NOUVELLES NIEUWS

NEWS NOVEDADES

Briefing of the 23rd trypanosomiasis seminar held at the University of Salford, U.K. 26-27 September, 1985.

G.I. Carpels, P. Kageruka

Introduction

This seminar of the British Society for Parasitology (BSP) was organised by Professor D.H. Molyneux, Department of Biological Sciences, University of Salford, Salford M5 4WT, U.K.

Some hundred and sixty participants listened very intently to twenty-two communications.

Some papers summarized recent publications, adding new findings, others presented wider reviews, one even revealed as yet unpublished data on SIT application. Many speakers suggested areas for further research.

The public was keen in its reactions, often discussions had to be interrupted by the chairman.

Nine posters treated subjects ranging from mathematical models of cattle trypanosomiasis through predictions of high trypanosomiasis risk areas to biochemical and genetic aspects of trypanosomes.

The social contacts were open and friendly.

The Programme

Aid Policy:

Dr. P. de Raadt, Medical Officer, WHO, Geneva Switzerland. "African human trypanosomiasis: the next ten years".

Dr. D. Rottcher, Chemotherapy of trypanosomiasis research project, Kabete, Kenya. "GTZ policy on animal trypanosomiasis, past and future".

Dr. P. Finelle, Senior Officer, Trypanosomiasis and tsetse control group, FAO, Rome, Italy. "Development of national programmes for animal trypanosomiasis control".

Epidemiology:

Dr. W. Gibson, London School of Hygiene and Tropical Medicine, London, U.K. "*T. brucei* characterisation". The essence of this paper can be found in Gibson, W.C., Miles, M.A., 1985. Application of new technology to epidemiology. Brit. Med. Bull., **41**, (2): 115-121.

Dr. D. Mehlitz, Head of Department of Veterinary Medicine, Bernhard Nocht Institüt, Hamburg, West Germany. "*T.b. gambiense*; what questions remain?"

Professor Z. Brener, Centro de pesquisas "Rene Rachou", Belo Horizonte. Brazil. "Changing patterns of Chagas' Disease".

Trypanotolerance:

Professor I. MacIntyre, Director, International Trypanotolerance Centre, Banjul, The Gambia. "Ndama cattle in The Gambia".

Professor M. Murray, ILRAD, Nairobi, Kenya. "Trypanotolerance: working with nature's solution". This communication figures as ILRAD publication n° 280: Murray, M., 1985. African trypanosomiasis in cattle: working with nature's solution. Vet. Parasit., **18**, (2): 167-182.

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Dr. J.C.M. Trail, ILCA, Addis Ababa, Ethiopia.
"Chemoprophylaxis: productivity possible from Boran cattle". J.C.M. Trail *et al* published this paper as ILCA Research Report n° 9 in February 1985. Productivity of Boran cattle maintained by chemoprophylaxis under trypanosomiasis risk.

Dr. A.P.M. Shaw, Veterinary Epidemiology Unit, University of Reading, U.K. "Economics of trypanotolerance".

Immunology:

Dr. V. Nantulya, ILRAD, Nairobi, Kenya. "Prospects for bovine trypanosomiasis control by immunological means".

Professor L. Hudson, St. George's Hospital, Medical School, London, U.K. "Immunopathology in Chagas' Disease: implications for treatment and vaccines". See also Hudson, L., Britten, V., 1985. Immune response to South American trypanosomiasis and its relationship to Chagas' disease. Brit. Med. Bull., **41**, (2): 175-180.

Entomology:

Dr. A. Challier, ORSTOM, Paris, France. "Tsetse control in West Africa: from helicopter to traps".

Dr. G. Vale, Tsetse and Trypanosomiasis Control Branch, Harare, Zimbabwe. "Traps in Zimbabwe". An account of this paper can be found at the end of this report.

Dr. H. Politzar, CRTA, Bobo Dioulasso, Burkina Faso. "SIT: towards mass applications?" Dr. Politzar presented 1984 data for Burkina Faso from Brandl, F.E. Discounted (i = 10%) costs of tsetse eradication using SIT and tsetse control using impregnated traps (in FCFA). Submitted paper, not to be cited before publication.

Professor R. Moss, University of Salford, U.K. "African forest resources: development implications".

Dr. A. Blair-Rains, Land Resources Development Centre, ODA., Surrey, U.K. "Land use in Africa".

Biochemistry/Chemotherapy:

Dr. W.E. Gutteridge, Wellcome Research Laboratories, Beckenham, Kent, U.K. "Chemotherapy of Chagas' disease: how do we proceed?" More information can be found in Gutteridge, W.E. 1985. Existing chemotherapy and its limitations. Brit. Med. Bull., **41**, (2): 162-168.

Dr. H. Taelman, Institute for Tropical Medicine, Antwerp, Belgium. "Clinical use of DFMO: initial results and prospects". Parts of this paper are to be found in: "Treatment of *Trypanosoma gambiense* infection with DFMO. Results in three patients". Abstract of the XI International Congress of Tropical Medicine and Malaria. Calgary 1984, p. 150. In preparation: "Treatment of *Trypanosoma gambiense* infection with DFMO an inhibitor of polyamine biosynthesis. Results in five patients".

Professor A.A. Illemobade, Head of Department of Animal Production and Health, Federal University of Technology, Akure, Nigeria, "Drug resistance problems in animal trypanosomiasis". Parts of this paper can be retraced to Illemobade A.A., 1979. Drug sensitivity of mouse infective *Trypanosoma vivax* isolates in cattle and sheep. OAU/ISCTRC 16th meeting Yaounde, Cameroun, 1979: 251-253.

