

# newsletter

# society for invertebrate pathology

Volume 18, Number 1 February 1986

#### FROM THE PRESIDENT

The activities of our members benefit the world at large. It is heartening to see concrete evidence of this sometimes. In the opinion of many, Bacillus thuringiensis var. israelensis (B.t.i. serotype H-14) was developed just in time to prevent the well known river-blindness control project, in West Africa, being seriously impaired by the appearance of resistance to all the permitted insecticides. The following quotation from an article by the Director General of the World Health Organization announces that this programme has now achieved its objectives (Mahler, H.; World Health, October, 1985, p. 5):-

"Five years ago the World Health Organization celebrated the final conquest and eradication of a killer disease, smallpox. This year we are marking yet another signal victory in mankind's perennial struggle against disease. We cannot, and do not, claim to have eradicated onchocerciasis, and perhaps that can never be fully realised. But in the ten years since the Onchocerciasis Control Programme was launched in the basin of the Upper Volta River, the combined efforts of many countries and great numbers of devoted personnel in a variety of fields of action have given us the upper hand over this ugly, blinding disease.

Over 90 per cent of the present programme area is now under effective control. What this means is that the dreadful cycle of infection has been interrupted, lands bordering many West African rivers can be declared safe for resettlement and farming, and the millions of young people born there over the years will no longer be threatened with "river blindness".

The seven countries concerned have every reason to congratulate themselves on this achievement. So have the donor countries and agencies whose gallant contributions have made the control programme possible. The four sponsoring agencies of the UN systems — the UN Development Programme (UNDP), the Food and Agriculture Organization (FAO), the World Bank and WHO (the executing agency) — all take a bow.

But winning one major battle does not mean the war is won. The gains must be consolidated, and there can be no slackening of our efforts. The goal of OCP is not to wipe out the blackfly pest. The aim is to so diminish its numbers that it no longer transmits the microfilariae of onchocerciasis from one human victim to another, in the seven countries concerned. "

Although not mentioned in this short article, <u>B.t.i.</u> played its part.

DENIS BURGES

#### ELECTION OF OFFICERS

The following persons have agreed to be nominated as officers and trustees of the Society. Ballots will be mailed before April 1. Please be sure to return your ballot promptly to assure that your vote will be counted. In accordance with the Bylaws of the Society, members in arrears more than one year are not eligible to vote. Be sure your membership is paid up before the election!

SLATE OF NOMINEES

President:

John C. Harshbarger

Vice President:

James D. Harper Donald W. Roberts

Secretary:

Ann Cali

John C. Cunningham

Treasurer:

Susan E. Ford Robert R. Granados

Trustee:

Christopher J. Bayne Rodney P. Dales Christopher C. Payne

Biographies of all nominees are printed below. Please refer to this information when your ballot arrives.

Y.A. Tanada, Chairman, Nominating Committee

Elizabeth W. Davidson Secretary

## President

John C. Harshbarger

Education: B.A., 1957 (Bridgewater College); M.S., 1959 (Virginia Polytechnic Institute); Ph.D., 1962 (Rutgers-The State University of New Jersey).

Born: 1936

Experience: Insect Pathologist, Insect Pathology Laboratory U.S. Department of Agriculture, Beltsville, Maryland 1962-64; Assistant Research Pathobiologist, University of California, Irvine, 1964-67; Director, Registry of Tumors in Lower Animals and Research Associate, Department of Invertebrate Zoology, National Museum of Natural History, Smithsonian Institution, Washington, D.C., 1967-present.

Membership: Society for Invertebrate Pathology (Founding Member; Newsletter Editor 1969-70; Secretary 1974-76; Member, Permanent Program Committee 1976-81; Member, Glossary Committee 1979-present; Chairman, Nominating Committee 1980-81, Vice-President 1984-86); Sigma Xi,

The Scientific Research Society (District of Columbia Chapter: Secretary 1975-77; Vice President 1977-79; President 1979-81); International Association for Comparative Research on Leukemia and Related Diseases (Program Committee 1979-81; World Committee, i.e., Governing Board 1979-present); Fellow, American Association for the Advancement of Science; American Association for Cancer Research; Interagency Collaborative Group on Environmental Carcinogenesis; Southeastern Cancer Research Association; Editorial Board, Journal of Fish Diseases; American Fisheries Society; International Society for Environmental Toxicology and Cancer; American Society of Zoologists; New York Academy of Sciences.

<u>Interests</u>: Comparative pathobiology of neoplasms and related disorders in invertebrates and ectothermic vertebrates.

#### Vice President

James D. Harper

Education: B.S. 1964 (University of Illinois); M.S. 1965 (University of Illinois); Ph.D. 1969 (Oregon State University).

Born: 1942

Experience: Professor of Entomology, Department of Zoology-Entomology, Auburn University, Alabama, 1980 to present; Assistant and Associate Professor 1969-1980.

Membership: Charter Member, Society for Invertebrate Pathology; Treasurer 1980-82; Auditing Committee 1980; Nominating Committee 1982-84; Chair, Microbial Control Division 1981-83; Chair, Organizational Committee for Microbial Control Division; Journal of Invertebrate Pathology Editorial Board 1980-1982; Entomological Society of America: Secretary-Elect Section C 1986; Southeastern Branch ESA: Student Awards Committee 4 years (Chair 1 year); Publicity Committee 1984; Chair, Local Arrangements Committee 1982; Florida Entomological Society, Georgia Entomological Society, Alabama Academy of Science, Southeastern Biological Control Working Group, International Organization of Biological Control; Sigma Xi; Gamma Sigma Delta, Xi Sigma Pi.

#### 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, \$11.00; and students, \$4.00. 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, Dr. James R. Fuxa, Dept. of Entomology, Louisiana State University, Baton Rouge, Louisiana 70803-1710 U.S.A.

