# Appendix 6

## Staff list at 31 March 1998

Management/Adminis	stration			Dr R W Pickup Mr K J Clarke	Band 4 (S) Band 5 (S)
Director, Windermere				Dr G H Hall	Band 5 (S)
Laboratory	Prof A D Pickering	Band 2 (S)		Dr A E Irish	Band 6 (S)
Laboratory	Troi II D Tiekering	Bana 2 (0)			Band 6 (S)
Head of Regional				Mrs M M Dent	Band 7 (S)
Laboratories	Prof J Hilton	Band 3 (S)		Mrs R M Hindle	Band 7 (S) Pt
Laboratories	Tior j Tinton	Dand 5 (5)		Mrs H E H Mallinson	
<i>c</i>	3.6 3.6 77	D 17 (A)		Mr T Marsh	Band 8 (S)
Secretary to Director	Mrs M Thompson	Band 7 (A)		Dr G F Esteban	RF
(married 1)	Y 8 1999-01 1	D 10/11/D			
(Windermere)	Mrs Y Dickens	Band 8 (A) Pt		Dr J Porter	RF
	Miss L M Baldwin	Band 8 (A)		Dr G Rhodes	RF*
	Mrs S M Dent	Band 8 (T) Pt		Mr S Ball	RS
	Mrs J C Rhodes	Band 8 (T) Pt		Mr M Child	RS
	Miss K Ross	Band 8 (A)*		Mr J Cotton	RS
				Miss P S Davies	RS
(River Laboratory)	Mrs D M Morton	Band 7 (A)		Mr A J Elliott	RS
	Mrs S Smith	Band 8 (A)		Miss L A Fear	RS*
	Miss D M Sturmey	Band 8 (A)		Mr C Hincheliffe	RS
	Mrs S A Taylor	Band 9 (A) Pt		Mr R Howarth	RS*
	11113 5 11 Taylor	band y (11) I t		Miss R Meade	RS
Finance Officer	Mr C J Moakes	Band 5 (A)		Miss W Pagen	RS
Finance Officer	MI C J Moakes	Dand 5 (A)		Miss E Scott	RS
E:	M DD	D 17/A)		Mr R E Skidmore	RS
Finance and	Ms P Parry	Band 7 (A)			
Establishments	Mrs S Handley	Band 8 (A) Pt		Miss C Whitby	RS
	Mrs A E Taylor	Band 8 (A) Pt	- 1	D 100	D 15 (0)
	Mrs N J Thexton	Band 8 (A)	Culture	Dr J G Day	Band 5 (S)
			Collection of	Dr S Brown	Band 6 (S)
Acting FBA Director	Prof C S Reynolds	Band 3 (S)	Algae and	Ms C Butterwick	Band 6 (S)
			Protozoa	Ms A Cook	Band 8 (S) Pt
Fish Biology				Ms J Tompkins	Band 8(A) Pt
Division Head	Prof J M Elliott	Band 3 (I)		Mr R A Fleck	RS
	Mrs M A Hurley	Band 4 (S) Pt			
	Dr M Ladle	Band 4 (S)	Fritsch Collection of A	Algal Illustrations	
	Dr T G Pottinger	Band 4 (S)	Honorary Curator	Dr J W G Lund*	
	Dr J S Welton	Band 4 (S)	9	Mrs E G Devlin	Band 8 (S)Pt
	Dr I J Winfield	Band 4 (S)		Mrs E B Monaghan	Band 8 (S)Pt
	Mr W R C Beaumont			1110 22 1101111811111	2000 0 (0)-
	Mr T R Carrick	Band 5 (S)	Aquatic Processes		
	Mr P R Cubby	Band 6 (S)	Division Head	Dr E W Tipping	Band 3 (I)
	Dr A T Ibbotson		Division Head	Dr D G George	Band 4 (S)
		Band 6 (S)		Mr B M Simon	
	Miss J M Fletcher	Band 7 (S)			Band 5 (S)
	Mr A C Pinder	Band 7 (S)		Mr C P Woof	Band 5 (S)
	Mr J E G Masters	Band 8 (S)		Ms D P Hewitt	Band 6 (S)
	Dr P Garner	RF*		Mr E Rigg	Band 6 (S)
	Dr C G M Paxton	RF*		Mr A J Lawlor	Band 7 (S)
	Mr T M Beaumont	RS		Mr S Lofts	Band 7 (S)
	Mr M Longshaw	RS		Mr S Bryan	RS*
	Mr S Walker	RS*		Mr F L Charlton	RS
				Mr R D Hedger	RS
Microbial Ecology				Mr D M John	RS
Division Head	Prof B J Finlay	Band 3 (I)		Miss V Reid	RS*
	Prof C S Reynolds	Band 3 (I)		Mr M J Scott	RS
	Dr S C Maberly	Band 4 (S)		Miss R Stidson	RS
	- managements	(0)			

Ecosystem Management			Honorary Research F	ellows
Division Head	Prof J Hilton	Band 3 (S)	FBA	
	Dr W A House	Band 3 (I)		Dr A D Berrie*
	Dr P D Armitage	Band 4 (S)		Mr T Gledhill*
	Dr A E Bailey-Watts	Band 4 (S)		Dr E Y Haworth*
	Mr R T Clarke	Band 4 (S)		Dr J W G Lund*
	Dr F H Dawson	Band 4 (S)		Dr H M Lund*
	Mr M T Furse	Band 4 (S)		Dr J F Talling*
	Dr L C V Pinder	Band 4 (S)		Dr L G Willoughby*
	Dr J F Wright	Band 4 (S)		
	Mr J A B Bass	Band 5 (S)		
	Mr I S Farr	Band 5 (S)		
	Mr R J M Gunn	Band 5 (S)		
	Dr L May	Band 5 (S)		
	Mr J H Blackburn	Band 6 (S)		
	Mr I D M Gunn	Band 6 (S)		
	Mr P Henville	Band 6 (S)	arman a con-	
	Dr G P Irons	Band 6 (S)	Abbreviations:	-1-12
	Mr A Kirika	Band 6 (S)	S	Scientific
	Mr D V Leach	Band 6 (S)	A	Administration
	Mr A A Lyle	Band 6 (S)	Ţ	Librarian
	Dr J T Smith	Band 6 (S)	T	Technologist
	Mrs K L Symes	Band 6 (S)	I	Individual Merit Promotee
	Mr J Bowker	Band 7 (S)	Pt	Part-time
	Mr G D Collett	Band 7 (S)	RF	Research Fellow
	Mr D R Orr	Band 7 (S)	RS	Research Student
	Dr J M Winder	Band 7 (S)	45	FBA – not IFE establishment
	Mr M J Bowes	Band 8 (S)		
	Mr M J Gravelle	Band 8 (S)		
	Mr I T Harris	Band 8 (S)		
	Mr P M Scarlett	Band 8 (S)		
	Mr R Wiggers	Band 8 (S)		
	Dr S S C Harrison	RF		
	Mr C Brereton	RS		
	Miss C E Cannan	RS		
	Mr D Clarke	RS		
	Mr S Clough	RS		
	Miss E Hawtin	RS*		
	Miss W Lester	RS		
	Miss J Long	RS		
	Mr D Short	RS		
	Miss S L Woodruff	RS		
Laboratory Services	36 36 4 5	D 1 = (0)		
Windermere Laboratory	Mr M A Rouen	Band 5 (S)		
	Mr P V Allen	Band 6 (T)		
	Mr M J Lee	Band 6 (T)		
	Mr B M Godfrey	Band 6 (T)		
	Mr T I Furnass	Band 7 (T)		
	Mr J Crompton	Band 7 (T)		
	Mr P M Hodgson	Band 7 (T)		
	Mr G M Waimann	Band 7 (T)		
	Mr J B James	Band 8 (S)		
	Mr J L Kelly	Band 8 (T)Pt		
	Mr D V Abel	Band 9 (T)		
	Mrs N E Chapman	Band 9 (T)		
	Mr S Thomson	Band 9 (T)Pt		
Library	Ma I D Macallant	Dan J 7 /T V		
Library	Mr I D McCulloch	Band 7 (L)		
	Miss C M Williams	Band 7 (L)		
	Mrs K Crompton	Band 8(A) Pt		
	Mrs O Jolly	Band 8(A) Pt		
	Mr I Pettman	FBA Pt*		
River Laboratory	Mr G A Richards	Band 9(T)		
zaror zazoratory	Mrs J Whitmarsh	Band 9(T) Pt		
	3	(-)		

