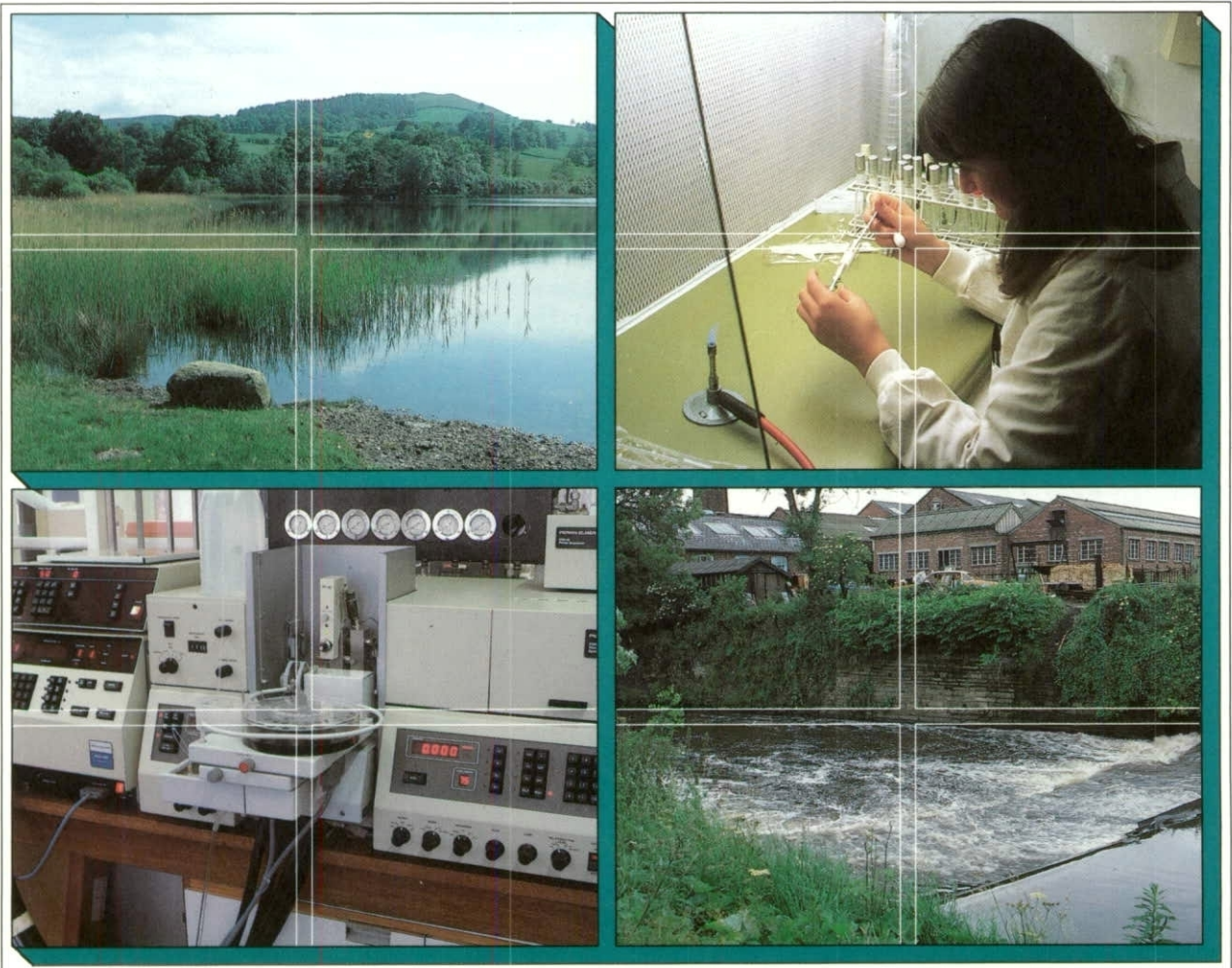


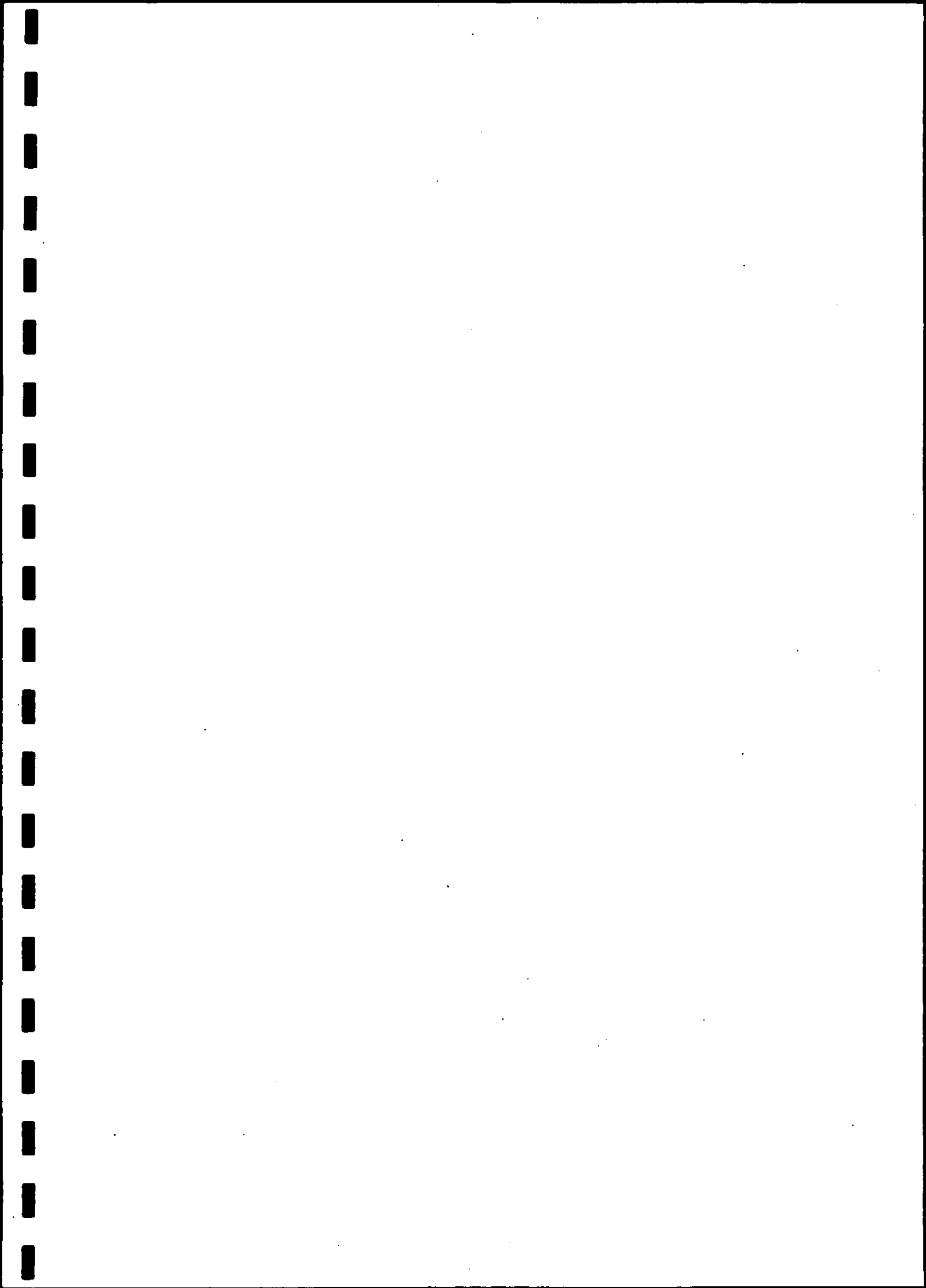


Institute of  
Freshwater  
Ecology

# Quality audit of biological samples for the 1990 River Quality Survey NRA Wessex Region

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**Quality Audit of Biological Samples  
for the 1990 River Quality Survey  
NRA Wessex Region**

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Project leader: J.F. Wright  
Report date: December 1991  
Report to: National Rivers Authority  
Wessex Region

Contract No:  
IFE Report Ref: RL/T04053q1/ 7  
TFS Project No: T04053q1

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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

The 1990 River Quality Survey included the sampling of aquatic macro-invertebrates for biological assessment of river quality throughout the United Kingdom. In England and Wales the survey 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.

