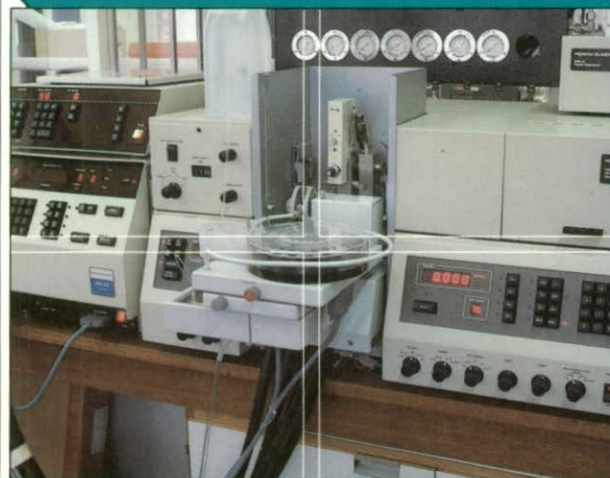
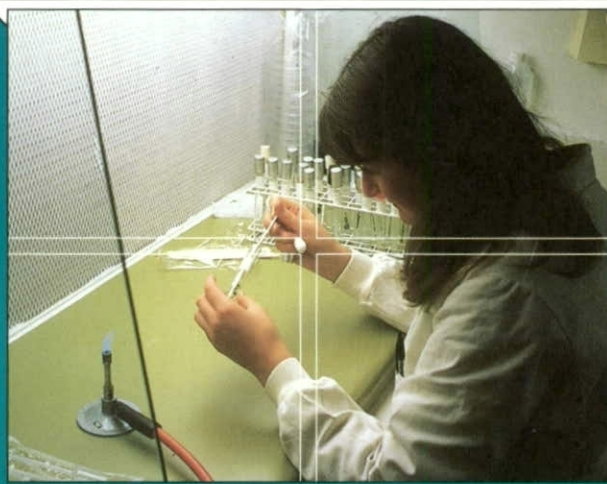
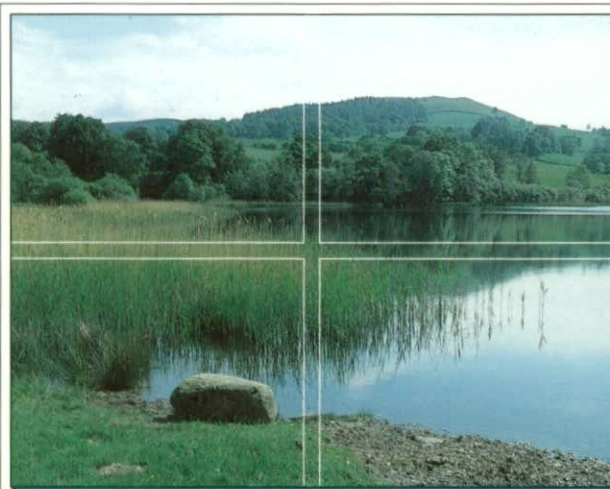




Institute of
Freshwater
Ecology

An audit of performance in the processing of macro-invertebrate samples in 1991. NRA Anglian Region

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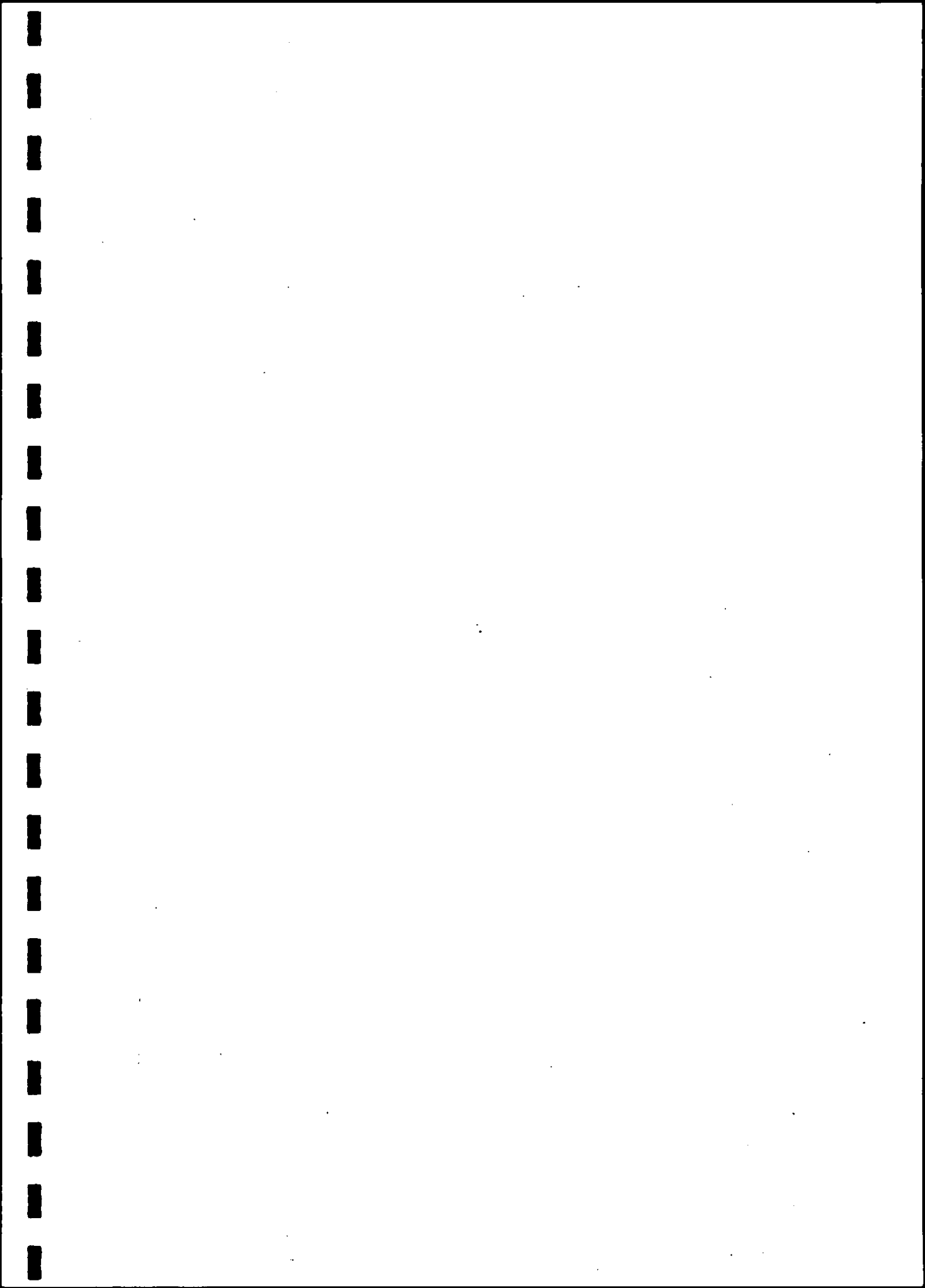
**An audit of performance in the processing
of macro-invertebrate samples in 1991.
NRA Anglian Region**

R.J.M. Gunn, J.F. Wright, J.M. Winder & J.H. Blackburn

Project leader:	J.F. Wright
Report date:	May 1992
Report to:	National Rivers Authority Anglian Region
IFE Report Ref:	RL/T04053x1/01
TFS Project No:	T04053x1

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The Institute of Freshwater Ecology is part of the Terrestrial and Freshwater Sciences Directorate of the Natural Environment Research Council.



1. INTRODUCTION

In 1991 the sampling of aquatic macro-invertebrates for the biological assessment of river quality continued throughout the United Kingdom. In England and Wales this task was undertaken by the National Rivers Authority (NRA), the River Purification Boards (RPBs) sampled in Scotland and the Department of Economic Development (DED) undertook the work in Northern Ireland.

The majority of sites were sampled in spring, summer and autumn. Standard collection procedures, as used in the 1990 River Quality Survey, were retained and the sampling strategy was therefore compatible with RIVPACS (River InVertebrate Prediction And Classification System), which has been developed by the Institute of Freshwater Ecology (IFE). For a variety of reasons, a few locations were sampled in just one or two seasons.

