

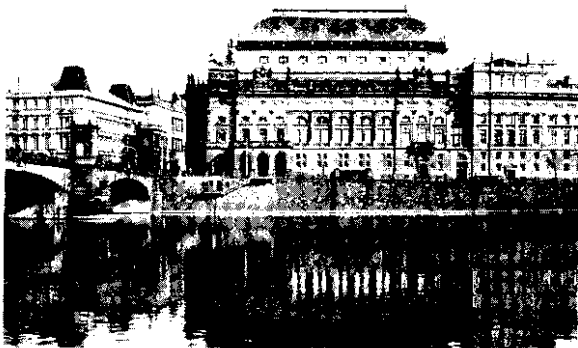
sip

newsletter

society for invertebrate pathology

Volume X, Number 2
June 1978

INTERNATIONAL COLLOQUIUM ON INVERTEBRATE PATHOLOGY AND
XIth ANNUAL MEETING, SOCIETY OF INVERTEBRATE PATHOLOGY,
Prague, Czechoslovakia, September 11-17, 1978



PRAGUE MEETING - ADDITIONAL NOTES

International Colloquium and Related Conferences

Arrival in Praha and registration for the International Colloquium on Invertebrate Pathology should be scheduled for Sunday, September 10, 1978. The first evening on which participants can be accommodated in the Colloquium housing is Sunday night, September 10, and the last night of occupancy will be Sunday night, September 17. The formal opening of the Colloquium is scheduled for Monday morning, September 11. Scheduled sessions of contributed papers and symposia will begin following the noon meal on Monday, and continue in the morning and afternoon on Tuesday, in the morning on Wednesday, and all day Thursday and Friday. Wednesday afternoon will be devoted to appreciating the sights of beautiful Praha in the daylight hours. At least six symposia will be convened as follows:

- A. Safety Evaluation of Microbial Control Agents
(Dr. J. A. Shaddock)
- B. Biological Control of Vector Invertebrates
(Dr. M. Laird)
- C. Mode of Action of Biological Control Agents -
Pathophysiology (Dr. E. W. Davidson)
- D. Neoplasms in Invertebrates
(Drs. J. C. Harshbarger and J. A. Couch)
- E. Introductions and Colonization: Release of Pathogens
(Dr. A. Rosenfield)
- F. Ultrastructure of Vegetative Stages of Microsporidia
(Dr. E. I. Hazard)

The evenings Monday through Thursday, and Saturday forenoon are reserved tentatively for workshops in subjects specified by conveners who make arrangements for a specific time and adequate facilities through the Organizing Committee. Examples include a workshop scheduled for Saturday on the "Diseases of Honey Bees" and also special sections on the topics of "Invertebrate Immunity" and "Requirements for Environmental Protection of Microbial Control Agents." Abstracts from most symposia participants are now in the hands of the Program Committee. Dr. Weiser has informed the Program Committee that over 180 abstracts have been received for the Contributed Paper sessions. All abstracts are being turned over to Dr. John Briggs, who has kindly accepted the responsibility for transcribing, translating where appropriate, and then compiling the abstracts into a format for reproduction and subsequent distribution. Apparently, the virologists will be well represented for approximately one-third of the reports are by participants reporting on these organisms. A complete program will be made available in the July/August issue of the Newsletter.

A Saturday afternoon excursion to a 14th Century Karlstein Castle and perhaps a one-day Sunday trip in the country are tentatively planned depending upon the number of participants who wish to enjoy the hospitality of the country outside Praha. More definitive information on these events will be made available in the next Newsletter.

The meeting of the Council of the Society for Invertebrate Pathology is scheduled for the morning and afternoon of Sunday September 10. It is expected that Council members or individuals serving for them, and specifically invited participants in the Council meeting, will arrive in Praha no later than Saturday, September 9. A limited number of accommodations will be available for persons who arrive on Saturday, September 9. If Colloquium participants, in addition to those attending the Council meeting, desire to be housed in Colloquium facilities because of arrival in Praha on Saturday, September 9, Dr. Weiser should be advised.



Important. All of us will find it necessary to obtain a Visa in our passports for entry into Czechoslovakia. The application for the Visa will request information on the length of stay in Czechoslovakia. When estimating the number of days, it is essential to allow several days extra, at least one or two, to accommodate for the possibility that airline schedules may make it necessary to arrive earlier or leave later than expected. Care on this matter is essential to avoid delays in your schedule if it is necessary to obtain an extension of your Visa. If an individual leaves before the expiration date on his Visa, difficulties will not be encountered.