Council Officers of the Society are:

President Vice President Past President Secretary Treasurer Trustees H. Denis Burges, England
John C. Harshbarger, USA
Wayne M. Brooks, USA
Elizabeth W. Davidson, USA
James R. Fuxa, USA
John A. Couch, USA
Brian A. Federici, USA
John E. Henry, USA
Hitoshi Watanabe, Japan

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

DEADLINE NEXT ISSUE: MAY 5, 1986

Interests: General insect pathology with emphasis on microbial control of forest, vegetable, and row crop defoliators. Epizootiology of entomopathogens with emphasis on fungi and viruses in row crop systems.

Donald W. Roberts

Education: B.S. 1957 (Brigham Young University), M.S. 1959 (Iowa State University), Ph.D. 1964 (University of California at Berkeley).
Born: 1933

NSF Postdoctoral Fellowship to Swiss Experience: Federal Institute of Technology (ETH) 1964-65. Assistant, Associate, and full rank (1974) Insect Pathologist, Boyce Thompson Institute at Cornell University, 1965-present. Coordinator, Insect Pathology Resource Center, Cornell Campus, 1979-present. Memberships: Founding Member of Society for Invertebrate Pathology [partial list of SIP service: Membership Committee (1970); Journal of Invertebrate Pathology Editorial Board (1973-1983); Local Arrangements Committee (1973, 1983); Program Chairman for Bozeman (1981), Pennsylvania State University ad hoc (1982), Ithaca (1983), and Davis (1984) meetings; Meetings Board ); Division of Microbial Control, Chairman (1984-Vice Chairman (1984-85) and Chairman (1986-87); and maintenance of membership list (1982-Also, member of Sigma Xi, American Association for the Advancement of Science, Entomological Society of America, American Mosquito Control Association, American Society for Microbiology, Mycological Society of America, Sociedade Entomologica do Brasil, and Malaysian Plant Protection Society. Fulbright Senior Research Scholarship to Australia (1985); consultant to World Health Organization, US National Institutes of Health, US Environmental Protection Agency, American Association of Biological Societies, US National Research Council/National Academy of Sciencies, FAO/UNEP Expert Panel on Integrated Pest Control, EMBRAPA (Brazil), and

<u>Professional Interests</u>: General insect pathology, microbial control, entomopathogenic fungi, microbial toxins, entomopoxviruses and baculoviruses, mosquito diseases, fungal genetics, and the role of microbial control in international agriculture.

others including some industrial groups; speaker and/or

organizer of more than 80 symposia, conferences, and

workshops plus presented numerous seminars worldwide on

### Secretary

Ann Cali

Born: April 30, 1943

Education: College, Indian River Community College,
A.A. 1962, University of Florida, B.S.(Biology) 1964;
Graduate School, The Ohio State University, M.S.
(Zoology) 1966, The Ohio State University, Ph.D.
(Zoology & Entomology) 1970; Post Doctoral, Post-doctoral Fellow, College of Veterinary Medicine, The

Ohio State University, 1970-71.

various insect pathology topics.

Experience: Assistant Professor, Institute for Pathobiology, Lehigh University 1971-1973; Head, Laboratory of Protozoology, Georgraphic Pathology Division, Infectious Disease Branch, Armed Forces Institute of Pathology, Washington, D.C.; full time 1974-1975; Full-time summers and maintain lab and experiments part-time during school year 1975-1979; Assistant Professor, Department of Zoology and Physiology, Rutgers University, Newark, New Jersey, 1979-present.

Membership: Invertebrate Pathology Society; American Society of Protozoology; American Society of Parasitology; New York Society for Electron Microscopists; Helminthological Society of Washington, D.C.; New Jersey Society of Parasitology; New Jersey Academy of Sciences; New Jersey Marine Science Consortium; Member, Microsporidan division formation committee, 1969; Secretary

of the Microsporidan Division, 1970-1972; Member, Editorial Board, Journal of Invertenrate Pathology, 1972-73; Council Representative, 1972-74; Chairperson Committee on Microsporidan Atlas, 1974-76; Co-Chairperson Committee on Protozoan Type slide collection at the Smithsonian Institute and in Europe, 1976-present; Chairperson for several microsporidan symposia and workshops, 1973-85; Member of study/advisory group meeting held in St. John's, Newfoundland in conjunction with the Canadian and West African Governments on the Biocontrol of the Black Fly-Onchocerciasis vector to man. Jan. 1972 (A working paper put out); Participant in World Health Organization (WHO) conference on the safety of biological agents for arthropod control. Principal speaker; held at the Center for Disease Control (CDC) Atlanta, Georgia. 1973 (WHO Document produced); World Health Organization Advisory Committee member (Committee on biological control of vectors of human disease); Chairperson of Protozoan sub-committee. The first meeting was held in Geneva, Switzerland, (WHO Document #TDR/BCV-SWG(1)/77.3. 1977-present; Member Vector Pathology Depository Committee, Depository located at Research Unit on Vector Pathology, Memorial University, St. John's, Newfoundland, Canada. (Now called S.I.P. working group on the Safety of Microbial Control Agents located in Tempe, Arizona). 1973-present; Chairperson: Membership COmmittee, American Society of Parasitology, 1983-1985.

Professional Interests: I began my training in an insect pathology laboratory. The stress was on biological control potential of the pathogens. The idea was very appealing to me then and still is today. Although it seems I've gone pretty far afield, my interests all build around the Microsporida and their biocontrol potential.