Approximately 7750 sites were surveyed, the majority of which were sampled in spring, summer and autumn. Standard collection procedures were used and the sampling strategy was compatible with RIVPACS (River InVertebrate Prediction And Classification System), which has been developed by the Institute of Freshwater Ecology (IFE). Most of the remaining sites were sampled in a single season only, in order to extend the scope of the survey. For a variety of reasons, a few locations were sampled in just two seasons.

Samples were sorted 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 order to undertake this massive programme of fieldwork and sample processing, a large number of new staff were employed by the surveying agencies. 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.

The IFE was contracted to undertake an audit of the sample sorting and identification performance of each NRA region, RPB and the DED. This report collates the results of 35 samples audited for Wessex 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

Nearly all samples from the 1990 River Quality Survey were sent to IFE for storage. They were catalogued on arrival and placed in crates, such that individual samples were readily accessible. A stratified random selection of samples for each sample processor was then made. Selection was undertaken by IFE staff and no selection was made before each sample had been received by IFE. Thus, sample processors had no means of knowing which of their samples would be audited.

The total number of sample processors employed nationally during the survey was considerably higher than that anticipated at the outset. As a consequence, the number of samples audited per processor was limited by the need to keep within the contracted overall total of 700 samples. A minimum of 4 samples was audited per processor, except where individuals processed very few samples or did not process material from each of the 3 seasons.

Sample selection was weighted towards spring samples in order to give early feedback on the blindspots of particular sorters and problems of identification.

### 3. SAMPLE PROCESSING

Biologists processing samples for the 1990 Survey were instructed to sort their samples, ideally within the laboratory, and 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 selection 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 NRA data sheet. These samples were avoided for audit, where possible. When selection of such samples was unavoidable (eg where a particular sorter would otherwise have been excluded from the audit exercise), 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 tail 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 which did not contain a vial of animals, 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 Table 5.

#### ACKNOWLEDGEMENTS

Thanks to Mrs Jessica Winder and Mrs Kay Symes for assistance with cataloguing and storage of samples and Mrs Valerie Palmer for typing the manuscript.

TABLE 1. The IFE Report form

1990 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION  RIVER

SEASON  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 14 spring samples audited for Wessex Region, with sample sorter initials and numbers of taxa 'lost', 'gained' and 'omitted'

River	Site	Sorter	Losses	Gains	Omissions
Bristol Avon	Great Somerford	PRH	0	3	0
Bristol Avon	Melksham	PRH	0	4	0
Parrett	Mulchelney	PRH	0	15	0
Sheppey	Bowlish	PRH	0	1	0
Brit	Beaminster	GPG	0	9	0
Cripps	Liberty Farm	PRH	0	10	0
Allen	Witchampton Br	GPG	0	3	0
Avill	Dunster	GPG	0	10	0
Land Yeo	Wraxall	PRH	0	3	0
Iwerne	Stourpaine	PRH	0	2	1
Lambrook Brook	Gawbridge Mill	GPG	0	0	0
Little Avon	Stone	GPG	0	1	0
North Winterbourne	Sturm. Marshall	GPG	0	1	0
Char	D/s Charmouth STW	GPG	0	7	0



TABLE 3. The 16 summer samples audited for Wessex Region, with sample sorter initials and numbers of taxa 'lost', 'gained' and 'omitted'

River	Site	Sorter	Losses	Gains	Omissions
Cannington Brook	Blackmore Farm	GPG	0	6	0
Tetbury Avon	Back Bridge	GPG	0	6	0
Divelish	Rolls Mill	PRH	0	4	0
Iwerne	Stourpaine	PRH	0	8	0
Stour	Hayward Bridge	DAC	0	4	0
Lydden	Bagber Bridge	DAC	0	6	0
Somerset Frome	Bull Bridge	DLS	0	2	1
Mells	Mells	DLS	0	2	0
Tadnoll Brook	Broomhill Bridge	DAC	0	3	0
Poulshot Stream	Townsend	DLS	0	2	0
Kings Sedgemoor Dr	Parchey Bridge	DLS	0	1	0
Norton Brook	Cleaves Wood	PDS	0	3	1
Redford Water	Flintford Farm	PDS	0	2	1
Lox Yeo	Loxton	PDS	0	1	0
Stour	Sturminster Newton	PDS	3	3	0
Bristol Frome	Winterbourne Down	DAC	0	0	0

TABLE 4. The 5 autumn samples audited for Wessex Region, with sample sorter initials and numbers of taxa 'lost', 'gained' and 'omitted'.