If you intend to stay in a hotel before, during, or after the Colloquium, individuals should attempt to make reservations for hotels through cooperative efforts of your travel agent and the international air carrier which you will use. Travel agents and airlines should be advised that the Official Czechoslovak Travel Bureau is "Cedok" which can be contacted directly in many cities worldwide or through an international air carrier. In the United States Cedok is at 10 E. 40th Street, Suite 1902, New York, N.Y. 10016. The telephone is (212) 689-9720. If hotel reservations are requested through your travel agent, air carrier, and Cedok, the specifics of this request should also be provided to Dr. Weiser to assist the Organizing Committee to effect efficient confirmation of the reservations requested.

Although earlier communications from the Organizers of the Praha Meeting and Colloquium indicated that it was acceptable to submit registration fees and accommodations and meal charges on arrival, we now find that it will be most helpful to pay registration fees in advance. This departure from the original plan was found to be necessary so that the Organizers could make commitments for rooms, tours, audiovisual equipment, postage, printing, etc. Without funds in their hands, it will be extremely difficult for the Organizing Committee to receive assurances that the proper meeting arrangements can be made. Consequently, we urge you to pay registration fees as soon as possible in the currency of your own country. These registration fees are as follows:

Full Member	400 Kcs	Equivalent to \$45.00 U.S.
Associate	250 Kcs	Equivalent to \$27.00 U.S.
Student	150 Kcs	Equivalent to \$15.00 U.S.

Apparently, campus housing and meals will cost approximately 140 Kcs per day, equivalent to \$14.50 U.S., and can be paid on arrival. Fees paid in advance should be paid by means of travelers checks, certified check, cashier's check, or money order. These should be made out to or paid to the account of The Congress Bureau: Account No. 3-06-2006-6 for Entomologický ÚSTAV CSAV and sent to Státní Banka C.S.S.R. Branch Praha 6, Czechoslovakia, or they may be sent directly to Dr. Jaroslav Weiser. Personal checks are not acceptable.

Participants who desire more specific information about the Colloquium should contact:

Dr. Jaroslav Weiser
Department of Insect Pathology
Flemingovo nám 2
Praha 6, Czechoslovakia

Support for Travel to the International Colloquium

At the date of publication of the Newsletter, the Society has not been notified concerning the availability of funds to partially support the air transportation of individuals from North America to Praha and return. John Briggs, who is coordinating the proposal for travel support and the applications for travel assistance, has received 22 applications. Individuals who have made application will be contacted individually concerning the status of the anticipated support when the final decision has been made by the agencies to which the Society made application.

World Health Organization Group

The second meeting of the WHO Scientific Working Group for the biological control of vectors will convene Tuesday, September 5 through Thursday, September 7, 1978 in Praha. The Working Group serves as a planning body for the research necessary to implement selected biological agents for the interruption of vector borne diseases. The Working Group is one of nine which serves the WHO Special Program.

Bacillus thuringiensis Workshop

To take advantage of individuals participating in the International Colloquium on Invertebrate Pathology, the second triennial International Workshop on Bacillus thuringiensis will be convened in association with the Colloquium. The Workshop will include a report on the investigations of the spectra of activities of a large number of strains of Bacillus thuringiensis, and an introduction of additional topics to include the chemistries of the several toxins, field application and ecology of Bacillus thuringiensis, and the genetics of the organism. The Workshop is convened by Dr. H. D. Burges and Dr. H. T. Dulmage. The precise location and dates for the Workshop have to be determined pending the availability of facilities and staff. Invited participants to the Workshop will be kept advised by the conveners.

More About Czechoslovakia -

They say that if you wish to meet people in Czechoslovakia, go to the taverns or pubs, which are to the Czechs and Slovaks what *coffeehouses* are to Austrians and Hungarians. Of considerable interest are the old taverns with the old names - I am reminded of one I used to frequent in Ghent, Belgium called "te Galgenhuis" or the "Gallows House" because it overlooked the place of execution. Similarly one can find places like U Flekii, dated from 1499!! and which, I hear, serves a special brown beer in vault-like rooms. U Svatého Tomáše is Prague's oldest brewery and Augustine monks have made a beer that is famous since 1352.

However one goes or does, one should make an effort to visit Old Town and above all the famous clock at the Old Town Hall. Whenever the hour strikes, Christ and the Twelve Apostles appear at a window - then comes death tolling for lost time and finally the Turk, the miser, the vain fool and the cock to tell you that the show is ended!

