

newsletter

SOCIETY FOR INVERTEBRATE PATHOLOGY

EDITOR: L. P. S. VAN DER GEEST

VOL. III. NO. 4

SEPTEMBER 30,1971

REPORT OF THE FOURTH ANNUAL MEETING

Approximately 155 people attended the fourth Annual Meeting of the Society which was held jointly with a symposium of the Commission of Insect Pathology and Microbial Control of the "Organisation Internationale de Lutte Biologique (O.I.L.B.), West Palearctic Regional Section", at the Université des Sciences et Techniques du Languedoc in Montpellier, France. Meeting facilities in the Administration Building were excellent and the organisation of the scientific sessions ran smoothly thanks to the efforts of the program director. On the final day of the meeting, the "Station de Recherches Cytopathologique" in Saint-Christol-les-Alès was visited by the congress members, where many different aspects of research on invertebrate pathology were shown. The participants were housed near Montpellier in hotels which were situated on the Mediterranean sea shore.

The social program included a cocktail party offered by the "Institut National de Recherches Agronomiques" in the Botanical Garden of Montpellier, a banquet in the Cevennes mountains, a lunch offered by the O.I.L.B. near the famous Roman "Pont du Gard" and a trip to the Camargue.

MINUTES OF FOURTH BUSINESS MEETING

Society for Invertebrate Pathology

June 16, 1971

University of Montpellier

France

Present: About 50 members

- 1. President Vago called the meeting to order at 11.00 a.m.
- 2. Minutes of the former business meeting at College Park were not read because each member received the text which was published in Newsletter III 1. Dr Briggs voted for approval. Van der Laan asked one change: "Second" in the title should be altered in "Third". This change moved by Briggs, seconded by Cheng, was unanimously approved. Carried.
- 3. President mentioned our intention to broaden the field of activity of the Society and try to interest colleagues working in related fields, for instance on symbionts, on vectors, etc. The appointment of Dr Rousseau as liaison officer to the Bee Pathology Section was established. Dr Rousseau was hereby presented to the meeting. Dr Weissenberg was appointed Honorary Member. The reaffiliation with AIBS was established, both the result of the mail ballots.

4. Report of the Secretary

The report covers the period November 1, 1970 to June 15, 1971. The number of regular members increased from 241 to 266, 3 student members (from 42 to 45) applied and two honorary members were appointed. The total of membership increased from 476 to 506.

5. Report of Membership Committee

The Secretary read the report of Dr Hurpin. Three activities were mentioned:
(a) approach on a personal basis of Europeans interested in Insect Pathology who are not yet members of SIP. This was done by comparison of the list of members with the Directory of Invertebrate Pathology, issued by Dr Briggs. Twenty colleagues were noted and received a letter pointing out the existence of SIP and giving details about its activities. (b) Draw attention to the difficult position of the colleagues in East European countries. (c) Aspect of adherance of specialists interested in fields closely related to invertebrate pathology. A list has been established in same form as (a).

6. Report of the Treasurer

In absence of Dr Ignoffo the following report was read by the Secretary.

Financial statement

November, 1970 - December 1970; All funds are in U.S.dollars.

Receipts

- Transfer of funds Welch to Ignoffo	\$ 500.00
- Transfer of funds Welch to Ignoffo	500.00
- SIP membership fees and subscription	34.00
	\$1034.00

Expenses - Purchase of JIP subscriptions from Academic Press - Franchise Tax (Heimpel)	\$ -	12.20
Balance \$ 1001.80 Balance recorded in Bank Statement \$ 1001.80		
Financial Statement January 1, 1971 - June 1971		
Receipts - Balance on hand January 1,1971 - Membership fees and J.I.P.subscriptions - Interest 4.78 11.92 - Transfer from Welch account	\$	1001.80 2332.46 16.70 252.35
	\$	3603.31
Expenses - Purchase of J.I.P. subscriptions - UC (Unesco coupons) - Franchise tax - Stationary - Advance to van der Laan (secretarial fee) - Newsletter (printing and mailing) - AIBS membership dues	_	1511.60 67 10.00 93.69 200.00 173.30 300.00
Balance \$ 1314.05		

\$ 1314.05

June 2, 1971

Balance recorded in Bank Statement

An audit Committee will be appointed by Dr Briggs. As the books are in U.S.A., no immediate auditing was possible. It was stipulated that it should be done within 3 months.