Ecosystem Management Division Head

Honorary Research Fellows FBA

# Appendix 7

## **Research projects** at 31 March 1998

Programme I:	Theme 1.1	Physicochemical processes affecting soil/water interactions
Soil and Soil-Vegetation	Issue 1.1.1	Solid-solution partitioning of chemical species
	Issue 1.1.2	Organic matter decomposition and the production of humic substance
Interactions		
Programme 2:	Theme 2.1	Long-term and large-scale monitoring of land use
	Issue 2.1.1	National-scale survey of land use and cover
Land Use Science		es creat mention contributes contributed by the end of the contributed mention there.
	Theme 2.2	Land use systems
	Issue 2.2.3	Impacts of land use (change and management)
Programme 3:	Theme 3.4	Urban water dynamics, risk and hazard
	Issue 3.4.1	Low flows and pollution loads
The Urban Environment		ne na ma ponancia como
D	TI	
Programme 4:	Theme 4.4 Issue 4.4.1	Integrated water quality monitoring  Monitoring and assessment
<b>Freshwater Resources</b>	Issue 4.4.1 Issue 4.4.2	Understanding processes
	Issue 4.4.3	Development and application of models
	Theme 4.5	Integrated biotic response modelling
	Issue 4.5.1	Flow resistance in channels and river ecosystems health
	Issue 4.5.2	Integration of models of water quantity, quality and biotic variability
	Issue 4.5.3	Improvement and diversification of biotic models
	Issue 4.5.4	Biotic responses to long-term environmental change
	Issue 4.5.5	Maintenance of knowledge base
	Theme 4.6	Fish dynamics
	Issue 4.6.1	Fish population dynamics
	Issue 4.6.2	Acoustic deflection and counting of migrating smolts
	Issue 4.6.3	Determination of habitat requirement
	Issue 4.6.4	Physiological performance of freshwater fish
	Issue 4.6.5	Models of growth and survival
	Sec.	
Programme 5:	Theme 5.1	Biodiversity characterisation, pattern and monitoring
<b>Biodiversity and</b>	Issue 5.1.1	Species richness in relation to environmental factors
DISCHITCIBILY GILL	529 YEAR DO 1897	

**Population Processes** 

Biodiversity of communities and resilience to environmental change

	Theme 5.2 Issue 5.2.2	Ecosystem function and biodiversity Role of microbial diversity and dynamics with respect to ecosystem function
	Theme 5.4 Issue 5.4.1	Conservation and restoration of biodiversity Single-species conservation programmes: monitoring and evaluation
Programme 6:	Theme 6.1	The development of sustainable insect pest management strategies
Pest and Disease	Issue 6.1.4	Ecological impact of microbial control agents for disease vectors
Control and Risk	Theme 6.3	Environmental impact of GMOs and potentially invasive species
Assessment for GMOs	Issue 6.3.3	Development and risk assessment of genetically modified bacteria
Assessment for GMOS	Theme 6.5	Distribution of pathogens in freshwater
	Issue 6.5.1	Monitoring and risk assessment of pathogens in freshwater
	Issue 6.5.2	Development of novel methods for detecting viruses in water
Programme 7 :	Theme 7.1	Radionuclides
	Issue 7.1.1	Parameterisation of radionuclide contamination and transfer
Pollution Assessment	Issue 7.1.4	Development of countermeasures
and Control	***	
	Theme 7.2	Acidifying pollutants
	Issue 7.2.5	Surface water and catchment-scale impacts
	Theme 7.4	Toxic metals
	Issue 7.4.1	Transport and deposition
	Issue 7.4.2	Soil and aquatic processes and soil-plant transfers
3	Theme 7.5	Organic pollutants
*	Issue 7.5.2	Transport and food-chain transfer
	Issue 7.5.3	Biological degradation and transformation
	Issue 7.5.4	Physico-chemical processes controlling transport in soils and waters
	Issue 7.5.5	Catchment-scale processes
	Issue 7.5.6	Ecotoxicology and environmental standards
Programme 9 :	Theme 9.3	Forecasting and detecting the impacts of global change
X-92 KV =2 KV	Issue 9.3.1	Regional hydrology and freshwater quality
Global Change	Issue 9.3.4	Ecosystem responses to elevated CO2
Programme 10:	Theme 10.1	Environmental assessment, economics and history
Integrating Generic	Issue 10.1.1	Environmental valuation and quantitative prediction of environmental
	T	impacts
Science	Issue 10.1.4	Historical land use change and environmental policy

Theme 10.3	Instrumentation
Issue 10.3.1	Intelligent sensor clusters
Theme 10.5	Analytical chemistry
Issue 10.5.3	Trace metal distribution and speciation
Issue 10.5.4	Bioavailability of nutrients and pollutants
Issue 10.5.5	Sample matrices
Theme 10.6	Databases and reference collections
Issue 10.6.1	Integrity and accessibility of databases and collections within CEH
Issue 10.6.3	Environmental management
Issue 10.6.4	Microbial diversity
Theme 10.7	Biometrical applications, research and development
Issue 10.7.1	Biometrical collaboration

# Appendix 8

## **Scientific Papers**

(P) Peer Reviewed

Armitage P.D. 1994 Worms in my butt. BBC Wildlife 12(8) p15

## Armitage P.D., Blackburn J.H. & Symes K.L. 1997

Freshwater biological monitoring of the Furzebrook stream (South Dorset) using macroinvertebrates. Proceedings of the Dorset Natural History and Archaeological Society 118 125-131

Armitage P.D. & Hogger J. 1994 Invertebrate ecology and survey. In: The new rivers and wildlife handbook (ed. RSPB, NRA &

RSNC) p85-97. Sandy. RSPB.

### Barcelo D., House W.A., Maier E.A. & Griepink B. 1995

Preparation, homogeneity and stability studies of freeze-dried water containing pesticides. Fresenius Journal of Analytical Chemistry (P)

### Bass J.A.B., Leach D.V. & Pinder L.C.V. 1997

The invertebrate community of submerged Nuphar lutea (L.) leaves in the river Great Ouse. Regulated Rivers Research and Management 13 259-266 (P)

#### Bass J.A.B., Pinder L.C.V. & Leach D.V. 1997

Temporal and spatial variation in zooplankton populations in the river Great Ouse: an ephemeral food resource for larval and juvenile fish. Regulated Rivers Research and Management 13 245-258 (P)

#### Beaumont W.R.C., Welton J.S. & Ladle M. 1992

The exploitation by rod and line of Atlantic salmon (Salmo salar L.) in a southern chalk stream. In: Joint Atlantic Salmon Trust/Royal Irish Academy workshop on the measurement and evaluation of the exploitation of Atlantic salmon, Dublin, April 1991

## Biagini G.A., Mcintyre P.S., Finlay B.J. & Lloyd D. 1998

Carbohydrate and amino acid fermentation in the free-living primitive protozoon Hexamita sp. Applied and Environmental Microbiology 64(1) 203-207 (P)

### Biagini G.A., Suller M.T.E., Finlay B.J. & Lloyd D. 1997

Oxygen uptake and antioxidant responses of the free-living diplomonad Hexamita sp. Journal of Eukaryotic Microbiology 44(5) 447-453 (P)

### Bilyi I.Ya., Comans R.N.J., Hilton J. & Voitsekhovitch O.V. 1997

Modelling of Chernobyl radiocaesium behaviour in catchment-lake-sediment system Devoke Water (Cumbria, UK). In: Freshwater and estuarine radioecology (ed. G. Desmet, R.J. Blust, R.N.J. Comans, J.A. Fernandez, J. Hilton & A. De Bettencourt) p449-459. Amsterdam. Elsevier. (P)

## Blundell N.J., Worsfold P.J., Casey H. & Smith S.M. 1995

The design and performance of a portable, automated flow injection monitor for the in situ analysis of nutrients in natural waters. Environment International 21(2) 205-209 (P)

## Bratton J.H. & Elliott J.M. 1991

Placobdella costata and Hirudo medicinalis. In: British red data books: 3. Invertebrates other than insects. Peterborough. Joint Nature Conservation Comittee.

## Bryan N.D., Hesketh N., Livens F.R., Tipping E. & Jones M.N. 1998

Metal ion-humic substance interaction - a thermodynamic study. Journal of the Chemical Society - Faraday Transactions 94(1) 95-100 (P)

## Bryant C.L., Farmer J.G., Mackenzie A.B., Bailey-Watts A.E. & Kirika A.

Manganese behavior in the sediments of diverse Scottish freshwater lochs. Limnology and Oceanography 42(5) 918-929 (P)

#### Canter H.M. & Haworth E.Y. 1992

Another species of Aulacoseira found in Windermere (English Lake District). Freshwater Forum 2(1) p21 (P)

#### Carling P.A., Glaister M.S., et al. 1995

River bed level changes in a high gradient channel. In: Coherent flow structures (ed. J. Best & P. Ashworth) Chichester. John Wiley and Sons. (P)

### Carling P.A., Kelsey A. & Glaister M.S. 1992

Effect of bed roughness, particle shape and orientation on initial motion criteria. In: Dynamics of gravel bed rivers (ed. P. Billi, R.D. Hey, C.R. Thorne & P. Tacconi) Chichester. John Wiley & Sons Ltd. (P)

Chamier A.C. & Tipping E. 1997 Effects of aluminium in acid streams on growth and sporulation of aquatic hyphomycetes. Environmental Pollution 96(3) 289-298 (P)

## Clissman C., Murray R., Davidson E., Hands J., Sijtsma O., Noordzij A., Moulton R., Shanawa S., Darzentas J. & Pettman I. 1997

The UNIverse Project: state-of-theart of the standards, softwares and systems which will underpin the development. Part1: Z39.50; WWW integration with Z39.50; and unicode. New Library World 98(1138) 267-274 (P)

## Comans R.N.J., Hilton J., Cremers A., Geelhoed-Bonouvrie P.A. & Smith J.T. 1997

Interpreting and predicting in situ distribution coefficients of radiocaesium in aquatic systems. In: Freshwater and estuarine radioecology. Proceedings of an international seminar, Lisbon, Portugal, 21-25 March 1994 (ed. G. Desmet, R.J. Blust, R.N.J. Comans, J.A. Fernandez, J. Hilton & A. De Bettencourt) Amsterdam. Elsevier Science. (P)

#### Crisp D.T. 1992

Measurement of stream water temperature and biological applications to salmonid fishes, grayling and dace (including ready reckoners). Ambleside. Freshwater Biological Association.