My interests include all aspects of Microsporidan biology. In an effort to understand them comparatively, I've worked with them in many different host groups including Insects, Flatworms, Snails, Fish, Birds, Mammals, and Man. I've studied their life cycles, transmission, distribution, development, pathology, morphology (light and electron microscopically), and biochemistry. I think they have a potential for biological control of vectors and pest organisms. An additional benefit is using the acquired information for controlling microsporidans when they occur naturally in beneficial insects, animals, or even man.

# John C. Cunningham

Education: B.Sc. 1964 (Glasgow University); D. Phil. (Oxford University, U.K.).

Born: 1942

Research Scientist, Forest Pest Management Experience: Institute (formerly Insect Pathology Research Institute), Canadian Forestry Service, Sault Ste. Marie, Ontario 1967-present. Project Leader, Virology Section 1977-present.

Membership: SIP member since 1967; committee member of Safety Working Group 1976-1983; member-at-large, Division of Microbial Control, 1985- ; member of local arrangements committee 1985 SIP meeting. Member of Canadian Entomological Society; Associate Editor of Canadian Entomologist; Member of special committee on Microbial Insecticides in Canada. Member of Ontario Entomological Society.

Interests: Practical use of viruses for control of forest insect pests; productions of viral insecticides; registration and commercialization of microbial control agents.

#### Treasurer

Susan E. Ford

Education: B.S. 1978 (Rutgers University; Ph.D. 1984 (Duke University).

Born: 1942

Professional Experience: Assistant Professor, Department of Oyster Culture/Shellfish Research Laboratory, Rutgers University, 1984 to present.

Society for Invertebrate Pathology; Membership: Editorial Board, Journal of Invertebrate Pathology 1985 - Present; American Society of Zoologists; Marine Biological Association of the U.K.; National Shellfisheries Association; Program Committee 1982-1985; Newsletter Editor 1984 - Present; Estuarine Research Federation. Epizootiology of marine invertebrate Interests: diseases; genetics and mechanisms of disease resistance

in molluscs; host-parasite interactions, especially

effects of parasites on host metabolism.

#### Robert R. Granados

Education: B.S. 1960 (University of California, Davis), M.S. 1962 (University of Wisconsin), Ph.D. 1964 (University of Wisconsin).

Born: 1937

Experience: Program Director for Biological Control and Virologist, Boyce Thompson Institute at Cornell University, Ithaca, N.Y. 1977-present, Assistant Associate, Virologist, Boyce Thompson Institute, 1964-1976, Visting Professor of Entomology, University of Wisconsin, 1976. Membership: Society for Invertebrate Pathology: Charter member, 1967-present; Editorial Board Journal of Invertebrate Pathology, 1978-1980; Local Arrangements Chair 1983; Program Committee 1983-present; Founders Lectureship Committee 1983-1987; Secretary-Treasurer, Microbial Control Division 1985-present. Entomological Society of America, 1980-present; Chairman subsection Cc-Insect in Relation to Plant Diseases, 1970; Chairman subsection Ce-Insect Pathology and Microbial Control, 1983; Committee for Recognition Awards, 1982-83; Constitution and By-Laws Commmittee, 1981-84. American Society for Microbiology; American Society for Virology; American Association for the Advancement of Sciences; New York Academy of Sciences. International Committee on Taxonomy of Viruses (Invertebrate Viruses), 1979-present; International Committee on Taxonomy of Viruses (Poxviruses), 1977-present. Alpha Zeta, Phi Kappi Phi.

Professional Interests: Invertebrate Virology, the molecular basis for viral pathogenesis, ultrastructure of virus replication and insect cell culture methods for virus studies.

# Trustee

Christopher J. Bayne

Education: B.Sc. 1963 University of Wales; Ph.D. 1966 University of Wales, 1974 American Association of Immunologists: refresher course. M.B.L., Woods Hole, Mass., 1981 NSF Chautauqua Course: Immunobiology: Evolutionary, Developmental and Molecular Perspectives. Graduate Center.

Born: August 31, 1941, Trinidad, West Indies
Experience: 1964-1966 Commonwealth Scholar, Department of Zoology, University College of North Wales, U.K.; Post-doctoral Research Fellow, Marine Science Laboratories, Menai Bridge, Anglesey, Wales, U.K.; 1967-1968 Assistant Lecturer, Marine Science Laboratories, Menai Bridge, Anglesey, Wales, U.K.; 1968 Expedition to Aldabra, Indian Ocean, Royal Society of London, England; 1969 Visiting Scientist, Centre for Advanced Study in Marine Biology, Porto Novo, Madras State, India; 1968-1971 Research Associate, Museum of Zoology, University of Michigan; 1972, 1973, 1975 Independent Investigator, University of Washington, Friday Harbor Laboratories; 1971-1976 Assistant Professor, Department of Zoology, Oregon State University; 1974 Visiting Investigator, National Museum of Natural History, Washington, D.C.; 1974- 1975 Visiting Investigator, Academy of Natural Sciences of Philadelphia; 1976