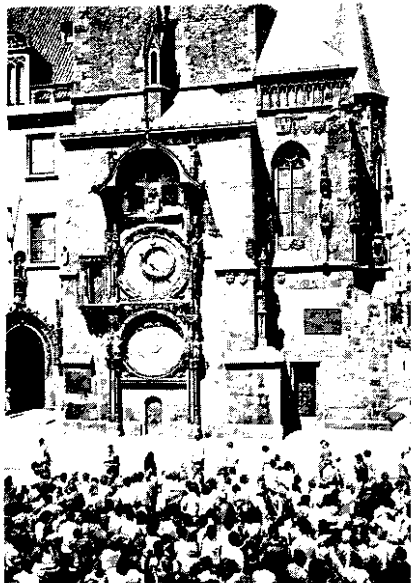
From what I have gleaned in my travel book, opposite the clock, under the arcades is found a wine shop called Binders. The story goes that John of Luxembourg, King of Bohemia and father of Charles IV gave the Prague burghers a permit in 1388 to build a Town Hall from the proceeds of the wine tax. The more wine drunk the more money. It seems that those stout drinkers bought a house for the Hall in a year, and in ten years they had rebuilt it as it is today. I wonder if we shouldn't propose a similar funding procedure for some of our research to our various governments.

Finally, courtesy of a colleague at this University, I obtained some useful hints on some of the complexities of the Czech language. The little v that is placed over letters indicates the following sounds: č is a ch sound as in church; š is a sh sound as in shush; and ž is a szu sound as in pleasure, whereas over an ě would lengthen its sound as in yeah. Accents where found, lengthen sounds, such as á would be ah as at the dentist, or é would be eh. Prague is full of squares and the abbreviated form is nam. or nameněští. So if you are lost, try some of the sounds you see on the inhabitants.

Best wishes,

A. Tomvas,

Newsletter Editor



RESULTS - ELECTION OF OFFICERS

According to the report of the Tellers, the following officers were elected as members of the Council of the SIP for the two-year term beginning at the close of the Annual Meeting in Praha, September, 1978:

President: Jaroslav Weiser
 Vice President: Phyllis T. Johnson
 Secretary: John E. Henry
 Treasurer: Joseph V. Maddox
 Trustees (2): H. Denis Burges
 Michael C. Mix

Wayne M. Brooks
 Secretary

(New Title)

Biochemistry of Parasitic Protozoa. W.E. Gutteridge and G.H. Coombs. University Park Press, Baltimore, Md., 1977, 172 p., \$16.50.

Reviewed by George A. Wistreich in American Society for Microbiology News. Vol. 44, #5, p. 275, May 1978.

WORKSHOPS

Regional S.I.P. Workshop

As previously announced, a Regional Workshop has been arranged and will be held with the American Institute of Biological Sciences at the University of Georgia, Athens, Georgia, August 20-24, 1978. The Workshop is intended for members and students not able to attend the XIth Annual Meeting and International Colloquium in Prague, Czechoslovakia, September 11-17, 1978. The Regional Workshop schedule is now final and a full program of subjects, speakers, etc., will soon be published by A.I.B.S. and distributed to A.I.B.S. registrants in their meeting brochure. In outline, the S.I.P. program appears as follows:

Sunday, August 20, 8:30-10:00 PM - Mixer

Monday Morning, August 21, 8:45 - Discussion Program: Microbial Control of Veterinary Important Insects. Richard E. Gingrich, Moderator.

Monday Afternoon, 2:00 - Discussion Program: Integrated Control of Cotton Insect Pests. W. C. Yearian, Moderator.

Tuesday Morning, August 22, 8:30 - Discussion Program: Disease of Cultured Aquatic Invertebrates. Donald V. Lightner, Moderator.

Tuesday Afternoon, 1:30 - Discussion Program: Forest Insect Control Systems. O. N. Morris, Moderator.

Tuesday Evening - Workshop: Subject to be announced.

Wednesday Morning, August 23, 9:00 - Contributed Papers. G. R. Carner, Presiding.

Wednesday Afternoon, 2:00 - Contributed Papers. Robert S. Brown, Presiding.

The Society does not plan to publish abstracts of papers. Those making reports are requested to reproduce 100 copies of a 100-200 word, single page abstract for distribution at the time reports are presented.

Information concerning the A.I.B.S. Meeting and S.I.P. Workshop already has been distributed to North American members through a special mailing. Members who were inadvertently left off the mailing list or who have misplaced their registration, housing, travel forms can receive same by writing A.I.B.S. Headquarters, 1401 Wilson Boulevard, Arlington, Virginia 22209. Additional information is also provided in the May 1978 issue of BioScience. Early registration is encouraged.

USA/USSR Workshop on Entomopathogenic Fungi

A joint USA/USSR workshop on Entomopathogenic Fungi was held in Riga, Latvia, USSR from May 22 to May 26, 1978.