## Davison W., Spezzano P. & Hilton J.

Remobilization of caesium from freshwater sediments. Journal of Environmental Radioactivity 19(2) 109-124 (P)

#### Day J.G. 1995

The Culture Collection of Algae and Protozoa - a living resource. Biol. Curat. No.3 20-23 (P)

## Day J.G. & Fenwick C. 1993 Cryopreservation of members of the genus Tetraselmis used in

aquaculture. Aquaculture 118 151-160 (P)

## Day J.G., Watanabe M.M., Morris G.J., Fleck R.A. & McLellan M.R. 1997 Long-term viability of preserved

eukaryotic algae. Journal of Applied Phycology 9(2) 121-127 (P)

#### Day J.G., Watanabe M.M. & Turner M.F. 1998

Ex-situ conservation of protistan and cvanobacterial biodiversity: CCAP-NIES collaboration 1991-1997. Phycological Research 46(Suppl.) 77-83 (P)

## De Jonckheere J.F. & Brown S. 1997 Defining new Naegleria spp. using ribosomal DNA sequences. Acta Protozoologica 36 273-278 (P)

De Jonckheere J.F. & Brown S. 1998 Three different group I introns in the nuclear large subunit ribosomal DNA of the amoeboflagellate Naegleria. Nucleic Acids Research 26(2) 456-461 (P)

#### Deere D., Porter J., Pickup R.W. & Edwards C. 1997

Measurement of cell surface hydrophobicity of Aeromonas salmonicida. Journal of Fish Diseases 20 393-397 (P)

## Desmet G., Blust R.J., Comans R.N.J., Fernandez J.A., Hilton J. & De Bettencourt A. 1997

Freshwater and estuarine radioecology. Proceedings of an international seminar, Lisbon, Portugal, 21-25 March 1994. Amsterdam. Elsevier Science, 528p.

### Edwards C., Diaper J., Porter J., Deene D. & Pickup R.W. 1994

Analysis of microbial communities by flow cytometry and molecular probes: identification, culturability and viability. In: Beyond the biomass: compositional and functional analysis of soil microbial communities (ed. K. Ritz, J. Dighton & K. Giller) Chichester. Wiley and Sons. (P)

## Edwards C., Porter J., Saunders J.R., Diaper J.P., Morgan J.A.W. & Pickup R.W. 1992

Flow cytometry and microbiology. Society for General Microbiology Quarterly 19 105-108 (P)

## Elliott J.M. & Hurley M.A. 1997 A functional model for maximum growth of Atlantic salmon parr, Salmo salar, from two populations in northwest England. Functional

Ecology 11 592-603 (P)

## Elliott J.M. & Hurley M.A. 1998 Population regulation in adult, but not juvenile, resident trout (Salmo trutta) in a Lake District stream. Journal of Animal Ecology 67 280-286 (P)

### Elliott J.M., Hurley M.A. & Elliott J.A. 1997

Variable effects of droughts on the density of a sea-trout Salmo trutta population over 30 years. Journal of Applied Ecology 34 1229-1238 (P)

## Embley T.M. & Finlay B.J. 1994 Systematic and morphological diversity of endosymbiotic methanogens in anaerobic ciliates. Antonie van Leeuwenhoek 64 261-271 (P)

#### Esteban G.F. 1997

María del Carmen Téllez Nogués. Una gran mujer - entusiasta del mundo microscópico (1944-1996). Boletín Real Sociedad Española de Historia Natural 94 59-63 (P)

Esteban G.F. & Corliss J.O. 1997 Mari Carmen Tellez (1944-1996). Journal of Eukaryotic Microbiology 44(2) 168-169 (P)

## Esteban G.F., Fenchel T. & Finlay B.J.

A comment on the morphology of some Mediterranean marine ciliates. Cahiers de Biologie Marine 38(3) 215-216 (P)

Esteban G.F. & Olmo J.L. 1997 Cristigera pleuronemoides Roux, 1901: a cosmopolitan ciliate that embraces at least three nominal species. European Journal of Protistology. 33 426-431 (P)

#### Esteban G., Clarke K.J. & Finlay B.J. 1998

Rapid techniques for the identification of Protozoa. In: Techniques in microbial ecology (ed. R.S. Burlage) p203-217. Oxford. University Press. (P)

## Farmer J.G., Mackenzie A.B., Kesterton D., Poole J.J., Kirika A. & Bailey-Watts A.E. 1994

Metal mining activity and the historical record in Loch Tay sediments: a preliminary assessment. Environmental Geochemistry and Health 16 p83 (P)

## Farmer J.G., Mackenzie A.B., Sugden C.L., Bryant C.L., Eades L.J., Bailey-Watts A.E. & Kirika A. 1993

The history of environmental lead pollution in Scotland. In: Proc.9th Int. Conf. on Heavy Metals in the Environment p212-214 (P)

## Fenchel T., Esteban G.F. & Finlay B.J.

Local versus global diversity of microorganisms: cryptic diversity of ciliated Protozoa. Oikos 80(2) 220-225 (P)

Fenchel T. & Finlay B.J. 1990 Anaerobic free-living protozoa:

growth efficiencies and the structure of anaerobic communities. FEMS Microbiology Ecology 74 269-276 (P)

Fenchel T. & Finlay B.J. 1991

The biology of free-living anaerobic ciliates. European Journal of Protistology 26 201-215 (P)

## Ferreira J.R., Lawlor A.J., Bates J.M., Clarke K.J. & Tipping E. 1997

Chemistry of riverine and estuarine suspended particles from the Ouse-Trent system, UK. Colloids and Surfaces A: Physiochemical and Engineering Aspects 120 183-198 (P)

#### Finlay B.J. 1997

The diversity and ecological role of Protozoa in fresh waters. In: The microbiological quality of water (ed. D.W. Sutcliffe) p113-125. Ambleside. Freshwater Biological Association. (P)

#### Finlay B.J. 1998

The global diversity of protozoa and other small species. International Journal for Parasitology 28 (P)

### Finlay B.J., Clarke K.J. & Simon B.M. 1990

The role of anaerobic protozoa in landfill. In: Landfill microbiology: R and D workshop November 1989 (ed. P. Lawson & Y.R. Alston) Department of the Environment.

### Finlay B.J. & Embley T.M. 1992

On protozoan consortia and the meaning of biodiversity. Society for General Microbiology Quarterly 19(3) 67-69 (P)

Finlay B.J. & Esteban G.F. 1998

Planktonic ciliate species diversity as an integral component of ecosystem function in a freshwater pond. Protist 149 155-165 (P)

### Finlay B.J., Maberly S.C. & Cooper J.I. 1997

Microbial diversity and ecosystem function. Oikos 80(2) 209-213 (P)

#### Fleck R.A., Day J.G., Rana K.J. & Benson E.E. 1997

Visualisation of cryoinjury and freeze events in the coenocytic alga Vaucheria sessilis using cryomicroscopy. Cryo-Letters 18(6) 343-354 (P)

### Forrest M.B., Harper D.M. & Blackburn J.H. 1995

A description of larval Hydropsyche saxonica McLachlan (Trichoptera: Hydropsychidae). The Entomologist 114(3/4) 146-152 (P)

#### Franco C., Esteban G. & Tellez C. 1996

Observaciones preliminares sobre la morfologia, infraciliacion y ciclo de vida de un Prorodon (Ciliphora, Prostomatida) bentonico. Real Sociedad Espanola de Historia Natural Tomo Extraordinario 53-56 (P)

#### Franco C., Esteban G.F. & Tellez C. 1998

Morfología, infraciliación y ciclo de vida de Prorodon magnus Dragesco, 1966 (Ciliophora, Prostomatida). Boletín Real Sociedad Española de Historia Natural 94 15-23 (P)

### Furse M.T., Fernandes J.N., Wright J.F. & Armitage P.D. 1990

The use of aquatic macroinvertebrate assemblages for assessment of the environmental quality of rivers. In: Water quality, assessment and management p171-181. UNESCO.