Visiting Investigator, University of California, San Francisco; 1977 Visiting Investigator (sabbatical), Institute for Marine Environmental Research, Plymouth, England; 1976-1977 Visiting Investigator (sabbatical), Department of Microbiology, University of Stockholm, Sweden; 1976-1982 Associate Professor, Department of Zoology, Oregon State University; 1979-1980 Assistant to Chairman, Department of Zoology, Oregon State University; 1982-present Professor, Department of Zoology, Oregon State University; 1984-1985 Visiting Investigator (sabbatical), Department of Morphology, Medical University, Tromso, Norway. Senior Research Fellow (Fulbright) Department of Cell Biology, Agricultural University, Wageningen, The Netherlands; Regional Editor, Developmental and Comparative Immunology, 1982-present; Member, Editorial Board, Journal of Invertebrate Pathology, 1979-1982; Consulting Editor and Editorial Associate, MALACOLOGICAL REVIEW, 1970-present; Member, Board of Trustees of the Soc. Exp. Descrip. Malacol., 1970-1984; Sponsor Member, Institute for Malacology, 1973-1984; General Editor, MALACOLOGIA, International Journal of Malacology, 1970-1975; Managing Editor of MALACOLOGIA, 1969-1970; Referee of manuscripts for Science, Journal of Morphology, MALACOLOGIA, Journal of Parasitology, Developmental and Comparative Immunology, Malacological Review, The Biological Bulletin, Journal of Invertebrate Pathology. Referee for NSF, NIH, Edna-McConnel Clark Fndn; Served (ad hoc) on NIAID Tropical Medicine and Parasitology Study Section, March 1978, Bethesda, Maryland; President 1981-1983 Institute for Malacology; Organizer for Annual Meeting, Society for Invertebrate Pathology, with AIBS, Corvallis, Oregon 1975; Organizer for Presidential Symposium. Annual Meeting of the American Society of Parasitologists, San Antonio, Texas, Dec. 1983.

Memberships: (\*=current) \*American Association for the Advancement of Science; \*American Society of Parasitologists; \*Society for Invertebrate Pathology: Local Organizer Annual Mtg. 1974, Editorial Board J.I.P. 1979-1982, Nominations Committee 1982-1984, Committee to Nurture J.I.P. 1983; \*American Society of Zoologists; Institute of Malacology (Member-at-large); Western Society of Naturalists; Society for Experimental and Descriptive Malacology; Sigma Xi; American Institute of Biological Sciences; American Malacological Union; Federation of American Scientists; American Tissue Culture Association; Western Society of Malacologists; California Malacozoological Society; Micronesia; British Association for the Advancement of Science; Endeavour Society of Great Britain; Association for Tropical Biology (founder member).

Professional Interests: Molluscan immunobiology; com-

Professional Interests: Molluscan immunobiology; comparative immunology; host-parasite immunology of the Biomphalaria - Schistosoma system.

Rodney Phillips Dales

Education: Ph.D. 1950 (University of London).

Born: 1927

Experience: Professor of Zoology, University of London at Bedford College (now Royal Holloway & Bedford New College) 1970-present. Sometime research fellow University of California (S.I.O.). Has taught summer school in California - Washington.

Membership: Society for Invertebrate Pathology, Zoological Society of London, Society for Experimental Biology.

Interests: Annelid immunorecognition; cell-cell interactions of marine invertebrates; transplantation phenomena in annelids.

Objectives: Basis of cell-cell recognition in lower invertebrates and the early evolution of the immune response in invertebrates.

Christopher C. Payne

Education: B.A., D.Phil., M.A. (University of Oxford 1965-71).

Born: 1946

Professional Experience: Post-doctoral fellow, Department of Microbiology, University of Otago, New Zealand 1972-73; Senior Scientific Officer, NERC Institute of Virology, Oxford 1973-77; Principal Scientific Officer, Glasshouse Crops Research Institute (GCRI) Littlehampton 1977-82; Senior Principal Scientific Officer and Head of Department of Entomology and Insect Pathology, GCRI, 1982-present. ICIPE foundation fellow, Kenya 1982. Membership: Society for Invertebrate Pathology; Chairman, Microbial Control Division 1983-85; Member, Membership Committee 1983-85; Member, Editorial Committee on Glossary Terms used in Invertebrate Pathology 1984-present; Co-organizer 3rd International Colloquium of Invertebrate Pathology, 1982; Member of Society for General Microbiology and Association of Applied Biologists (AAB); Member of AAB Virus Group Committee 1983-85; International Committee on Taxonomy of Viruses; Chairman of Invertebrate Virus Subcommittee 1984present; International Organization for Biological Control (West Palearctic Regional Section); Chairman of Study Group on insect pathogens and insect-parasitic nematodes; Editor of Journal of General Virology; Member of editorial boards of Virology, Intervirology, Entomophaga and Journal of Invertebrate Pathology (1979-82). Professional Interests: Molecular biology of insect viruses. Comparative virology. Use of insect viruses as pest control agents. General insect pathology. Development of integrated pest management programmes in protected crops, orchards and field vegetables.

### REQUEST FROM MEETINGS BOARD

The SIP meeting for 1986 will be in conjunction with the IVth International Colloquium on Invertebrate Pathology in Veldhoven, the Netherlands; the 1987 meeting will be in Gainesville, Florida; and the 1990 meeting will be in conjunction with the Vth International Colloquium on Invertebrate Pathology in Adelaide, Australia. The Meetings Board is seeking suggestions or invitations for meeting sites for 1988 and 1989. If we adhere to the previous pattern for SIP, these two meetings will be in North America. Action on proposal(s) for 1988 (and possibly 1989) will be taken at the August 1986 meeting. Please contact a member of the Meetings Board as soon as possible with your suggestion or invitation.

Donald V. Lightner Donald W. Roberts (Chairman) tel: (602) 621-7962 tel: (607) 257-2030

Robert R. Granados tel: (607) 257-2030

#### SIP MEMBER TELEPHONE NUMBERS

A major function of a scientific society is to encourage communication among colleagues. For that purpose a list of addresses for current members of the Society of Invertebrate Pathology is enclosed with this newsletter. Several members have requested that telephone numbers also be provided. Current information is inadequate to include telephone numbers in the present address list. Therefore, a separate telephone list is being developed and will be included in a future newsletter. Please send your telephone number immediately to Dr. Donald W. Roberts, Insect Pathology Resource Center, Boyce Thompson Institute, Tower Road, Cornell University, Ithaca, NY 14853, USA. Specify the telephone number(s) as home or work telephone. Also, if your address in the address list is incorrect, please make the necessary corrections at the same time.