Professor P. Borst, Director of Research, Antoni Van Leeuwenhoekhuis, Nederlands Kankerinstituut, Amsterdam, The Netherlands. "The future of genetic engineering in trypanosomes".

Dr. F.R. Opperdoes, Head of unit for Tropical Diseases, International Institute of cellular and molecular pathology, Brussels, Belgium. "Experimental approach to chemotherapy". See also Opperdoes, F.R. 1985. Biochemical peculiarities of trypanosomes, African and South American. Brit. Med. Bull., **41**, (2): 130-136.

An account of Dr. G. Vale's paper: "Traps in Zimbabwe".

Introduction

The advantages of trapping tsetse flies are:
— on the practical level: the simple technology involved
— on the ethical level: the safe-guarding of non-target species which is also biologically acceptable.

Present state of affairs (table 1, 2 and figure 1, 2)

The future for odour baited traps looks promising. Higher and higher selective rates are obtained.

A trial at Kariba island where the daily probability of removal for *G. morsitans and G. pallidipes* was estimated to be respectively 1.83 and 9.13 resulted in the eradication of both species.

TABLE 1

Estimated catch/cost index with various baits

		Catch females		Cost £		
Bait	Odour	G. mors.	G. pallid.	Computed	runs	Index
Trap	—	0.7	5.5	45	35	1
Blue screen	—	0.5	4.6	5	9	5
R-target	—	3.8	40.4	11	10	25
S-target	+	5.6	72.3	9	10	50
Possible	+	200	3000	10	12	2000

TABLE 2

Percentage composition of catches with targets baited with various odours.

		Tsetse	Muscoïds	Tabanids	other
odour	ox	16	68	1	15
	aceton + octenol	74	20	1	5
population growth rate		low	high	/	/

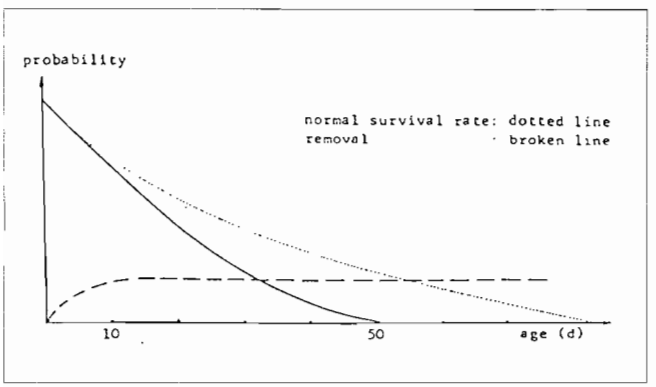

Figure 1 · Estimation of population changes due to removal of female tsetse flies (black Line).

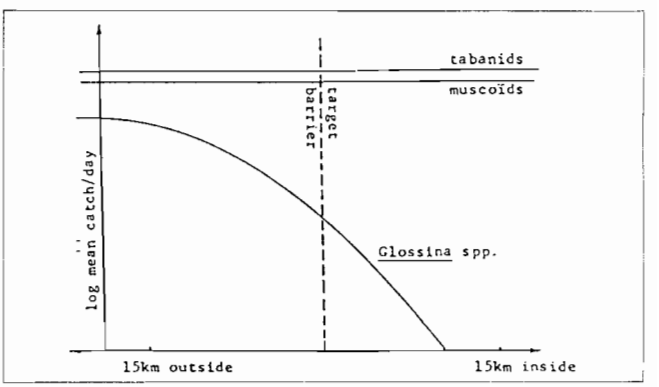

Figure 2: Data for the Rekometjie site.

Further research should (scheme 1)

— Lower bait density and frequency of visits, thus reducing costs without reducing catch efficiency.
— reduce access needed by more effective treatment systems (sterilising traps,...).
— increase error margins.
— avoid bait loss by fire or theft.
— simplify and formalise methods.

Acknowledgements

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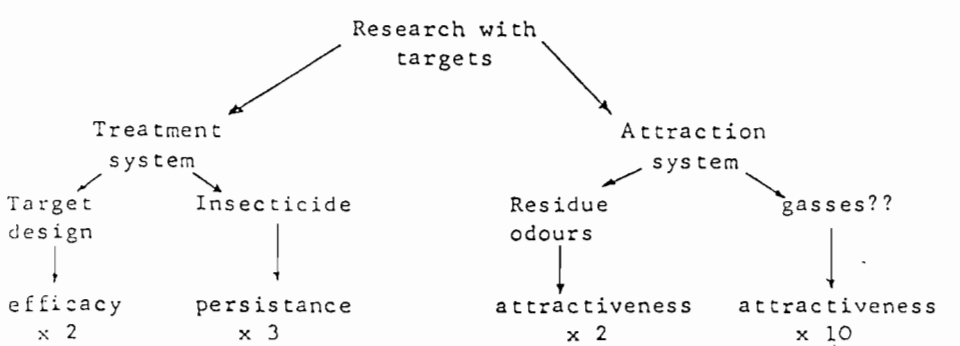
Geert Carpels, M.Sc. Zoology, preparing to leave for a tsetse control project in Zambia.

Pasteur Kageruka, D.M.V., Ph.D., associate lecturer, research on trypanosomiasis, babesiosis and cryptosporidiosis.



Scheme 1 · Summary