#### Garner P. 1996

Diel patterns in the feeeding and habitat use of 0-group fishes in a regulated river: the River Great Ouse, England. Ecology of Freshwater Fish 5(4) 175-182 (P)

#### Garner P. 1997

Effects of variable discharge on the velocity use and shoaling behaviour of Phoxinus phoxinus. Journal of Fish Biology 50(6) 1214-1220 (P)

#### Garner P. 1997

Habitat use by 0+ cyprinid fish in the River Great Ouse, East Anglia. Freshwater Forum 8 2-27 (P)

#### Garner P. 1997

Seasonal variation in the habitat available for 0+ Rutilus rutilus (L.) in a regulated river. Aquatic Conservation 7(3) 199-210 (P)

#### George D.G. 1997

Bathymetric mapping using a compact airborne spectrographic imager (CASI). *International Journal of Remote Sensing* 18(10) 2067-2071 (P)

### George D.G. & Reynolds C.S. 1997

Zooplankton-phytoplankton interactions: the case for refining methods, measurements and models. *Aquatic Ecology* **31**(1) 59-71 (P)

#### Gledhill T. & Wiles P.R. 1997

Water-mites (Acari: Hydrachnidia) from Sri Lanka with descriptions of a new genus and two new species. *Arch.Hydrobiol.Suppl. (Monographic Studies)* 4 513-539 (P)

#### Gobran G.R. & Tipping E. 1993

Modelling the chemistry of humicrich soil leachates. *Applied Geochemistry* Suppl.No.2 121-124
(P)

## Guhl B.E., Finlay B.J. & Schink B. 1994

Seasonal development of hypolimnetic ciliate communities in a eutrophic pond. *FEMS Microbiology Ecology* **14**(4) 293-306 **(P)** 

### Gunn R.J.M. & Blackburn J.H. 1997

Caenis pseudorivulorum
Kieffermuller (Ephem., Caenidae),
a mayfly new to Britain.
Entomologist's Monthly Magazine
133 97-100 (P)

## Hartley A.M., House W.A., Callow

M.E., Leadbeater B.S.C., et al. 1997 Coprecipitation of phosphate with calcite in the presence of photosynthesizing green algae. Water Research 31(9) 2261-2268 (P)

## Hastings R., Hall G.H., Pickup R.W., McCarthy A.J. & Saunders J.R. 1994

Analysis of nitrifying communities in the freshwater environment by direct detection of specific ribosomal DNA sequences. In: Abstracts 128th meeting, Society for General Microbiology, Cambridge (P)

## Head I.M., Saunders J.R. & Pickup R.W. 1998

Microbial evolution, diversity, and ecology: a decade of ribosomal RNA analysis of uncultivated microorganisms. *Microbial Ecology* 35(1) 1-21 (P)

## Head I.M., Gray N.J., Pickup R.W. & Jones J.G. 1995

The biogeochemical role of Achromatium oxaliferum. In: Organic geochemistry (ed. J.O. Grimalt & C. Dorronsoro) p895-898. (P)

## Higgo J.J.W., Kinniburgh D., Smith B. & Tipping E. 1993

Complexation of Co<sup>2+</sup>, Ni<sup>2+</sup>, UO2<sup>2+</sup> and Ca<sup>2+</sup> by humic substances in groundwaters. *Radiochimica Acta* 61 91-103 (P)

### Hilton J. 1997

Aquatic radioecology post-Chernobyl – a review of the past and a look to the future. In: Freshwater and estuarine radioecology. Proceedings of an international seminar, Lisbon, Portugal, 21-25 March 1994 (ed. G. Desmet, R.J. Blust, R.N.J. Comans, J.A. Fernandez, J. Hilton & A. De Bettencourt) Amsterdam. Elsevier Science. (P)

#### Hilton J. 1993

Aquatic radioecology research programmes funded by the European Community. In: Proceedings of the workshop: hydrological impact of nuclear power plant systems. UNESCO, Paris, 1992. UNESCO SC-93/WS.51 UNESCO.

#### Hilton J. 1992

Some considerations in developing a programme of conservation and management of inland waters. *Acta Limnologica Brasiliense* 5 19-24 (P)

#### Hilton J. 1993

Vulnerable aquatic systems and the location of nuclear power stations. In: Proceedings of the workshop: hydrological impact of nuclear power plant systems. UNESCO, Paris, 1992. UNESCO SC-93/WS.51 UNESCO.

### Hiorns W.D., Hastings R.C., Head I.M., McCarthy A.J., Saunders J.R., Pickup R.W. & Hall G.H. 1995

Amplification of 16S ribosomal RNA genes of autotrophic ammonia-oxidising bacteria from lakewater and sediments. *Microbiology* 141 2793-2800 (P)

### Hiorns W.D., Head I.M., Saunders J.R., McCarthy A.J., Hall G.H., Pickup R.W. & Embley T.M. 1992

Autotrophic ammonia oxidising bacteria in stratified eutrophic lakes: development of ribosomal RNA-directed oligonucleotide probes. In: *Gene transfers and environment* (ed. M.J. Gauther) Springer-Verlag. (P)

#### House W.A. 1994

The role of sediment-water interaction in the riverine transport of pesticides. In: Proceedings of the environmental sedimentology. The interaction of water, sediment and waste. University of Reading, April 1994 8p. (P)

#### House W.A. 1993

Solid/liquid reactions of environmental significance. In: Research in chemical kinetics (ed. R.C. Compton & G. Hancock) p107-161. Elsevier. (P)

House W.A. & Denison F.H. 1997 Nutrient dynamics in a lowland stream impacted by sewage effluent: Great Ouse, England. Science of the Total Environment 205 25-49 (P)

#### House W.A. & Ou Z. 1992

The partition of selected pesticides in an agricultural drainage system. In: Bioremediation toxicology environmental fate ecology, joint meeting of SETAC-Europe, Potsdam, Germany

## Huszar V.L.de M. & Reynolds C.S.

Phytoplankton periodicity and sequences of dominance in an Amazonian flood-plain lake (Lago Batata, Para, Brazil): responses to gradual environmental change. *Hydrobiologia* 346 169-181 (P)

#### Iqbal S., Robinson J., Deere D., Saunders D.R., Edwards C. & Porter J. 1997

Efficiency of the polymerase chain reaction amplication of the *uid* gene for detection of *Escherichia coli* in contaminated water. *Letters in Applied Microbiology* **24**(6) 498-502 **(P)** 

## Iwama G.K., Pickering A.D., Sumpter J.P. & Schreck C.B. 1997

Fish stress and health in aquaculture. Cambridge. Cambridge University Press, 288p.

Jones J.G. (ed.)1997

Advances in microbial ecology, volume 15. New York. Plenum Press, 376p.

Jones J.G. 1994

Freshwater ecology in Britain – the continuing debate. *Freshwater Forum* 4(1) 62-68 (P)

## Jones M.N., Birkett J.W., Wilkinson A.E., Hesketh N., Livens F., Bryan N.D., Lead J.R., Hamilton-Taylor J. & Tipping E. 1995

Experimental-determination of partial specific volumes of humic substances in aqueous-solutions. *Analytica Chimica Acta* 314(3) 149-159 (P)

### Konoplev A., Bulgakov A., Hilton J., Comans R.N.J. & Popov V. 1997

Long term kinetics of radiocesium fixation by soils. In: Freshwater and estuarine radioecology. Proceedings of an international seminar, Lisbon, Portugal, 21-25 March 1994 (ed. G. Desmet, R.J. Blust, R.N.J. Comans, J.A. Fernandez, J. Hilton & A. De Bettencourt) Amsterdam. Elsevier Science. (P)

#### Ladle M. 1997

Extracts from my river diaries.

Journal of the Piscatorial Society
No.98 12-14

#### Ladle M. 1991

The rise and fall of the Blandford fly. Magazine of the Branksome Park, Canford Cliffs and District Residents Association 1991(August) 17-19

#### Ladle M. 1991

A trial control of Simulium posticatum using Bti in a sidestream of the River Stour, Dorset. In: Proceedings of a meeting held by the British Simulium Group, November 1989

## Ladle M. & Piddle Valley Local Agenda 21 1997

The River Piddle – Contribution to management approach. Leaflet.

#### Liukkonen M., Kairesalo T. & Haworth E.Y. 1997

Changes in the diatom community, including the appearance of Actinocyclus normanii f.subsalsa, during the biomanipulation of Lake Vesijarvi, Finland. European Journal of Phycology 32(4) 353-361 (P)

#### Lund J.W.G. 1996

Felix Eugen Fritsch (1879-1954). In: Prominent phycologists of the 20th Century (ed. D.J. Garbary & M.J. Wynne) p21-28. Phycological Society of America.

## Maberly S.C. & Pettitt M. 1997 The effect of ultraviolet radiation on Asterionella formosa. The Phycologist 46 22-23 (P)

## Maitland RS. & Lyle A.A. 1991 Conservation of sparling and other fish in Scotland. *Journal of the Edinburgh Natural History Society* 1991 16-18

## Malthus T.J. & George D.G. 1997 Airborne remote sensing of macrophytes in Cefni Reservoir, Anglesey, UK. *Aquatic Botany* 58(3/4) 317-332 (P)

#### Mann R.H.K. 1997

Temporal and spatial variations in the growth of 0 group roach (Rutilus rutilus) in the river Great Ouse, in relation to water temperature and food availability. Regulated Rivers Research and Management 13 277-285 (P)

#### Mann R.H.K. & Bass J.A.B. 1997

The critical water velocities of larval roach (*Rutilus rutilus*) and dace (*Leuciscus leuciscus*) and implications for river management. Regulated Rivers Research and Management 13 295-301 (P)

## Mann R.H.K., Bass J.A.B., Leach D. & Pinder A.C. 1997

Temporal and spatial variations in the diet of 0 group roach (*Rutilus* rutilus) larvae and juveniles in the river Great Ouse in relation to prey availability. Regulated Rivers Research and Management 13 287-294 (P)

#### Marchesi J.R., White G.F., Russell N.J. & House W.A. 1997

Effect of river sediment on the biodegradation kinetics of surfactant and non-surfactant compounds. FEMS Microbiology Ecology 23(1) 55-63 (P)

## Marker A.F.H. & Collett G.D. 1997 Spatial and temporal characteristics of algae in the river Great Ouse. I. Phytoplankton. Regulated Rivers Research and Management 13 219-233 (P)

## Marker A.F.H. & Collett G.D. 1997 Spatial and temporal characteristics of algae in the river Great Ouse. II. The epiphytic algal flora. Regulated Rivers Research and Management 13 235-244 (P)

### McCarthy A.J., Saunders J.R., Hall G.H., Pickup R.W., Head I.M. & Hiorns W.D. 1990

16s ribosomal RNA gene probes for the detection of autotrophic ammonia oxidising bacteria - a tool for the study of non-culturable bacteria in aquatic ecosystems. In: EERO Workshop. Molecular microbial ecology. Konigslutter, FRG.

