

AFRICAN REGIONAL POSTGRADUATE PROGRAMME IN INSECT SCIENCE

THE AFRICAN REGIONAL POSTGRADUATE
PROGRAMME IN INSECT SCIENCE (ARPPIS).

SUMMARY
INFORMATION OF ARPPIS
1983 - 1988



ARPPIS

ARPPIS is a collaborative training programme between
the International Centre of Insect Physiology and Ecology (ICIPE)
Nairobi, Kenya, and African Universities.

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PROGRAMME IN INSECT SCIENCE (ARPPIS).

SUMMARY
INFORMATION OF ARPPIS
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MEMORANDUM OF AGREEMENT FOR THE PARTICIPATION
OF THE UNIVERSITY OF
IN THE AFRICAN REGIONAL POSGRADUATE PROGRAMME
IN INSECT SCIENCE (ARPPIS).



MEMORANDUM OF AGREEMENT FOR THE PARTICIPATION OF UNIVERSITY OF
IN THE AFRICAN REGIONAL
 POSTGRADUATE PROGRAMME IN INSECT SCIENCE (ARPPIS).

In support of the philosophy and the underlying principles of the ARPPIS programme based at the International Centre of Insect Physiology and Ecology (ICIPE) in Nairobi, Kenya, and in accordance with the general terms of participation of African Universities agreed at the Bellagio Planning Conference in September 1981, the University ofhereby agrees to participate in the ARPPIS programme, as a collaborating University.

The specific terms for this collaboration would, among other general terms of the Bellagio Agreement include the following:

1. That the University ofwould sponsor candidates to the ARPPIS programme.
2. That the University ofwould register candidates for their degrees under the ARPPIS programme; that such candidates would register through the specified procedure of the University.
3. That, where applicable, an acceptable system of course equivalents be worked out between the University of.....postgraduate taught courses and the ARPPIS courses for the purpose of transfer of credit units.
4. That selected staff from the University of..... would be appointed as Visiting Scientists to the ICIPE and to the ARPPIS programme; also that selected Scientific Staff from the ICIPE would be appointed to Honorary Academic positions in the University ofaccording to appointed procedures.

- 5. That a nominee of the Vice-Chancellor of the University of.....be appointed a Coordinator, to act as a focal point for the ARPPIS programme at the University; and that this nominee should be the same as the Vice-Chancellor's appointee to the Academic Board of the ARPPIS programme.

- 6. That the parties to this Agreement may, from time to time by mutual consent, amend, modify, add to or delete any sections, phrases or words in this Memorandum.

- 7. That this Memorandum of Agreement becomes effective immediately for its execution by the appointed officers of the University of.....and the ICIPE. It shall remain in force until either party serves a written notice on the other of its intent to terminate it; in that event, this Agreement shall stand terminated at the end of one year from the date of issue of such notice.

SIGNED

For the University of.....

For the International Centre of Insect Physiology
and Ecology (ICIPE)

ARPPIS PARTICIPATING UNIVERSITIES

Addis Ababa University	Ethiopia
Anambra State University of Technology	Nigeria
Kenyatta University,	Kenya
Makerere University	Uganda
Moi University	Kenya
University of Dar-es-Salaam	Tanzania
University of Ghana	Ghana
University of Ibadan	Nigeria
University of Khartoum	Sudan
University of Malawi	Malawi
University of Sierra Leone	Sierra Leone
University of Zambia	Zambia
University of Zimbabwe	Zimbabwe
Rivers State University of Science and Technology	Nigeria

The following Universities have entered into discussions, with the intention of joining ARPPIS :

University of Nairobi Kenya
 University of Yaounde, Cameroon
 University of Ivory Coast, Ivory Coast
 Sokoine University of Agriculture, Tanzania.

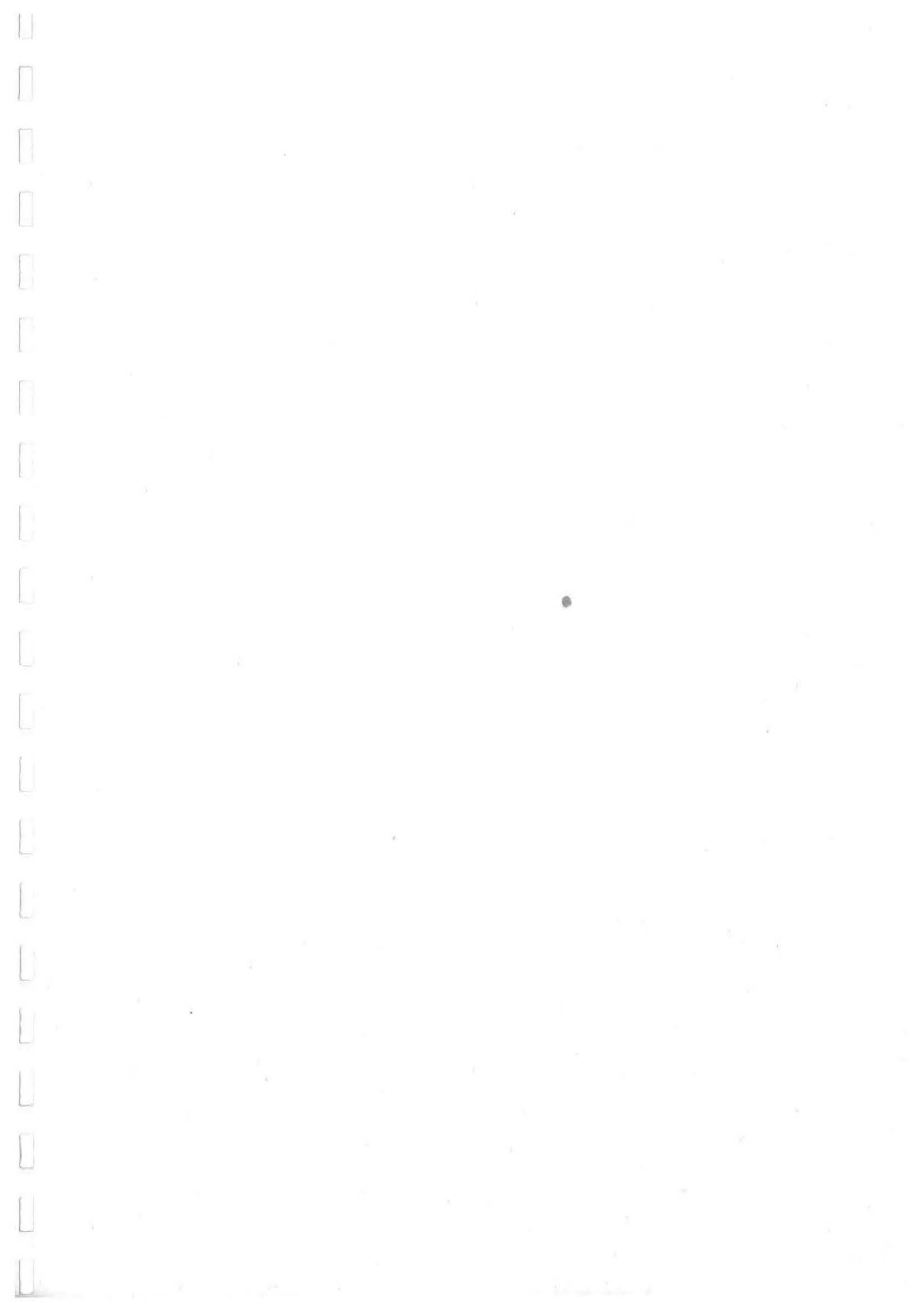
ANALYSIS OF ARPPIS STUDENTS, BY COUNTRY AND ATTACHMENT TO ICIPE
RESEARCH PROGRAMMES AND UNITS

- A) Since 1983 there have been 6 Ph.D. classes within the programme. The 50 students have come from 12 different countries.