Samples were sorted by NRA, RPB and DED personnel for the families of macro-invertebrates included in the Biological Monitoring Working Party (BMWP) system. Taxa present were recorded on site data sheets. Sample processing and recording techniques varied from region to region.

In view of the number of staff involved and the variability of sample processing techniques, it was recognised that an independent quality control exercise was necessary to promote a consistently high level of reliability. As in 1990, the IFE was contracted to undertake an audit of the sample sorting and identification performance of each NRA region, several RPBs and the DED. This report presents the results of 60 samples audited for Anglian Region of the NRA. The IFE was not required to perform any statistical analyses nor interpretation of the results of the audit.

2. SAMPLE SELECTION

Samples for audit were selected internally by each of the agencies being monitored. The biologists processing these samples had no prior knowledge of the samples to be audited.

The manner of sample selection, which biologists would be monitored and the number of audit samples from each season, were left to the discretion of the agency, within the limits of the total number of samples that IFE was contracted to audit.

3. SAMPLE PROCESSING

The normal protocol for NRA, RPB and DED biologists was to sort their samples within the laboratory and to select examples of each scoring taxon within the BMWP system. In most cases, the invertebrates were placed in a vial of preservative (4% formaldehyde solution or 70% industrial alcohol) and the BMWP taxa were listed on a data sheet. The vial of animals and the sorted material were then returned to the sample container and preservative added. Thus, each sample available to IFE for audit should have included:

- i) a list of the BMWP FAMILIES FOUND IN THE SAMPLE
- ii) a vial containing representatives from each family
- iii) the preserved sample

When these three elements were present, the sequence of operations at IFE was as follows:

- a) The remainder of the sample was sorted and the BMWP families listed
- b) The families contained within the vial were identified and listed
- c) A comparison was made between the NRA listing of families and those identified from the vial by IFE
- d) A comparison was made between the NRA listing of families and those found in the sample by IFE
- e) "Losses" or "gains" from the NRA listing of families were noted. In the case of "gains", each additional family was identified, where possible, to species level, in order to clarify any specific repetitive errors.

For a number of different reasons, some samples did not include a vial containing representative examples of the families listed on the data sheet. Others arrived with the vial damaged in transit such that the representative examples were no longer separated. For these samples, only operations a), d) and e) above were appropriate.

Several directives were issued to IFE relating to the treatment of BMWP taxa. Terrestrial representatives of BMWP scoring families, animals deemed to have been dead at the time of sampling, cast insect skins, pupal exuviae, empty mollusc shells and posterior ends of "living" specimens were to be excluded from the listing of families present. Trichopteran pupae, although not routinely identified by many biologists, were to be included in the listing of families.

4. REPORTING

The results of each sample audit were recorded on a standard report form (Table 1). For audit samples where a vial of animals was included, the comparison between the NRA listing and the taxa found in the vial by IFE was shown in box A of the report form. Discrepancies could be due to carelessness, misidentifications or errors in completing the NRA data sheet. Families not on the NRA listing but found by IFE in the remainder of the sample were entered in box B of the report form under "additional families". When the families listed as "losses" in section A of the report form were compared with the full list of families recorded in the sample by IFE, some apparent losses from the vial were offset by the presence of those families in the remainder of the sample. These taxa were therefore listed in the "losses" box of section A and the "gains" box of section B and were neither a net loss nor a net gain. In these cases, the families were marked with an asterisk in both boxes. Such errors are noted as "omissions" in the tables which summarise the results for each season (Tables 2, 3 and 4).

Species identifications, state of development (eg adult or larval coleopterans) and the presence of a single representative of a family within the remainder of the sample were recorded in the notes section of the report form. Where the NRA data sheet indicated that a family was noted and released at the site, this was recorded in the notes section but not included as a "loss", even though the family was not found in the vial.

For those samples in which the vial of animals was damaged or missing, box A of the report form was not applicable (N/a). Families not on the NRA list but present in the sample were listed in box B under "additional families" as before. Families recorded on the NRA list but not found by IFE were indicated on the left hand side of box B. If the vial of animals was retained by the NRA, entries in this box could include the sole representative of a family which was removed by the NRA, a family seen at the site which escaped or was released (without mention being made on the NRA data sheet), inaccurate identification, the wrong family box being ticked on the NRA data sheet or the family being present in the sample but missed by IFE.

Results of the audits of individual samples are presented in the Appendix.

ACKNOWLEDGEMENTS

Thanks to Mike Furse for help and advice, to Kay Symes and Angela Matthews for assistance with cataloguing and storage of samples and to Valerie Palmer and Diana Morton for typing the manuscript.

TABLE 1. The IFE Report form

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION RIVER DATE SITE SORTER SAMPLE CODE AQC OF BMWP FAMILIES A. IN VIAL ☐B. IN SAMPLE ☐

		LOSSES	GAINS
A	<u>VIAL</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE		
B	<u>SAMPLE</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial supplied with sample)	

NET LOSSES NET GAINS

NOTES

TABLE 2. The 18 spring samples audited for Anglian Region, with sample sorter initials and numbers of taxa 'lost', 'gained' and 'omitted'

River	Site	Sorter	Losses	Gains	Omissions
Blackwater	B1019 Bridge	FCB	1	0	0
Old Course Nene	B1098 Bridge	BW	1	5	1
Stowlangtoft Stream	A1088 Bridge	SEH	0	3	0
Welland	D/s Collyweston STW	PH	0	1	1
Pitsford Arm	A508 Bridge	IG	0	1	0
West Fen Drain	Fishtoft Drove	CAE	0	0	2
County Drain	Occupation Bridge	JN	0	4	1
Wattisham W/c	Badley Bridge	EB	1	2	0
Sixteen Foot Drain	Cottons Corner	TNA	1	1	0
Nar	A10 Bridge	JN	0	1	0
Rattlesden	Burford Bridge	EB	0	0	0
Gwash	Tickencote	PH	0	2	0
*Delph Ditch	Hadleigh Sea Wall	PJM	0	1	0
Bain	U/s Coningsby STW	SJL	1	1	0
*Pitsea Flect	Access Road WDS	PJM	0	1	0
Welton Beck	Welton/Dunholme Road	SJL	0	0	2
Ore	Marlesford Bridge	MJ	0	2	0
Stonebridge Drain	Sibsey	CAE	0	0	0

* indicates no vial of animals present in sample.

TABLE 3. The 21 summer samples audited for Anglian Region, with sample sorter initials and numbers of taxa 'lost', 'gained' and 'omitted'

River	Site	Sorter	Losses	Gains	Omissions
Skerth Drain	A1121 Bridge	PH	0	2	0
Ancholme	Bishopsbridge	SJB	0	2	0
Virley Brook	Hall Road Bridge	FCB	0	0	0
Lower Witham	Five Mile House	SJL	1	1	1
Spickets Brook	Scraley Road	FCB	0	0	0
Kyme Eau	Halfpenny Hatch	CAE	0	2	0
Hintlesham W/c	Church Lane Bridge	MJ	1	0	0
Car Dyke	Potterhanworth Wood	SJL	0	1	0
Nettleton/Caistor	North End	SJB	1	1	0
Soham Lode	Barway Bridge	BW	0	3	0
Grand Union Canal	A43 Bridge	IG	0	1	2
Blackwater	Kings Bridge	PJM	0	0	0
Tenpenny Brook	E.of Stable Wood	PJM	0	0	0
Wootton Brook	Preston Deanery	IG	1	2	0
Sixteen Foot Drain	Cottons Corner	TNA	0	0	1
Waveney	Billingford Bridge	EJB	1	0	0
Newmarket No.1 Drain	Snailwell	BW	1	0	1
Ouse	Haversham	PDB	2	5	0
Coddenham W/c	A140 Bridge	MJ	0	2	0
Stoke Brook	D/s Lower Locks	PDB	1	1	0
Old Course Nene	B1098 Bridge	TNA	0	2	0

TABLE 4. The 21 autumn samples audited for Anglian Region, with sample sorter initials and numbers of taxa 'lost', 'gained' and 'omitted'.