River	Site	Sorter	Losses	Gains	Omissions
Allen	Walford Mill	GPG	0	2	0
Brit	Oxbridge	DAC	0	1	0
Bristol Avon	Cow Bridge	PDS	1	0	0
Norton Brook	Cleaves Wood	PRH	0	0	0
Isle	Ilford Bridge	DLS	0	3	0

**TABLE 5**  
**Results of individual sample audits**

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Bristol Avon
SEASON	Spring	SITE	Great Somerford
SORTER	PRH	SAMPLE CODE	T300

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

		LOSSES	GAINS
<b>A</b>	<p style="text-align: center;"><u>VIAL</u></p> <p>Differences between:            i) BMWP families listed on sample data sheet and            ii) BMWP families found in VIAL by IFE</p>	<p style="text-align: center;">BMWP FAMILIES NOT FOUND BY IFE</p> <p style="text-align: center; height: 40px;">None</p>	<p style="text-align: center;">ADDITIONAL FAMILIES FOUND BY IFE</p> <p style="text-align: center; height: 40px;">1 Platycnemididae</p>
<b>B</b>	<p style="text-align: center;"><u>SAMPLE</u></p> <p>Differences between:            i) BMWP families listed on sample data sheet and            ii) BMWP families found in SAMPLE by IFE</p>	<p style="text-align: center;">BMWP FAMILIES NOT FOUND BY IFE</p> <p style="text-align: center; height: 40px;">(This box only completed when no vial supplied with sample)</p>	<p style="text-align: center;">ADDITIONAL FAMILIES FOUND BY IFE</p> <p style="text-align: center; height: 40px;">2 Planorbidae 3 Calopterygidae (= Agriidae)</p>

NET LOSSES        NET GAINS   

NOTES

2 Gyraulus albus, Armiger crista  
 3 Calopteryx splendens 1 only

1990 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Bristol Avon
SEASON	Spring	SITE	Melksham
SORTER	PRH	SAMPLE CODE	T307

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 Valvatidae 2 Lymnaeidae 3 Glossiphoniidae 4 Sialidae

NET LOSSES        NET GAINS   

NOTES

- 1 Valvata piscinalis
- 2 Lymnaea peregra
- 3 Glossiphonia complanata, Helobdella stagnalis
- 4 Sialis lutaria 1 only

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Parrett
SEASON	Spring	SITE	Mulchelney
SORTER	PRH	SAMPLE CODE	T365

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

		LOSSES	GAINS
<b>A</b>	<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>B</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 Neritidae 2 Valvatidae 3 Planorbidae 4 Ancyliidae 5 Oligochaeta 6 Glossiphoniidae 7 Erpobdellidae 8 Asellidae 9 Gammaridae 10 Baetidae  Continued in "Notes"

NET LOSSES        NET GAINS   

NOTES

- 11 Gerridae (nymph)
- 12 Haliplidae (larva)
- 13 Hydrophilidae (adults)
- 14 Elmidae (larva)
- 15 Sialidae

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Sheppey
SEASON	Spring	SITE	Bowlish
SORTER	PRH	SAMPLE CODE	T167

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 Valvatidae

NET LOSSES        NET GAINS   

NOTES

1 Valvata piscinalis

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Brit
SEASON	Spring	SITE	Beaminster
SORTER	GPG	SAMPLE CODE	T056

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

		LOSSES	GAINS
<b>A</b>	<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 Oligochaeta 2 EphemereIIDae

<b>B</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 Planorbidae 4 Sphaeriidae 5 Leuctridae 6 Chloroperlidae 7 Hydrophilidae 8 Elmidae 9 Hydropsychidae

NET LOSSES        NET GAINS   

- NOTES
- 3 Bathyomphalus contortus, 1 only
  - 4 Pisidium sp.
  - 5 Very small, Leuctra fusca?
  - 6 Chloroperla torrentium, 1 only
  - 7 Hydraena gracilis, 1 only
  - 8 Elmis aenea + Limnius volckmari (larvae)
  - 9 Hydropsyche siltalai



# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION	Wessex		RIVER	Cripps
SEASON	Spring		SITE	Liberty Farm
SORTER	PRH		SAMPLE CODE	T373