### McLellan M.R., Cowling A.J., Turner M.F. & Day J.G. 1991

Maintenance of algae and protozoa. In: Maintenance of microorganisms (ed. B. Kirsop & A. Doyle) p183-208. London. Academic Press. (P)

## Mehner T. & Winfield I.J. (ed.) 1997 Trophic interactions of age-0 fish and zooplankton in temperate waters. Proceedings of a Plankton Ecology Group (PEG) workshop, Dresden, Germany, 5-8 February 1996. Ergebnisse der Limnologie No.49 152p

## Monteith D.T., Renshaw M., Beaumont W.R.C. & Patrick S.T. 1997 The United Kingdom Acid Waters Monitoring Network data report for 1995-1996 (year 8). London.

ENSIS Ltd, 136p.

## Oldfield F., Darnley I., Yates G., France D.E. & Hilton J. 1992

Storage diagenesis versus sulphide authigenesis: possible implications in environmental magnetism. Journal of Paleolimnology 7(3) 179-189 (P)

### Owen S.A., Russell N.J., House W.A. & White G.F. 1997

Re-evaluation of the hypothesis that biodegradable surfactants stimulate surface attachment of competent bacteria. Microbiology 143 3649-3659 (P)

## Palmer M., Covich A.P., Finlay B.J., Gibert J., Hyde K.D., Johnson R.K., Kairesalo T., Lake S., Lovell C.R., Naiman R.J., Ricci C., Sabater F. & Strayer D. 1997

Biodiversity and ecosystem processes in freshwater sediments. Ambio 26(8) 571-577 (P)

## Pardo I. & Armitage P.D. 1997 Species assemblages as descriptors of mesohabitats. Hydrobiologia 344 111-128 (P)

## Patrick S., Juggins S., Jenkins A., Beaumont W.R.C., Monteith D.T., Gardner M. & Real M. 1995

Summary of AWMN methodologies. In: UK Acid Waters Monitoring Network: the first five years. Analysis and interpretation of results, April 1988 - March 1993 (ed. S. Patrick, D.T. Monteith & A. Jenkins) p19-27. London. ENSIS Publishing.

## Pearson M.J., Ferguson A.J.D., Codd G.A., Reynolds C.S., et al. 1990 Toxic blue-green algae. Peterborough. NRA.

## Pettman I. 1992

New Library World - vision, virtual reality and reality. New Library World 93 5-7 (P)

#### Pettman I. 1992

Scientific and technical libraries encouraging intrapreneurial and entrepreneurial attitudes. New Library World 93 23-25 (P)

#### Pickering A.D. 1990

Fish health and the environment. Nordiske Jordbrugsforskeres Forening, NJF-Utredning/Rapport No.61 (P)

#### Pickering A.D. 1992

Husbandry and stress in fish. In: Recent advances in aquaculture (ed. J.F. Muir & R.J. Roberts) p155-169. Oxford. Blackwell. (P)

## Pickering A.D. & Pottinger T.G. 1995 Biochemical effects of stress. In: Biochemistry and molecular biology of fishes. Volume 5. Environmental

and ecological biochemistry (ed. P.W. Hochachka & T.P. Mommsen) p349-379. Amsterdam. Elsevier. (P)

#### Pickup R.W. 1995

Sampling and detecting bacterial populations in natural environments. In: Society for General Microbiology Symposium Series 52 p298-315. Cambridge. Cambridge University Press. (P)

## Pickup R.W., Rhodes G. & Saunders J.R. 1995

Extraction of microbial DNA from aquatic sources. In: Molecular microbial ecology manual (ed. A.D.L. Akkermans, J.D. Van Elsas & F.J. De Bruijn) p1-11. Dordrecht. Kluwer. (P)

#### Pinder L.C.V. 1991

Chironomids (non-biting midges). In: Gravel pit restoration for wildlife - a practical manual (ed. J. Andres & D. Kinsman) p52-53. Sandy. RSPB.

#### Pinder L.C.V. 1997

Research on the Great Ouse: overview and implications for management. Regulated Rivers Research and Management 13 309-315 (P)

#### Pinder L.C.V., Bass J.A.B., Leach D.V., House W.A., Farr I.S. & Orr D.R. 1992

Strategic ecosystem studies of large, slow-flowing lowland rivers. Bristol. NRA, 62pp.

#### Pinder L.C.V., Marker A.F.H., Mann R.H.K., Bass J.A.B. & Copp G.H. 1997

The River Great Ouse, a highly eutrophic, slow-flowing, regulated, lowland river in eastern England. Regulated Rivers Research and Management 13 203-218 (P)

## Porter J.P., Edwards C. & Pickup R.W.

Rapid assessment of physiological status in *Escherichia coli* using flourescent probes. *Journal of Applied Bacteriology* 79 399-408 (P)

### Porter J., Deere D., Hardman M., Edwards C. & Pickup R.W. 1997

Go with the flow – use of flow cytometry in environmental microbiology. FEMS Microbiology Ecology 24 93-101

### Porter J., Mobbs K., Hart C.A., Saunders J.R., Pickup R.W. & Edwards C. 1997

Detection, distribution and probable fate of *Escherichia coli* 0157 from asymptomatic cattle on a dairy farm. *Journal of Applied Microbiology* 83(3) 297-306 (P)

#### Pottinger T.G. 1997

Changes in water quality within anglers' keepnets during the confinement of fish. Fisheries
Management and Ecology 4 341-354
(P)

#### Pottinger T.G. 1997

Fish welfare research programme: effects of retention of fish in keepnets. R & D Technical Report, Environment Agency W8 37p

#### Pottinger T.G. & Brierley I. 1997

A putative cortisol receptor in the rainbow trout erythrocyte: stress prevents starvation-induced increases in specific binding of cortisol. *Journal of Experimental Biology* 200(14) 2035-2043 (P)

## Prenda J., Armitage P.D. & Grayston A. 1997

Habitat use by the fish assemblages of two chalk streams. *Journal of Fish Biology* **51**(1) 64-79 **(P)** 

## Raven P.J., Fox P., Everard M., Holmes N.T.H. & Dawson F.H. 1996

River Habitat Survey: a new system for classifying rivers according to their habitat quality. In: Freshwater quality: defining the indefinable? London. HMSO. (P)

#### Reynolds C.S. 1998

Back from the brink – restoring the water quality in Windermere.

Cumbria Wildlife 50 8-13

#### Reynolds C.S. 1992

The maintenance of species diversity in the phytoplankton. *Newsletter, UKFCC* 20 p3

### Reynolds C.S. 1995

Pelagic vegetation processes. In: *Report of the PRIME workshop* (ed. C. Turley & D. Cushing) p2-3. Bangor. PRIME.

#### Reynolds C.S. 1995

Successional change in planktonic vegetation: species, structures, scales. In: *Molecular ecology of aquatic microbes* (ed. I. Joint) p115-132. Berlin. Springer. (P)

#### Reynolds C.S. 1992

Up and running. In: Big steps for a small town (ed. A.J. Dodds) p9-11. Kendal. South Lakeland District Council.

#### Reynolds C.S. 1997

Vegetation processes in the pelagic: a model for ecosystem theory. Oldendorf. Ecology Institute, 404p.

#### Reynolds C.S. 1997

On the vertical distribution of phytoplankton in the lakes of the Val do Rio Doce, Eastern Brasil. In: Limnological studies at the Rio Doce Valley Lakes, Brazil (ed. J.G. Tundisi & Y. Saijo) p226-241. Sao Paulo. ABC/USP.

## Reynolds C.S. & Glaister M.S. 1992 Environments of larger UK rivers. Bristol. NRA, 80pp.

## Reynolds C.S. & Irish A.E. 1997 Modelling phytoplankton dynamics in lakes and reservoirs: the problem of in-situ growth rates. Hydrobiologia 349 5-17 (P)

#### Reynolds C.S., Padisak J. & Kobor I. 1994

A localized bloom of *Dinobryon* sociale in Lake Balaton: some implications for the perception of patchiness and the maintenance of species richness. Abstracta Botanica 17 251-260 (P)

## Robards K., McKelvie I.D., Benson R.L., Worsfold P.J., Blundell N.J. & Casey H. 1994

Determination of carbon, nitrogen and silicon species in waters. Analytica Chimica Acta 287 147-190 (P)

## Russell N.J., Marchesi J.R., House W.A. & White G.F. 1992

Surfactant biodegradation in biofilms: modelling multiple interactions in laboratory microcosms [abstract]. In: Abstracts of 6th international symposium on microbial ecology, Barcelona p111. (P)

## Russell N.J., White G.F., Marchesi J.R. & House W.A. 1994

Surfactant stimulation of biotransformation at surfaces. In: Proc.7th Int. Congress Bacteriology and Applied Microbiology and 7th Int. Congress Mycology, Prague, July 1994 (P)

## Saunders J.R., O'Sullivan H., Wakeman J., Sims Hart C.A., Virji M., Heckels J.E., Winstanley C., Morgan J.A.W. & Pickup R.W. 1994