River	Site	Sorter	Losses	Gains	Omissions
Sandon Brook	U/s East Arm	PJM	2	6	2
Hackthorn Beck	Cold Hanworth	JR	0	0	0
Grand Union Canal	East of A5	SJL	1	2	1
Lymn	Salmonby/Sowerby Bridge	PH	1	2	1
Helkington Head Dyke	B1395 Bridge	CAE	0	1	0
Holbrook	B1080 culvert	FCB	0	0	0
East Weir Dyke	Saxby Bridge	SJB	0	4	0
Bourne Eau	Tongue End	IG	0	0	0
Billinghay Skerth	Walcott Dales	CAE	0	1	2
Woldgrift Drain	Old Railway Bridge	PH	0	0	0
Newmarket No.1 Drain	D/s STW	SEH	0	2	0
The Beck	Chambers Hill	EB	0	1	1
Glaven	Edgefield Bridge	MJ	0	2	0
Barlings Eau	Langworth	JR	0	2	0
Grand Union Canal	B4036 Bridge	SJL	1	1	0
Sandon Brook	Little Baddow	PJM	0	3	0
Stoke Brook	D/s Lower Locks	PDB	0	1	0
Elstow/Cople Brook	Dog Farm	JN	1	3	1
Kennet	Beck Bridge	TNA	0	0	2
Renhold Brook	A428 Bridge	JN	1	2	1
Trib. Ramsey	Upwood Farm Road culvert	SEH	0	1	0

APPENDIX

Results of individual sample audits

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION

RIVER

DATE

SITE

SORTER

SAMPLE CODE

AQC OF BMWP FAMILIES A. IN VIAL B. IN SAMPLE

LOSSES		GAINS
A	<u>VIAL</u>	
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	BMWP FAMILIES NOT FOUND BY IFE 1 Curculionidae
		ADDITIONAL FAMILIES FOUND BY IFE None

B	<u>SAMPLE</u>	
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	BMWP FAMILIES NOT FOUND BY IFE (This box only completed when no vial supplied with sample)
		ADDITIONAL FAMILIES FOUND BY IFE None

NET LOSSES

NET GAINS

NOTES

1 Not included in 1991 survey

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION Anglian

RIVER Old Course Nene

DATE 17.4.91

SITE Pophams Eau B1098 Br

SORTER BW

SAMPLE CODE NRA01 0687

AQC OF BMWP FAMILIES

A. IN VIAL

+

B. IN SAMPLE

+

LOSSES

GAINS

A	<u>VIAL</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	1 Viviparidae 2 Haliplidae*	3 Hydrobiidae 4 Oligochaeta 5 Leptoceridae 6 Chironomidae

B	<u>SAMPLE</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial supplied with sample)	7 Haliplidae* 8 Psychomyiidae

NET LOSSES

1

NET GAINS

5

NOTES

1,3 Bithynia leachi
6 Mystacides longicornis/nigra
7 Haliplus lineolatus (adults)
8 Ecnomus tenellus

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION Anglian

RIVER Stowlangtoft Stream

DATE 17.4.91

SITE A1088 Ixworth Wolpit

SORTER SEH

SAMPLE CODE NRA01 0603

AQC OF BMWP FAMILIES A. IN VIAL +

B. IN SAMPLE +

LOSSES		GAINS
A	<u>VIAL</u> Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	 BMWP FAMILIES NOT FOUND BY IFE None ADDITIONAL FAMILIES FOUND BY IFE 1 Chironomidae

B	<u>SAMPLE</u> Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	 BMWP FAMILIES NOT FOUND BY IFE (This box only completed when no vial supplied with sample) ADDITIONAL FAMILIES FOUND BY IFE 2 Hydrobiidae 3 Tipulidae
---	---	---

NET LOSSES 0

NET GAINS 3

NOTES

1 Tanypodinae, Tanytarsini
2 Bithynia tentaculata
3 Pylaria sp.

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION Anglian

RIVER Welland

DATE 16.4.91

SITE D/s Collyweston STW

SORTER PH

SAMPLE CODE R05BFWELL260C

AQC OF BMWP FAMILIES A. IN VIAL +

B. IN SAMPLE +

LOSSES

GAINS

A	<u>VIAL</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	1 Chironomidae*	None

B	<u>SAMPLE</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial supplied with sample)	2 Chironomidae* 3 Simuliidae

NET LOSSES 0

NET GAINS 1

NOTES

3 Simulium posticatum (larva) 1 only

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION Anglian

RIVER Pitsford Arm

DATE 12.4.91

SITE A508 Bridge

SORTER IG

SAMPLE CODE R05BFPITS020P

AQC OF BMWP FAMILIES A. IN VIAL +

B. IN SAMPLE +

LOSSES		GAINS
A	<u>VIAL</u>	
	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	None	None
Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE		

B	<u>SAMPLE</u>	
	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	(This box only completed when no vial supplied with sample)	1 Lymnaeidae
Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE		

NET LOSSES 0

NET GAINS 1

NOTES

1 Lymnaea palustris

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION

RIVER

DATE

SITE

SORTER

SAMPLE CODE

AQC OF BMWP FAMILIES A. IN VIAL B. IN SAMPLE

LOSSES		GAINS
A	<u>VIAL</u>	
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	BMWP FAMILIES NOT FOUND BY IFE 1 Oligochaeta* 2 Elmidae*
		ADDITIONAL FAMILIES FOUND BY IFE None

B	<u>SAMPLE</u>	
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	BMWP FAMILIES NOT FOUND BY IFE (This box only completed when no vial supplied with sample)
		ADDITIONAL FAMILIES FOUND BY IFE 3 Oligochaeta* 4 Elmidae*

NET LOSSES

NET GAINS

NOTES

4 Oulimnius sp. (adults)

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION	Anglian	RIVER	County Drain
DATE	20.5.91	SITE	Occupation Bridge d/s STW
SORTER	JN	SAMPLE CODE	NRA01 0709

AQC OF BMWP FAMILIES A. IN VIAL B. IN SAMPLE

LOSSES		CAINS
A	<u>VIAL</u>	
	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	1 Caenidae* 2 Ephemerellidae 3 Leuctridae

B	<u>SAMPLE</u>	
	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial supplied with sample) 4 Lymnaeidae 5 Glossiphoniidae 6 Caenidae*

NET LOSSES NET GAINS

NOTES

2 Ephemerella ignita 1 only
 3 Leuctra nigra 1 only
 4 Lymnaea peregra 1 only
 5 Helobdella stagnalis 1 only
 6 Caenis horaria

Label in vial says "Baetidae"; none found by IFE in sample.

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION

RIVER

DATE

SITE

SORTER

SAMPLE CODE

AQC OF BMWP FAMILIES A. IN VIAL B. IN SAMPLE

LOSSES		GAINS	
A	<u>VIAL</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	1 Corixidae	2 Notonectidae 3 Sphaeriidae

B	<u>SAMPLE</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial supplied with sample)	None

NET LOSSES

NET GAINS

NOTES

2 Indet Notonectid nymph
3 Pisidium sp., Sphaerium sp.

AQC - BIOLOGICAL SAMPLES

Anglian

Sixteen Foot Drain

17.4.91

Cottons Corner

TNA

NRA01 0684

A. IN VIAL

+

B. IN SAMPLE

↑

GAINS

A	<u>VIAL</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	1 Viviparidae	None

<div style="border: 1px solid black; padding: 2px; display: inline-block;">B</div> <div style="margin-left: 10px;"> <u>SAMPLE</u> </div>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial supplied with sample)	2 Oligochaeta

NET LOSSES

1

NET GAINS

1

NOTES

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION

RIVER

DATE

SITE

SORTER

SAMPLE CODE

AQC OF BMWP FAMILIES A. IN VIAL B. IN SAMPLE

LOSSES		GAINS
A	<u>VIAL</u>	
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	BMWP FAMILIES NOT FOUND BY IFE None ADDITIONAL FAMILIES FOUND BY IFE None

B	<u>SAMPLE</u>	
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	BMWP FAMILIES NOT FOUND BY IFE (This box only completed when no vial supplied with sample) ADDITIONAL FAMILIES FOUND BY IFE 1 Sphaeriidae

NET LOSSES

NET GAINS

NOTES

1 Pisidium sp.

Labels in vial suggest that Lymnaeidae, Asellidae, Pleidae and Gyrinidae were found by NRA