#### THIRD ANNOUNCEMENT

# IVth INTERNATIONAL COLLOQUIUM ON INVERTEBRATE PATHOLOGY

in conjunction with the XIXth Annual Meeting of the Society for Invertebrate Pathology

> AUGUST 18-22, 1986 THE NETHERLANDS

The Organizing Committee extends a cordial invitation to all members of the Society for Invertebrate Pathology and other interested scientists to attend and participate in the scientific and social program of the Fourth International Colloquium on Invertebrate Pathology (ICIP86). This conference will be held from August 18-22, 1986, in "Koningshof" Conference and Meeting Center in Veldhoven, the Netherlands.

This is the third announcement of ICIP86. Information on this conference was distributed through SIP Newsletter issues of August 1985 (First Announcement) and November 1985 (Second Announcement) and through personal mailings to other interested individuals. The present, third announcement contains additional information on the conference, as well as abstract and registration forms

The Organizing Committee wishes to thank all respondents expressing their interest in the meeting by sending in the coupon enclosed in the second announcement. It greatly facilitated our planning activities.

#### SCIENTIFIC PROGRAM

The scientific program consists of General and Specialized Symposia, Contributed Paper Sessions, Workshops, Poster Presentations and Divisional Meetings from Monday morning August 18th until Friday 22nd closing at lunchtime. All sessions will run in blocks of 90 minutes, from 8.30-10.00, 10.30-12.00, 14.00-15.30, 16.00-17.30 and 20.00-21.30 hrs. One General Symposium, one Specialized Symposium and one or more Contributed Paper Sessions will be held simultaneously.

The program will start with an opening session containing the SIP Presidential Address and a Founders Lecture on Monday morning, August 18th.

The Program Committee has arranged fourteen General Symposia and fifteen Specialized Symposia, as outlined in the Second Announcement. Each symposium is organized by an invited convener. The selection of speakers has been made in collaboration with the Program Chairman. Usually, there will be up to four invited speakers in each session of 90 minutes. The chairmen will be instructed to always a strictly to the allotted time.

each session of 90 minutes. The chairmen will be instructed to adhere strictly to the allotted time.

The speakers of these symposia have been asked to write a paper on their contribution of up to four pages. The Program Committee requests that all of these contributions are mini-reviews, in order to serve as a source of reference on insect pathology and microbial control. There will be an absolute deadline for submission of these invited papers: APRIL 15, 1986.

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		l Symposia	convener
G	1.	Biological control of pests	Dr R.A. Samson Dr J.M. Vlak
G	2.	Genetic manipulation and improvement of insect pathogens I	Dr A. Klier
G	3.	Genetic manipulation and improvement of insect pathogens II	Dr D.J. Ellar
G	4.	Biological control of vectors with microbials	Dr B.A. Federici Dr F.Copplestone
G	5•	Defence strategies of inver- tebrates	Dr K. Soderhall
G	6.	Current status on the use of insect pathogens as biocontrol	Dr D.W. Roberts
G	7.	agents in agriculture Pathogens of terrestrial and marine invertebrates	Dr Ph. Johnson
G	8.		Dr C.M. Ignoffo
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Biotechnology and production

u 12.	MOTOCOTOR BOILD OF POPOLE					
G 13.	viruses Microbial control of soil-borne	Dr	S. Ke	eller		
G 14.	insects Recent advances in microsporo- diology (Edwin I. Hazard Sym- posium)	Dr	W.M.	Brooks		
Specia	lized symposia	Convener				
S 1.	Constraints to commercialization of bio-control products					
S 2.	Formulations and application techniques of bio-insecticides			ntwistle		
S 3.	System models in epizootiol- ogy and insect control	Dr	C.R.I	Pluckinger		
S 4.	Marine invertebrates: pathology	in	vited			
S 5.	and biotechnology Chemistry and mode of action of Bacillus thuringiensis endo-	Dr	P.G.	Fast		
s 6.	toxin Physiology, ecology and toxin	Dr	A.A.	Yousten		
s 7.	of Bacillus sphaericus Standardization of Bacillus thuringiensis preparations	Dr	H. de	e Barjac		
S 8.	Specificity of insect viruses in vivo and in vitro	Dr	R.R.	Granados		
S 9. S 10. S 11.	In vivo and in vitto Insect RNA viruses Viruses of parasitic insects Codling moth granulosis viruses	$\mathtt{Dr}$		Moore Stoltz wer		
S 12.	Biology and taxonomy of	Dr	G.O.	Poinar		
S 13.	entomogenous nematodes Advances in insect parasitic	Dr	н.к.	Kaya		
S 14.	nematology Quantative ecological evalua- tion of entomopathogenic fungi	Dr	B. Pa	apierok		
9 15	Defence reaction against	Dr	D.G.	Boucias		

of insect pathogens
Insect control with nematodes Dr R.A. Bedding
Registration of bio-insecticides Dr H.D. Burges
Dr P. Faulkner

entomogenous fungi

Defence reaction against entomopathogenic fungi Comparative tumor pathology Biology and taxonomy of

Contributed Paper Sessions

A number of Contributed Paper Sessions will complement the symposia. These sessions will be organized primarily on the basis of their ability to extend or amplify topics covered during the symposia. If possible, amplify topics covered during the symposia. In possible, they will be scheduled back-to-back with related symposia. In addition, sessions will be organized on specific topics. Please notify the Program Chairman, whether you prefer to have your contribution scheduled in a contributed paper session or in a poster session. The Program Committee may request that some papers are presented as a sector. ented as posters.

Dr D.G. Boucias

Dr G. Balouet Dr N.E. Wilding

ented as posters.