Flagella and pili as antigenically variable structures on the bacterial surface. Journal of Applied Bacteriology Symposium Supplement 74 33-42 (P)

### Saunders J.R., Winstanley C., Raitt F.C., Morgan J.A.W. & Pickup R.W. 1991

Broad host range marker plasmids for assessment of survival and dispersal of Gram-negative bacteria. Plasmid 25 240-241 (P)

## Saxby-Rouen K.J., Leadbeater B.S.C. & Reynolds C.S. 1997

The growth response of Synura petersenii (Synurophyceae) to photon-flux density, temperature and pH. Phycologia 36(3) 233-243

### Skidmore R.E., Maberly S.C. & Whitton B.A. 1997

Light as an ecological factor controlling the productivity of river phytoplankton. The Phycologist 46 28-29 (P)

## Smith J.P., Appleby P.G., Battarbee R.W., Dearing J.A., Flower R.J., Haworth E.Y., Oldfield F. & O'Sullivan P.E. 1991

Environmental history and palaeolimnology. Dordrecht. Kluwer Academic Publishers, 394p

#### Smith J.T. 1997

Comment on "Desorption and diffusion of episodic pollutants in sediments: a 3-phase model applied to Chernobyl Cs-137" by M.Meili and A.Worman. Applied Geochemistry 12(6) 857-859 (P)

### Smith J.T., Appleby P.G., Hilton J. & Richardson N. 1997

Inventories and fluxes of Pb-210, Cs-137 and Am-241 determined from the soils of three small catchments in Cumbria, UK. Journal of Experimental Radioactivity 37(2) 127-142 (P)

## Spooner N., Rieley G., Collister J.W., Lander M., Cranwell P.A. & Maxwell J.R. 1994

Stable carbon isotopic correlation of individual biolipids in aquatic organisms and a lake bottom sediment. Organic Geochemistry 21 823-827 (P)

## Stevenson A.C., Juggins J., Birks H.J.B., Andersen D.S., Andersen N.J., Battarbee N.W., Berge F., Davis R.B., Flower R.F., Haworth E.Y., et al. 1991

The surface-water acidification project palaeolimnology programme: modern data/lakewater chemistry data set. London. Ensis Ltd.

#### Talling J.F. 1992

Cambios ecológicas del lago tropical más grande de Africa, el Victoria (química y control de producción de fitoplancton). Ingeniera Hidraulica en Mexic 7 101-106 (P)

#### Tipping E., Berggren D., Mulder J. & Woof C. 1995

Modelling the solid-solution distributions of protons, aluminium, base cations and humic substances in acid soils. European Journal of Soil Science 46 77-94 (P)

## Tyler C.R., Pottinger T.G., Coward K., Prat F., Bereford N. & Maddix S. 1997

Salmonid follicle-stimulating hormone (GtH I) mediates vitellogenic development of oocytes in the rainbow trout, Oncorbynchus mykiss. Biology of Reproduction 57 1238-1244 (P)

#### Underwood G.J.C. 1991

Growth enhancement of the macrophyte Ceratophyllum demersum in the presence of the snail Planorbis planorbis: the effect of grazing and chemical conditioning. Freshwater Biology 26(2) 325-334 (P)

#### Underwood G.J.C. 1991

Note: colonization and invasion of leaves of the aquatic macrophyte Ceratophyllum demersum L. by epiphytic bacteria. Microbial Ecology 21(3) 267-275 (P)

## Van der Post K.D., Oldfield F., Haworth E.Y., Crooks P.R.J. & Appleby P.G. 1997

A record of accelerated erosion in the recent sediments of Blelham Tarn in the English Lake District. Journal of Paleolimnology 18 103-120 (P)

#### Webster S.D. 1991

Ranunculus penicillatus (Dumort.) Bab. in Ireland. Irish Naturalists' Journal 23(9) 346-354

#### Welton J.S., Beaumont W.R.C. & Clarke R.T. 1992

Factors affecting the upstream migration of salmon in the River Frome, Dorset. In: Atlantic Salmon Trust/Wessex Water workshop, Bristol, April 1989 p34-36.

#### Willoughby L.G. 1997

Achlya diffusa (Fungi, Oomycota) from fish ponds in Thailand. Nova Hedwigia 64(3/4) 467-471 (P)

#### Winder J.M. 1997

Oysters and other marine molluscs. In: Excavations at Hamwic, Volume 2: excavations at Six Dials (ed. P. Andrews) p60-62. Council for British Archaeology. (P)

## Winstanley C., Morgan J.A.W., Pickup R.W. & Saunders J.R. 1994

Molecular cloning of two Pseudomonas flagellin genes and basal body structural genes. Microbiology 140 2019-2031 (P)

## Winstanley C., Morgan J.A.W., Raitt F.C., Carter J.C., Pickup R.W., Jones J.G. & Saunders J.R. 1990

A broad host range plasmid for monitoring the fate of genetically engineered microorganisms. J.Sci.Fd Agric. 50 134-135 (P)

Wood P.J. & Armitage P.D. 1997 Biological effects of fine sediment in the lotic environment. Environmental Management 21 203-217 (P)

#### Zhmud B.V., House W.A. & Denison F.H. 1997

Release kinetics and concentration profile of dissolved silicon in compacted sediments. J. Chem. Soc., Faraday Trans. 93(9) 3473-3478 (P)

### Zhmud B.V., House W.A. & Sevastyanova E.B. 1997

Interaction of flutriafol with the surface of silica and layer silicates. Colloids and Surfaces A -Physicochemical and Engineering Aspects 127(1/3) 187-199 (P)

#### Zhmud B.V., Sonnefeld J. & House W.A. 1997

Role of ion hydration in the charge regulation at the surface of porous silica gel. J. Chem. Soc., Faraday Trans. 93(17) 3129-3136 (P)

## Contract Reports

Armitage P.D. & Blackburn J.H. 1997

Freshwater biological monitoring of the Furzebrook Stream (South Dorset) using macroinvertebrates. 22p. Royal Society for the Protection of Birds.

#### Armitage P.D., Cannan C.A. & Symes K.L. 1997

Appraisal of the use of ecological information in the management of low flows in rivers. 10p, 4 appendices. Environment Agency.

### Armitage P.D., Cannan C.A. & Symes K.L. 1997

Appraisal of the use of ecological information in the management of low flows in rivers. 97p, 4 appendices. Environment Agency.

### Armitage P.D., Symes K.L. & Lowans L. 1997

Environmental characterisation of urban freshwater sites in Great Britain (environmental characteristics of urban environments: first year report). 33p, 4 appendices. Institute of Freshwater Ecology.

## Bailey-Watts A.E. & Kirika A. 1995 A re-assessment of the phosphorus loading to Loch Leven, Kinross (Tayside), 1994. 4p. Scottish

Natural Heritage/Forth River Purification Board.

## Bailey-Watts A.E. & Kirika A. 1996

A re-assessment of the phosphorus loading to Loch Leven, Kinross (Tayside), 1995. 30p, 18 figures. Scottish Natural Heritage/Forth River Purification Board.

### Bailey-Watts A.E., Lyle A.A., Kirika A. & Gunn I.D.M. 1993

Sensitivity of lentic waters. 24p, 3 tables, 8 figures. The Scottish Office, Environment Department.

## Bass J.A.B. 1997

An assessment of macroinvertebrates in the River Calder following a fish kill in July 1997. 14p. British Nuclear Fuels Plc.

#### Bass J.A.B. & Collett G.D. 1997

Habitat studies in the River Thames: in relation to a Severn-Thames transfer. Final report. 45p, 3 appendices. Environment Agency Thames Region.

### Bass J.A.B., May L., Esteban G. & Collett G.D. 1997

Zooplankton interactions in the River Thames. Final report. 66p, 2 appendices. Environment Agency Thames Region.

### Beaumont W.R.C., Lee M.J. & Rouen M.A. 1997

Development of lightweight backpack electric fishing gear. 143p, 3 appendices. Environment Agency.

Beaumont W.R.C. & Pinder A. 1998 Acid waters monitoring 1997. Report on fish studies. 27p. ENSIS Ltd.

### Blackburn J.H., Armitage P.D. & Bradley D. 1997

Radipole Lake invertebrate sampling pilot study. 5p, 2 tables, 1 figure. Royal Society for the Protection of Birds.

## Clarke R.T., Beaumont W.R.C. & Masters J.E.G. 1997

Back-calculating fish lengths and instantaneous growth rates using Minitab exec files. 9p. Institute of Freshwater Ecology.

### Clarke R.T., Cox R., Furse M.T., Wright J.F. & Moss D. 1997

RIVPACS III+. River InVertebrate Prediction And Classification System with error assessments. User manual. 64p, 7 appendices. Environment Agency.

## Dawson F.H., Newman J.R. & Gravelle M.J. 1996

Mean trophic rank macrophyte survey: an assessment of the trophic status of rivers using macrophytes. 29p. Environment Agency.

## Day J.G. 1998

In vitro minimum inhibitory concentration (MIC) study of bronopol to Saprolegnia parasitica. 15p. Grampian Pharmaceuticals Ltd.

## Elliott J.M. (co-ordinator) 1997

Predicting the effects of environmental change on freshwater fish production. Second annual report. 96p, figures. European Commission.

#### Elliott J.M., Fletcher J.M. & Cubby P.R. 1998

The Urban Waste Water Treatment Directive: monitoring the Arctic charr population of Windermere, 1997. 33p, 10 figures. Environment Agency North West Region.