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION

RIVER

DATE

SITE

SORTER

SAMPLE CODE

AQC OF BMWP FAMILIES A. IN VIAL B. IN SAMPLE

LOSSES		GAINS	
A	<u>VIAL</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	None	None

B	<u>SAMPLE</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial supplied with sample)	none

NET LOSSES

NET GAINS

NOTES

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION

RIVER

DATE

SITE

SORTER

SAMPLE CODE

AQC OF BMWP FAMILIES A. IN VIAL

B. IN SAMPLE

LOSSES

GAINS

A	<u>VIAL</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	None	1 Sphaeriidae

B	<u>SAMPLE</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial supplied with sample)	2 Goeridae

NET LOSSES

NET GAINS

NOTES

1 Pisidium sp.
2 Goera pilosa 1 only

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION	Anglian	RIVER	Delph Ditch
DATE	30.5.91	SITE	Hadleigh Sea Wall
SORTER	PJM	SAMPLE CODE	R01BFHADLY012

AQC OF BMWP FAMILIES A. IN VIAL ☐ B. IN SAMPLE ☒

LOSSES		GAINS	
A	<u>VIAL</u> Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	 BMWP FAMILIES NOT FOUND BY IFE No vial of animals provided - hence not applicable	 ADDITIONAL FAMILIES FOUND BY IFE N/a

B	<u>SAMPLE</u> Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	 BMWP FAMILIES NOT FOUND BY IFE (This box only completed when no vial supplied with sample)	 ADDITIONAL FAMILIES FOUND BY IFE 1 Limnephilidae
---	---	---	---

NET LOSSES NET GAINS

NOTES

1 Limnephilus sp (pupa) 1 only

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION	Anglian	RIVER	Bain
DATE	22.5.91	SITE	U/s Coningsby STW
SORTER	SJL	SAMPLE CODE	No code given
AQC OF BMWP FAMILIES		A. IN VIAL	B. IN SAMPLE
		+	+

LOSSES		GAINS
A	VIAL	
Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	1 Elmidae	2 Hydrophilidae
B	SAMPLE	
Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	(This box only completed when no vial supplied with sample)	None

NET LOSSES 1

NET GAINS 1

NOTES

1 Terrestrial beetles found in vial
2 Laccobius minutus (adult) 1 only

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION	<input type="text" value="Anglian"/>	RIVER	<input type="text" value="Pitsea Fleet"/>
DATE	<input type="text" value="30.5.91"/>	SITE	<input type="text" value="Access Road WDS"/>
SORTER	<input type="text" value="PJM"/>	SAMPLE CODE	<input type="text" value="R01BFPITSE005"/>

AQC OF BMWP FAMILIES A. IN VIAL ☐ B. IN SAMPLE ☐

LOSSES		GAINS
A	<u>VIAL</u>	
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	BMWP FAMILIES NOT FOUND BY IFE No vial of animals provided - hence not applicable
		ADDITIONAL FAMILIES FOUND BY IFE N/a
B	<u>SAMPLE</u>	
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	BMWP FAMILIES NOT FOUND BY IFE (This box only completed when no vial supplied with sample)
		ADDITIONAL FAMILIES FOUND BY IFE 1 Hydrophilidae

NET LOSSES NET GAINS

NOTES

1 Indet Hydrophilid larva 1 only

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION

RIVER

DATE

SITE

SORTER

SAMPLE CODE

AQC OF BMWP FAMILIES A. IN VIAL B. IN SAMPLE

LOSSES		GAINS
A	<u>VIAL</u>	
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	BMWP FAMILIES NOT FOUND BY IFE 1 Oligochaeta* 2 Baetidae*
		ADDITIONAL FAMILIES FOUND BY IFE None

B	<u>SAMPLE</u>	
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	BMWP FAMILIES NOT FOUND BY IFE (This box only completed when no vial supplied with sample)
		ADDITIONAL FAMILIES FOUND BY IFE 3 Oligochaeta* 4 Baetidae*

NET LOSSES

NET GAINS

NOTES

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION

RIVER

DATE

SITE

SORTER

SAMPLE CODE

AQC OF BMWP FAMILIES A. IN VIAL B. IN SAMPLE

LOSSES		GAINS	
A	<u>VIAL</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	None	None

B	<u>SAMPLE</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial supplied with sample)	1 Hydrobiidae 2 Hydroptilidae

NET LOSSES

NET GAINS

NOTES

1 Bithynia leachi
2 Hydroptila sp. 1 only

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION

RIVER

DATE

SITE

SORTER

SAMPLE CODE

AQC OF BMWP FAMILIES A. IN VIAL B. IN SAMPLE

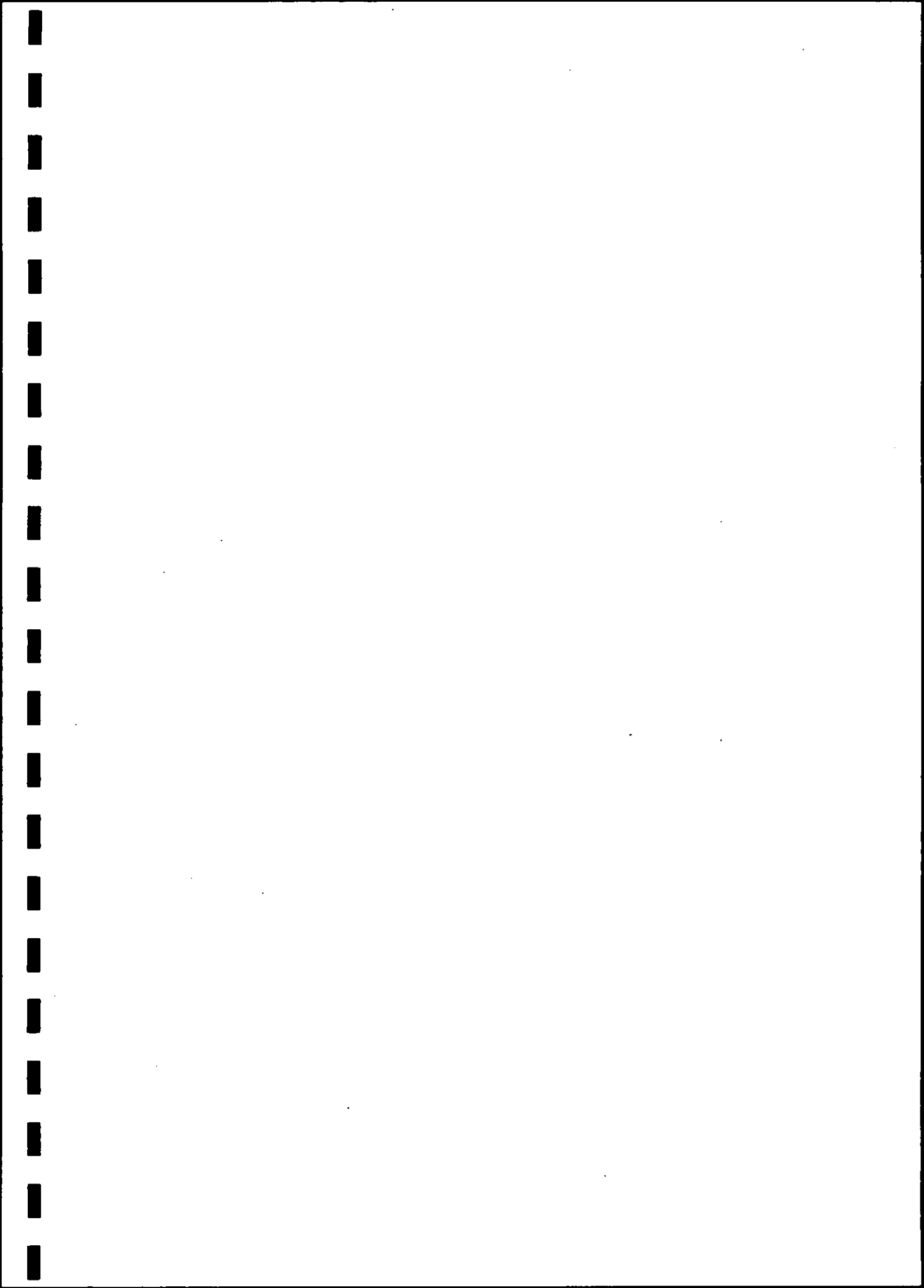
LOSSES		GAINS	
A	<u>VIAL</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	None	None