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

LOSSES		GAINS
A	<u>VIAL</u>	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	ADDITIONAL FAMILIES FOUND BY IFE
	None	None

B	<u>SAMPLE</u>	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	ADDITIONAL FAMILIES FOUND BY IFE
	(This box only completed when no vial supplied with sample)	1 Valvatidae 2 Hydrobiidae 3 Unionidae 4 Sphaeriidae 5 Gammaridae 6 Baetidae 7 Caenidae 8 Hydrophilidae 9 Sialidae 10 Tipulidae

NET LOSSES        NET GAINS   

NOTES	1 Valvata piscinalis 2 Bithynia tentaculata 3 Anodonta sp. 4 Pisidium sp. 5 Crangonyx pseudogracilis 6 Cloeon dipterum 7 Caenis luctuosa group, C. robusta	8 Helophorus brevipalpis, Anacaena limbata (adults) + indet. larva
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# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION	Wessex		RIVER	Allen
SEASON	Spring		SITE	Witchampton Bridge
SORTER	GPG		SAMPLE CODE	T007

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

		LOSSES	GAINS
<b>A</b>	<p><u>VIAL</u></p> <p>Differences between:            i) BMWP families listed on sample data sheet and            ii) BMWP families found in VIAL by IFE</p>	<p>BMWP FAMILIES NOT FOUND BY IFE</p> <p>None</p>	<p>ADDITIONAL FAMILIES FOUND BY IFE</p> <p>None</p>
<b>B</b>	<p><u>SAMPLE</u></p> <p>Differences between:            i) BMWP families listed on sample data sheet and            ii) BMWP families found in SAMPLE by IFE</p>	<p>BMWP FAMILIES NOT FOUND BY IFE</p> <p>(This box only completed when no vial supplied with sample)</p>	<p>ADDITIONAL FAMILIES FOUND BY IFE</p> <p>1 Valvatidae            2 Sphaeriidae            3 Elmidae</p>

NET LOSSES        NET GAINS   

NOTES

1 Valvata cristata  
 2 Pisidium sp.  
 3 Elmis aenea + Oulimnius sp. (adults + larvae)

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION	Wessex		RIVER	Avill
SEASON	Spring		SITE	Dunster
SORTER	GPG		SAMPLE CODE	T149

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

		LOSSES	GAINS
<b>A</b>	<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>B</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 Planariidae 2 Ephemerellidae 3 Nemouridae 4 Hydrophilidae 5 Philopotamidae 6 Hydroptilidae 7 Leptoceridae 8 Goeridae 9 Lepidostomatidae 10 Tipulidae

NET LOSSES        NET GAINS   

NOTES

1 Polycelis felina + Crenobia alpina	
4 Hydraena gracilis	
5 Wormaldia sp. 1 only	
6 Ithytrichia sp. 1 only	
7 Athripsodes sp.	9 Lepidostoma hirtum 1 only
8 Silo pallipes	10 Dicranota sp.

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Land Yeo
SEASON	Spring	SITE	Wraxall
SORTER	PRH	SAMPLE CODE	T287

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

		LOSSES	GAINS
<b>A</b>	<p><u>VIAL</u></p> <p>Differences between:            i) BMWP families listed on sample data sheet and            ii) BMWP families found in VIAL by IFE</p>	<p>BMWP FAMILIES NOT FOUND BY IFE</p> <p>None</p>	<p>ADDITIONAL FAMILIES FOUND BY IFE</p> <p>None</p>
<b>B</b>	<p><u>SAMPLE</u></p> <p>Differences between:            i) BMWP families listed on sample data sheet and            ii) BMWP families found in SAMPLE by IFE</p>	<p>BMWP FAMILIES NOT FOUND BY IFE</p> <p>(This box only completed when no vial supplied with sample)</p>	<p>ADDITIONAL FAMILIES FOUND BY IFE</p> <p>1 Hydrobiidae            2 Lymnaeidae            3 Planorbidae</p>

NET LOSSES   

NET GAINS   

NOTES

1 Potamopyrgus jenkinsi  
 2 Lymnaea peregra  
 3 Planorbis carinatus, Gyraulus albus

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION	Wessex		RIVER	Iwerne
SEASON	Spring		SITE	Stourpaine
SORTER	PRH		SAMPLE CODE	T024

