European Mosquito Bulletin, **26** (2008), 6-8.
Journal of the European Mosquito Control Association
ISSN 1460-6127; w.w.w.europeanmosquitobulletin.com
First published online 1 September 2008

Obituary: Professor Christopher Curtis

The sudden death of Chris Curtis, Emeritus Professor of Medical Entomology at the London School of Hygiene and Tropical Medicine, on 13 May this year (2008) came as a shock to hosts of students, colleagues and friends around the world. He had a long history of outstanding achievements and died while still pursuing his professional interests.

His undergraduate degree in zoology from Oxford University in 1961 was followed by studies into the genetics of fungi for a PhD conferred by the University of Edinburgh in 1966. After this, with funding from the British Overseas Development Administration, he moved to Bristol and turned to his attention to the possibility of using chromosomal translocations as a means of controlling the viviparous tsetse fly.

He was then recruited by the World Health Organization for a ground breaking research project in India. Designed to control populations of the mosquito vector of bancroftian filariasis (a growing urban problem in the tropics) by genetic means, this project was prematurely ended following local misguided press opposition. In 1976, whilst in Geneva writing up the results of this aborted project, he met George Davidson, himself a pioneer of genetic control of mosquitoes, and soon afterwards joined him in the London School of Hygiene and Tropical Medicine. During his early years in the School he was involved with modelling methods for the genetic control of insects, and also with the evolution of insecticide resistance in insect populations. He succeeded to the Chair soon after the concept of global malaria eradication was abandoned and set about investigating alternative affordable methods of vector-borne disease control, using technologies appropriate to specific situations.

He made a major contribution to evaluation of the impact of insecticide treated bednets on arthropod-borne disease (particularly malaria) in Africa, but also became involved with parallel work in China, where a trial involving a population of two million people confirmed their effectiveness. Thereafter he was influential in establishing the principle that these should be supplied free of charge, not solely to ostensibly vulnerable individuals, but to entire populations of operational areas. His success is shown by the fact that currently over 50 million free treated nets have been distributed, preventing many thousands of deaths from malaria, especially of children in sub-Saharan Africa.

In Tanzania he set in train extensive trials of Reiter's method of controlling bancroftian filariasis (by using mats of expanded polystyrene beads to deny access to water surfaces of both the

imaginal and aquatic developmental stages of the *Culex* vectors) This inexpensive method has now given many years of long lasting *Culex* control in pit latrines, soakage pits and flooded basements along the East African coast and elsewhere.

His interests extended to repellents and he did much to facilitate differentiation between real and bogus claims about the efficacy of various chemicals or gadgets, and resulted in successful prosecutions under the Trade Descriptions Act.

Overseas, he oversaw or co-operated with several scientists engaged in long term basic studies of vector behaviour and control at the Ubwari Field Station of the Amani Medical Resarch Institute in Tanzania. At the same time he was engaged in collaborative work on vector biology and control in other parts of Africa, Asia (China, Russia and the independent republics along its southern border) and elsewhere.

Although he formally retired five years ago, Chris Curtis continued to lecture to students on a variety of courses and to demonstrate field techniques, usually in Epping Forest and the Kent or Hayling Island marshes.

He and his wife, Jill, regularly entertained groups of students in their weekend cottage in the Somerset Levels, where a variety of field investigations, including of the insect fauna of badger setts, were carried out. One of these weekends produced the first British record of *Anopheles daceae,* a recently described species previously recorded only in Romania. However, their London home also provided valuable research material. Specimens of *Anopheles plumbeus* biting Chris one afternoon were collected by Jill and taken to the School laboratories where they oviposited. Adults reared from these eggs proved to be good vectors of *Plasmodium falciparum*, in contrast to the principal British malaria vector, *Anopheles atroparvus,* which is refractory to extant strains of this parasite.

Recognised as one of the world's leading medical entomologists, he was awarded the prestigious Ronald Ross Medal in the 2006-2007 Academic Year. Chris Curtis will be remembered by colleagues and students alike as a modest, friendly and approachable mentor, an influential teacher and, by example, as a great motivator, and also a team man who fully acknowledged the contributions of all co-workers.

He had a well developed sense of humour and could laugh at his own misfortunes. On one occasion in East Africa, the floor of a very deep, flooded, pit larine on which he was standing collapsed and he was lucky to be hauled out alive (and doubly lucky in not succumbing to one of the unpleasant infections to which he had undoubtedly been exposed). He described this experience as “not swimming, just going through the motions”.

Chris Curtis was a high flying scientist who kept his feet firmly on the ground. From the start he was aware that poorest parts of the world carry the heaviest burden of transmissible disease, hunger and poverty, and used his background and standing to argue that until “high-tech” solutions were proven and available, application of affordable “low-tech” remedial measures must take priority.

He will be sadly missed by his wife Jill, to whom he was completely devoted. The world has lost a brilliant entomologist and humanitarian, but colleagues, former and present students and his many friends know that her loss is the greatest.

Keith Snow and Clement Ramsdale