7. Report of Programme Director

A report of Dr Bergoin's activities was given by Secretary. These activities resulted in the Programme of the present meeting, as appeared in the Newsletter III, No 3, May 1971.

8. Report of the Publication Committee and the Editor in Chief, Journal of Invertebrate Pathology.

Secretary read Dr Cheng's report.
During the period August 1, 1970 through June 10, 1971, the following activities were mentioned.

- A. (a) Aspects of the Biology of Symbiosis, Univ.Park Press, Baltimore, Md., U.S.A. & Buttersworth, Ltd, London, England, 327 pp, April 1971. These are the Proceedings of a Symposium held Dec. 1969 at Boston, Mass., U.S.A., under auspices of AAAS, S.I.P. and Am.Soc.of Zoologists.
 - (b) André Paillot: "Les Infections chez les Insectes"; will appear soon in English translation by Dr M.Shapiro. The royalties will be donated to S.I.P.; 50% to be placed in general treasury, 50% to the Steinhaus Award (new initiation).

- (c) Current Topics in Comparative Pathology will devote the 1973 volume to papers submitted by former students, friends and colleagues of Dr Leslie Stauber, retiring from Rutgers University in 1972, and founding members of SIP. Coordinator will be Dr S.Y. Feng.
- B. Journal of Invertebrate Pathology. Manuscripts received and processed from May 31 May 31, 70-71: 138

 As is the policy of the Editorial Board of this journal, each manuscript continues to be reviewed by two referees and we have encouraged the submission of manuscripts in the area of invertebrate pathology in the broadest sense.
- 9. Report of the Editor of the Newsletter, given by Secretary.

Three issues appeared:

III - 1, September 1970, containing the reports of the meeting at College Park and still edited by Dr Harshbarger;

III - 2, February 1971, containing 8 pp. and III - 3, May 1971, containing 36 pp. The last issue was sent by surface mail to all members, except the participants of the Montpellier Meeting, as air mail would be too expensive (about \$ 200). - The big size of this issue is due to the inclusion of the Programme and Abstracts of the Montpellier Meeting.

10. Nomination Committee

Secretary read letter from Chairman (Dr Welch) in which he accepts this position, notwithstanding his nearing sabbatical. It was stipulated that the next President, Dr Briggs, needs a secretary not too far from his residence and that some suggestions about it should be done by Dr Briggs in the near future.

11. Division Committee

No report was received from Dr Martignoni.

12. Division Microsporidia

No report was received from Dr Vavra.

13. New Business

(a) The Secretary received a proposal by Dr Martignoni concerning the Constitution and Bylaws. A next article XIV is proposed, as follows: "The Council or any ten members of the Society shall propose such Bylaws, not in conflict with the Constitution, as may be necessary for the proper government of the Society.

"Any proposed new Bylaws, changes in the Bylaws or additions thereto, shall require the affirmative vote of a majority of the Council present and voting at a meeting, or of a majority of the Council voting by mail. Such new Bylaws, changes or additions shall become operative when and if confirmed (a) by a majority vote at a business session of the Society provided publicity is given to the majority of the membership voting by mail."

Dr Martignoni gave the following comment of this proposal in a letter to Dr Ignoffo:

"Further changes are necessary: the title of our "Constitution and Bylaws" should be "Constitution" only. Also, in the text, we should refer to "Constitution", only, rather than to "Constitution and Bylaws" (with rare exceptions). As you will notice, the new article XIV proposes a more flexible mechanism, by which new rules can be introduced and easily be amended by simple vote at a meeting, without the former complications of a mail ballot.

Thus, our Society would have a stable set of rules (the Constitution) and a flexible set of rules (the Bylaws). Some Societies have both, and other Societies have the Constitution only, as we have now. However, I have noticed during our recent history that it would be simpler and more efficient to have a mechanism by which certain rules would be enacted and made operative within a short period of time, at any one annual meeting. As you will notice, article XIV would provide such mechanism. This article is similar to the corresponding article of the American Society for Microbiology.

The Secretary is of opinion that this will implicate a further step: Not only the new article should be taken into consideration, but the present Constitution and Bylaws should be split up into a separate "Constitution" and into "Bylaws". This is more than we can decide just now, and therefore the establishment of a new Committee is proposed. Dr Martignoni will be asked to act as Chairman, Vago, Briggs and Van der Laan as members. Voted by Briggs, seconded by Laird, unanimously accepted.

(b) Also proposed by Dr Martignoni is the text of an article concerning delinquent members. Some versions were proposed, the Secretary makes the following text:

"A member shall become delinquent upon failure to pay dues within the calendar year.