B	<u>SAMPLE</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial supplied with sample)	None

NET LOSSES

NET GAINS

NOTES



1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION	Anglian	RIVER	Skerth Drain
DATE	18.7.91	SITE	A1121 Bridge
SORTER	PH	SAMPLE CODE	R03BFSKER060A

AQC OF BMWP FAMILIES A. IN VIAL ☐+ B. IN SAMPLE ☐+

LOSSES		GAINS
A	VIAL	
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	BMWP FAMILIES NOT FOUND BY IFE
		ADDITIONAL FAMILIES FOUND BY IFE
		None
		None
B	SAMPLE	
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	BMWP FAMILIES NOT FOUND BY IFE
		ADDITIONAL FAMILIES FOUND BY IFE
		(This box only completed when no vial supplied with sample)
		1 Lymnaeidae 2 Lestidae

NET LOSSES ☐0 NET GAINS ☐2

NOTES

1 Lymnaea sp.
2 Lestes sponsa 1 only

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION	Anglian	RIVER	Ancholme
DATE	17.7.91	SITE	Bishopsbridge
SORTER	SJB	SAMPLE CODE	R03BFANCN060B

AQC OF BMWP FAMILIES A. IN VIAL B. IN SAMPLE

LOSSES		GAINS
A	VIAL	
	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	None	None
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	

B	SAMPLE	
	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	(This box only completed when no vial supplied with sample)	1 Baetidae 2 Hydrometridae
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	

NET LOSSES NET GAINS

NOTES

1 Baetis vernus, Cloeon dipterum
2 Hydrometra sp. (nymph) 1 only

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION

RIVER

DATE

SITE

SORTER

SAMPLE CODE

AQC OF BMWP FAMILIES A. IN VIAL

B. IN SAMPLE

LOSSES

GAINS

A	<u>VIAL</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	None	None

B	<u>SAMPLE</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial supplied with sample)	None

NET LOSSES

NET GAINS

NOTES

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION	<input type="text" value="Anglian"/>	RIVER	<input type="text" value="Lower Witham"/>
DATE	<input type="text" value="10.6.91"/>	SITE	<input type="text" value="Five Mile House"/>
SORTER	<input type="text" value="SJL"/>	SAMPLE CODE	<input type="text" value="Unknown"/>

AQC OF BMWP FAMILIES A. IN VIAL B. IN SAMPLE

LOSSES		GAINS
A	<u>VIAL</u>	
		BMWP FAMILIES NOT FOUND BY IFE
		ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	1 Dendrocoelidae 2 Sphaeriidae* None

B	<u>SAMPLE</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial supplied with sample)	3 Sphaeriidae* 4 Notonectidae

NET LOSSES NET GAINS

NOTES

3 Sphaerium sp., Pisidium sp.
4 Notonecta sp. (nymphs)

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION

Anglian

RIVER

Spickets Brook

DATE

10.7.91

SITE

Scraley Road

SORTER

FCB

SAMPLE CODE

R01BFMT8626

AQC OF BMWP FAMILIES

A. IN VIAL

+

B. IN SAMPLE

+

LOSSES

GAINS

A	<u>VIAL</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	None	None

B	<u>SAMPLE</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial supplied with sample)	None

NET LOSSES

0

NET GAINS

0

NOTES

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION Anglian

RIVER Kyme Eau

DATE 9.7.91

SITE Halfpenny Hatch

SORTER CAE

SAMPLE CODE Unknown

AQC OF BMWP FAMILIES A. IN VIAL +

B. IN SAMPLE +

LOSSES		GAINS
A	<u>VIAL</u>	
	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	None	None
Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE		

B	<u>SAMPLE</u>	
	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	(This box only completed when no vial supplied with sample)	1 Hydrometridae 2 Haliplidae
Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE		

NET LOSSES 0

NET GAINS 2

NOTES

1 Hydrometra sp. (nymph) 1 only
2 Haliplus sp. (larvae)

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION	Anglian	RIVER	Hintlesham Watercourse
DATE	18.6.91	SITE	Church Lane Bridge
SORTER	MJ	SAMPLE CODE	R04BFBEL030

AQC OF BMWP FAMILIES A. IN VIAL ☐+ B. IN SAMPLE ☐+

LOSSES		GAINS	
A	<u>VIAL</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	1 Scirtidae	None

B	<u>SAMPLE</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial supplied with sample)	None

NET LOSSES ☐1 NET GAINS ☐0

NOTES

Glossiphoniidae not found in vial but "+ Glossiphoniidae" written on label.

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION

Anglian

RIVER

Car Dyke

DATE

10.6.91

SITE

Potterhanworth Wood

SORTER

SJL

SAMPLE CODE

Unknown

AQC OF BMWP FAMILIES

A. IN VIAL

+

B. IN SAMPLE

+

LOSSES

GAINS

A	<u>VIAL</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	None	None

B	<u>SAMPLE</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial supplied with sample)	1 Tipulidae

NET LOSSES

0

NET GAINS

1

NOTES

1 Indet Tipulid larva 1 only

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION	Anglian	RIVER	Nettleton Beck/Caistor Canal
DATE	17.7.91	SITE	North End
SORTER	SJB	SAMPLE CODE	R03BFCAIC020N

AQC OF BMWP FAMILIES	A. IN VIAL	B. IN SAMPLE
	+	+

LOSSES		GAINS
A	VIAL	
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	BMWP FAMILIES NOT FOUND BY IFE 1 Veliidae
		ADDITIONAL FAMILIES FOUND BY IFE None

B	SAMPLE	
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	BMWP FAMILIES NOT FOUND BY IFE (This box only completed when no vial supplied with sample)
		ADDITIONAL FAMILIES FOUND BY IFE 2 Elmidae

NET LOSSES	1	NET GAINS	1
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NOTES

1 Velia sp. present in vial but not included in BMWP system
2 Elmis aenea (adult) 1 only

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Anglian**

RIVER **Soham Lode**

DATE **10.6.91**

SITE **Barway Bridge**

SORTER **BW**

SAMPLE CODE **NRA01 0576**

AQC OF BMWP FAMILIES A. IN VIAL **+**

B. IN SAMPLE **+**

LOSSES		GAINS
A	<u>VIAL</u>	
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	BMWP FAMILIES NOT FOUND BY IFE None
		ADDITIONAL FAMILIES FOUND BY IFE None

B	<u>SAMPLE</u>	
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	BMWP FAMILIES NOT FOUND BY IFE (This box only completed when no vial supplied with sample)
		ADDITIONAL FAMILIES FOUND BY IFE 1 Physidae 2 Gerridae 3 Leptoceridae

NET LOSSES **0**

NET GAINS **3**

NOTES

1 Physa fontinalis 1 only
2 Gerris sp. (nymph) 1 only
3 Athripsodes sp. (pupa) 1 only

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION

Anglian

RIVER

Grand Union Canal

DATE

11.7.91

SITE

A43 Blisworth

SORTER

IG

SAMPLE CODE

Unknown

AQC OF BMWP FAMILIES

A. IN VIAL

+

B. IN SAMPLE

+

LOSSES

GAINS

A	<u>VIAL</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	1 Hydrobiidae* 2 Lymnaeidae*	None

B	<u>SAMPLE</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial supplied with sample)	3 Hydrobiidae* 4 Lymnaeidae* 5 Glossiphoniidae

NET LOSSES

0

NET GAINS

1

NOTES

3 Bithynia tentaculata
4 Lymnaea peregra
5 Helobdella stagnalis 1 only

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION	Anglian	RIVER	Blackwater
DATE	10.7.91	SITE	Kings Bridge
SORTER	PJM	SAMPLE CODE	R01BFBL08

AQC OF BMWP FAMILIES A. IN VIAL B. IN SAMPLE

		LOSSES	GAINS
A	<u>VIAL</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	None	None

B	<u>SAMPLE</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial supplied with sample)	None