	1983	1984	1985	1986	1987	1988	TOTAL
Chad	-	-	-	-	1	-	1
Ethiopia	-	-	1	-	-	-	1
Ghana	-	1	2	-	-	-	3
Kenya	3	3	2	4	5	2	19
Malawi	-	1	-	-	-	-	1
Nigeria	-	-	1	1	-	1	3
Sierra Leone	-	-	-	-	1	-	1
Sudan	2	1	-	-	-	4	7
Tanzania	1	-	-	2	-	-	3
Uganda	2	2	-	1	1	1	7
Zaire	-	-	1	-	-	-	1
Zambia	-	-	-	-	1	2	3
	8	8	7	8	9	10	50

- B) The members of the 1983 to 1987 Ph.D. classes have been attached to the following ICIPE research programmes for their project work. Provisional attachments for the 1988 class are also shown.

ICIPE Research Programme/Unit	1983	1984	1985	1986	1987	1988	TOTAL
Crop Pests	3	5	-	7	2	3	20
Livestock Ticks	2	1	1	-	3	-	7
Tsetse	1	2	3	1	2	5	14
Medical Vectors	1	-	2	-	2	2	7
Chemistry & Biochemistry	-	-	1	-	-	-	1
Termites	1	-	-	-	-	-	1
	8	8	7	8	9	10	50



C) The ARPPIS/Rivers State University of Science and Technology M.Phil. programme specializing in biological control began in 1985. The 10 students have come from 6 countries.

	1985	1986	1987	Total
Cameroon	-	-	1	1
Kenya	-	2	-	2
Nigeria	2	1	-	3
Sierra Leone	-	-	1	1
Uganda	-	1	-	1
	<u>2</u>	<u>4</u>	<u>4</u>	<u>10</u>

DETAILS OF ARPPIS STUDENTS BY HOME COUNTRY, REGISTERING
UNIVERSITY AND ICIPE RESEARCH PROGRAMME:

A) Ph.D. Classes

<u>NAME OF STUDENT</u>	<u>HOME COUNTRY</u>	<u>UNIVERSITY</u>	<u>RESEARCH PROGRAMME</u>
<u>1983 Class</u>			
Mr. R. Bagine	Kenya	Makerere	Termite
Miss W.S. Forawi	Sudan	Khartoum	Medical Vectors
Mr. A.L. Ibrahim	Sudan	Khartoum	Ticks
Mr. S. Kyamanywa	Uganda	Makerere	Crop Pests
Mr. B.C. Njau	Tanzania	Dar-es-Salaam	Ticks
Mr. J.H.P. Nyeko	Uganda	Makerere	Tsetse
Mr. S.H. Okech	Kenya	Rivers State,	Crop Pests
Mr. J.B. Okeyo-Owuor	Kenya	Dar-es-Salaam	Crop Pests
<u>1984 Class</u>			
Miss D.A. Adabie	Ghana	Ghana	Tsetse
Mr. W.J. Bahana	Uganda	Makerere	Crop Pests
Mrs. U.M. Elneima	Sudan	Khartoum	Tsetse
Mr. L.M. Kantiki	Malawi	Malawi	Crop Pests
Mr. C.B. Maranga	Kenya	Kenyatta	Ticks
Mr. J.H. Nderitu	Kenya	Dar-es-Salaam	Crop Pests
Mr. M. Ogenga-Latigo	Uganda	Makerere	Crop Pests
Mr. J.F. Omollo	Kenya	Dar-es-Salaam	Crop Pests

<u>NAME OF STUDENT</u>	<u>HOME COUNTRY</u>	<u>UNIVERSITY</u>	<u>RESEARCH PROGRAMME</u>
<u>1985 Class</u>			
Mr. G. Tikubet	Ethiopia	Sierra Leone	Tsetse
Mr. B. Torto	Ghana	Ghana	Chemistry & Bioassay
Mr. I. Aniedu	Nigeria	Rivers State	Medical Vectors
Mr. C. Kyorku	Ghana	Ghana	Tsetse
Mr. M. Basimike	Zaire	Rivers State	Medical Vectors
Mrs. R.C. Sang	Kenya	Sierra Leone	Tsetse
Mr. B. Wishitemi	Kenya	Kenyatta	Ticks
<u>1986 Class</u>			
Miss E.M. Minja	Tanzania	Dar-es-Salaam	Crop Pests
Miss G.O. Akpokodje*	Nigeria	Ibadan	Crop Pests
Mrs. F.M. Ndonga*	Kenya	Kenyatta	Crop Pests
Mr. E. Karamura*	Uganda	Makerere	Crop Pests
Mr. M. Wa Macharia	Kenya	Moi	Crop Pests
Mr. P.K. Muange	Kenya	Moi	Tsetse
Mr. M. Gethi	Kenya	Kenyatta	Crop Pests
Mr. M. Njau	Tanzania	Dar-es-Salaam	Crop Pests
<u>1987 Class</u>			
Mr. J. Ogwang*	Uganda	Rivers State	Crop Pests
Mr. H. Mahamat	Chad	Sierra Leone	Medical Vectors
Mr. I. Mwangelwa	Zambia	Zambia	Tsetse
Mr. J. Davies-Cole	Sierra Leone	Sierra Leone	Tsetse
Mr. S. Mbogo	Kenya	Kenyatta	Ticks
Mrs. V.S. Nyambati	Kenya	Kenyatta	Medical Vectors
Mrs. E. Mwangi	Kenya	Kenyatta	Ticks
Mr. H. Oranga	Kenya	Moi	Ticks
Mr. T. Murega*	Kenya	Rivers State	Crop Pests

1988 ClassArea of Interest

Mr. C. Mugoya	Uganda	Reproductive physiology
Mr. A. Malik	Sudan	Crop Pests
Mr. M. Salah	Sudan	Tsetse
Mr. I. Abu Zinid*	Sudan	Biological Control
Miss M. Chumva	Zambia	Crop Pests
Mr. S. Siziya	Zambia	Biomathematics
Mr. A. Onyindo	Nigeria	Medical Vectors
Mr. K. Mugwe	Kenya	Tsetse
Mrs. B. Rapuoda	Kenya	Medical Vectors

* Students sponsored through the Africa-wide Biological Control Programme.



B) M.Phil. Classes in entomology, specializing in Biological Control.