The meeting-working conference was part of the US/USSR joint commission on Scientific & Technical Cooperation on Microbiological Preparations for Control of Agricultural Pests. The USA portion of the program was sponsored by the National Science Foundation through the American Society of Microbiology.

The USSR Chairman & Coordinator was Dr. Olga Alyoshina, Director, All Union Research Inst. for Bacterial Preparations, Moscow, USSR. The USA Chairman & Coordinator was Dr. Carlo Ignoffo, Director of the Biological Control of Insects Research Laboratory, Columbia, Missouri 65201, USA.

The list of participants was as follows:

USSR Participants

- 1) O.A. Alyoshina (All-Union Research Institute for Bacterial Preparations, Moscow, USSR) - "State of the Art and Research Prospects of Entomopathogenic Fungi in the USSR."
- 2) R.N. Belova (All-Union Research Institute for Bacterial Preparations, Moscow, USSR) - "Developing the Technology of In-Depth Cultivation of Beauveria bassiana Fungus."
- 3) E.V. Kononova (All-Union Research Institute for Bacterial Preparations, Moscow, USSR) - "Selecting Industrial Strains of Beauveria bassiana Fungus."
- 4) L.P. Sinityna (All-Union Research Institute for Bacterial Preparations, Moscow, USSR) - "Developing a Biological Method for Assessing Entomopathogenic Fungus Preparations."
- 5) A.A. Yevlakhova (All-Union Institute for the Protection of Plants) - "Current Issues and Prospects of Mass Cultivation and Use of Entomopathogenic Fungi in the Soviet Union."
- 6) E.G. Voronina (All-Union Research Institute for Protection of Plants, Moscow, USSR) - "In-Depth Cultivation of the Entomophthora thaxteriana Fungus."
- 7) V.A. Pavluishin (All-Union Research Institute for Protection of Plants, Moscow, USSR) - "Virulence Factors Associated with the Directed Breeding of Active Forms of Beauveria bassiana Fungus."
- 8) V.M. Goral (Ukrainian Institute for the Protection of Plants, Kiev, USSR) - "Influence of Cultivation Conditions on Pathogenic Properties of Muscardine Fungi."
- 9) N.V. Lappa (Ukrainian Institute for the Protection of Plants, Kiev, USSR) - "Methods of Practical Implementation of Entomopathogenic Muscardine Fungi."
- 10) K.Ya. Yegina (Institute of Biology, Academy of Sciences of the Latvian SSR, Riga, USSR) - "Production Technology of Entomophthora Fungi."
- 11) Z.P. Chudare (Institute of Biology, Academy of Sciences of the Latvian SSR, Riga, USSR) - "The Use of Entomophthora Fungi."
- 12) A.I. Tsibul'ska (Institute of Biology, Academy of Sciences of the Latvian SSR, Riga, USSR) - "Structure and Action Mechanism of Entomopathogenic Fungi."

USA Participants

- 1) D. Roberts (Boyce Thompson Institute, Yonkers, N.Y., USA) - "Past History and Current Status of the Development of Entomopathogenic Fungi in the United States."
- 2) L. Bulla (USDA, ARS, Manhattan, Kansas, USA) - "Past History and Current Status of the Development of Active Strains of Beauveria bassiana in the United States."
- 3) C. McCoy (University of Florida, Lake Alfred, Florida, USA) - "Studies on Development of Hirsutella thompsonii as a Fungal Microbial Insecticide."
- 4) C.M. Ignoffo (USDA, ARS, Columbia, Missouri, USA) - "Development of Nomuraea rileyi as a Fungal Microbial Insecticide."
- 5) R. Soper (USDA, ARS, Orono, Maine, USA) - "Development of Entomophthora Species as a Possible Microbial Insecticide."
- 6) E. Grula (Oklahoma State University, Stillwater, Oklahoma, USA) - "Biochemical Basis for Pathogenicity of Beauveria bassiana."

- 7) T. Couch (Abbott Laboratories, North Chicago, Illinois, USA) - "Standardization of Preparations of Beauveria and Other Fungi."

International Conference on Invertebrate Tissue Culture, Rigi-Kaltbad, Switzerland, April 24-27, 1979.

The fifth International Conference on Invertebrate Tissue Culture will be held at the Resort Hotel RIGI-KALTBAD in the Swiss Alps. The following sessions are proposed:

1. Establishment, cloning, characterization and nutritional requirements of invertebrate cell lines.
2. Use of invertebrate tissue cultures in developmental biology, physiology, genetics, endocrinology and biochemistry.
3. Use of invertebrate cell lines to characterize viruses and protozoan parasites.
4. Applications of invertebrate tissue cultures in medical and agricultural sciences.