NET LOSSES NET GAINS

NOTES

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION

Anglian

RIVER

Tenpenny Brook

DATE

10.7.91

SITE

East of Stable Wood

SORTER

PJM

SAMPLE CODE

R01BFTG1405

AQC OF BMWP FAMILIES

A. IN VIAL

+

B. IN SAMPLE

+

LOSSES

GAINS

A	<u>VIAL</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	None	None

B	<u>SAMPLE</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial supplied with sample)	None

NET LOSSES

0

NET GAINS

0

NOTES

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION	<input type="text" value="Anglian"/>	RIVER	<input type="text" value="Wootton Brook"/>
DATE	<input type="text" value="11.7.91"/>	SITE	<input type="text" value="Preston Deanery"/>
SORTER	<input type="text" value="IG"/>	SAMPLE CODE	<input type="text" value="Unknown"/>

AQC OF BMWP FAMILIES A. IN VIAL B. IN SAMPLE

LOSSES		GAINS
A	<u>VIAL</u>	
Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	1 Veliidae	None

B	<u>SAMPLE</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLe by IFE	(This box only completed when no vial supplied with sample)	2 Valvatidae 3 Ancyliidae

NET LOSSES NET GAINS

NOTES

- 1 Velia sp. present in vial but not included in BMWP system
- 2 Valvata cristata
- 3 Acroloxus lacustris 1 only

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION	<input type="text" value="Anglian"/>	RIVER	<input type="text" value="Sixteen Foot Drain"/>
DATE	<input type="text" value="24.6.91"/>	SITE	<input type="text" value="Cottons Corner"/>
SORTER	<input type="text" value="TNA"/>	SAMPLE CODE	<input type="text" value="NRA01 0684"/>

AQC OF BMWP FAMILIES A. IN VIAL B. IN SAMPLE

LOSSES		GAINS	
A	<u>VIAL</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	1 Oligochaeta*	None

B	<u>SAMPLE</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial supplied with sample)	2 Oligochaeta*

NET LOSSES NET GAINS

NOTES

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION

Anglian

RIVER

Waveney

DATE

8.7.91

SITE

Billingford Bridge

SORTER

EJB

SAMPLE CODE

R04BFWAV040

AQC OF BMWP FAMILIES

A. IN VIAL

+

B. IN SAMPLE

+

LOSSES

GAINS

A	<u>VIAL</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	1 Piscicolidae	None

B	<u>SAMPLE</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial supplied with sample)	None

NET LOSSES

1

NET GAINS

0

NOTES

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION	Anglian	RIVER	Newmarket No 1 Drain
DATE	10.6.91	SITE	D/s STW Snailwell
SORTER	BW	SAMPLE CODE	NRA01 0572

AQC OF BMWP FAMILIES	A. IN VIAL	B. IN SAMPLE
	<input type="checkbox"/>	<input type="checkbox"/>

LOSSES		GAINS
A	<u>VIAL</u>	
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	BMWP FAMILIES NOT FOUND BY IFE 1 Oligochaeta* 2 Tipulidae
		ADDITIONAL FAMILIES FOUND BY IFE None

B	SAMPLE		
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	BMWP FAMILIES NOT FOUND BY IFE (This box only completed when no vial supplied with sample)	ADDITIONAL FAMILIES FOUND BY IFE 3 Oligochaeta*

NET LOSSES	1	NET GAINS	0
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NOTES	2 Empidid larva (Wiedemannia group) in vial
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1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION	Anglian	RIVER	Ouse
DATE	10.6.91	SITE	Haversham
SORTER	PDB	SAMPLE CODE	NRA01 0406

AQC OF BMWP FAMILIES A. IN VIAL B. IN SAMPLE

LOSSES		GAINS	
A	<u>VIAL</u> Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	BMWP FAMILIES NOT FOUND BY IFE 1 Gerridae 2 Hydrometridae	ADDITIONAL FAMILIES FOUND BY IFE None

B	<u>SAMPLE</u> Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	BMWP FAMILIES NOT FOUND BY IFE (This box only completed when no vial supplied with sample)	ADDITIONAL FAMILIES FOUND BY IFE 3 Physidae 4 Ephemerellidae 5 Aphelocheiridae 6 Leptoceridae 7 Tipulidae
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NET LOSSES

NET GAINS

NOTES

3 Physa fontinalis
4 Ephemerella ignita
5 Aphelocheirus aestivalis 1 only
6 Athripsodes cinereus, Ceraclea dissimilis
7 Ptilia sp. (pupa) 1 only

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION	<input type="text" value="Anglian"/>	RIVER	<input type="text" value="Coddensham Watercourse"/>
DATE	<input type="text" value="18.6.91"/>	SITE	<input type="text" value="A140 Bridge"/>
SORTER	<input type="text" value="MJ"/>	SAMPLE CODE	<input type="text" value="R04BFGIP147"/>

AQC OF BMWP FAMILIES A. IN VIAL B. IN SAMPLE

		LOSSES	GAINS
A	<u>VIAL</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	None	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial supplied with sample)	1 Sphaeriidae 2 Elmidae

NET LOSSES NET GAINS

NOTES

1 Pisidium sp.
2 Elmis aenea (larva) 1 only

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION	Anglian	RIVER	Stoke Brook
DATE	10.6.91	SITE	D/s Lower Locks
SORTER	PDB	SAMPLE CODE	NRA01 0404

AQC OF BMWP FAMILIES A. IN VIAL B. IN SAMPLE

LOSSES		GAINS
A	VIAL	
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	BMWP FAMILIES NOT FOUND BY IFE
		ADDITIONAL FAMILIES FOUND BY IFE
		1 Gerridae
		None
B	SAMPLE	
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	BMWP FAMILIES NOT FOUND BY IFE
		ADDITIONAL FAMILIES FOUND BY IFE
		(This box only completed when no vial supplied with sample)
		2 Hydrobiidae

NET LOSSES NET GAINS

NOTES

2 Potamopyrgus jenkinsi

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION	<input type="text" value="Anglian"/>	RIVER	<input type="text" value="Old Course Nene"/>
DATE	<input type="text" value="24.6.91"/>	SITE	<input type="text" value="Pophams Eau B1098 Bridge"/>
SORTER	<input type="text" value="TNA"/>	SAMPLE CODE	<input type="text" value="NRA01 0687"/>

AQC OF BMWP FAMILIES	A. IN VIAL	<input type="text" value="0"/>	B. IN SAMPLE	<input type="text" value="2"/>
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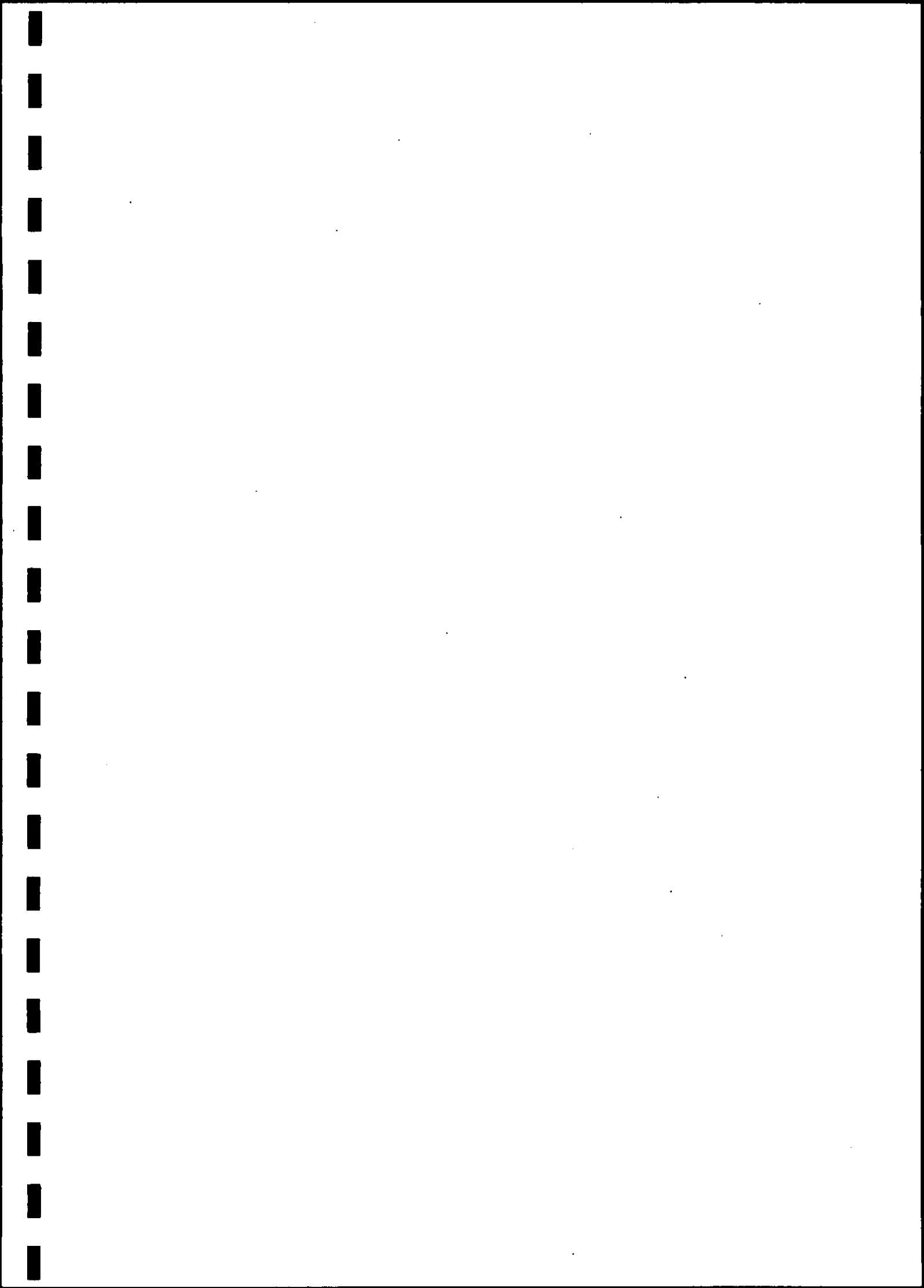
LOSSES		GAINS
A	VIAL	
	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	None	None
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	