<u>Name of Student</u>	<u>Home Country</u>
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1985 Class

Miss E. Nwofor	Nigeria
Miss R. Bob-Manuel	Nigeria

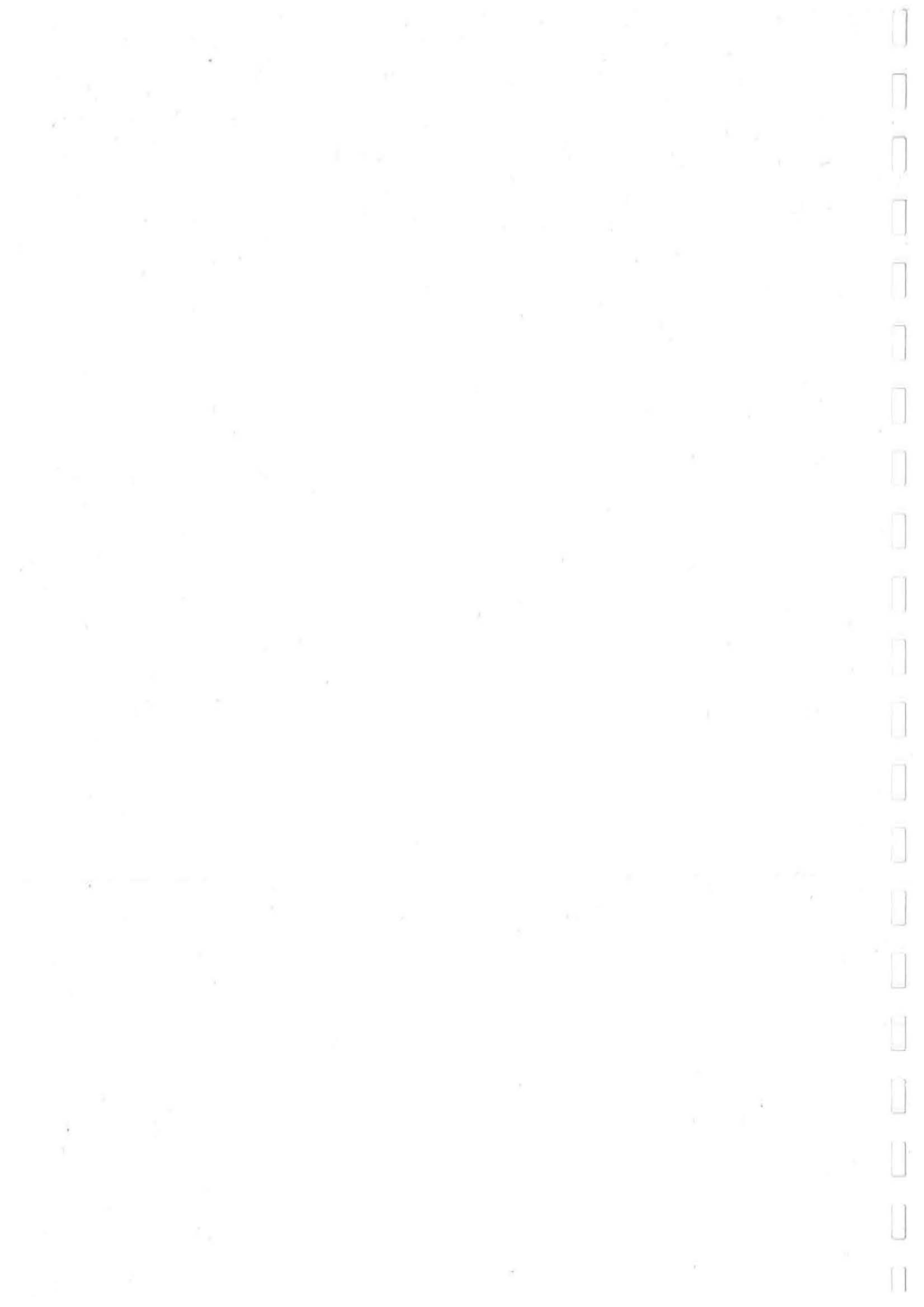
1986 Class

Mr. P. Amifor	Nigeria
Mr. B. Odongo	Uganda
Mr. G. Ochiel	Kenya
Mr. K. Kambona	Kenya

1987 Class

Mr. A.B. Fonti Kanu	Sierra Leone
Mr. S.I. Kamara	Sierra Leone
Mr. J. Mbapila	Tanzania
Miss A. Ngi-Song	Cameroon

All M.Phil. students are registered at Rivers State University of Science and Technology, Nigeria.



STUDENT SUPERVISION:

<u>ARPPIS CLASS</u>	<u>STUDENT</u>	<u>UNIVERSITY SUPERVISOR</u>	<u>ICIPE SUPERVISORS</u>	
		First	Second	
1983	Bagine, R.	Prof. D. Pomeroy	Dr. Dransfield	(Dr. Ritchie)
	Forawi, W.S.	Dr. El Wasila	Dr. Kaddu	Dr. Mutinga
	Kyamanywa, S.	Prof. C. Baliddawa	Dr. Ampofo	Dr. Omolo
	Latif, A.	Prof. M. Magzoub	Dr. Newson	Dr. Cunningham
	Njau, B.C.	Dr. A. Mutani	Dr. Nyindo	Dr. Cunningham
	Nyeko, J.H.	Prof. G. Ssenyonga	Dr. Golder	Dr. L. Otieno
	Okech, S.	Prof. R. Kumar	Prof. Saxena	Dr. Oloo
	Okeyo-Owuor	Prof. D. Griffiths	Dr. Oloo	Prof. Saxena
1984	Adabie, D.	Prof. W.Z. Coker	Dr. Dransfield	Dr. Chaudhury
	Bahana, J.	Prof. E. Tukahirwa	Dr. Oloo	Dr. Reddy
	Elneima, U.	Prof. M. Magzoub	Dr. L. Otieno	Dr. Dhadialla
	Kantiki, L.	Dr. D. Munthali	Prof. Saxena	Dr. Ampofo
	Latigo, M.	Prof. C. Baliddawa	Dr. Ampofo	(Dr. Khaemba)
	Maranga, C.	Dr. R. Okello	Dr. Capstick	Dr. Nyindo
	Nderitu, J.	Prof. H.Y. Kayumbo	Prof. Saxena	(Dr. Mueke)
	Omollo, J.	Dr. A. Mutani	Dr. W. Otieno	Dr. Odindo
1985	Aniedu, I.	Prof. R. Kumar	Dr. Mutinga	Dr. Mutero
	Basimike, M.	Prof. R. Kumar	Dr. Mutinga	Dr. Mutero
	Kyorku, C.	Prof. W.Z. Coker	Dr. Dransfield	Dr. Golder
	Sang, R.	Prof. H. Morgan	Dr. L. Otieno	(Dr. Tukei)
	Tikubet, G.	Prof. H. Morgan	Dr. Dransfield	Dr. L. Otieno
	Torto, B.	Dr. W. Phillips	Dr. Hassanali	Prof. Saxena
	Wishitemi, B.	Dr. R. Okello	Dr. Capstick	Dr. Mongi
1986	Apkokodje, G.	Dr. J. Odebiyi	Dr. Ochieng	Prof. Saxena
	Gethi, M.	Dr. J.M. Mueke	Dr. Ampofo	Dr. Omolo
	Karamura, E.	Prof. E. Tukahirwa	Prof. Saxena	Dr. Oloo
	Macharia, M.	Dr. B. Khaemba	Dr. Reddy	Dr. Unnithan
	Minja, E.	Prof. H. Kayumbo	Dr. Omolo	Dr. Ampofo
	Muange, P.	Dr. B. Khaemba	Dr. Dransfield	Dr. Chaudhury
	Ndonga, F.	Dr. J.M. Mueke	Dr. Oloo	Dr. Reddy
1987	Davies-Cole, J.	Prof. H. Morgan	Dr. Chaudhury	Dr. Kaaya
	Hassane, H.M.	Prof. H. Morgan	Dr. Massamba	Dr. Hassanli
	Mbogo, S.	N/A	Dr. Osir	Dr. Mongi
	Murega, T.	N/A	Dr. Nyiira	Dr. Okoth
	Mwangi, E.	N/A	Dr. Newson	Dr. Kaaya
	Mwangwelwa, M.	N/A	Dr. Dransfield	Dr. Otieno
	Nyambati, V.	N/A	Dr. Massamba	Dr. Mutinga
	Ogwang, J.	Prof. R. Kumar	Dr. Odindo	Dr. Brownbridge
	Oranga, H.	Prof. M. Patel	Dr. Nokoe	Dr. Latif
	Njau, M.	Prof. J. Mainoya	Dr. Unnithan	Dr. Kokwaro