#### Farr I.S. & Henville P. 1997

Collection, processing and supply of bulk samples of sediments and overlying waters with details of associated environmental measurements. Report on collection for AgrEvo UK, 16.04.97. 5p. AgrEvo UK.

#### Farr I.S. & Henville P. 1997

Collection, processing and supply of bulk samples of sediments and overlying waters with details of associated environmental measurements. Report on collection for Huntingdon Life Sciences, 29.04.97. 5p. Huntingdon Life Sciences.

#### Farr I.S. & Henville P. 1997

Collection, processing and supply of bulk samples of sediments and overlying waters with details of associated environmental measurements. Report on collection for AgrEvo UK, 29.04.97. 5p. AgrEvo UK.

#### Farr I.S. & Henville P. 1997

Collection, processing and supply of bulk samples of sediments and overlying waters with details of associated environmental measurements. Report on collection for COVANCE, 13.05.97. 6p. COVANCE.

#### Farr I.S. & Henville P. 1997

Collection, processing and supply of bulk samples of sediments and overlying waters with details of associated environmental measurements. Report on collection for Covance Laboratories GmbH. 10p. Covance Laboratories GmbH.

#### Farr I.S. & Henville P. 1997

Collection, processing and supply of bulk samples of sediments and overlying waters with details of associated environmental measurements. Report on collection for Dow Elanco Europe 15.07.97. 7p. Dow Elanco Europe.

## Farr I.S. & Henville P. 1997

Collection, processing and supply of bulk samples of sediments and overlying waters with details of associated environmental measurements. Report on collection for Huntingdon Life Sciences Ltd, 28th October 1997. 7p. Huntingdon Life Sciences.

#### Farr I.S. & Henville P. 1997

Collection, processing and supply of bulk samples of sediments and overlying waters with details of associated environmental measurements. Report on collection for Zeneca, Brixham Environmental Laboratory, 28th October 1997. 4p. Zeneca.

#### Farr I.S. & Henville P. 1997

Collection, processing and supply of bulk samples of sediments and overlying waters with details of associated environmental measurements. Report on collection for Covance Laboratories Ltd, 16th December 1997. 7p. Covance Laboratories Ltd.

#### Farr I.S. & Lowans L. 1997

Collection, processing and supply of bulk samples of sediments and overlying waters with details of associated environmental measurements. Report on collection for Covance Laboratories Ltd, 09.09.97. 9p. Covance Laboratories Ltd.

#### Furse M.T. & Clarke R.T. 1997

Analysis of 1995 survey data and RIVPACS update. Consultation process for the development of the Phase 2 schedule of research. 59p. Environment Agency.

### Furse M.T. & Symes K.L. 1997

Operational mechanisms for the protection and enhancement of headwaters. Scoping study. 121p. Environment Agency.

## Furse M.T., Symes K.L. & Clarke R.T.

Analysis of 1995 biological survey data and RIVPACS update. Phase 2. Post-survey appraisal. R & D progress report EMA 036/pr1 for the period from 22nd July 1997 to 31st October 1997. 13p. Environment Agency.

## Furse M.T., Welton J.S., Reynolds C.S., Symes K.L. & Collett G.D. 1997

Severn-Thames transfer. A review of biological data. Volume I – main report. 93p. Environment Agency Thames Region.

## Furse M.T., Welton J.S., Reynolds C.S., Symes K.L. & Collett G.D. 1997 Severn-Thames transfer. A review of biological data. Volume II –

Severn-I hames transfer. A review of biological data. Volume II – appendices. 242p. Environment Agency Thames Region.

## Gravelle M. & Dawson F.H. 1997 River Habitat Survey presentation

software manual. 40p. Environment Agency.

## Gravelle M., Scarlett P., Ibbotson A.T., Dawson F.H. & Blackburn J.H. 1997

Ecological survey of the River Teign at Castle Drogo, Devon. 22p, 3 appendices. Dulas Ltd.

## Gravelle M., Scarlett P., Smith D. & Dawson F.H. 1998

Rivers Ouse, Wharfe and Ure macrophyte surveys. 31p, 3 appendices. Yorkshire Water Services Ltd.

### Gunn I.D.M. & Blackburn J.H. 1997

Macroinvertebrate species identification – Colne catchment. 52p. Environment Agency Thames Region.

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Macroinvertebrate species identification – Colne catchment samples (1993). 41p. Environment Agency Thames Region.

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Macroinvertebrate species identification – Thames catchment (north east area). 45p. Environment Agency Thames Region.

#### Gunn I.D.M. & Blackburn J.H. 1997

Macroinvertebrate species identification – Thames catchment (Oxford area). 17p. Environment Agency Thames Region.

### Gunn I.D.M. & May L. 1998

Analysis of 1997 zooplankton samples

– Loch Leven NNR. 18p. Scottish
Natural Heritage.

## Gunn R.J.M., Blackburn J.H., Winder J.M., Wright J.F. & Symes K.L. 1997

An audit of performance in the analysis of biological samples in 1996. SEPA North Region. 4p, 10 tables, 1 appendix. Scottish Environment Protection Agency, North Region.

## Gunn R.J.M., Blackburn J.H., Winder J.M., Wright J.F. & Symes K.L. 1997

An audit of performance in the analysis of biological samples in 1996. SEPA East Region. 4p, 11 tables, 1 appendix. Scottish Environment Protection Agency, East Region.

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An audit of performance in the analysis of biological samples in 1996. SEPA West Region. 4p, 10 tables, 1 appendix. Scottish Environment Protection Agency, West Region.

## Gunn R.J.M., Blackburn J.H., Winder J.M., Wright J.F. & Symes K.L. 1997

An audit of performance in the analysis of biological samples in 1996. IRTU, Northern Ireland. 4p, 9 tables, 1 appendix. Industrial Research & Technology Unit Northern Ireland.

## Gunn R.J.M., Blackburn J.H., Winder J.M., Wright J.F. & Symes K.L. 1997

An audit of performance in the analysis of biological samples in 1996. Environment Agency: AQC audit. 7p, 62 tables. Environment Agency.

## Gunn R.J.M., Blackburn J.H., Winder J.M., Wright J.F. & Symes K.L. 1997

An audit of performance in the analysis of biological samples in 1996. Environment Agency: primary audit. 112p. Environment Agency.

#### Hilton J. 1997

QA report on Gibb Report 94083A, report on site visit by water quality specialist. 2p. Alexander Gibb & Partners.

#### Hilton J. 1997

QA report on Gibb Report of October 1997 – report on 1996/97 first flushing cycle. 2p. Alexander Gibb & Partners.

## House W.A., Denison F.H., Smith S.M. & Sadak R. 1997

Assessment of the potential for phosphorus reduction in river waters.

31p. Department of the Environment.

## House W.A., Irons G.P. & Denison F.H. 1998

Assessment of the potential for phosphorus reduction in river waters.

25p. Department of the Environment.

## House W.A., Zhmud B.V., Irons G.P. & Talbot J.D.R. 1997

Transportation of pesticides by colloids. 20p. Department of the Environment.

#### Ibbotson A.T. 1997

Year-class strengths and recruitment in a grayling population. 6p, 12 tables. Environment Agency South West Region.

#### Ibbotson A.T. 1998

Year-class strengths and recruitment in a grayling population – 1997 sampling. 4p, appendix. Environment Agency South West Region.

#### Ibbotson A.T. & Ladle M. 1997

Review of flow needs for fish and fisheries. Progress report. 34p. Environment Agency Midland Region.

## Ibbotson A.T., Pinder A.C. & Scarlett P. 1997

River Don and Colden Water fisheries surveys: final report. 82p. Yorkshire Water Services Ltd.

## Ibbotson A.T., Pinder A.C., Scarlett P. & Masters J.E.G. 1996

River Don and Colden Water fisheries surveys: second survey. 84p. Yorkshire Water Services Ltd.

## Ibbotson A.T., Tapia G., Furse M.T., Winder J.M., Blackburn J.H., Scarlett P.M. & Smith J.T. 1997

Impact of the signal crayfish (Pacifastacus leniusculus) and its associated crayfishery on the River Thame. 87p, 6 appendices. Environment Agency Thames Region.

## Maberly S.C., Clarke K.J., Day J.G. & Dent M.M. 1997

The mechanisms of action of cationic surfactants on microalgae. Progress report on work carried out between February and September 1997 and listing of future work. 12p. Unilever Research.

# Maberly S.C., Clarke K.J., Jaworski G.H.M., Tipping E., Day J.G. & Dent M.M. 1997

The mechanisms of action of cationic surfactants on microalgae – 1. Campaign 1: the relationship between zeta potential of a cell and surfactant toxicity. 73p. Unilever Research.

#### Mann R.H.K. 1995

Species action plan; spined loach (Cobitus taenia). 14p. English Nature.

## May L., Place C.J. & George D.G. 1996

The effects of soil type on nutrient losses and runoff in the catchment of Bassenthwaite Lake. 46p, 16 figures, 3 appendices. National Rivers Authority North West Region.

## May L., Place C.J., George D.G. & McEvoy J. 1997

An assessment of the nutrient loadings from the catchment to Bassenthwaite Lake. 53p.
Environment Agency North West Region.

## Newman J.R., Dawson F.H. & Rouen K.J. 1997

Using diatoms and macrophytes to assess the trophic status of rivers: a report of a workshop held at Lancaster, 7-8 March 1996. 34p. Environment Agency.