Papers of 20- and 10-minute presentations are projected. Those who wish to participate are requested to ask for application forms from any of the following people:

Edouard Kurstak
Faculté de Médecine
Université de Montréal
Montréal, P.Q., Canada

Karl Maramorosch
Waksman Institute of Microbiology
Rutgers University
New Brunswick, N.J., U.S.A.

Andreas Dübendorfer
Zoologisch-Vergl.
Anatomisches Institut
der Universität Zürich
Zürich, Switzerland

The full board, in double-room occupancy at the RIGI-KALTBAD, will be of 89 SF daily, per person.

Meeting Dates

Society of Nematologists, Annual Meeting,
Hot Springs, Arkansas, USA, August 7-10.

Society for Industrial Microbiology, Annual Meeting,
Houston, Texas, USA, August 13-18.

International Congress of Parasitology,
Warsaw, Poland, August 19-26.

American Institute of Biological Sciences, Annual Meeting (Regional Meeting of SIP), Athens, Georgia, USA, August 20-25.

Fourth International Virology Congress,
The Hague, The Netherlands, September 3-9.

International Congress of Microbiology,
Munich, FRG, September 3-8.

International Colloquium on Invertebrate Pathology and Annual Meeting Society for Invertebrate Pathology, Praha, Czechoslovakia, September 11-17.

International Congress of Infectious and Parasitic Diseases, Varna, Bulgaria, October 2-6.

Entomological Society of America, Annual Meeting,
Houston, Texas, USA, November 26-30.

OBITUARY

Dr. D. Kent Hunter of the USDA-SEA Stored Products Insects Research Laboratory died on January 8, 1978 after a short illness. Dr. Hunter had been employed at this laboratory as an insect pathologist since 1967. Dr. Hunter was born on September 13, 1938 in Sanger, California and lived in Fresno, California during his high school and undergraduate college years. He received a B.A. degree in Biology from Fresno State University in 1962. In 1965 Dr. Hunter received a M.S. in Entomology and in 1975 a Ph.D. degree from the University of California at Riverside. His areas of specialization for both post-graduate degrees were insect pathology, insect ecology and insect behavior. After graduation in 1967, Dr. Hunter assumed his duties at the Fresno laboratory and became internationally known for his research on entomogenous viruses infecting stored products pests and their application and use as microbial control agents for these pests. He was an active member of the Entomological Society of America and the Society for Invertebrate Pathology. At the time of his death, Dr. Hunter had published 25 scientific papers in his speciality and had become very interested in the registration of these viruses for commercial use.

As a colleague and close personal friend, I remember Dr. Hunter as a person with a good sense of humor, compassion for his fellow-man, always available for consultation on either a personal or scientific basis; a scientist capable of simplifying rather complex problems.

Dr. Hunter is survived by his widow, Mrs. Nancy Hunter; a son, Craig; a daughter Kimberly; his parents Mr. and Mrs. Douglas Hunter; and a sister, Patricia Higgins, all living in the Fresno, California area. The family requests that remembrances be in the form of donations to the Cystic Fibrosis Foundation, 3379 Peachtree Road, Atlanta, Georgia 30326.

P.V. Vaill
Head, Insect & Pest Control
Vienna, Austria

REGIONAL NOTES - Greece

General Assembly of the International Organization for Biological Control of Noxious Animals and Plants. West Palearctic Region - Athens, Greece, October 3-8, 1977. Organized by the Greek Ministry of Agriculture.

Some 60 scientists, representatives of countries of Western Europe, specialized in matters dealing with integrated biological crop pest control attended the general meeting. Many who were present were directors of the IOBC Working Groups.

On the first day of the meeting, following the inaugural address of the Greek Government (Agricultural Service), the addresses of the IOBC - President Dr. E. Bilioti, and the general secretary Dr. L. Brader, the reports of the secretary-general, the treasurer and the auditing committee were read.

Elections were then held for the new Executive Council of IOBC. Dr. G. Mathys, who is known as the General Director of the European Plant Protection Organization, was elected the new president. Drs. M. Way, J. Jourdeuil and L. Brader were elected vice-presidents. Dr. P. Ferron was elected general-secretary and Dr. C. Pelerents as treasurer with a committee of Drs. J. M. Franz, M. Chodjai, M. Hafez, M. Pavan and P. Mourikis. Auditing committee members are Drs. H. Steiner, E. Morales and L. Vasiljevic.

