

newsletter

society for invertebrate pathology

Volume 21, Number 2 June 1989

XXII Annual Meeting Society for Invertebrate Pathology University of Maryland August 20-24, 1989

This is the final notice of the 1989 annual meeting of the Society for Invertebrate Pathology. It will be held at the Center of Adult Education on the campus of the University of Maryland, College Park, Maryland 20742. The activities will begin on Sunday, August 20th with the meeting of the Council. A mixer is scheduled for that evening at 1800 hours at the Center. Symposia and contributed papers will begin after the opening session and the Founder's Lecture on Monday a.m., August 21st and will run through Thursday, August 24th.

It is important for those of you who wish to attend the Banquet and Dance on Tuesday, August 22nd to register early because our contract with the Center of Adult Education provides for a very limited number of seats for late-comers. Wednesday afternoon has been left open for touring or informal "get-togethers." The 5k race will begin at 4:00 p.m. (1600 hours) followed by a Bar-B-Que and the awards for the best student papers.

We of the organizing committee hope that this year's turnout and talks will be as good as our meeting in San Diego, last year. We suggest that you also come prepared to visit some of the many tourist attractions in the Baltimore-Washington Metropolitan area and/or take time to relax on near-by Chesapeake Bay or our ocean resorts.

Any further questions about the program should be directed to Dr. Edward M. Dougherty, Insect Pathology Laboratory, Room 214, Bldg. 011A, BARC-W, Beltsville, MD 20705, (301) 344-3692. Other questions: Dr. James L. Vaughn (301) 344-3689 (same address as above) or Dr. Charles Reichelderfer, Department of Entomology, University of Maryland, College Park, MD 20742, (301) 454-7138.

The following is a list of professional invertebrate pathologists in the area surrounding the meeting site. You may want to contact them prior to the time of the meeting if you wish to make arrangements for further discussion of their specialty and a visit to their laboratory.

Beltsville Agricultural Research Center, Beneficial Insects Laboratory: Bruce, W., parasitic mites; Calderone, N., honeybee pathology; Delfinado-Baker, M., parasitic mites; Shimanuki, H., honeybee pathology; .

U.S.D.A., National Program Staff: Faust, R., <u>B.</u>t. genetics; Soper, R., fungi.

Bioscience Building: Adams, J., elect. microscope; Beagle, C., B. \underline{t} .; Dougherty, E., NPV mol. biol.; Hackett, K. mollicutes; Lynn, D. insect tissue cell culture; Martin, P. <u>B</u>. \underline{t} . genetics; Shapiro, M., Gypsy Moth NPV; Tompkins, G., NPV <u>B</u>. <u>t</u>. field efficacy; Vaugh, J., insect tissue cell culture; Whitcomb, R., mollicutes.

National Marine Fisheries Service, Oxford, MD: Kern, F., molluscan pathology; Farley, A., molluscan pathology; Rosenfield, A., marine invertebrate pathology; Sindermann, C., marine pathology.

Museum of Natural History, Washington, DC: Harshbarger, J., insect neoplasias; Peters, E., insect neoplasias.

Department of Entomology, University of Maryland, College Park, MD: Armstrong, E., protozoa; Reichelderfer, C., <u>B. t</u>. genetics, NPV.

A limited amount of space is available for additional Poster presentations. However, presenters should bring 50 copies of their abstract for distribution at the meeting, since it will not appear in the program.

For further details about the meeting site, the surrounding area, expected weather, etc., please refer to the previous anouncements in the preceeding two newsletters.

BRING YOUR COPY OF THE PROGRAM AND ABSTRACTS TO THE MEETING. EXTRA COPIES OF THE ABSTRACTS AT THE MEETING ARE INTENDED FOR NON-MEMBER REGISTRANTS WHO DO NOT RECEIVE AN ADVANCE COPY.

Report of the second meeting of the IOBC/WPRS Working Group on Insect Pathogens and Insect Parasitic Nematodes.

6-8 March 1989, Rome, Italy.

The second meeting of the working group was held in Rome and attended by 70 scientists from 13 different countries. Over forty papers were presented, of which the summaries will be published in an IOBC/WPRS bulletin before the end of 1989. The first day was largely filled with reports on the current status of microbial control and the registration of insect pathogens in the various West European countries. Dr. J. Lipa gave an extensive review of the situation in Eastern Europe which will be fully published in the proceedings. The general picture was that countries only Bacillus thuringiensis was most in registered and sold as a microbial control agent. In Switzerland the GV's of Cydia pomonella and Adoxophyes orana, in West Germany the GV of C. pomonella and in Finland the NPV of Neodiprion sertifer have registration. In various countries procedures for registration of baculoviruses and fungi have been started. Insect parasitic nematodes do not require registration in any of the countries except Switzerland. There is however considerable concern about introducing non-indigenous nematodes.

Another main theme of the meeting was the control of soil pests with entomoparasitic nematodes. On various subjects identified at the working group meeting in 1987 as requiring extra attention, such as compatibility of nematodes with pesticides, substantial progress was made. It was agreed to further intensify the collaboration on the identification of **Heterorhabditis** species and strains and their symbiotic bacteria with DNA techniques and to investigate the effects of nematodes on non-target organisms.