#### Newman J.R., Dawson F.H. & Rouen K.J. 1997

Using diatoms and macrophytes to assess the trophic status of rivers: a workshop summary, Lancaster, 7-8 March 1996. 8p. Environment Agency.

#### Pottinger T.G. 1997

Fish welfare research programme. Effects of retention of fish in keepnets. 36p. Environment Agency/National Federation of Anglers.

#### Pottinger T.G. 1997

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#### Reynolds C.S. & Irish A.E. 1997

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## Reynolds C.S., Parker J.E., Cubby P.R., DeVille M.M., Haworth E.Y., Irish A.E., James J.B., Lawlor A.J., Maberly S.C. & Rigg E. 1997

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## Reynolds C.S., Parker J.E., Dent M.M., Cubby P.R., Irish A.E., James J.B., Lawlor A.J., Maberly S.C. & Rigg E.

Observations on the water quality of the lakes of the Windermere catchment, 1997. 11p, 7 figures. Environment Agency North West Region.

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Observations on the water quality of Bassenthwaite Lake and Derwent Water, 1997. 7p, 7 figures. Environment Agency North West Region.

## Reynolds C.S., Parker J.E., DeVille M.M., Cubby P.R., Irish A.E., James J.B., Lawlor A.J., Maberly S.C. & Rigg E. 1997

Observations on the water quality of the lakes of the Windermere catchment, 1996. 9p, 7 figures. Environment Agency North West Region.

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Observations on the water quality of Bassenthwaite Lake and Derwent Water, 1996. 7p, 7 figures. Environment Agency North West Region.

#### Smith J.T. 1998

Review of aquatic countermeasures: an analysis of post-Chernobyl countermeasures. 10p. Commission of the European Communities.

### Smith J.T., Kudelsky A.V., Ryabov I.N. & Hadderingh R.H. 1998

AQUACURE. Aquatic countermeasure against uptake of radiocaesium by the ecosystem. First twelve monthly progress report. 01/02/97 - 31/01/98. 23p. Commission of the European Communities.

#### Talbot J.D.R., House W.A., Irons G.P., Clarke K.J. & Lawlor A.J. 1997

The Severn-Thames transfer project: phase II - chemical interactions of transferred sediment with the host water. Final report. 23p, 6 appendices. Environment Agency Thames Region.

## Talbot J.D.R., House W.A., Irons G.P., Lawlor A.J. & Clarke K.J. 1997

The Severn-Thames transfer project: phase II - chemical interactions of transferred sediment with the host water. 21p, 6 appendices, 2 tables. **Environment Agency Thames** Region.

### Tipping E., Bass J.A.B., Hall G.H., Lawlor A.J. & Simon B.M. 1997

Identification of the potential hazard from heavy metals in the sediments of Coniston Water and Ullswater. 86p. Environment Agency North West Region.

#### Tipping E., Irish A.E. & Reynolds C.S. 1997

The nutrient-based phytoplanktoncarrying capacity of Ullswater: a loading budget and model extrapolation. 19p, 6 figures. Environment Agency North West Region.

### Welton J.S., Beaumont W.R.C., Ladle M., Sanders T.T. & Masters J.E.G. 1997

Smolt trapping using acoustic techniques. Phase 1, literature review and initial investigation of acoustic bubble screens. 81p. Environment Agency South West Region.

#### Welton J.S., Crisp D.T. & Beaumont W.R.C. 1997

Mid-term report on studies on sea trout and brown trout recruitment in a stream in mid-Wales. 13p, 13 tables, 5 figures. Ministry of Agriculture, Fisheries and Food.

## Welton J.S., Gunn R.J.M. & Hamlin J.

Macroinvertebrate sampling of wooded and open sections of tributaries of the River Itchen -October 1997. 2p, 7 tables. CEFAS/Environment Agency Southern Region.

## Welton J.S., Gunn R.J.M., Middle S. & Bradley D.C. 1997

Macroinvertebrate sampling of wooded and open sections of tributaries of the River Itchen – May 1997. 2p, 7 tables. Ministry of Agriculture, Fisheries and Food/Environment Agency Southern Region.

## Welton J.S., Masters J.E.G., Beaumont W.R.C., Pinder A.C. & Ladle M. 1998

1997 survey of the coarse fish of the River Tees: interim report. 95p. Environment Agency North East Region.

## Welton J.S., Masters J.E.G., Beaumont W.R.C., Pinder A.C. & Ladle M. 1997

1997 survey of the coarse fish of the River Tees: progress report. 3p. Environment Agency North East Region.

## Welton J.S., Masters J.E.G., Beaumont W.R.C., Pinder A.C. & Ladle M. 1997

Smolt trapping using acoustic techniques. Phase 2. Efficiency of main river screens. 4p. Environment Agency South West Region.

## Winder J.M., Blackburn J.H., Gunn R.J.M. & Symes K.L. 1997

Biological assessment of Buckfastleigh Sewage Treatment Works, River Dart. 25p, 21 tables, 23 figures. Environment Agency South West Region.

## Winder J.M., Dawson F.H., Ibbotson A.T., Blackburn J.H., Furse M.T., Symes K.L. & Henville P. 1995

Baseline biological assessment of Mells River Springs 1995. 57p, 35 appendices. ARC (Southern) Ltd.

## Winfield I.J., Fletcher J.M. & Cubby P.R. 1997

Conservation of the schelly of Haweswater. Progress report for period April 1997 to September 1997. 16p, 1 table, 2 figures. North West Water.

## Winfield I.J., Fletcher J.M. & Cubby P.R. 1997

Conservation of the schelly of Haweswater. Progress report for period November 1996 to March 1997. 18p, 5 figures. North West Water.

## Winfield I.J., Fletcher J.M. & Cubby P.R. 1997

Fish introductions in Bassenthwaite Lake and Derwentwater. Draft final report. 101p, tables, figures. National Rivers Authority North West Region.

## Winfield I.J., Fletcher J.M. & Cubby P.R. 1997

Fish populations as determinants of habitat choice in cormorants. 50p, 47 tables, 52 figures. Wildfowl and Wetlands Trust.

## Winfield I.J., Fletcher J.M. & Cubby P.R. 1997

Introduction of Haweswater schelly to Blea Water and Small Water. 20p, 1 table, 2 figures. Environment Agency North West Region/North West Water.

## Winfield I.J., Fletcher J.M. & Cubby P.R. 1997

Introduction of Haweswater schelly to Blea Water and Small Water. Final report. 22p, 4 tables, 2 figures. Environment Agency North West Region/North West Water.

## Winfield I.J., Fletcher J.M. & Cubby P.R. 1997

Spawning beds of vendace in Bassenthwaite Lake and Derwentwater. Progresss report for period January 1997 to August 1997. 16p, 3 figures. English Nature.

## Winfield I.J., Fletcher J.M. & Cubby P.R. 1997

The Urban Waste Water Treatment Directive: monitoring the vendace population of Bassenthwaite Lake, 1996. 16p, 7 tables, 5 figures. National Rivers Authority North West Region.

#### Winfield I.J. & Winfield D.K. 1997

The winter feeding behaviour of cormorants at Haweswater. Final report. 22p, 15 figures. North West Water.

## Winfield I.J., Winfield D.K. & Fletcher J.M. 1997

The feeding behaviour of cormorants at Haweswater. Progress report for period May 1997 to October 1997. 15p, 5 figures. North West Water.

## **Addresses**

The IFE operates from three bases strategically placed around the country. The Headquarters are at the Windermere Laboratory and correspondence should be addressed to the appropriate site as follows:

Institute of Freshwater Ecology

Windermere Laboratory

Far Sawrey Ambleside

Cumbria LA22 0LP

Telephone: 015394-42468 Facsimile: 015394-46914

Contact: Prof A D Pickering

Institute of Freshwater Ecology Edinburgh Laboratory **Bush Estate** Penicuik Midlothian EH26 0QB

Telephone: 0131-445-4343 Telex: 72579 BUSITE G Facsimile: 0131-445-3943

Contact: Dr A E Bailey-Watts

Institute of Freshwater Ecology

River Laboratory East Stoke Wareham

Dorset BH20 6BB

Telephone: 01929-462314 Facsimile: 01929-462180

Contact: Prof J Hilton

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Correspondence should be addressed:

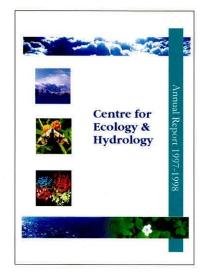
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Telephone: 015394-42468 Facsimile: 015394-46914

Contact: Prof C S Reynolds

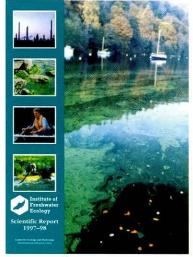
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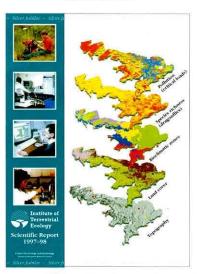


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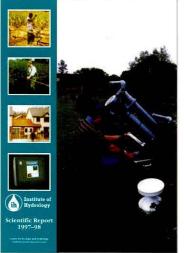


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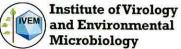
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Institute of Freshwater Ecology Windermere Laboratory, Far Sawrey, Ambleside, Cumbria, LA22 0LP Telephone: (015394) 42468 Fax: (015394) 46914