Reports of the various commission and working groups were heard on the second and third day and each presentation was followed by a discussion period. Final presentations and summing-up discussions and criticisms were made of all reports and presentations of results obtained as a consequence of the studies of the various working groups.

A few of the topics discussed were:

- Programm in Integrated Control in Glasshouses
- Integrated Control of Soil Pests
- Biological Control of Citrus Scales
- Genetic Control of Codling Moth and Adoxyophyes
- Genetic Control of Rhagoletes cerasi
- Genetic Control of Ceratitis capitata
- Biological Control of Lymantria dispar

The conference ended with a guided tour on the fourth and fifth days to places and sites of archaeological interest such as Delphi, Old Corinth, Mycenae, Epidaurus with stops at various interesting agricultural sites so as to permit the conference members to see at first hand the efforts being undertaken by the Greek Agricultural Service with regard to the protection of cultivations such as for example olives, citrus, cotton and others with released insect parasites and predators or with bacterial preparations of B. thuringiensis.

Dr. C. Yamvrias
Insect Pathology & Microbiology Lab.
Athens, Greece

New Titles

Diagnostic Manual for the Identification of Insect Pathogens. 1978. Poinar, J.O., Jr., and Thomas, G.M. Approx. 210 pp. Plenum Publishing Corp., New York, N.Y. ISBN:0-306-31097-X.

This book is the first of its kind to use illustrated keys for the ready identification of pathogens causing infectious diseases of insects. This new, practical approach on disease diagnosis fills a void in the scientific literature for a diagnostic manual which identifies and describes all common genera or groups of insect pathogens, including fungi, protozoa, bacteria, viruses, and rickettsias. It contains an entire section devoted to techniques, in order to demonstrate the preparation and use of various cultures, stains, and all other diagnostic media, materials, and methods discussed in the book.

While the major emphasis is on identification, general background information on the various groups of pathogens is also presented. This includes discussion of the types of associations with insects, definitions and classifications, general life cycles, characters of diseased insects, factors affecting natural infection, methods of examination, and isolation and cultivation. In addition, tests for infectivity, methods of storage, and a review of the literature are also included.

(Available from: Plenum Publishing Corp., 227 West 17 Street, New York, N.Y. 10011, U.S.A. \$19.50.)

CIH Key to the Groups and Genera of Nematode Parasite of Invertebrates. 1977. Agricultural Commonwealth Bureau, Farnham Royal, Bucks, Slough SL2 3BN, England. 43 pp. \$4.30.

The Atlas of Insect and Plant Viruses, Including Mycoplasmaviruses and Viroids. 1977. Karl Maramorosch, editor. 512 pp. Academic Press, New York, N.Y. ISBN:0-12-470275-9.

The Atlas of Insect and Plant Viruses is a companion volume to Ultrastructure of Animal Viruses and Bacteriophages: An Atlas, edited by Dr. Albert J. Dalton and Dr. Françoise Haguénau, published by Academic Press in 1973. It includes a description of viruses infecting insects, higher plants, fungi, mycoplasmas, and spiroplasmas. The smallest recognized disease agents, viroids, have also been included, although they are not classified as viruses. The contributors have presented the information available on the ultrastructural aspects of viral replication and the organization of the virion in the diverse groups.

Viruses of microorganisms in the families Mycoplasmataceae and Spiroplasmataceae, discovered recently, have been described in detail. Viruses of protozoa and algae have been omitted because information on them has been inadequate or unavailable. Among the taxonomically recognized groups of plant viruses, all but the following have been included: alfalfa mosaic virus (monotypic); pea enation mosaic virus (monotypic); Carlavirus (carnation latent virus) group; tomato spotted wilt virus (monotypic); and Hordeivirus (barley stripe mosaic virus) group.

Although the taxonomy of viruses has progressed since the publication of Insect and Plant Viruses, the chapter in that volume on the classification and nomenclature of viruses by Melnick is recommended as a guideline to this book as well. Specific references to various groups of viruses give the sources of published information . . .

It is hoped that this volume will not only serve those who work with viruses of invertebrates and plants, but also virologists interested in the comparative aspects of all viruses.

