

vector ecology Newsletter

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EUROPEAN REGION

PROGRAMME

3rd Annual Conference

Pembroke College, Cambridge, United Kingdom

Monday, 29 August 1988

17:00 - 21:00 Registration at Pembroke College

Tuesday, 30 August 1988

8:00 Registration

8:30 Call to Order and Announcements.

8:35 Welcome to Pembroke College and Cambridge.
C. Gilbraith, Bursar of Pembroke College.

8:45 Welcome Address of European Regional Director.
M. W. Service.

Session 1 - Chairman: H. de Barjac.

9:00 Enhancement of *Bacillus thuringiensis* and *Bacillus sphaericus* persistence with slow-release formulations.
R. I. Rose, Biotechnology Development Consultant, Neustadt, FRG.

9:25 *Bacillus thuringiensis israelensis* and *Bacillus sphaericus* - microbial alternatives in mosquito control in Europe and Asia. N. Becker, B. Xu, KABS, Ludwigshafen, West Germany and Institute of Parasitic Diseases, Wuhan, PRC.

9:50 Effect of polystyrene beads in pit latrines on a filariasis vector population. C.F. Curtis, C. A. Maxwell, London School of Hygiene and Tropical Medicine, London.

10:15 Use of indicators of sexual maturation and regression in fleas in host-specificity studies. B. Williams, Medical Entomology Centre at the University of Cambridge, Cambridge, UK.

10:40 COFFEE BREAK

Session 2 - Chairman: C. Dahl.

11:10 The ecology of *Ixodes ricinus*, the vector of Lyme disease. J. Donnelley, Central Veterinary Laboratory, Weybridge, Surrey.

11:35 Clinical manifestations of Lyme disease. T. Cutler, Dept. of Dermatology, Ipswich General Hospital.

12:00 An investigation of Lyme disease in the U.K.
N. R. W. Burgess, Royal Army Medical College, Millbank, London.

12:25 LUNCH

13:30 College Tour.

15:00 TEA

Session 3 - Chairman: R. E. Fontaine.

15:30 The case for ecological studies on malaria vectors.
M. W. Service, Liverpool School of Tropical Medicine, Liverpool.

15:55 Is *Nosema algerae* able to interrupt the malaria cycle?
D. Weyler, W. Schenker, W. Maier, H. M. Seitz, Institute for Medical Parasitology, University of Bonn, FRG.

16:20 Age-related infectivity to *Anopheles gambiae s.s.* with *falciparum* malaria by a human population in western Kenya. A. K. Githeko, F. H. Collins, A. D. Brandling-Bennett, M. Beier, F. Atieli, M. Owaga. Kenya Medical Research Institute (KEMRI), Vector Biology and Control Research Institute, Kisumu, Kenya.

16:45 A proposal for vector ecology research for improving vector disease control effectiveness.
R. E. Fontaine, Davis, California, USA.

17:10 Malaria immunity and vaccine development.
W. M. C. Eling, Faculty of Medicine, University of Nijmegen, The Netherlands.

19:00 Sherry Reception, Pembroke College.

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Wednesday, 31 August 1988

Session 4 - Chairman: M. W. Service

- 8:30 "Icon": Lambda-cyhalothrin, the most potent new pyrethroid for vector control. G. B. White, ICI Agrochemicals, Haslemere, Surrey.
- 8:55 Arosurf MSF: a new larvicide and pupicide for mosquito control. R. C. Dodwell, R. L. Harrison, Sherex Chemical Co., Dublin, Ohio, USA.
- 9:20 Evaluation of permethrin smoke generators against *Culex* and *Anopheles* mosquitoes. J. Ryba, F. Rettich, Institute of Hygiene and Epidemiology, Prague, Czechoslovakia.
- 9:45 Use of insecticidal barriers against mosquito adults in flood-plain forests. F. Rettich, J. Ryba, Institute of Hygiene and Epidemiology, Prague, Czechoslovakia.
- 10:10 Effect of permethrin impregnated bednets on the malaria sporozoite rate. C. F. Curtis, T. J. Wilkes, and K. A. Njunwa, London School of Hygiene and Tropical Medicine and Amani Centre, Box 4, Amani, Tanzania.
- 10:35 COFFEE BREAK