LOSSES		GAINS
B	SAMPLE	
	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	(This box only completed when no vial supplied with sample)	1 Planariidae 2 Dendrocoelidae
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	

NET LOSSES	<input type="text" value="0"/>	NET GAINS	<input type="text" value="2"/>
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NOTES

1 Dugesia tigrina
2 Dendrocoelum lacteum 1 only



1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Anglian**

RIVER **Sandon Brook**

DATE **30.10.91**

SITE **U/s Sandon Brook East Arm**

SORTER **PJM**

SAMPLE CODE **R01BFSB0110**

AQC OF BMWP FAMILIES A. IN VIAL **+**

B. IN SAMPLE **+**

LOSSES

GAINS

A	<u>VIAL</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	1 Hydrobiidae 2 Piscicolidae 3 Coenagriidae* 4 Hydropsychidae*	5 Platycnemididae 6 Aeshnidae 7 Chironomidae

B	<u>SAMPLE</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial supplied with sample)	8 Gammaridae 9 Coenagriidae* 10 Psychomyiidae 11 Hydropsychidae* 12 Hydroptilidae

NET LOSSES **2**

NET GAINS **6**

NOTES

5 Platycnemis pennipes
6 Aeshna sp.
7 Indet Chironomini
8 Gammarus pulex 1 only
9 Pyrrhosoma nymphula? (juvenile) 1 only
10 Tinodes waeneri 1 only
11 Hydropsyche angustipennis
12 Hydroptila sp.

Unionid assumed returned to river

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Anglian**

RIVER **Hackthorn Beck**

DATE **3.10.91**

SITE **Cold Hanworth**

SORTER **JR**

SAMPLE CODE **R01BFHACK070C**

AQC OF BMWP FAMILIES

A. IN VIAL

+

B. IN SAMPLE

+

LOSSES

GAINS

A	<u>VIAL</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	None	None

B	<u>SAMPLE</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial supplied with sample)	None

NET LOSSES

0

NET GAINS

0

NOTES

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Anglian**

RIVER **Grand Union Canal**

DATE **8.10.91**

SITE **East of A5**

SORTER **SJL**

SAMPLE CODE **R05BGGUCL005E**

AQC OF BMWP FAMILIES A. IN VIAL **+**

B. IN SAMPLE **+**

LOSSES

GAINS

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	1 Dendrocoelidae* 2 Dytiscidae	3 Planariidae

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial supplied with sample)	4 Dendrocoelidae* 5 Elmidae

NET LOSSES **1**

NET GAINS **2**

NOTES

3 Planaria torva in vial, Dugesia tigrina in sample
4 Dendrocoelum lacteum 1 only
5 Oulimnius sp. (larvae)

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Anglian**

RIVER **Lynn**

DATE **3.10.91**

SITE **Salmonby/Sowerby Road Bridge**

SORTER **PH**

SAMPLE CODE **R03BFLYMN060S**

AQC OF BMWP FAMILIES A. IN VIAL **+**

B. IN SAMPLE **+**

LOSSES

GAINS

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	1 <i>Nemouridae</i> * 2 <i>Veliidae</i>	3 <i>Taeniopterygidae</i>

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial supplied with sample)	4 <i>Nemouridae</i> * 5 <i>Scirtidae</i>

NET LOSSES **1**

NET GAINS **2**

NOTES

- 2 *Velia* sp. present in vial but not included in BMWP system
- 3 *Taeniopteryx nebulosa*
- 4 *Nemoura avicularis*
- 5 *Elodes* sp. (larvae)

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION Anglian

RIVER Helkington Head Dyke

DATE 4.10.91

SITE B1395 Bridge

SORTER CAE

SAMPLE CODE R03BFHECK050B

AQC OF BMWP FAMILIES A. IN VIAL

B. IN SAMPLE

LOSSES		GAINS	
A	<u>VIAL</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	None	None

B	<u>SAMPLE</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial supplied with sample)	1 Elmidae

NET LOSSES

NET GAINS

NOTES

1 Oulimnius sp. (larvae)

Note on NRA data sheet that Gerridae not in vial. None found by IFE in sample

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Anglian**

RIVER **Holbrook**

DATE **25.9.91**

SITE **B1080 Road Culvert**

SORTER **FCB**

SAMPLE CODE **R01BFHK0817**

AQC OF BMWP FAMILIES A. IN VIAL **+**

B. IN SAMPLE **+**

LOSSES		GAINS
A	VIAL	
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	BMWP FAMILIES NOT FOUND BY IFE None
		ADDITIONAL FAMILIES FOUND BY IFE None

B	SAMPLE	
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	BMWP FAMILIES NOT FOUND BY IFE (This box only completed when no vial supplied with sample)
		ADDITIONAL FAMILIES FOUND BY IFE None

NET LOSSES **0**

NET GAINS **0**

NOTES

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Anglian**

RIVER **East Weir Dyke**

DATE **19.11.91**

SITE **Saxby Bridge**

SORTER **SJB**

SAMPLE CODE **R01BFEAST050H**

AQC OF BMWP FAMILIES A. IN VIAL **+**

B. IN SAMPLE **+**

LOSSES

GAINS

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	None	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial supplied with sample)	1 Neritidae 2 Corophiidae 3 Gammaridae 4 Tipulidae

NET LOSSES **0**

NET GAINS **4**

NOTES

- 1 Theodoxus fluviatilis 1 only
- 2 Corophium sp.
- 3 Crangonyx pseudogracilis, Gammarus tigrinus
- 4 Helius sp.