Presentations in these sessions will be strictly limited to 10 minutes and 5 minutes for discussion. Six speakers will be accommodated in each session. Each contributor to these sessions will be asked a one-page abstract in the Proceedings. An abstract form and instructions to authors are included in this SIP Newsletter issue. There will be an absolute deadline for submission of abstracts: APRIL 15, 1986.

Workshops

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G 12.

Workshops
Workshops are planned on "Monoclonal antibodies" by
Loy Volkman, on "Bacillus thuringiensis" by Paul Fast
and on "Safety" by Lawrence Lacey. Although these workshops should be informal, the organizers of these workshops would appreciate to receive any suggestions for
contributions. Anyone wishing to organize additional
Workshops should contact the Program Chairman, Dr Rob
Samson, immediately for reservations.

Poster Presentations

There will be a range of poster sessions. Posters will be displayed on 190 cm long and 87 cm wide boards. Abstracts of the posters will be printed together with the invited papers and other abstracts in the Proceed-ings. Posters will be on display for a day.

Divisional Meetings
Meetings are planned for the Division of Microsporidia and the Division of Microbial Control.

Proceedings

Mini-reviews and abstracts will be published in the conference Proceedings, entitled "Recent Advances in

Dr R.A. Hall

Invertebrate Pathology and Microbial Control", and will be available at the meeting. Its costs are included in the registration fee. Additional copies can be ordered from the organizers at the expense of Dfl. 60,-. The proceedings will also contain an ISBN number in order to enhance dissemination of its contents in the official literature and retrieval systems.

Abstracts and papers must have reached the Program Chairman's office no later than APRIL 15, 1986, in order to meet the printer's deadline. Those arriving too late will not be included in the Proceedings.

Visual aids

Visual aids
For presentations (Symposia, Contributed Paper Sessions and Workshops) 35 mm slide projectors will be available. Please, use 35 mm slides in 50 mm x 50 mm metal or plastic mounts.
All slides should bear a serial number in the upperright hand corner of the frame and bear the name of the speaker. All figures, tables and subscripts should be prepared in English. There is limited facility for video tapes and films, and these will only be made available if notification of the requirement is received before lime 1 1086 June 1, 1986.

#### ACCOMMODATION

Congress Hotel and Meeting Centre "Koningshof" in Veldhoven is a fully equipped, all-under-one-roof conference center with exceptional meeting and recreational facilities. Koningshof is a former nunnary and is situated in an secluded area of 79 acres just outside Eindhoven. It combines a serene atmosphere of a nunnary with all the modern comfort which will make this meeting an enjoyable experience. More than 350 delegates can be accommodated on the premises.

an enjoyable experience. More than 350 delegates can be accommodated on the premises.

The hotel facility includes 178 single and 87 double bedrooms. Each room is provided with a shower, washstand and toilet, radio and direct dial telephone. The conference center including the many indoor recreational facilities, such as three bars (open until 1 o'clock at night), lounge, foyer, newspaper corner, TV and video rooms, billiards and table tennis, and outdoor recreational facilities, such as tennis courts, soccer and volleyball fields, cycling routes (bike rental), walking routes and jogging tracks, are at the disposal of the participants. of the participants.

Nearby outdoor recreation includes covered swimming pool, bowling, squash courts and sauna. You are request-

ed to bring your own sports requisites.

The Congress Hotel and Meeting Centre "Koningshof" can be reached: Locht 117, P.O. Box 140, 5500 AC Veldhoven, The Netherlands, Telephone 31-40-537475, Telex ven, The Neth 59278 kohof nl.

#### REGISTRATION.

The registration fee for the conference has now been fixed. The fee covers admission to the congress and scientific exhibitions; all congress documents including a Program Book with all details about the conference, and the Proceedings. The registration fee is Dfl. 250.—(after April 15, 1986, Dfl. 300.—) for regular participants. The special registration fee for students is Dfl. 150.— (after April 15, 1986, Dfl. 175.—), provided they include proof of student status (see below).

The all-inclusive rate for full board and lodging (5 nights, 5 breakfasts, 5 lunches, two dinners, mixer and the banquet) is Dfl. 700.— for a single room, and Dfl. 550.— for a double, per person.

Accompanying persons pay Dfl. 150.— for registration, which includes the complete accompanying persons program. The fee covers admission to the congress

program.

Enclosed you will also find a registration form. This Enclosed you will also find a registration form. This form contains all the necessary information for us to guarantee your board and lodging. Your registration and notel reservation are only definite if the total amount due is received before APRIL 16, 1986. At that date we have to confirm our reservation of the board and lodging facilities at the conference center. An additional fee is charged for those registering after APRIL 15, 1986. We try to accommodate all participants in the conference center. However, if the attendance exceeds 375 persons, we have made provisions for accommodation and transportation in the neighbourhood of the conference center. Accommodation in the conference center will be

granted on a first come first serve basis.

Those arriving earlier and/or leaving later and wishing to reserve additional meals and rooms are requested to indicate this clearly on the registration form.

Cancellations

Cancellations should be made in writing to the Conference Secretariat. The amount of refund will depend on the date of cancellation, due to our own commitments and

contracts, as follows:
Cancellations received before April 30, 1986:
80% of the registration fee refunded;
50% of the accommodation fee refunded
Cancellations received before July 31, 1986:
75% of the registration fee refunded
50% of the accommodation fee refunded
50% of the accommodation fee refunded
Cancellations received after July 31, 1986:
No refunds No refunds

Refunds will be made payable after the conference.

SOCIAL PROGRAM

A social program is open to registered accompanying persons. This program already includes an informal gettogether or mixer on Sunday evening, August 17, the Opening Ceremony on Monday 18th, optional excursions and guided tours on Wednesday 20th in the afternoon (small fee) and the traditional banquet on Thursday evening.