"Any member in arrears for dues shall not receive the Journal of the Society until all arrears shall have been paid.

"Upon failure to pay dues for two years, a member shall be dropped from the roll after written notice by the Secretary and all his rights and privileges as such shall thereupon cease and terminate, except that within this years thereafter, he may petition the Membership Committee for reinstatement upon payment of all back dues."

Moved by Sparks, seconded by Cheng, unanimously approved to be put upon a ballot.

- (c) 1972 meeting. As already decided, this meeting will be with AIBS at the University of Minnesota, St-Paul, U.S.A.
- (d) The suggestion of the Council was made to meet in 1973 in United Kingdom. After some discussion in which Drs Tinsley, Burges and David participated, a preliminary invitation was made by Dr Tinsley to Oxford, which was gladly acknowledged. The final decision is with next Council. Contact will be made with Stations in Marine Biology in the neighbourhood of Oxford, to assure the cooperation with invertebrate pathologists in field other than insects.
- (e) There was strong inclination towards a meeting in 1974 in Munich (Germany), closely linked with the International Congress of Parasitology.
- (f) The President proposed to appoint an Awards Committee to care after special honours, recommendations of Honorary Members, investigation of establishment of a model of a certificate to be given to Honorary Members, Emblems, etc. Moved by Laird, seconded by Briggs, unanimously accepted.
- (g) Affiliation or liaison with other Societies and Groups should be encouraged.

Mr. Theunissen (Netherlands) asked attention for problems arriving with diseases in mass-cultures of insects, primarily made for other purposes, but of direct interest of our groups.

Dr Briggs asked for continuation in cooperation with the further preparation of new additions of the Directory, issued since 6 years from his group, at the University of Ohio, Columbus, and to give notice of any additions and corrections.

President closed session at 12.30

REPORT OF AUDIT COMMITTEE

The undersigned members of the Society for Invertebrate Pathology examined and verified the financial records of the Society in the office of the Treasurer at Columbia, Missouri, USA on August 31, 1971. The financial records of the Society were found to be in order. The financial statement presented to the annual meeting of the Society at Montpellier, France on June 16, 1971 is certified to be true and accurate.

Respectively submitted

signed: Donald L. Hostetter

John D. Briggs

FINANCIAL REPORT

From Dr H.E. Welch, former Treasurer of the Society, the following final financial statement for his term of office was received.

August 1, 1970 - July 31, 1971 (All funds are in Canadian Dollars)

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Balance on hand, July 31, 1970	\$ 1319.08
Membership fees and J.I.P. subscriptions	
paid by cheque or money order	849.51
Membership fees and J.I.P. subscriptions	
paid by bank transfer or cash	 153.45
	\$ 2322.04
XPENSES	
Purchase of J.I.P. subscriptions from	
Academic Press	\$ 597.87
Postage	207.67
Newsletter, Vol. III, No. 1 (September 1970)	147.04
Refunds to members	15.87
Air express and customs charges for Society	
Records shipped to Amsterdam	31.03
Transfer of account to Dr C.M. Ignoffo	1321.34
Bank service charges	 1.22
	\$ 2322.04

Funds transferred from H.E. Welch, Winnipeg, to Dr C.M. Ignoffo, Libertyville.

November	17,	1970	\$ 1026,00
February	3,	1971	295,34
			
			\$ 1321,34

H.E. Welch, Treasurer
July 21, 1971

COPIES OF OLD NEWSLETTERS

A limited number of extra copies of older newsletters are available and can be sent out to members on request. These copies can be obtained through Dr H.E. Welch, Department of Zoology, University of Manitoba, Winnipeg 19, Canada.

NEWSLETTER CORRESPONDENTS

In the list of newsletter correspondents, published in the last issue of the newsletter, was mentioned that Dr A.K. Sparks is correspondent for Alaska, Montana and Washington. Dr Sparks, however, moved some time ago to Texas. Dr Mauro E. Martignoni is willing to extend his territory and will now serve the following 6 U.S.-States: Alaska, Idaho, Montana, Oregon, Washington and Wyoming. His address is: Forestry Sciences Laboratory, 3200 Jefferson Way, Corvallis, Oregon 97331, U.S.A.

MEETINGS

At the next National Entomological Society of America meeting to be held in Los Angeles, California on November 29 - December 2, 1971 a symposium entitled "Recent Advances in Insect Pathology" will be presented in Section C, Ecology, Behavior and Bionomics. Three major areas including insect viruses, protozoan diseases and entomogenous fungi are to be considered. The participants and specific subjects will be announced in the Societies annual program.