Session 5 - Chairman: J. Goose

- 11:05 Evaluation of automatic interval sampling trap for daily mosquito activity investigations. D. Petric, M. Zgomba, Z. Srdic, M. Nikolic, S. Puac, Institute for Plant Protection, University of Novi Sad, Yugoslavia.
- 11:30 Age determination of a field population of *Aedes cantans* using the ovary oil injection technique. T. Q. Hoc, J. D. Charlwood, University of Hanoi, Vietnam, Liverpool School of Tropical Medicine.
- 11:55 Cuticular hydrocarbons as tools in vector ecology. D. H. Molyneux, Angela Phillips, Dept. of Biological Sciences, University of Salford, Salford.
- 12:20 Economic evaluation of vector control programmes. M. Phillips, London School of Hygiene and Tropical Medicine, London.
- 14:00 Depart for Thetford Forest
- 20:00 Conference Dinner, Great Hall, Pembroke College.

Thursday, 1 September 1988

Session 6 - Chairman: N. Becker

- 8:30 Use of DNA probes for *Leishmania* in sandflies. P. Ready, British Museum (Natural History), Cromwell Road, London.

- 8:55 The effect of host scarcity and temperature on the feeding success of a British woodland mosquito, *Aedes cantans*. M. H. Birley, J. C. Charlwood, N. A. Adungo, A. Campbell, U. Saw Elmo, S. Gavin, Z. Jaal, A. R. Majala, Dept. of Medical Entomology, Liverpool School of Tropical Medicine, Pembroke Place, Liverpool.
- 9:20 Food resources for mosquito larvae in different habitats. C. Dahl, Dept. of Zoology, Uppsala University, Sweden.
- 9:45 Is bloodfeeding by prehibernating *Culex pipiens* a tenable hypothesis for explaining the winter carry over of certain arboviruses? C. J. Mitchell, and H. Briegel, Division of Vector-borne Viral Disease, CDC, Ft. Collins, USA, and Dept. of Zoology, University of Zurich, Switzerland.
- 10:10 Differences in sugar feeding activity between tropical and temperate mosquitoes: field observations and their implications. A. W. R. McCrae, Oxford, U.K.
- 10:35 COFFEE BREAK
- 11:05 Business Meeting.
- 12:00 Video Show.
- 13:00 LUNCH
- 14:00 Depart for Chesterford Park Research Station.
- 14:45 Vector control, safety, and the environment. Discussion group with introduction D. Foulkes.
- 16:30 Closing of meeting and return to Cambridge.

POSTERS

- Nikolaeva, N. V., Institute of Plant and Animal Ecology, Sverdlovsk, USSR. Autogeny in the northern mosquitoes: spatial delimitation of populations?
- Bockarie, M. J., J. B. Davies, and M. C. Thomson, Dept. of Medical Entomology, Liverpool School of Tropical Medicine, Pembroke Place, Liverpool, UK. *Simulium damnosum* s.l. biting, human activity, and onchocerciasis transmission at a forest village in Sierra Leone.
- Thomson, M. C., J. B. Davies, and M. J. Bockarie, Dept. of Medical Entomology, Liverpool School of Tropical Medicine, Pembroke Place, Liverpool, UK. The species and morphology of the *Simulium damnosum* complex in Sierra Leone as identified by enzyme electrophoresis.

- Widahl, L-E., Dept. of Entomology, Uppsala University, Sweden. The purpose of flow patterns created by suspension feeding mosquito larvae.

European Membership

Mike Service has submitted a current list of European members of SOVE which corrects any previous listings in past Newsletters or other SOVE media. As of August, 1988, there are 74 European members from 15 countries, as listed below:

Belgium	2	Italy	6
Britain	15	Norway	1
Czechoslovakia	1	Portugal	2
Denmark	3	Spain	3
France	8	Sweden	2
Germany	21	Switzerland	6
Israel	2	The Netherlands	1
		USSR	1

Unfortunately, medical entomologists in several eastern European countries experience difficulties in joining the Society because problems with foreign exchange prevent them paying their subscriptions, which to a considerable degree account for the very few members from these countries. But Mike asks where are the members from The Netherlands, Austria, and Finland?

