylamine on the Crayfish, *Procambarus clarkii* (J. C. Harshbarger)
Static Bioassay Tests of Petroleum Refinery Waste Waters on Redear Sunfish (L. H. Myers and J. Matthews)

PANEL DISCUSSION (Audience Participation)

- Application of Pathobiologic Data to Solution of Pollution Problems (Moderator, J. A. Couch; Panel Members: S. M. Ray, F. Perkins, T. W. Duke, J. Briggs, W. E. Ribelin)

SUMMARY AND CONCLUDING REMARKS (C. J. Dawe)



SPICARIAS SOLICITED

Contributions of isolates of entomogenous Spicarias are requested by Dr. George Allen, Department of Entomology & Nematology, 3103 McCarty Hall, University of Florida, Gainesville, Florida 32601 USA.

The cost for the Society "affinity group" fare from New York to London and return, leaving Tuesday, August 28, at 8:00 P.M and returning to New York on Wednesday September 12, is \$306.00. A coach has been arranged to carry our group from the London air terminal to Littlehampton in Sussex at a cost of \$4.60 per person. Luggage handling costs will be \$0.35 per bag. If the group becomes large, we can expect to share an extra \$25.00 "meeting service" for the entire group. The latter service will assure that the group will be accommodated at customs and at passport clearance, and that all baggage is brought together.

It is necessary that the "affinity group" (Society members, immediate family, and "friends" of the Society) travel together from New York to London and return. The "affinity group" fare is attractive when compared to the 14-28 day rates for individuals leaving before September 1. This fare will be approximately \$440.00. Round trip individual fares beginning September 1 on a 14-28 day basis will be \$370.00. Major savings can be made by individuals who wish to travel before the first of September and stay at least 22 days, and not more than 45 days. This round trip fare will be approximately \$330.00. If an individual wishes to leave September 1 or later and is willing to stay at least 22 days, the round trip fare from New York to London will be \$260.00.

Forty confirmed reservations are the minimum to take advantage of our 15-day round trip "affinity group" fare. Deposits of \$50.00 are required to reserve space and are to be deposited with:

RICHARD LEWIS TRAVEL
23 15th Avenue
Columbus, Ohio 43210

...due June 1, 1973, and refundable in full by August 1 if individuals withdraw from the "affinity group" or if the "affinity group" arrangements are cancelled for any reason. Full payment will be necessary by approximately July 27. An earlier notice of the "affinity group" reservations indicated a ten percent deposit within thirty days of departure; however, it is necessary to determine, as soon as possible, the total number of expected participants in the "affinity group."



SCIENTIFIC FILM -- MYCOSES OF INVERTEBRATES

The film, "Mycoses of Invertebrates," produced by Professor C. Vago and Dr. A Vey was described in the SIP Newsletter, V:1, p. 4. This film can now be obtained by addressing an inquiry to:

Mrs. Marie Rose Adler
F.A.C.S.E.A.
972 Fifth Avenue
New York, New York 10021 USA

B A L L O T

SOCIETY FOR INVERTEBRATE PATHOLOGY

MAY 1973

HONORARY MEMBERSHIP

The following nominations have been made for Honorary Membership in the Society for Invertebrate Pathology. A candidate for Honorary Membership shall be declared elected if affirmed by four-fifths of the votes cast.

	Yes	No
Paul Buchner	_____	_____
John G. Mackin	_____	_____

Supporting material for these candidates appears in the Newsletter, page 6.

PLEASE RETURN THIS BALLOT TO Dr. Marion A. Brooks
Entomology, Fisheries and Wildlife
University of Minnesota
St. Paul, Minnesota 55101 USA

Ballots must be returned by July 1, 1973

Return ballot in a sealed envelope, without identifying marks.