b) M.Phil. Classes

1985	Bob-Manuel, R	Prof. R. Kumar	Dr. Rogo	Dr. Nyiira
	Nwofor, E.	Prof. R. Kumar	Dr. Ochieng	Dr. Nyiira
1986	Amifor, P.	Prof. R. Kumar	Dr. Ampofo	Dr. Firempong
	Kambona, K.	Prof. R. Kumar	Dr. Rogo	Dr. Lwande
	Ochiel, G.	Prof. R. Kumar	Dr. Oloo	Dr. Okeyo-Owuor
	Odongo, B.	Prof. R. Kumar	Dr. Odindo	Dr. Brownbridge
1987	Fonti Kanu, A.	N/A	N/A	N/A
	Kamara, S.	N/A	N/A	N/A
	Mbapila, J.	N/A	N/A	N/A
	Ngi-Song, A.	N/A	N/A	N/A

NOTES

1. Supervisor's names in brackets, not ICIPE scientists
2. N.A. - supervisors not yet appointed



RESEARCH PROJECTS OF ARPPIS STUDENTS:Termite Research

- i) 1983 Class
Mr. R. Bagine* Biosystematic studies of the termite genus Odontotermes with special reference to Kenya.

Medical Vectors

- i) 1983 Class
Miss W.S. Forawi* Studies on Leishmaniae of Lizards.
- ii) 1985 Class
Mr. I. Aniedu Ecology of malaria vectors in an irrigation project at Perkerra (Marigat) in Kenya.
- Mr. M. Basimike Studies on the factors affecting the distribution and abundance of sandflies (Diptera, Psychodidae) in the Marigat area, Baringo District.
- (iii) 1987 Class
Mr. H.M. Hassane The biochemical taxonomy of phlebotomine sandflies (Diptera: Psychodidae) in Kenya.
- Mrs. V. Nyambati Inter-relationships between Leishmania species: molecular karotype analysis.

Tsetse

- i) 1983 Class
Mr. J. Nyeko* The influence of mode of induction of transmission of Trypanosoma congolense on the stability and induction of resistance to Samorin.
- ii) 1984 Class
Mrs. U. Elneima Characterization of different strains of Trypanosoma congolense collected from the Lambwe Valley, Western Kenya and the Nkuruman area, Maasailand, Kenya.
- Miss D.A. Adabie* Pupal ecology and the role of predators and parasitoids in natural population regulation of Glossina pallidipes at Nguruman, Kenya.
- iii) 1985 Class
Mr. C. Kyorku Trapping studies on Glossina longipennis Cortie at Nkuruman, Kenya.
- Mrs. R. Sang In-vitro studies on the virus-like particles (VLPs) of the tsetse fly Glossina pallidipes (Austen) (Diptera, Glossinida).
- Mr. G. Tikubet The ecology of Glossina spp. and trypanosomiasis challenge in southwestern Ethiopia.

- iv) 1986 Class
Mr. P.K. Muange Factors affecting the pupal distribution and mortality in a natural population of Glossina pallidipes (Austen), at Nkuruman, Kenya.
- v) 1987 Class
Mr. J.O. Davis-Cole Some aspects of the Mating behaviour Glossina morsitans morsitans Westwood and G. pallidipes Austen.
- 1987 Class
Mr. M.I. Mwangelwa The ecology and vectorial capacity of Glossina fuscipes fuscipes on Rusinga Island and along the shore of Lake Victoria.
- Livestock Ticks
- i) 1983 Class
Mr. A. Ibrahim* Host relationships of the tick Amblyoma variegatum in cattle and rabbits.
- Mr. B.C. Njau* Studies on the resistance acquired by rabbits experimentally infested with Rhipicephalus evertsi.
- ii) 1984 Class
Mr. C. Maranga Resistance to tick infestation in the goat and its function in controlling Rhipicephalus appendiculatus populations in the field.
- iii) 1985 Class
Mr. B. Wishitemi Induction of artificial immunity in sheep to Rhipicephalus appendiculatus Neumann (1901).
- iv) 1987 Class
Mr. S. Mbogo Induction of resistance to ticks by the immunization of their hosts with commercially available moulting hormones, and other tick antigens.
- 1987 Class
Mrs. E. Mwangi The ecology of non-parasitic stages of Rhipicephalus appendiculatus, and other ticks of livestock, and the role of predators, parasites, pathogens and climatic factors, in the regulation of natural populations.
- 1987 Class
Mr. H. Oranga Stochastic modelling of the impact of tick infestation on cattle productivity under natural field conditions on Rusinga Island.
- Crop Pests
- i) 1983 Class
Mr. S. Kyamanywa * Ecological factors governing insect pest populations in maize and cowpea crop mixture with special reference to the bean flower thrips Megalurothrips sjostedti.

- Mr. S.H. Okech* Colonizing responses of Maruca testulalis to different cowpea cultivars in relation to their resistance or susceptibility.
- Mr. J. Okeyo-Owuor* Population ecology of the legume pod borer Maruca testulalis in relation to its natural enemies on cowpea in Western Kenya.
- (ii) 1984 Class
- Mr. J.H. Nderitu Responses of bean flies, Ophiomya phaseoli and O. spencerella (Agromyzidae: Diptera) to susceptible and resistant common bean (Phaseolus vulgaris) varieties, including the mechanism of resistance.
- Mr. Ogenga-Latigo The influence of some cultural practices and aphid natural enemies on the infestation of the common bean (Phaseolus vulgaris) by the bean aphid (Aphis fabae).
- Mr. L. Kantiki* Studies on some aspects of the biology and feeding behavior of Eldana saccharina Walker (Lepidoptera: Pyralidae) on one maize and one sorghum cultivar.
- Mr. J. Bahana Bioecological studies on Dentichasmias busseolae (Hymenoptera, Ichneumonidae) a parasitoid of graminaceous stemborers and its potential for biological control.
- Mr. J.F. Omollo The biology and host-parasite relationships of an entomogenous nematode, Panagrolaimus sp.
- ii) 1986 Class
- Miss E. Minja Studies on the effect of intercropping sorghum and cowpea on the population patterns of the stem borer complex.
- Miss G. Akpokodje Orientation and feeding behaviour of phytoseiid predators of on cassava green spider mites (Mononychellus).
- Mrs. F.M. Ndonga Population dynamics of the cassava green spider mite Mononychellus tanajoa in relation to its natural enemies.
- Mr. E. Karamura Studies on the orientation, feeding behaviour and development of the cassava green spider mite Mononychellus species (Tetranychidae: Acari).
- Mr. M. Wa Macharia Crop losses in maize caused by the maize stem borer Busseola fusca Fuller (Lepidoptera, Noctuide) in the Rift Valley, Kenya.
- Mr. M. Gethi The effect of intercropping resistant and susceptible cowpea cultivars with maize and time of planting on infestation and damage by the legume pod borer, Maruca testulalis.