The 14th International Congress of Entomology will be held in Canberra, Australia on 22 - 30 August 1972. Fifteen different scientific sections are planned during the congress, one of which will be concerned with biological control and insect pathology. For additional information please write to the secretary of the congress, P.O. Box 216, Civic Square, A.C.T., Australia, 2608.

SEMINAIRE DE L'ORGANISATION INTERNATIONALE DE BIOENGINEERING ET DE BIOTECHNOLOGIE (I.O.B.B.)

sur le thème "Bioengineering dans la lutte biologique contre les insectes" Helsinki, 8 - 9 juin 1971

(organisé par H.G. GYLLENBERG, Président de l'I.O.B.B., Department of Microbiology, College of Agriculture, Viikki, 00710 Helsinki 71, Finlande)

Poursuivant depuis sa création en 1968 l'organisation de séminaires destinés à favoriser les collaborations entre laboratoires travaillant dans les domaines de la microbiologie appliquée, l'I.O.B.B. avait choisi comme thème de la réunion qui s'est tenue récemment à Helsinki (8 et 9 juin 1971) "le bioengineering dans la lutte biologique contre les insectes". Une trentaine de spécialistes de la microbiologie appliquée, de la lutte microbiologique contre les insectes, de la culture des tissus et de l'écologie ont participé aux quatre séances de travail consacrées aux thèmes suivants :

- 1) Aspects généraux de la lutte contre les insectes
- 2) Méthodes de production de masse et application
- 3) Titrage biologique et standardisation
- 4) Elevages d'insectes et cultures de cellules

Les rapports, qui seront publiés par les soins de l'I.O.B.B., traitaient des sujets suivants :

- The opportunities of a redeployment of military aerobiology, par C.G. HEDEN (Stockholm),
- Vector biology and control, par J. WRIGHT (OMS),
- Health and hygienic aspects of insecticides, par W. KURYLOWICZ (Varsovie),
- Need of entomological research in developing countries, par T.R. ODHIAMBO (Nairobi),
- -Méthodes de multiplication et d'application des préparations de <u>Beauveria</u> sp. (Fungi imperfecti) pour la lutte microbiologique contre les insectes, par P. FERRON (LA Minière),
- Production and uses of C preparations in plant tissue protection, par J. RICARD (Stockholm),
- Investigations on biological protection methods at Rikkihappo Oy, par Mirjam NIEMINEN (Vaasa),
- The principles of the standardization of <u>Bacillus thuringiensis</u> by bioassay: illustration from the microbial control of the wax moth, <u>Galleria mellonella</u>, par H.D. BURGES (Slough),
- Standardisation des produits dérivés de <u>Bacillus thuringiensis</u>, par H. de BARJAC (Paris) et A. BURGERJON (La Minière),
- Assay of the Bacillus thuringiensis B-exotoxin, par C. CARLBERG (Helsinki),
- Arthropod cell culture and its application in animal virology: review on cultivation of viruses and rickettsiae in bloodsucking arthropods, par J. REHACEK, (Bratislava),

Il nous a été agréable et réconfortant de constater l'intérêt que portent les microbiologistes aux possibilités de développement appliqué qu'offre la lutte microbiologique contre les insectes. Une coopération avec l'OILB et la SIP est d'ailleurs souhaitée vivement par les mebres de l'IOBB et des contacts seront pris incessamment. Cette coopération pourrait porter principalement sur les applications de la technologie de la fermentation à la culture des tissus d'insectes et à la production de spores de bactéries et de champignons, ainsi que sur la formulation des préparations. La stimulation des recherches sur le titrage biologique, la standardisation et la détermination de la toxicité des agents entomopathogènes est également vivement souhaitée. La Section "standardisation" de l'Association internationale des Sociétés de Microbiologie se propose d'organiser en 1974, en collaboration avec la SIP et l'OILB, un symposium dans le but de recommander des étalons internationaux.

Ce séminaire a été en outre l'occasion de prendre connaissance des réalisations de la firme Rikkihapo Oy, à Vaasa (Finlande) qui a déposé depuis janvier 1969 une demande d'autorisation de vente d'une préparation à base de virus contre <u>Neodiprion sertifer</u>.

P. FERRON

INTERNATIONAL POTENCY UNITS FOR BACILLUS THURINGIENSIS PRODUCTS.