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Anglian**

RIVER **Bourne Eau**

DATE **3.10.91**

SITE **Tongue End**

SORTER **IG**

SAMPLE CODE **R05BFEAU040T**

AQC OF BMWP FAMILIES A. IN VIAL **+**

B. IN SAMPLE **+**

LOSSES		GAINS	
A	<u>VIAL</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	None	None

B	<u>SAMPLE</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial supplied with sample)	None

NET LOSSES **0**

NET GAINS **0**

NOTES

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Anglian**

RIVER **Billinghay Skerth**

DATE **4.10.91**

SITE **Walcott Dales**

SORTER **CAE**

SAMPLE CODE **R03BFSKE060W**

AQC OF BMWP FAMILIES A. IN VIAL **+**

B. IN SAMPLE **+**

LOSSES

GAINS

A	<u>VIAL</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	1 Oligochaeta* 2 Caenidae*	None

B	<u>SAMPLE</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial supplied with sample)	3 Oligochaeta* 4 Caenidae* 5 Hydrophilidae

NET LOSSES **0**

NET GAINS **1**

NOTES

3 Indet tubificids
4 Caenis horaria
5 Laccobius biguttatus (adult) 1 only

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Anglian**

RIVER **Woldgrift Drain**

DATE **3.10.91**

SITE **Old Railway Bridge**

SORTER **PH**

SAMPLE CODE **R03BFWOLD110R**

AQC OF BMWP FAMILIES A. IN VIAL **+**

B. IN SAMPLE **+**

LOSSES		GAINS	
A	<u>VIAL</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	None	None

B	<u>SAMPLE</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial supplied with sample)	None

NET LOSSES **0**

NET GAINS **0**

NOTES

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Anglian**

RIVER **Newmarket No 1 Public Drain**

DATE **23.9.91**

SITE **D/s STW**

SORTER **SEH**

SAMPLE CODE **NRA01 0572**

AQC OF BMWP FAMILIES A. IN VIAL **+**

B. IN SAMPLE **+**

LOSSES		GAINS
A	VIAL	
Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	None	None

B	SAMPLE	
Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	(This box only completed when no vial supplied with sample)	1 Sphaeriidae 2 Tipulidae

NET LOSSES **0**

NET GAINS **2**

NOTES

1 Pisidium sp. 1 only
2 Tipula montium group 1 only

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Anglian**

RIVER **The Beck**

DATE **26.9.91**

SITE **Chambers Hill**

SORTER **EB**

SAMPLE CODE **NRA01 0827**

AQC OF BMWP FAMILIES A. IN VIAL **+**

B. IN SAMPLE **+**

LOSSES

GAINS

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	1 Oligochaeta*	2 Valvatidae

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial supplied with sample)	3 Oligochaeta*

NET LOSSES **0**

NET GAINS **1**

NOTES

2 Valvata cristata
3 Naididae, Tubificidae

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Anglian**

RIVER **Glaven**

DATE **26.9.91**

SITE **Edgefield Bridge**

SORTER **MJ**

SAMPLE CODE **NRA01 0737**

AQC OF BMWP FAMILIES A. IN VIAL **+**

B. IN SAMPLE **+**

LOSSES

GAINS

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	None	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial supplied with sample)	1 Asellidae 2 Nemouridae

NET LOSSES **0**

NET GAINS **2**

NOTES

1 Asellus meridianus 1 only
2 Nemoura cinerea 1 only

Note in NRA vial that Erpobdellidae "lost". Erpobdella octoculata found by IFE in sample.

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Anglian**

RIVER **Barlings Eau**

DATE **3.10.91**

SITE **Langworth**

SORTER **JR**

SAMPLE CODE **R01BFBARL110L**

AQC OF BMWP FAMILIES A. IN VIAL **+**

B. IN SAMPLE **+**

		LOSSES	GAINS
A	<u>VIAL</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	None	None
B	<u>SAMPLE</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial supplied with sample)	1 Piscicolidae 2 Hydrophilidae

NET LOSSES **0**

NET GAINS **2**

NOTES

1 *Piscicola geometra* 1 only
2 *Octhebius minimus* (adult) 1 only

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Anglian**

RIVER **Grand Union Canal**

DATE **8.10.91**

SITE **B4036 Bridge**

SORTER **SJL**

SAMPLE CODE **R05BGGUCM280W**

AQC OF BMWP FAMILIES A. IN VIAL **+**

B. IN SAMPLE **+**

LOSSES		GAINS
A	<u>VIAL</u>	
	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	1 Oligochaeta None

B	<u>SAMPLE</u>	
	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial supplied with sample) 2 Hydrobiidae

NET LOSSES **1**

NET GAINS **1**

NOTES **2 Potamopyrgus jenkinsi**

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Anglian**

RIVER **Sandon Brook**

DATE **30.10.91**

SITE **Little Baddow**

SORTER **PJM**

SAMPLE CODE **R01BFSB01**

AQC OF BMWP FAMILIES A. IN VIAL **+**

B. IN SAMPLE **+**

LOSSES		GAINS
A	VIAL	
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	BMWP FAMILIES NOT FOUND BY IFE
		ADDITIONAL FAMILIES FOUND BY IFE
		None
		None

B	SAMPLE	
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	BMWP FAMILIES NOT FOUND BY IFE
		(This box only completed when no vial supplied with sample)
		ADDITIONAL FAMILIES FOUND BY IFE
		1 Piscicolidae 2 Psychomyiidae 3 Limnephilidae

NET LOSSES **0**

NET GAINS **3**

NOTES

- 1 Piscicola geometra 1 only
- 2 Tinodes waeneri 1 only
- 3 Indet limnephilid (juvenile) 1 only

Note in NRA vial that Lymnaeidae "lost". Lymnaea peregra found by IFE in sample.

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION Anglian

RIVER Stoke Brook

DATE 20.9.91

SITE D/s Lower Locks

SORTER PDB

SAMPLE CODE NRA01 0404

AQC OF BMWP FAMILIES A. IN VIAL +

B. IN SAMPLE +

LOSSES		GAINS
A	<u>VIAL</u>	
	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	None	None
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	

B	<u>SAMPLE</u>	
	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	(This box only completed when no vial supplied with sample)	1 Elmidae
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	

NET LOSSES 0

NET GAINS 1

NOTES

1 Oulimnius sp. (larva) 1 only

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION Anglian

RIVER Elstow/Cople Brook

DATE 8.10.91

SITE Dog Farm Cople

SORTER JN

SAMPLE CODE NRA01 0452

AQC OF BMWP FAMILIES A. IN VIAL ☐ +

B. IN SAMPLE ☐ +

LOSSES

GAINS

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	1 Oligochaeta* 2 Corixidae	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial supplied with sample)	3 Sphaeriidae 4 Oligochaeta* 5 Erpobdellidae 6 Coenagriidae

NET LOSSES ☐ 1

NET GAINS ☐ 3

NOTES

3 Pisidium sp.
5 Erpobdella octoculata 1 only
6 Coenagrion puella/pulchellum 1 only

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Anglian**

RIVER **Kennet**

DATE **23.9.91**

SITE **Beck Bridge**

SORTER **TNA**

SAMPLE CODE **NRA01 0598**

AQC OF BMWP FAMILIES A. IN VIAL **+**

B. IN SAMPLE **+**

LOSSES		GAINS
A	VIAL	
Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	1 Oligochaeta* 2 Chironomidae*	None

B	SAMPLE	
Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	(This box only completed when no vial supplied with sample)	3 Oligochaeta* 4 Chironomidae*

NET LOSSES **0**

NET GAINS **0**

NOTES

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION Anglian

RIVER Renhold Brook

DATE 8.10.91

SITE A428 Bridge Renhold

SORTER JN

SAMPLE CODE NRA01 0442

AQC OF BMWP FAMILIES A. IN VIAL +

B. IN SAMPLE +

LOSSES

GAINS

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	1 Hydrophilidae 2 Chironomidae*	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial supplied with sample)	3 Sphaeriidae 4 Erpobdellidae 5 Chironomidae*

NET LOSSES 1

NET GAINS 2

NOTES

3 Pisidium sp.
4 Erpobdella octoculata

Note in NRA vial that Hydrometridae present. Not found by IFE in vial or sample.

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION	Anglian	RIVER	Trib Ramsey
DATE	8.10.91	SITE	Upwood Farm Road culvert
SORTER	SEH	SAMPLE CODE	NRA01 0673

AQC OF BMWP FAMILIES A. IN VIAL B. IN SAMPLE

LOSSES		GAINS	
A	<u>VIAL</u> Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	BMWP FAMILIES NOT FOUND BY IFE None	ADDITIONAL FAMILIES FOUND BY IFE None

B	<u>SAMPLE</u> Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	BMWP FAMILIES NOT FOUND BY IFE (This box only completed when no vial supplied with sample)	ADDITIONAL FAMILIES FOUND BY IFE 1 Limnephilidae
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NET LOSSES NET GAINS

NOTES

1 Micropterna sp. (juvenile) 1 only

Note in NRA vial that Haliplidae present. Not found by IFE in vial or sample.