Mr. M. Njau Endocrinology of development and reproduction in the maize stem borer, Busseola fusca Fuller (Lepidoptera: Noctuidae).

Miss E. Nwofor *
(M.Phil) The biology and behaviour of Neoseilus idaeus (Denmark and Muma) (Acarina: Phytoseiidae) reared on natural and artificial media.

Miss R. Bob-Manuel*
(M.Phil) A morphometric study of the cassava green spider Mite complex, Mononychellus spp (Acari : Tetranychidae) in Africa.

(iii) 1987 Class

Mr. T. Murega Genetic incompatibilities among populations of the Cassava Green Mite complex, Mononychellus spp (Acarina: Tetranychidae) and their implications for the taxonomy of the mite.

Mr. J. Ogwang The survival of Nosema sp. under field conditions and its effects on the reproductive potential of Chilo partellus.

Mr. P.N. Amifor
(M.Phil) Predation efficiency of an aphidophagous conccinellid on the cowpea aphid Aphis craccivora.

Mr. B.O. Odongo
M.Phil Class Hirsutella sp (fungi imperfecti) as a biocontrol agent of Cassava Green Mite Mononychellus tanajoa and the Red Spider Mite, Tetranychus utricae.

Mr. K.O. Kambona
M.Phil Class The biochemical evaluation of taxonomic status of the Cassava Green Spider Mite Complex, Mononychellus spp.

Mr. G.R.S. Ochiel
M.Phil Class Biology and ecology of a local strain of Trichogramma sp. Westwood (Hymenoptera: Trichogrammatidae) and its potential for the biological control of stem borers in Kenya.

Chemistry and Biochemistry

i) 1985 Class

Mr. B. Torto The role of surface chemicals of different sorghum cultivars in determining oviposition and larval feeding responses of the stem borer Chilo partellus

* Title of submitted thesis.

STATUS OF STUDENTS FOLLOWING GRADUATION FROM ARPPIS

<u>NAME OF STUDENT</u>	<u>DATE DEGREE AWARDED</u>	<u>PRESENT POSITION</u>
<u>1983 CLASS</u>		
Mr. R.K. Bagine	January 1988	Entomologist, National Museum of Kenya
Miss W.S. Forawi	April 1987	Applied for lecturership, University of Khartoum
Mr. A.L. Ibrahim	April 1986	Postdoctoral Fellow, ICIPE; Head, Tick Control, Sudan
Mr. S. Kyamanywa	-	Lecturer, Makerere University
Mr. B.C. Njau	July 1987	Postdoctoral Fellow, ILCA; returning to TALIRO, Tanzania
Mr. J.H.P. Nyeko	March 1987	Research Officer, Tsetse Control Department, Ministry of Animal Industry and Fisheries, Uganda.
Mr. S.H. Okech	March 1987	Scientist, ICIPE
Mr. J. Okeyo-Owuor	-	Scientist, ICIPE.
<u>1984 CLASS</u>		
Miss D.A. Adabie	-	Entomologist, Ghana Atomic Energy Commission
Mr. J.W. Bahana	-	Research Scientist, International Red Locust Control Organization for Central and Southern Africa, Zambia.
Mrs. U.M. Elneima	-	Entomologist, Ministry of Livestock, Sudan
Mr. L. Kantiki	October 1987	Lecturer, University of Malawi
Mr. C. Maranga	-	Lecturer, Kenyatta University
Mr. J.H. Nderitu	-	Entomologist, Ministry of Agriculture, Kenya
Mr. M. Ogenga-Latigo	-	Entomologist, Makerere University
Mr. J.F. Omollo	-	Lecturer, Kenyatta University.
<u>1985 CLASS</u>		
Mr. G. Tikubet	-	Lecturer, Addis Ababa University
Mr. B. Torto	-	Lecturer, University of Ghana
Mr. I Aniedu	-	Lecturer, Anambra State University of Technology
Mr. C. Kyorku	-	Lecturer, University of Ghana
Mr. M. Basimike	-	Research Officer, Ministry of Higher Education, University and Scientific Research, Zaire.
Mrs. R. Sang	-	Research Officer, Virus Research Centre, Kenya.
Mr. B. Wishitemi	-	Lecturer, Egerton University, Kenya.

PUBLICATIONS BY ARPPIS STUDENTS, FROM RESEARCH
UNDERTAKEN IN FULFILMENT OF DEGREE STUDIES:

Njau, B.C., and Nyindo, M. and Mutani, A. (1986)

Immunological responses and the role of the paralyzing toxin in rabbits infested with Rhipicephalus evertsi evertsi

Amer. J. Trop. Med. Hyg. 35:1248-1255

Njau, B.C., and Nyindo, M. (1987)

Detection of immune responses in rabbits infested with Rhipicephalus appendiculatus and Rhipicephalus evertsi evertsi

Res. Vet. Sci. 43: 217-221.

Njau, B.C., and Nyindo, M. (1987)

Humoral antibody responses of rabbits to Rhipicephalus appendiculatus infestation.

Res. Vet. Sci. 271-272.

ARPPIS DONORS

1. ARPPIS Secretariat and Infrastructure.

Arab Bank of Economic Development in Africa (BADEA)
Australian Development Assistance Bureau (ADAB)
Overseas Development Administration, U.K. (ODA)
United National Educational, Scientific and Cultural
Organization (UNESCO).