ADDRESS CHANGES

Earlene Armstrong
Dept. of Entomology
University of Maryland
College Park, MD 20742

Drion G. Boucias
Entomology Department
University of Kentucky
Lexington, KY 40506

Gail Breed
563 N.W. Walnut Blvd.
Corvallis, OR 97330

Dr. Jessica M. Castillo
61-15 98th St.
Rego Park, New York 11374

Robert J. Cibulsky
Abbott Laboratories-CAPD
2826 Rosegarden Blvd. West
Mechanicsburg, PA 17055

Truman B. Clark
2807 Buxmont Lane
Bowie, MD 20715

G. E. Cosgrove
Zool. Society of San Diego
San Diego, CA 92112

A. Brito de Cunha
Univ. De Sao Paulo, Caixa Postal 11456
CEP 01000, San Paulo, Brazil

Charles C. Doane
5934 E. Calle Del Sud
Phoenix, AZ 85015

Normand R. Dubois
172 Exeter Road
Hamden, CT 06518

Bernice Farrens
Univ. of San Diego
Biology Department
Alcala Park
San Diego, CA 92110

P. Ferron
INRA, Station Lutte Biologique
La Miniere 78280 Guyancourt
FRANCE

Dr. Peter E. Giebel
Dept. of Bio., Virginia Commonwealth Univ.
Richmond, VA 23284

Kevin Hackett
822 Riley Dr.
Albany, CA 94706

Harold H. Haskin
Dept. of Zool., Rutgers Univ.
Nelson Bio. Labs., Busch Campus
P.O. Box 1059
Piscataway, NJ 08854

Stephen Hembree
USAMBRDL Bldg. 568
Ft. Detrick
Frederick, MD 21701

George P. Hoskin
2904 Stephens St.
Easton, PA 18042

Takao Ishizaka
Nagano-Ken Sericultural Ex. Sta.
868 Shimoshiojiri, Ueda City 368
JAPAN

Paul J. Iwai
3200 Jefferson Way
Corvallis, OR 97331

Dr. Sophie Jakewska
ARZ. Merino 154 2-1
Santo Domingo
Dominican Republic

Kazumasa Katagiri
Div. of Forest Prot., Forestry and
Forest Prod. Res. Inst., P.O. Box 02,
Ushiku, Ibaraki 300-12, JAPAN

H. K. Kaya
Dept. of Ent.
Univ. of Ca.
Davis, CA 95616

Dr. Roger A. LeBrun
Dept. of Plant Path. & Ent.
Univ. of Rhode Island
Kingston, R.I. 02881

Richard Levy
3708 Blue Heron Dr.
Fort Meyers, FL 33908

H. K. Lim
Univ. of Ca.
Inst. for Med. Res.-Jalan Pahang
Kuala Lumpur, Malaysia

Dr. Claude Louis
Stn. De Recherches Pathol. Comparee
30380 St. Christol, FRANCE

Spiro J. Louloudes
Insect Path. Lab., Pl. Prot. Inst.
Rm. 214, Bldg. 011A BARC-WEST
Beltsville, MD 20705

D. M. Martouret
Station de Lutte, Biologique
INRA LaMiniere 78280
Guyancourt, FRANCE

Clayton W. McCoy
Univ. of Florida
AREC, P.O. Box 1088
Lake Alfred, FL 33850

Dr. Albert Mead, Associate Dean
College of Liberal Arts
Modern Languages, Bldg. 347
Univ. of Arizona
Tucson, AZ 85721

Dr. Katsuyoshi Mori
Dept. of Fisheries, Faculty of Ag.
Tohoku University
Sendai, 980, JAPAN

Daniel Molloy
NYS Science Service
Cambridge Bio Station
Cambridge, N.Y. 12816

Oswald N. Morris
Forest Pest Management Inst.
Canadian Forestry Ser.
25 Pickering Place, OSHAWA
Ontario, K1G3Z8, Canada

Richard A. Nolan
Dept. of Biol., Mem. Univ. of
Newfoundland, St. Johns, Newfoundland
Canada A1B 3X9

Michael J. Patterson
Dept. of Fisheries, WH-10
Risheries Center, Univ. of Wash.
Seattle, Washington 98195

Dr. D. Peters
Ag, Univ., Dept. of Virology
11, Binnenhaven, P.O. Box 8045
6700 EM Wageningen, The Netherlands

Joel C. Pounds
Mail Code 21, NCTR
Jefferson, Arkansas 72079

Mr. Joe Quick, Jr.
103 Flag Dr. East
Lake Jackson, TX 77566

Dr. Candido Santiago-Alvarez
Càtedra de Entomologia Agrícola
E.T.S. de Ingenieros Agronomos
Còdoba, España

Eugene S. Sharpe
R#1, Box 191
Eureka, Ill. 61530

Barbara M. Pilley Shaw
130 South St.
Tarring, Worthing
West Sussex BN14 FNB, UK

J. E. Stewart
P.O. Box 550
Fisheries & Marine Ser.
Halifax, Nova Scotia, Canada

John T. Sullivan
Electrochemical and Biophysical Res.
Lab., Downstate Med. Center
Brooklyn, N.Y. 11203