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

		LOSSES	GAINS
<b>A</b>	<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 *	None
<b>B</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 3 Caenidae* 4 Brachycentridae

NET LOSSES        NET GAINS   

NOTES    4 Brachycentrus 1 only

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Lambrook Brook
SEASON	Spring	SITE	Gawbridge Mill
SORTER	GPG	SAMPLE CODE	T233

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

		LOSSES	GAINS
<b>A</b>	<p style="text-align: center;"><u>VIAL</u></p> <p>Differences between:            i) BMWP families listed on sample data sheet and            ii) BMWP families found in VIAL by IFE</p>	<p style="text-align: center;">BMWP FAMILIES NOT FOUND BY IFE</p> <p style="text-align: center; font-size: 1.2em;">None</p>	<p style="text-align: center;">ADDITIONAL FAMILIES FOUND BY IFE</p> <p style="text-align: center; font-size: 1.2em;">None</p>
<b>B</b>	<p style="text-align: center;"><u>SAMPLE</u></p> <p>Differences between:            i) BMWP families listed on sample data sheet and            ii) BMWP families found in SAMPLE by IFE</p>	<p style="text-align: center;">BMWP FAMILIES NOT FOUND BY IFE</p> <p style="text-align: center; font-size: 1.2em;">(This box only completed when no vial supplied with sample)</p>	<p style="text-align: center;">ADDITIONAL FAMILIES FOUND BY IFE</p> <p style="text-align: center; font-size: 1.2em;">None</p>

NET LOSSES        NET GAINS   

NOTES

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION	Wessex		RIVER	Little Avon
SEASON	Spring		SITE	Stone
SORTER	GPG		SAMPLE CODE	T211

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

		LOSSES	GAINS
<b>A</b>	<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>B</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 Gyrinidae

NET LOSSES        NET GAINS   

NOTES

Orectochilus villosus (larva) 1 only

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION

RIVER

SEASON

SITE

SORTER

SAMPLE CODE

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

		LOSSES	GAINS
<b>A</b>	<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>B</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 Ephemerellidae

NET LOSSES

NET GAINS

NOTES



1990 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION

RIVER

SEASON

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 Leptophlebiidae 2 Taeniopterigidae 3 Gyrinidae 4 Elmidae 5 Sericostomatidae 6 Tipulidae 7 Simuliidae

NET LOSSES

NET GAINS

NOTES

- 1 Habrophlebia fusca
- 2 Brachyptera risi 1 only
- 3 Orectochilus villosus (larva) 1 only
- 4 Elmis aenea, Limnius volckmari (larvae); Oulimnius sp. (adult)
- 5 Sericostoma personatum
- 6 Tipula montium group
- 7 Simulium ornatum group

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Cannington Brook
SEASON	Summer	SITE	Blackmore Farm
SORTER	GPG	SAMPLE CODE	NRA09 T006

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

		LOSSES	GAINS
<b>A</b>	<p style="text-align: center;"><u>VIAL</u></p> <p>Differences between:            i) BMWP families listed on sample data sheet and            ii) BMWP families found in VIAL by IFE</p>	<p style="text-align: center;">BMWP FAMILIES NOT FOUND BY IFE</p> <p style="text-align: center; font-size: 1.2em;">None</p>	<p style="text-align: center;">ADDITIONAL FAMILIES FOUND BY IFE</p> <p style="text-align: center; font-size: 1.2em;">None</p>
<b>B</b>	<p style="text-align: center;"><u>SAMPLE</u></p> <p>Differences between:            i) BMWP families listed on sample data sheet and            ii) BMWP families found in SAMPLE by IFE</p>	<p style="text-align: center;">BMWP FAMILIES NOT FOUND BY IFE</p> <p style="text-align: center;">(This box only completed when no vial supplied with sample)</p>	<p style="text-align: center;">ADDITIONAL FAMILIES FOUND BY IFE</p> <p style="text-align: left; padding-left: 10px;">             1 Planorbidae              2 Glossiphoniidae              3 Caenidae              4 Haliplidae              5 Hydrophilidae              6 Leptoceridae           </p>