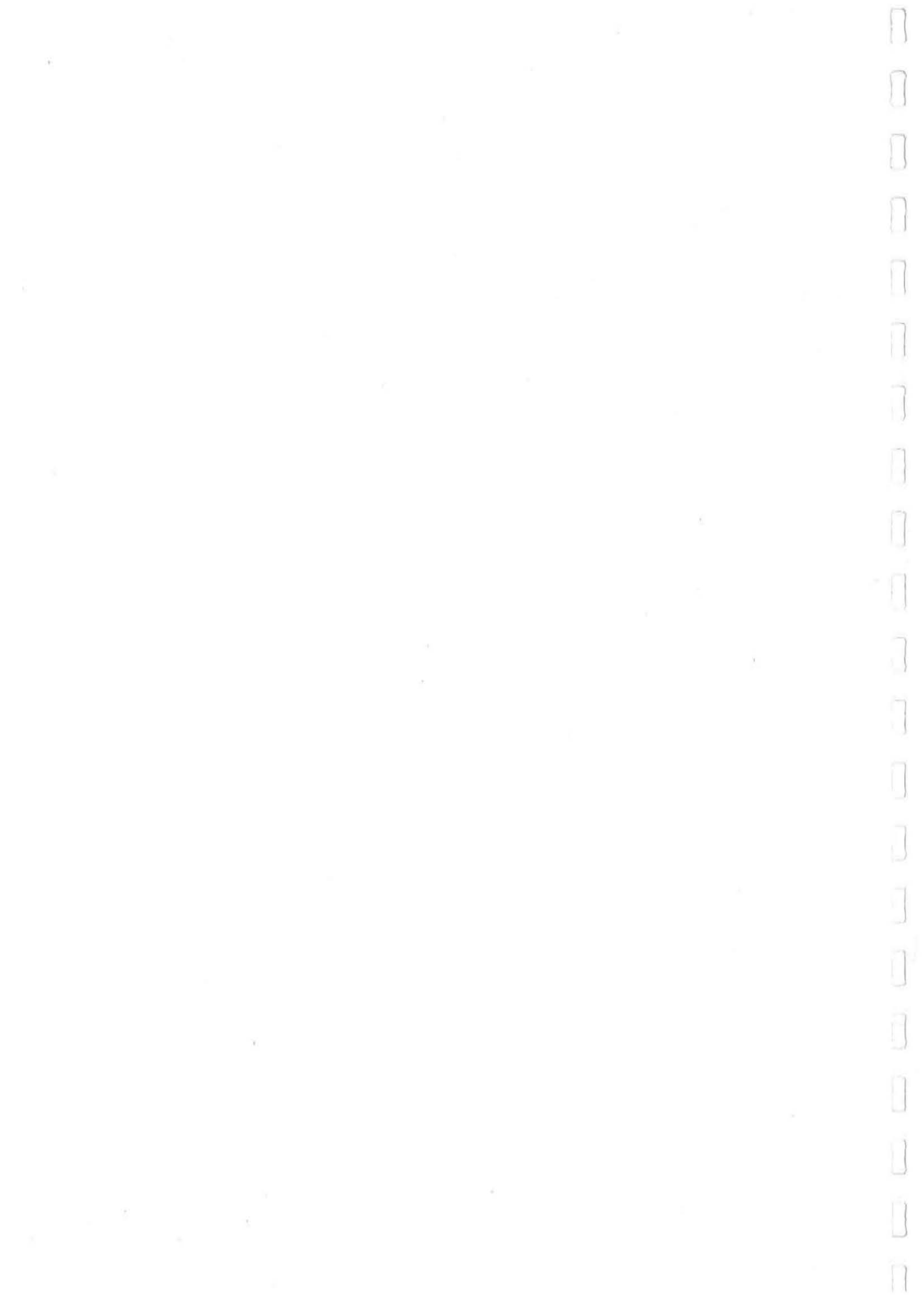
2. Student Fellowships.

European Economic Community (EEC)
Ford Foundation
German Academic Exchange Service (DAAD)
International Fund for Agricultural Development (IFAD)
International Livestock Centre for Africa (ILCA)
United Nations Agency for International Development (USAID)
Scientific Technical and Research Commission of the
Organization of African Unity (OAU/STRC)
Studies in the Region, Netherlands Government (SIR).

N.B. This list gives both past and present donors.

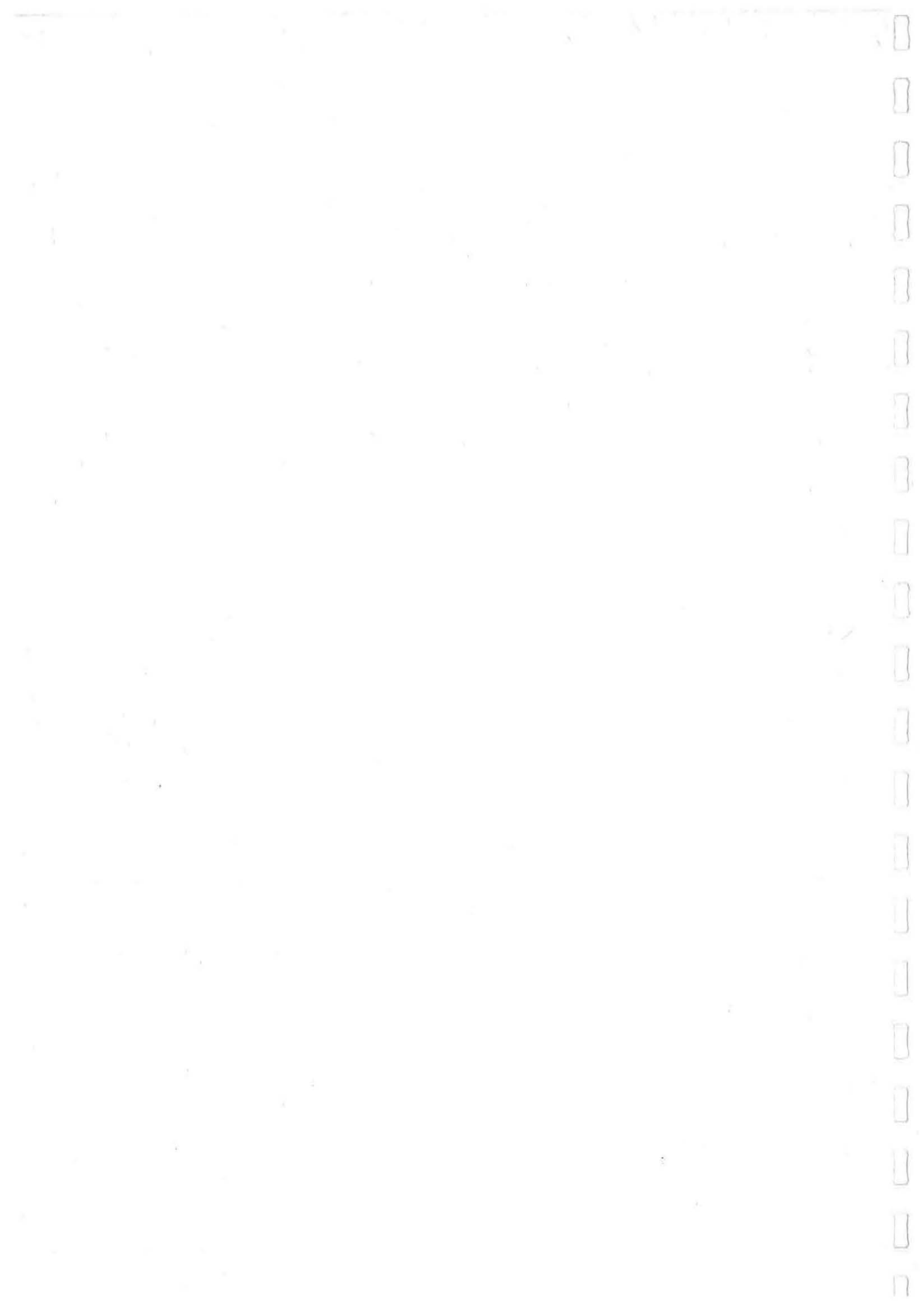
ARPPIS FELLOWSHIPSA) Three-year fellowship for Ph.D. students