On Wednesday 20th in the afternoon, an excursion is planned to the Philips company, where a limited group of interested scientists will have the opportunity to visit the electron microscope plant. The group will be limited to 25 delegates. Those interested in this excursion should notify the organizing committee before August 1, 1986. Applications will be granted on a first come first serve basis.

Another excursion is planned to Heineken Breweries in Den Bosch, the second largest brewery in Europe, about 50 km from the conference center. The group is limited to 120 persons, accompanying persons included.

Other alternative excursions are being planned and will be detailed in the next SIP Newsletter Issue.

The traditional 5-km SIP road race (or jog) will be held on the forested premises of the conference center, on Tuesday, August 19, at 7 a.m. Those who will participate are requested to indicate this on the registration form. In addition, participants must fill out the enclosed 5-km Road Race forms and also send these to the conference secretariat. Dr Peter Smits will be responsible for meeting everybody at the meet. A T-shirt will be available commemorating this race.

# ACCOMPANYING PERSONS PROGRAM

There will be a special program for accompanying persons. This program is tentative, and may be subject

After an informal get-together on Monday morning with coffee and a short introduction to the Netherlands, the Dutch and their way of life, a visit will be made to the Wooden Shoes Museum with handycraft and artifact displaying in Port in the oftenness of the production of the content of the displays in Best in the afternoon.
On Tuesday a full-day excursion is planned to the province of Zuid-Holland to visit the old city of Delft and the windmill area of Kinderdijk.

and the windmill area of Kinderdijk.

Wednesday morning a museum with ancient clocks, church bells and carillons wil be visited in Asten.

On Thursday a full day excursion is planned to the open-air museum in Arnhem. A "Brabant Style" lunch will be used in the old city of Den Bosch.

The program will finish on Friday morning with coffee and shopping in downtown Eindhoven.

Participants in the accompanying persons program are

Participants in the accompanying persons program are also entitled to take part in the other activities of the social program.

Please, indicate on the registration form if you wish

to participate in this program.

#### GENERAL INFORMATION

In accordance to our immigration rules, some foreign nationals may need to obtain visas from a Dutch Embassy

or Consulate before they come. Participants who need a visa are advised to apply for it well in advance of their departure date to allow adequate time for processing the application. Indicate on the forms that ICIP86 is an international conference, held under the auspices of the Society for Invertebrate Pathology.

Visitors arriving by air are most likely to arrive at Schiphol Airport, near Amsterdam, on Sunday August 17. There will be a conference booth in the arrival hall There will be a conference booth in the arrival hall during the day for further information on how to reach

the conference center.

the conference center.

From the airport there is direct KIM bus connection with Utrecht Central Railway Station. A KIM bus (coloured blue and white) can be found just outside the arrival hall of the airport. In Utrecht you take the intercity train with final destination Eindhoven, Heerlen or Maastricht. Get off at Eindhoven, Central Station. As you leave the Eindhoven railway station, there is a busstation on the right. Take bus 143 or 150, marked Eersel/Reusel. After a 20 minute-ride you get off at busstop Koningshof. This way a ride to Veldhoven will cost you approximately Dfl. 35,-, whereas you pay Dfl. 300,- for a taxi ride from Schiphol Airport

Alternatively, if you travel by car, either follow the A2/E9 from the north, the A58 from the west, the E3 from Belgium and Germany towards Eindhoven. Final destination: Veldhoven.

tination: Veldhoven.
Further details on travelling will be given in the next SIP Newsletter issue.

Royal Dutch Airlines (KIM) has been selected as the official carrier for ICIP86. KIM offices all over the world will gladly assist participants to obtain all information they may need about their travel arrangements. Schiphol airport near Amsterdam is the gateway to Europe and to the conference center. KIM will be happy to fly you in.



The weather conditions in August are usually good with average temperatures of around 20 degrees Celcius (68 F). It is suggested to bring a sweater and an umbrella, in case of chilly evenings and an occasional rain shower.

Dutch currency; money exchange

The basic monetary unit in the Netherlands is the guilder (abbreviated DFI.). One guilder = 100 cents. At the beginning of February 1986, Dfl. 100.— was equivalent to about \$37 (am), \$52 (can), 27 English Pounds, 270 French Francs, 88 German Marks.

Money exchange will be possible at the conference center all day. Traveller's cheques can be cashed, but credit cards cannot be used to obtain cash. So, as you may need ready cash, either bring it in cash of any currency or use traveller's cheques. Payment of the registration fee and the hotel accommodation at the time of the meeting can only be done in cash or with traveller's the meeting can only be done in cash or with traveller's cheques.

Banking and money—exchange facilities are available at Schiphol Airport.

Major credit cards (Visa, Master Charge, American Express, Eurocard), as well as traveller's cheques are widely accepted in shops etc.

The organizing committee takes no responsability for any losses, accidents or damages during the conference. Therefore, participants are recommended to secure their own insurance.

Official language
The official language of the conference will be
English. Facilities for simultaneous translation are not available.

Letters of invitation

On request the Secretariat of the conference will be happy to send a personal letter of invitation to attend the conference. It should be understood that such an invitation is an invitation of the secretariat of the conference will be happy to send a secretariat of the conference will be happy to send the secretariat of the conference will be happy to send the secretariat of the conference will be happy to send the secretariat of the conference will be happy to send a personal letter of invitation to attend the conference will be happy to send a personal letter of invitation to attend the conference will be happy to send a personal letter of invitation to attend the conference will be happy to send a personal letter of invitation to attend the conference. invitation is only meant to help delegates to raise travel funds or to obtain a visa and is not a commitment on the part of the organizers to provide any financial support.

Exhibition and advertising
There will be an exhibition of scientific equipment, accessories, chemicals and books related to the conference. Companies interested in participation and not already approached by the organizing committee should direct their inquiries about conditions and facilities to the Conference Secretariat.