Various presentations were also given on the genetic manipulation of insect pathogens and on the fate and persistence of released insect pathogens in the environment, a theme which will certainly also be dealt with again at the next meeting, which will be held in Wageningen, The Netherlands, in April 1991. Another subject for this meeting will be neglected groups of insect pathogens.

The meeting in Rome was organized by Dr. Katalin Deseo with support from ENEA. In addition to the scientific part, the social programme was extremely interesting and pleasant. Our thanks to all the local organizers.

> Peter Smits Chris Payne, convener

MEMBERS IN THE NEWS

Dr. Max D. Summers

Dr. Max Summers, a member of our Society for Invertebrate Pathology, was recently elected to the National Academy of Sciences. He was one of 60 scientists nationwide accorded this honour.

SIP Newsletter

The SIP Newsletter is produced four times a year by the Society for Invertebrate Pathology. Annual dues (U.S. funds) in the Society are: regular members, \$15.00; and students, \$6.00. Members receive the SIP Newsletter and a copy of the abstracts of all SIP Annual General meetings free, whether or not they attend. Application forms for membership in the Society may be obtained from the Treasurer, Mr. Fredrick G. Kern, Cooperative Oxford Biological Laboratory, 18 South Morris Street, Oxford, Maryland 21654, U.S.A.

Council Officers of the Society are: President Donald W. Roberts, USA Vice President Elizabeth W. Davidson, USA Past President John C. Harshbarger, USA Secretary Robert C. Anderson, USA Treasurer Fredrick C. Kern, USA Trustees Christopher J. Bayne, USA. Peter Faulkner, Canada Christopher C. Payne, England Dudley E. Pinnock, Australia

Send news items and other contributions to: David Tyrrell, Editor SIP Newsletter Forestry Canada Forest Pest Management Institute P.O. Box 490 Sault Ste. Marie, Ontario, Canada P6A 5M7

DEADLINE NEXT ISSUE: September 15, 1989

Summers' significant contributions have been in the area of baculovirology. His pioneering studies on the cellular and molecular biology of baculoviruses has led to fundamental knowledge about virus entry into cells, virus structure, replication and most notably, the organization and function of the genome of the nuclear polyhedrosis virus of Autographica californica. These studies have led to the cloning and sequencing of the Acv polyhedrin gene and the consequent development of the first baculovirus expression vector system for the synthesis of numerous proteins of biomedical and agricultural interest. This system is now considered among the most effective for abundant synthesis of complex eukaryotic gene products. Summers' studies have also enhanced the potential for genetic improvement of baculoviruses for biological control. In the recent past his laboratory has conducted seminal studies on the cellular immunity system involving polydnavirus-insect-host relationships.

Summers received an A.B. from Willmington College in 1962 and a Ph.D. from Purdue University in 1968. He is a Fellow of the American Association for the Advancement of Science, Director of the Center for Advanced Invertebrate Molecular Sciences, and a Distinguished Professor of Entomology at Texas A & M University.

Dr. James D. Harper.

Dr. Jim Harper accepted a position April 1, 1989 as Head of the Department of Entomology at N.C. State University. Jim spent the last 20 years at Auburn University where he taught courses in insect pathology and biological control and worked with various bacteria, fungi and viruses as microbial control agents. In addition to a faculty of 36 entomologists, Jim must also now care for an entire greenhouse's worth of orchids and other plants he moved to Raleigh but without a greenhouse for the near future!

Wayne M. Brooks.

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NEW JOURNAL ANNOUNCEMENT

"Herpetopathologia"

A semiannual journal of the International Group on Herpetopathology publishes research articles, reviews and short notes on diseases of reptiles and amphibians covering physiopathology, immunology, neoplasia, microbiological and parasitic diseases, teratology and environmental injury.

Professor Gilbert Matz, University of Angers, is Editor-in-chief. SIP members on the Editorial Board in addition to Professor Matz are Professor C. Vago and Dr. John Harshbarger.

Annual subscription (two issues) rate is 160 French Francs (about \$25.00 U.S.) by check drawn on a French bank.

Please make checks payable (in French Francs) to: Monsieur l'Agent Comptable de l'Université d'Angers. Send check with order to: Presses de l'Université, 5, Boulevard Lavoisier, 49045 ANGERS Cedex, France. An order form, Table of Contents of the

An order form, Table of Contents of the first issue and a complete list of the Editorial Board are inserted.