From a letter of the Environmental Protection Agency, Washington D.C. to manufacturers, formulators, distributors and registrants of economic poisons in the U.S., we learned that International Units have now been adopted for expressing potency (insecticidal efficacy) of <u>Bacillus thuringiensis</u> preparations for labelling and registration purposes in the United States of America. As reference, the standard E 61 (prepared by the Pasteur Institute, Paris, France) will be used. This reference preparation contains by definition 1000 international units/mg. The products need to be assayed by a bioassay procedure which will be published by H.T. Dulmage in the Journal of Invertebrate Pathology.

REGISTRY OF TUMORS IN LOWER ANIMALS

The Registry of Tumors in Lower Animals which collects and studies neoplasms and related disorders in invertebrate and cold-blooded vertebrate animals has a new annual activities report available for distribution. Copies may be requested from:

Dr John C. Harshbarger Director, Registry of Tumors in Lower Animals National Museum of Natural History, Rm. W216-A Smithsonian Institution Washington, D.C. 20560

CENTER FOR PATHOBIOLOGY, IRVINE, CALIFORNIA.

The Center for Pathobiology at the University of California, Irvine, still has about 100 copies of Vision, Courage, Accomplishment, The Life of Edward A. Steinhaus available for distribution. In addition, reprints of papers of Edward A. Steinhaus beginning with 1955 may be obtained by asking for specific ones. There are only a few reprints of papers prior to 1955. We especially have large numbers of Report of Diagnoses of Diseased Insects 1951 - 1961. Hilgardia, 33, 349 - 489, 1962, and Microbial Control - The Emergence of an Idea, Hilgardia, 26, 107 - 160, 1956. The Center still has copies available of An Annotated Bibliography of Pathology in Invertebrates Other Than Insects, Supplement, by Phyllis T. Johnson and Faylla A. Chapman (Miscellaneous Publication No. 1, Center for Pathobiology). The price of this publication is \$ 1.75. Anyone desiring Vision, Courage, Accomplishment the Bibliography, or reprints should address their request to Center for Pathobiology, School of Biological Sciences, University of California, Irvine, California 92664.

The Center for Pathobiology Library continues to increase and supplement the reprint collection left by Edward A. Steinhaus. At the time of his death there were some 11,000 catalogued items. The most recent acquisition was numbered 13,000. Not only does the Library strive to acquire reprints of recent publications, but it also is continuously trying to obtain old publications missing from the collection. Any reasonable request for xerox copies of out-of-print articles will gladly be supplied free of charge by the Center for Pathobiology Library, Steinhaus Hall, School of Biological Sciences, University of California, Irvine, California, 92664.

UNIVERSITY OF ARKANSAS

A Senior Foreign Scientists Fellowship has been offered to Dr L. Bailey by the U.S. National Science Foundation, which enables him to accept an invitation from the University of Arkansas to work on insect viruses in the Departments of Plant Pathology and Entomology. Dr Bailey, who works on bee diseases at the Bee Department of the Rothamsted Experimental Station in Harpenden, Herts, U.K., will be in N. America from May until December 1972.

BIOLOGICAL CONTROL OF INSECTS LABORATORY IN COLUMBIA, MISSOURI, U.S.A.

The Biological Control of Insects Research Laboratory is investigating pathogens of insect pests. We are particularly interested in obtaining isolates of virus which affect corn earworm-tobacco budworm (Heliothis spp.) and the cabbage looper, Trichoplusia ni, or other species attacking cabbage (Pieris, Pseudoplusia, Manestra, Rachiplusia). Our plans are to characterize activity of various isolates and to further clarify host specificity. If available, we would appreciate receiving any and all isolates of these viruses you may presently have. Please indicate the source of the isolate (location found, host species, larval stage), manner of preparation and/or purification, storage conditions, and activity if available. Samples of the virus should be forwarded to either Carlo M. Ignoffo or Donald L. Hostetter, USDA ARS ENT, Biological Control of Insects Research Laboratory, P.O. Box A, Columbia, Missouri 65201, USA.

NEW INSECT PATHOLOGY LABORATORY IN LITTLEHAMPTON, SUSSEX, U.K.

A new Insect Pathology laboratory has just been completed at the Glasshouse Crops Research Institute, Worthing Road, Rustington, Littlehampton, Sussex, England. Part of this laboratory will be occupied by Dr W.A.L. David, Miss Susan Ellaby and Mr. G. Taylor who until August were in temporary accommodation in Cambridge. The Insect Pathology Laboratory forms part of the enlarged Entomology Department under Dr N.W. Hussey. Dr David and his colleagues plan to continue their work on insect viruses using Pieris brassicae and its granulosis as a model system, and later to extend their investigations to other insect viruses.