Advertisements will be included in the Program Book

of the conference.

Governance meeting
The council of the Society for Invertebrate Pathology will convene on Sunday August 17, 1986, at ten o'clock in the morning. Members of the council are advised to arrive on Saturday, August 16, in order to meet the President's call on Sunday. Council members should indicate their early arrival on the registration and hotel

reservation form.

A meeting of the editorial board of the Journal of Invertebrate Pathology is tentatively scheduled during

the conference.

During the conference there will be a meeting of the Invertebrate Virus Subcommittee and the Baculovirus Working Group of the International Committee on Taxonomy of Viruses (ICTV). These meetings will be convened by Dr Chris C. Payne, GCRI, Littlehampton, U.K.

Sponsors
At present, generous donations were already received from Royal Dutch Airlines (KIM), Heineken Breweries, Koppert BV, ICI Plant Protection Research, Ciba-Geigy AG, Bayer AG, Shell Research Ltd. and the Agricultural University of Wageningen to support this meeting. However, in order to complement the scientific and social program and to be able to support scientists who need financial assistance, additional sponsors are kindly invited to support our meeting by giving special donations, organizing an industrial display or advertise in our Program Book. More information is available from our treasurer. Dr Dick Peters. treasurer, Dr Dick Peters.

#### SATELLITE MEETING

Following the conference, there will be a special meeting of the Study Group on "Insect pathogens and insect parasitic nematodes", as part of the IOBC/WPRS insect parasitic nematodes", as part of the 10BC/WFRS activities. This satellite meeting will be held on Friday August 22nd, possibly continuing on Saturday morning, and is open for interested scientists form participating countries. Please, book for room and meals on the enclosed registration form. Information on this meeting can be obtained from Dr Chris C. Payne, GCRI, Littlehampton, England.

#### IMPORTANT ADDRESSES

Please send all your correspondence regarding the **PROGRAM** to: Dr Rob A. Samson, Program Chairman ICIP86, Centraalbureau voor Schimmelcultures, P.O. Box 273, 3740 AG Baarn, The Netherlands, Telephone: 31-2154-11841.

Please send all your correspondence regarding the **CONFERENCE** to: Conference Office ICIP86, c/o Mrs A.F.F. de Vries-Eras, Department of Virology, Agricultural University, P.O. Box 8045, 6700 EM Wageningen, The Netherlands, Telephone 31-8370-83089, Telex 45015 and 45917.

> Dr Just M. Vlak Chairman ICIP86

#### A REMINDER

The SIP Newsletter is produced by offset printing. Width of typed material should be no more than  $\underline{\text{five}}$  inches, but use most of this width to conserve space. Type single space and provide a clean, clear original. For general format follow a recent copy of the Newsletter. Retyping of submitted material takes time and costs may have to be charged to the Society in the future.

Gary Wilson, Editor SIP Newsletter

#### ANNOUNCEMENT

The United States Department of Agriculture, Agricultural Research Service, International Activities announces the opening of an Insect Pathology Unit at the European Parasite Laboratory (EPL), France. An open house and a workshop on the "Dual Role of Pathogens and Parasites in Insect Control" will be held at EPL on Saturday August 23, 1986 following the 4th International Colloquium on Invertebrate Pathology taking place in the Netherlands, August 18-22, 1986.

Speakers interested in addressing the topic and anyone wishing to participate in this event are kindly requested -for organizational reasons- to contact us as soon as possible but no later than March 15, 1986 at one of these addresses:

Dr. Richard Soper, USDA-ARS-PPRU, Boyce Thompson Institute for Plant Research, Tower Road, Ithaca, N.Y. 14853, USA. Tel. (607) 257-2030.

OR
Dr. Tad Poprawski, USDA-ARS-IA, European Parasite
Laboratory, 13-17 rue de la Masse, 78910 Orgerus-Behoust,
France. Tel. (1) 3487-2075.

You can receive a free copy of the U.S. GOVERNMENT BOOKS CATALOG of almost 1,000 useful and popular books and subscriptions published by the Government. The catalog lists Government books on research, census information, business, medicine, law and regulations, statistics, foreign trade, manufacturing, sceince and much more. These books are the results of millions of dollars worth of Government research and statistical analysis and are available for sale by the Government.

The 64-page catalog includes a section on new publications, a listing of locations and phone numbers of the 25 U.S. Government Bookstores located throughout the country, and a convenient order form.

To get your free copy, write to: U.S. Government Books Catalog, U.S. Government Printing Office, Stop: SM, Washington, D.C. 20401.

#### FOURTH ANNUAL SIP 5 KILOMETER RACE

The fourth annual SIP 5 kilometer race will be held on

Wednesday August 20th

in the park surrounding the 'Koningshof' Conference Center.

We ask DFL 25.= entry fee ,which includes the price of a real SIP race T-shirt. Please enter this fee in the appropriate space on the registration form.

Address:	·····	·	<u></u> .	 	 	

Sex: Male/Female

T-shirt size: small/medium/large/extra large

I intend to participate in the race. I affirm that I am in proper physical condition to participate in this race and in consideration of the acceptance of this entry hereby release sponsor officials and organisers of this race and owners and operators of the Conference Center 'Koningshof', Veldhoven, from all claims of injury or damage to person or property, including death resulting from my running in this race.

Signature, date

I do not wish to enter the race, but would like a Souvenir T-shirt at a price of DFL 25.=  $\,$ 

Signature, date

Return a completed copy of this form with the registration form to:

Conference Office ICIP'86 c/o Dr. Peter Smits Dept. of Virology, Agricultural Univ. P.O. Box 8045 6700 EM Wageningen the Netherlands