Membership in another 20 countries number 34 as follows:

Argentina	2	Iraq	2
Australia	1	Japan	2
Barbados	1	Malaysia	2
Burkina Faso	2	Panama	2
Canada	7	Saudi Arabia	1
Colombia	1	South Africa	1
Gabon	1	Thailand	1
Haiti	1	Sudan	1
India	1	Trinidad	2
Indonesia	1	Venezuela	2

Thus, SOVE has members in 36 countries, however, it has to be admitted that some members have forgotten to pay their 1987 or 1988 subscriptions, and may have to be deleted from the membership list. Mike has written to all such European members reminding them to forward their subscription to California. Others receiving this Newsletter and who may not have paid as yet, please note!

Mosquito Taxonomy at the British Museum

Mike Service writes as follows on new developments in mosquito taxonomy at the British Museum.

Mosquito research and taxonomy has had an excellent reputation at the British Museum (BM) of Natural History in London for most of this century, featured by the studies and numerous publications of F. W. Edwards, Peter Mattingly, followed more recently by Graham White. However, since Graham's departure from the BM in 1979 to join the London School of Hygiene and Tropical Medicine, then more recently to the Imperial Chemical Industries, mosquito research in the Museum has been somewhat in the doldrums. However, I am sure readers will be pleased to learn that the Keeper of

Entomology, Dr. L. A. Mound, appreciating that mosquitoes are such an important economic group of insects, has arranged that Dr. Peter C. Barnard, a long-standing member of the museum staff previously working on the Trichoptera, will now be switching full time to mosquitoes. Peters has a big challenge ahead of him and I am sure we all wish him luck.

Moreover, because of the importance of medical vectors in today's international public health, the Museum has arranged to transfer more resources to this area of research. As a consequence, Dr. Paul Ready, formerly of Imperial College, London University, is expected to join the Museum in about June this year to work on the taxonomy of phlebotomine sandflies. In addition, a new post for a mosquito cytotoxonomist at the Museum working on *Anopheles* will be advertised shortly.

The Museum of course already has Drs. R. W. Crosskey, A. Shelley, and W. Procnier working on simuliid blackflies, and John Boorman studying the *Culicoides*, so these new developments will considerably strengthen medical entomology at the British Museum.

Mike concludes by noting that his taxonomic studies on Afrotropical culicine mosquitoes will at long last be completed this summer, and he hopes that the work will be published by the British Museum.

LATIN AMERICAN REGION

Vector Control Training

In the May issue of the SOVE Newsletter, Robert Tomn, Ph.D., our newly appointed correspondent for the Latin American Region, reported on vectors and vector-borne diseases and touched on the situation in Ecuador, Panama, Guatemala, and El Salvador. Ecuador in particular has been struggling for many years to control such vector diseases as malaria, dengue, leishmania, and Chagas.

Bob noted that he had predicted a dengue outbreak in the port city of Guayaquil in 1987 and was, therefore, not surprised to see the event confirmed in 1988. Assistance in organizing a plan of action was provided by staff from the CDC San Juan, Puerto Rico Dengue Laboratory, together with the staff from the Ministry of Health, Republic of Cuba. Although the epidemic was on the downslope at the time of this control activity, some misting was accomplished by the Cubans using backpacks.

In May-June 1988, Bob, together with Jesse Hobbs, was involved in teaching a course in entomology for technicians of the SNEM (Malaria Service) of Bolivia. Bob taught biology and ecology and Jesse covered the strategy of vector control. The training was held at CENETROP in Santa Cruz, Bolivia. About 25 participants and observers attended. Bob was impressed with the amount of excellent local assistance they received from SNEM, CENETROP, and the universities. Dr. Jorge Velasco, a student of Harold Trapido in entomology who went on for an M.D., was the local coordinator. Jorge rounded up excellent lecturers in leishmaniasis, Chagas disease, control of dengue, and local malaria vectors. Bob commented that if Bolivia wanted a repeat of the course, they could do so with their own talent. CENETROP has a history of excellence in tropical disease. They have their own scientific publication and have