NEW PUBLICATION

American Fisheries Society Special Publication No. 18: <u>Disease Processes in</u> <u>Marine Bivalve Molluscs</u> (edited by W.S. Fisher, 315 pp.) Thirty articles by respected scientists on (a) the major parasitic and pathologic conditions of bivalve molluscs in North American and Europe, (b) parasite morphology, strategy, and evolution (c) host defenses, (d) environmental influences, (e) management practices and (f) potential research tools and technology. Available from American Fisheries Society, 5410 Grosvenor Lane, Suite 110, Bethesda, MD 20814-2199. Price: US \$34 (AFS members, US \$28)

Chapter headings include:

Major parasitic and pathologic conditions

- Bonamiasis: A model study of diseases in marine molluscs -Grizel, Mialhe, Chagot, Boulo and Bachere (France)
- Uncertainties and speculations about the life cycle of the eastern oyster pathogen **Haplosporidium nelsoni** (MSX) -Haskin and Andrews USA)
- Epizootic diseases of oysters associated with viral infections Comps (France)
- Aber disease of edible oysters caused by Marteilia refringens – Figueras and Montes (Spain)
- Epizootiology of the disease caused by the oyster pathogen **Perkinsus marinus** and its effects on the oyster industry - Andrews (USA)
- Mytilicola intestinalis, a copepod parasite of blue mussels - Davey and Gee (England)
- Recent investigations on the disseminated sarcomas of marine bivalve molluscs Peters (USA)

Parasite morphology, strategy and evolution

- Structure of protistan parasites found in bivalve molluscs - Perkins (USA)
- Strategies employed by parasites of marine bivalves to effect successful establishment in hosts - Cheng (USA) Ecology and evolution of bivalve parasites - Figueras and
- Ecology and evolution of bivalve parasites Figueras and Fisher (Spain, USA)

Host defenses

- Inflammation and wound repair in bivalve molluscs Sparks and Morado (USA)
- Cellular defense mechanisms of oysters and mussels Feng (USA)
- Bivalve hemocyte morphology Auffret (France)
- Humoral defense factors in marine bivalves Chu (USA)
- Role of lectins in invertebrate humoral defense Olafsen (Norway)
- Host-parasite interactions in oysters, Crassostrea virginica, selected for resistance to Haplosporidium nelsoni (MSX) disease - Ford (USA)

Environmental influence on host response

- Environmental influence on bivalve hemocyte function Fisher (USA)
- Effects of anthropogenic agents on bivalve cellular and humoral defense mechanisms Anderson (USA)

Management practices

- Management strategies to control diseases in the Dutch Ostrea edulis culture - van Banning (Netherlands)
- Circumvention of mortalities caused by Denman Island oyster disease during mariculture of **Crassostrea gigas** – Bower (Canada)
- Management strategies for MSX (Haplosporidium nelsoni) disease in oysters - Ford and Haskin (USA)
- Management strategies to control the disease caused by **Perkinsus marinus** – Andrews and Ray (USA)
- Summer mortality of Pacific oysters Beattie, Davies, Downing and Chew (USA)

Potential research tools and technology

- A physiological approach to the study of bivalve molluscan diseases - Newell and Barber (USA)
- Cell separation by centrifugal elutriation Bachere, Chagot and Grizel (France)
- Flow cytometry: a tool for cell research in bivalve pathology - Fisher and Ford (USA)

- Chemiluminescence an advanced tool for measuring phagocytosis Wishkovsky (USA)
- Use of immunoassays in haplosporidian life cycle studies -Burreson (USA)
- Monoclonal antibodies: a tool for molluscan pathology -Miahle, Boulo, Grizel, Rogier and Paolucci (France)

Bivalve mollusc cell culture - Mialhe, Boulo and Grizel (France)

POSITION AVAILABLE

Bacteriologist/Biochemist

A post-doctoral position is available immediately to do research in the area of biopesticides with particular reference to control processes in bacteria. The successful candidate will be part of a research team in the University working in cooperation with industry to develop novel insect control systems using nematodes and bacteria.

Qualifications include a strong research background in bacteriology and/or biochemistry; experience in invertebrate physiology/ pathology an asset.

Salary negotiable.

CLOSING DATE FOR APPLICATIONS IS 20 AUGUST 1989 OR WHEN THE POSITION IS FILLED.

Simon Fraser University is an equal opportunity/affirmative action employer. Canadian immigration policy requires that priority be given to Canadian citizens and permanent residents.

Applications should include: Curriculum vitae, a description of research interests and experience, and the names and addresses of three referees. Send application as soon as possible to Dr. John M. Webster, Department of Biological Sciences, Simon Fraser University, Burnaby, Vancouver, B.C., Canada V5A 1S6.

NOTE TO CONTRIBUTORS.

The SIP Newsletter is produced by offset printing from camera-ready copy provided by your Editor. With the purchase of new equipment at FPMI, I should now be able to handle material submitted on 5% inch floppy disc input under any of the popular word processing programmes. (Please the name of the input programme with your include contribution). Will contributors note that this will be the preferred method of submission of material for the Newsletter from now on. I anticipate that this will reduce the amount of work necessary for production of the camera-ready copy and improve the quality into the bargain. If this method of submission is not possible, contributors are asked to submit their material in a form suitable for direct paste-up and reproduction wherever possible. Copy should be typed in 5 inch (125 mm) columns, preferably in 12 pitch type and right-justified if possible. Type single space and provide a clean clear original. Facilities are available for retyping material at the Institute if necessary. For general format, follow a recent issue of the Newsletter. Thankyou.

David Tyrrell, Editor.



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