	<u>U.S. DOLLARS</u>
a) International Travel	
i) air fares between home-Nairobi	1150
ii) return air fare to registering university	600
b) Medical Insurance	750
c) University Registration and fees	1,500
d) Living expenses	
i) stipend	16,000
ii) cost of accommodation during coursework semester	5,000
iii) expenses for visit to registering university	2,000
e) Visit to ICIPE by University supervisor	2,000
f) Cost of taught courses and research	
i) research grant	9,000
ii) field travel costs	2,300
iii) proportion of teaching costs	1,000
iv) preparation of proposals, reports and thesis	700
v) equipment	3,000
	<hr/>
	45,000
	<hr/> <hr/>



B) Two-year fellowship for M.Phil. studentsU.S. DOLLARS

a)	International Travel.	
	including travel from Nigeria to Kenya for research and from Kenya to Nigeria for defence of thesis	2,750
b)	Medical Insurance	350
c)	Rivers State University of Science and Technology	
	i) fees	3,200
	ii) accommodation	160
	iii) submission and examination	200
d)	Proportion of cost of ARPPIS course in biological control	1,600
e)	Research costs	
	i) research grant	2,500
	ii) equipment	3,000
	iii) field costs	1,600
	iv) preparation of proposal, reports and thesis	400
f)	Living expenses	
	i) Nigeria	2,500
	ii) Kenya	5,100
		<hr/>
		23,360
		<hr/> <hr/>



TEACHING AND RESEARCH EQUIPMENT AND MATERIALS:

Microscopes:

1. Leitz Dialux 22EB (two)
including, phase contrast opticss, tracing device and graticules and stage micrometer.
2. Leitz laborlux k. (one)
3. Wild M5A stereomicroscopes (six)
including, drawing tubes (two)
4. Wild M3B steromicroscope (four)
including, drawing tube (one)
5. Wild M3Z stereomicroscope with discussion set (one)

Teaching Equipment

1. Casio and fx-350A fx-350 scientific calculators (twenty)
2. Dissecting equipment sets (twenty)
3. Insect nets (four), sweep nets (four)
4. Insect setting boards and pins
5. General laboratory glassware and equipment

visual Aids Equipment and materials

1. Leitz Pradovit projector
2. Weyel Overhead projector
3. Minolta x300 SLR camera, vivitar 28-200mm lens, vivitar 283 flashgun.
4. Zenit EM SLR camera
5. Principles of Entomology: 1102 slides and two written manuals, Entomological Society of America.

Documentation and word processing

1. Wang and IBM professional computers and printers

Transport

1. Suzuki Jeep

TEACHING LIBRARY:1. Insect Taxonomy

Richards, O.W. and Davies R.G.
Imm's outlines of entomology
Chapman and Hall, 1978, 6th Edition (10 copies)

Richards, O.W. and Davies, R.G.
Imm's general textbook of entomology,
Volume 2. Classification and Biology.
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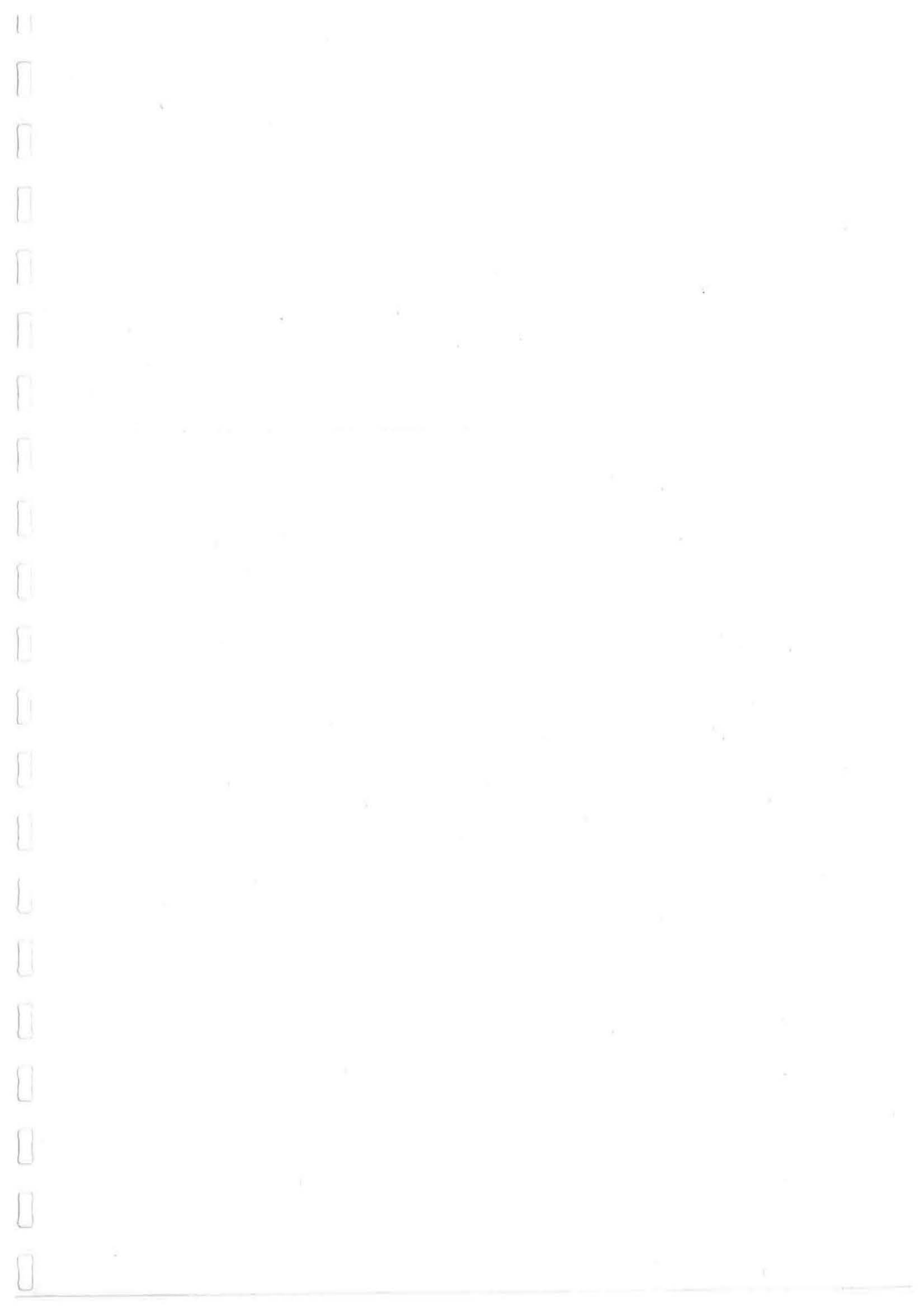
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Crow, J.
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W.H. Freeman 1986.