The new laboratories are well supplied with constant temperature rooms and insect rearing facilities. An electron microscope laboratory is already in existence at the Institute and this will be available for use in connection with the insect virus investigations.

NEW DEGREES

In December 1970, Hok-Kan Lim received the Ph.D. degree in Comparative Pathology from the University of California, San Francisco, Calif., U.S.A. Dr Lim has now a position as assistant research parasitologist at the G.W. Hooper Foundation, University of California, San Francisco. The title of his thesis is: Parameters and mechanisms of antagonistic interactions between Schistosoma mansoni and Paryphostomum segregatum in the snail Biomphalaria glabrata.

NEW MEMBERS

Glenn A. Bennett, Northern Regional Research Laboratory, 1815 North University, Peoria, Illinois 61604, U.S.A.

Radu Codreanu, Laboratoire de Zoologie des Invertébrés, Faculté des Sciences Naturelles, SplaiulIndependentzei 93, Bucharest 35, Roumania.

Fish and Wildlife Administration, State Office Building, Annapolis, Maryland 21401, U.S.A.

Dr Dawn G. Goodman, Department of Pathology, John Hopkins Hospital, Baltimore, Maryland 21205, U.S.A.

Dr. Peter Götz, Zoologisches Institut der Universität, 78 Freiburg, Katharinenstr. 20, W. Germany.

Marko Injac, Laboratoire de Lutte Biologique, Beograd-Zemun Ra Rue, Banatsza 33, Yugoslavia.

Dr. Matti Nuorteva, Institute for Agric. & Forest Zoology, University of Helsinki, Viikki, Helsinki 71, Finland.

Dr John A. Shadduck, 1925 Coffey Road, Columbus, Ohio 43210, U.S.A.

Dr. Robert C. Summerfelt, Department of Zoology, Oklahoma State University, Stillwater, Oklahoma 74074, U.S.A.

Thomas Jing-Ju Wang, Department of Entomology, Fisheries and Wildlife, University of Minnesota, St. Paul, Minnesota 55101, U.S.A.

Dr. Rosalie Watkins, c/o Department of Parasitology, School of Public Health & Tropical Medicine, University of Sydney, Sydney, New South Wales, Australia 2006.

CHANGES OF ADDRESS

- C.C. Beegle, Department of Zoology and Entomology, Insectary Building, Iowa State University, Ames, Iowa 50010, U.S.A.
- W.J. Canzonier, Stazione Idrobiologica, C.P. 101, 30015, Chioggia (Ve) Italy.
- John A. Couch, Environmental Protection Agency, Biological Laboratory Sabine Island, Gulf Breeze, Florida 32561, U.S.A.
- W.A.L. David, Glasshouse Crops Research Institute, Insect Pathology Laboratory, Worthing Road, Rustington, Littlehampton, Sussex, U.K.
- C.Y. Kawanishi, Cell Research Institute, Department of Botany, University of Texas, Austin, Texas 78712, U.S.A.
- L.M. Mahaffey, Department of Pathology, University of Rochester Medical Center, 260 Crittenden Boulevard, Rochester, N.Y. 14620, U.S.A.
- H. Rabin, National Center for Primate Biology, University of California Davis, California, 95616, U.S.A.
- S. Singer, Department of Biological Sciences, Western Illinois University Macomb, Illinois 61455, U.S.A.
- R. Weissenberg, Alden Park, the Manor, Apt. 804-C, Wissahickon and Chelten Avenues, Philadelphia, Penns. 19144, U.S.A.



MEMORIAL UNIVERSITY OF NEWFOUNDLAND St. John's, Newfoundland, Canada

Department of Biology

12 October 1971

TO:

Canadian Members - Society for Invertebrate Pathology

FROM:

Marshall Laird - Trustee, Society for Invertebrate Pathology

SUBJECT: SIP Newsletter

From now on, the SIP Newsletter is being distributed to individual Canadian recipients via this address immediately following receipt of each bulk-mailed consignment from the Editor, Dr. L.P.S. van der Geest. Similar action is being taken in the USA with respect to American deliveries.

Marshall Laird

Professor and Head of Biology

Trustee, Society for Invertebrate Pathology

Attachment