NET LOSSES        NET GAINS   

<b>NOTES</b>	<p>1 Gyraulus albus</p> <p>2 Glossiphonia complanata 1 only</p> <p>3 Caenis luctuosa group 1 only</p> <p>4 Haliplus sp. (larva) 1 only</p> <p>5 Helophorus brevivalpis, Hydraena gracilis</p> <p>6 Athripsodes albifrons</p>
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# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION	Wessex		RIVER	Tetbury Avon
SEASON	Summer		SITE	Back Bridge
SORTER	GPG		SAMPLE CODE	NRA09 T011

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

		LOSSES	GAINS
<b>A</b>	<p><u>VIAL</u></p> <p>Differences between:                      i) BMWP families listed on sample data sheet and                      ii) BMWP families found in VIAL by IFE</p>	<p>BMWP FAMILIES NOT FOUND BY IFE</p> <p>None</p>	<p>ADDITIONAL FAMILIES FOUND BY IFE</p> <p>None</p>
<b>B</b>	<p><u>SAMPLE</u></p> <p>Differences between:                      i) BMWP families listed on sample data sheet and                      ii) BMWP families found in SAMPLE by IFE</p>	<p>BMWP FAMILIES NOT FOUND BY IFE</p> <p>(This box only completed when no vial supplied with sample)</p>	<p>ADDITIONAL FAMILIES FOUND BY IFE</p> <p>1 Planorbidae                      2 Leuctridae                      3 Hydrophilidae                      4 Rhyacophilidae                      5 Goeridae                      6 Tipulidae</p>

NET LOSSES        NET GAINS   

NOTES

1 Bathyomphalus contortus  
 3 Helophorus brevipalpis  
 4 Agapetus sp. 1 only  
 5 Indet pupa 1 only  
 6 Tipula sp. 1 only

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION	Wessex		RIVER	Divelish
SEASON	Summer		SITE	Rolls Mill
SORTER	PRH		SAMPLE CODE	NRA09 T022

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

		LOSSES	GAINS
<b>A</b>	<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>B</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 Glossiphoniidae 2 Leptophlebiidae 3 Hydrophilidae 4 Elmidae

NET LOSSES        NET GAINS   

NOTES

1 Helobdella stagnalis 1 only  
 2 Habrophlebia fusca 1 only  
 3 Helophorus brevipalpis  
 4 Oulimnius tuberculatus

1990 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION  RIVER   
 SEASON  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 Physidae 2 Oligochaeta
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 Dendrocoelidae 4 Baetidae 5 Leuctridae 6 Hydrophilidae 7 Elmidae 8 Simuliidae

NET LOSSES  NET GAINS

NOTES

3 Dendrocoelum lacteum 4 Baetis vernus 5 Leuctra geniculata 1 only 6 Helophorus brevipalpis 7 Elmis aenea, Limnius volckmari, Oulimnius sp. (adults + larvae) 8 Simulium angustitarse group
--

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Stour
SEASON	Summer	SITE	Hayward Bridge
SORTER	DAC	SAMPLE CODE	NRA09 T021

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

		LOSSES	GAINS
<b>A</b>	<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>B</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 Planorbidae 2 Glossiphoniidae 3 Dytiscidae 4 Lepidostomatidae

NET LOSSES        NET GAINS   

NOTES

- 1 Gyraulus albus, Bathyomphalus contortus
- 2 Helobdella stagnalis, Glossiphonia complanata
- 3 Laccophilus sp. (larva) 1 only
- 4 Lepidostoma hirtum 1 only

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION	Wessex		RIVER	Lydden
SEASON	Summer		SITE	Bagber Bridge
SORTER	DAC		SAMPLE CODE	NRA09 T023

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

		LOSSES	GAINS
<b>A</b>	<p style="text-align: center;"><u>VIAL</u></p> <p>Differences between:                      i) BMWP families listed on sample data sheet and                      ii) BMWP families found in VIAL by IFE</p>	<p style="text-align: center;">BMWP FAMILIES NOT FOUND BY IFE</p> <p style="text-align: center; font-size: 1.2em;">None</p>	<p style="text-align: center;">ADDITIONAL FAMILIES FOUND BY IFE</p> <p style="text-align: center; font-size: 1.2em;">None</p>
<b>B</b>	<p style="text-align: center;"><u>SAMPLE</u></p> <p>Differences between:                      i) BMWP families listed on sample data sheet and                      ii) BMWP families found in SAMPLE by IFE</p>	<p style="text-align: center;">BMWP FAMILIES NOT FOUND BY IFE</p> <p style="text-align: center;">(This box only completed when no vial supplied with sample)</p>	<p style="text-align: center;">ADDITIONAL FAMILIES FOUND BY IFE</p> <p style="text-align: left; padding-left: 10px;">                         1 Planorbidae                          2 Ancyliidae                          3 Unionidae                          4 Leptophlebiidae                          5 Ephemerellidae                          6 Simuliidae                     </p>