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Biometry : principles and practice of statistics in biological
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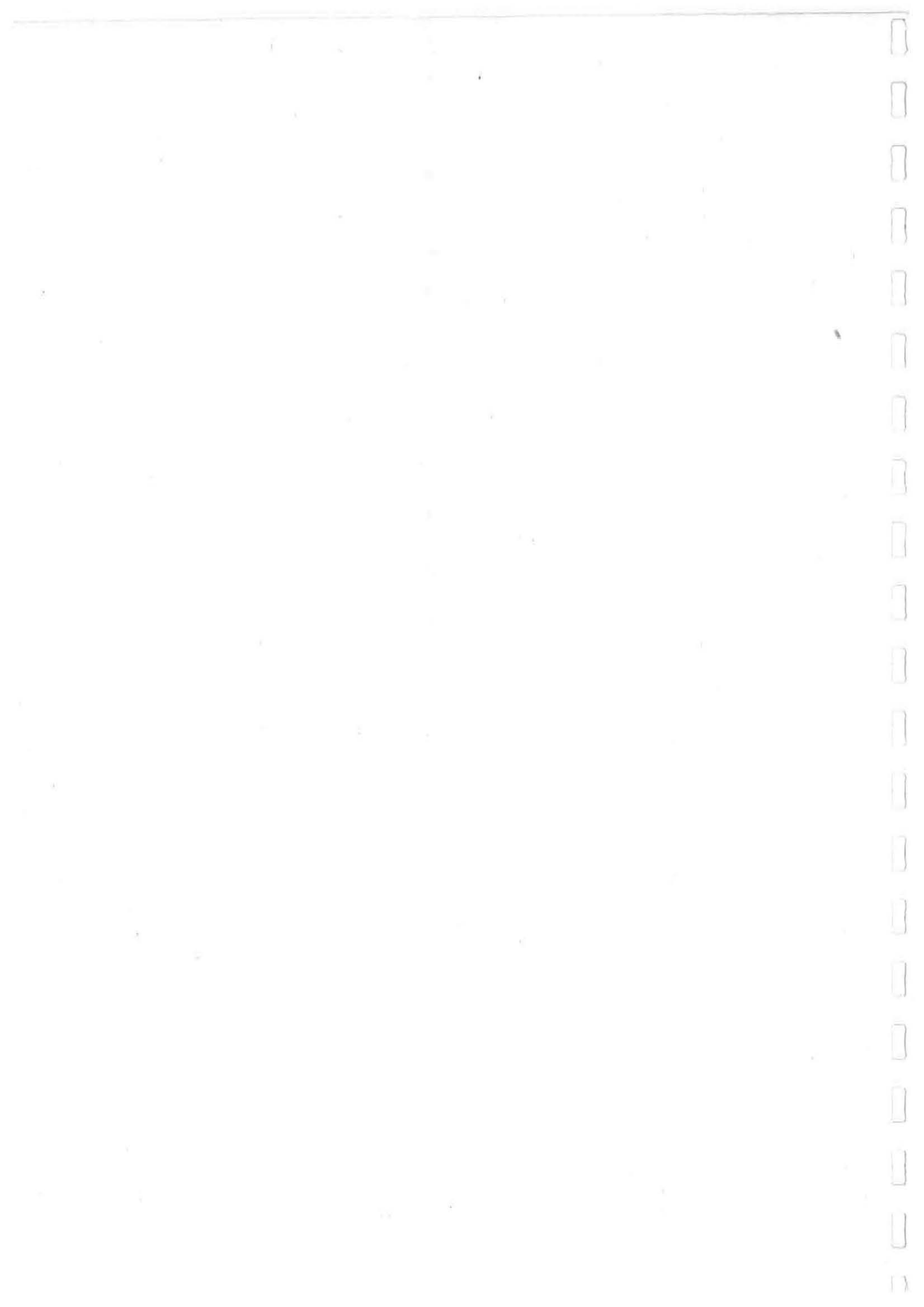
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Multivariate statistical methods - a primer
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Academic Press, 1980. (2 copies)

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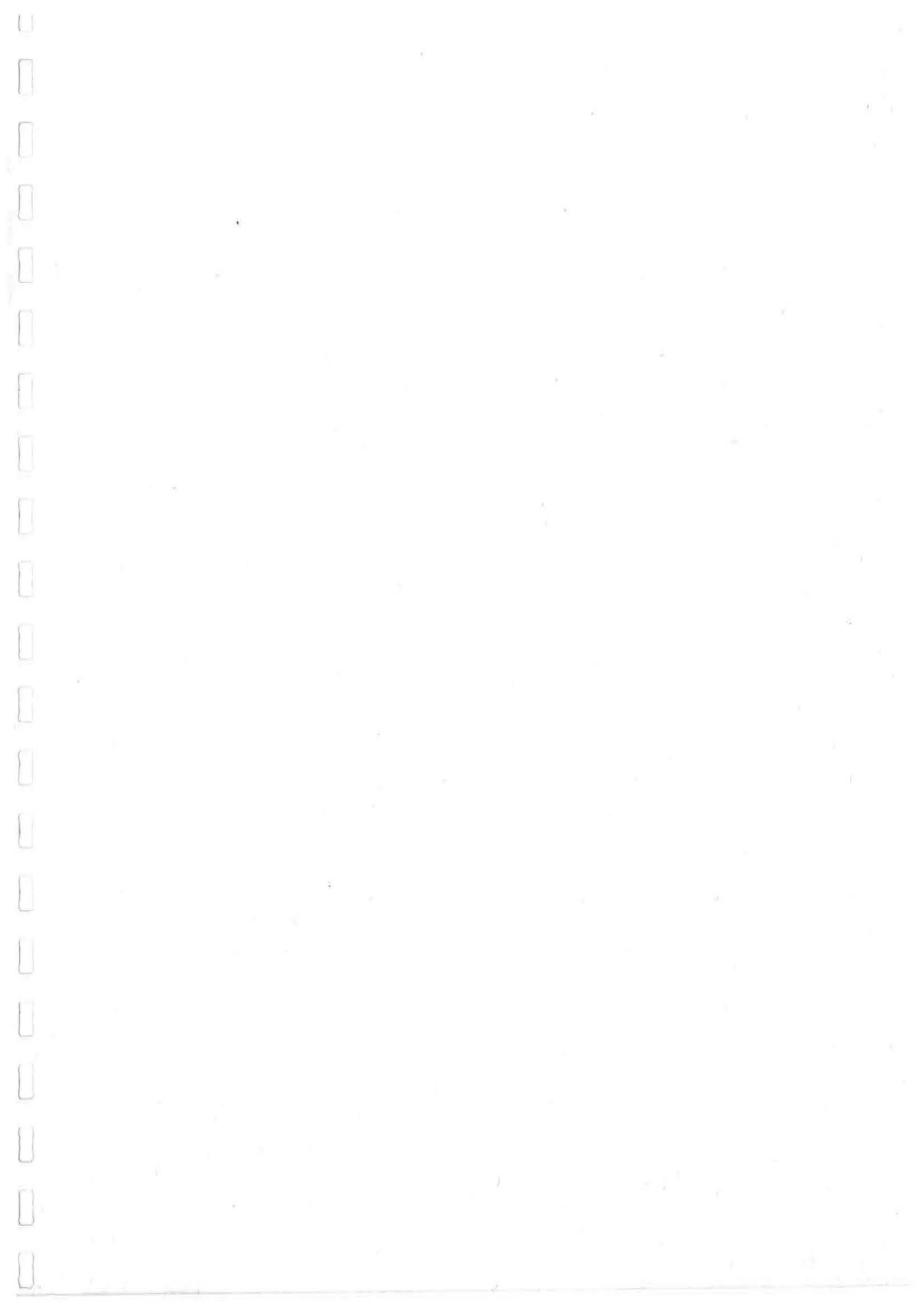
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agriculture.
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Volumes A, B and C.
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Diapause and life cycle strategies in insects.
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