Constant Vago
Stn. De Rech De Path Comparee
St. Christol Les Ales 30380
France

Han J. M. Wassink
Lab. of Ex. Ent.
Univ. of Amsterdam, Kruislaan 302
1098 SM Amsterdam, The Netherlands

James E. Wright, Research Leader
USDA-ARS Boll Weevil Res. Lab.
P.O. Box 5367
Mississippi State, MS 39762

Timothy P. Yoshino
Department of Zoology
University of Oklahoma
730 Van Vleet Oval
Norman, OK 73019

Prof. J. Ziffer
Dept. Food Eng. & Biotechnology
Israel Inst. of Technology
Hadar Campus, Haifa, Israel

NEW MEMBERS

Fernando Agudelo
IICA-OEA P. O. Box 711
Santo Domingo
Dominican Republic

Margaret K. Arnold
NERC Unit of Invertebrate Virology
5, South Parks Road
Oxford, UK

Rosalind J. Barker
Imperial College field Sta.
Ashurst Lodge, Sunninghill
Berk SL5 7DE, England

Janusz Bartkowski
Lab. of Insect Pathology
Inst. of Plant Protection
Miczurine 20, 60-318 Poznań, Poland

Malcolm J. Fraser
Res. Associate, Dept. of Ent.
Botany and Zool. Bldg.
1735 Neil Ave.
Columbus, Ohio 43210

Richard Frye
Dept. of Entomology
North Dakota State University
Fargo, ND 58102

Joyce W. Hawks
Nat. Marine Fisheries Ser.
2725 Montlake Blvd.
Seattle, WA 98103

John J. Heck
R. R. #14, Box 535
W. Terre Haute, IN 47885

Jolly Hibbits
P.O. Box #21
National Marine Fisheries Service
Mukilteo, WA 98272

Alan Lee Knight
Department of Botany
Univ. of North Carolina
Chapel Hill, NC 27514

D. L. Knudson
Yale Arbovirus Res. Unit
Yale Univ. School of Medicine
60 College Street
New Haven, CT 06510

Ann M. Lackie
Department of Zoology
The University of Glasgow G12 8QQ
Scotland, U. K.

Janis E. Lehrer
TAMU Bldg. 311, Ft. Crockett
Galveston, TX 77550

D. J. McKinley
30 Bedwin St.
Salisbury SP1 3UT
Wiltshire, ENGLAND

Carol A. Moore
Marine Science Inst.
Nahant, MA

Leodegario E. Padua
Insect Path. Lab., Dept. of Ent.
Univ. of the Philippines at Los Banos
Los Banos, Laguna, Philippines E-3720

Nancy Ann Penncavage
Dept. of Biology
SUNY at Stony Brook
Stony Brook, New York 11794

Robert A. J. Priston
Shell Res. Ltd.
Sittingbourne, Kent
ENGLAND

Richard C. Reardon
29 Twin Bridge Road
Madison, Conn. 06443

Lothar Renwrandt
Zool. Inst., Zool. Museum Univ. Hamburg
Martin Luther King Platz 3
2 Hamburg 13, West Germany

Rose Rizki
Div. of Bio. Sciences
University of Michigan
Ann Arbor, Michigan 48109

T. M. Rizki
Div. of Bio. Sciences
University of Michigan
Ann Arbor, Michigan 48109

NEW MEMBERS (Continued)

J. V. Sanchez
Federacion Nacional De Algodoneros
Bogota, Colombia

Michael Simpson
ICI Ltd. Path. Section
Central Toxicology Lab
Alderley Park, NR Macclesfield
Cheshire SK10 4TJ

Robert P. Smith
St. Univ. of New York
Col. of Environmental Sc. & Forestry
Department of Entomology
Syracuse, New York 13210

Alonzo C. Thompson
Boll Weevil Res. Lab.
P.O. Box 5367
Mississippi State, MS 39762

Dr. S. Bradleigh Vinson
Department of Entomology
College Station, TX 77843

Phillip L. Watson
163 Nat. Resources Bldg.
University of Illinois
Urbana, IL 61801

Stanley R. Webb
Microbio. Dept. Med. Coll.
MCV Station, Box 847
Richmond, VA 23224

Harvey S. Whitney
1925 Casa Marcia
Victoria, B.C.
Canada V8N 2X4

G. Wilkie
Borden Lab. Shell Res. Ltd.
Sittingbourne, Kent
ENGLAND ME9 5AG



SIP Newsletter

A. J. Donnas, Editor
Department of Botany
Coker Hall 010-A
The University of North Carolina
Chapel Hill, North Carolina 27514 U.S.A.