NET LOSSES        NET GAINS   

- NOTES
- |  |
|--|
| <ul style="list-style-type: none"> <li>1 Bathyomphalus contortus, Hippeutis complanatus</li> <li>2 Ancyclus fluviatilis 1 only</li> <li>3 Indet juvenile 1 only</li> <li>4 Habrophlebia fusca</li> <li>5 Ephemerella ignita 1 only</li> <li>6 Simulium erythrocephalum, S. aureum group</li> </ul> |
|--|

1990 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Somerset Frome
SEASON	Summer	SITE	Bull Bridge
SORTER	DLS	SAMPLE CODE	NRA09 T087

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
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 Hydrophilidae

NET LOSSES  0    NET GAINS  2

NOTES  
 2 Caenis luctuosa/macrura  
 4 Hydraena gracilis 1 only



1990 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Mells
SEASON	Summer	SITE	Mells
SORTER	DLS	SAMPLE CODE	NRA09 T093

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 Glossiphoniidae 2 Hydroptilidae

NET LOSSES     NET GAINS

NOTES  
 1 Glossiphonia complanata 1 only  
 2 Hydroptila sp. 1 only

1990 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION

RIVER

SEASON

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 Ancylidae 2 Glossiphoniidae 3 Haliplidae

NET LOSSES

NET GAINS

NOTES  
 1 Ancylus fluviatilis 1 only  
 2 Glossiphonia complanata 1 only  
 3 Haliplus sp. (larva) 1 only

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Poulshot Stream
SEASON	Summer	SITE	Townsend
SORTER	DLS	SAMPLE CODE	NRA09 T270

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

		LOSSES	GAINS
<b>A</b>	<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>B</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 2 Hydropsychidae

NET LOSSES        NET GAINS   

NOTES

1 *Elmis aenea*, *Oulimnius* sp. (larvae)  
2 *Hydropsyche* sp. 1 only

1990 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	King's Sedgemoor Drain
SEASON	Summer	SITE	Parchey Bridge
SORTER	DLS	SAMPLE CODE	NRA09 T374

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 Leptoceridae

NET LOSSES 0    NET GAINS 1

NOTES

1 *Mystacides nigra/longicornis* 1 only

1990 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION

RIVER

SEASON

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 Baetidae*	2 Leptophlebiidae

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 Ancylidae 4 Baetidae* 5 Hydropsychidae

NET LOSSES

NET GAINS

NOTES  
 2 Damaged specimen 1 only  
 3 Ancylus fluviatilis 1 only  
 5 Hydropsyche sp. (pupae)

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION Wessex

RIVER Redford Water

SEASON Summer

SITE Flintford Farm

SORTER PDS

SAMPLE CODE NRA09 T090

AQC OF BMWP FAMILIES    A. IN VIAL +

B. IN SAMPLE +

		LOSSES	GAINS
<b>A</b>	<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 Leptoceridae*	None

<b>B</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 Planorbidae 3 Sphaeriidae 4 Leptoceridae*

NET LOSSES 0

NET GAINS 2

**NOTES**

1,4 Empty case in vial, Athripsodes sp. in sample  
2 Gyraulus albus  
3 Pisidium sp. + Sphaerium sp.

1990 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Lox Yeo
SEASON	Summer	SITE	Loxton
SORTER	PDS	SAMPLE CODE	NRA09 T291

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 Scirtidae

NET LOSSES  0    NET GAINS  1

NOTES

1 Cyphon sp. (larva) 1 only

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Stour
SEASON	Summer	SITE	Sturminster Newton
SORTER	PDS	SAMPLE CODE	NRA09 T333

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

		LOSSES	GAINS
<b>A</b>	<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 Dytiscidae 3 Molannidae	ADDITIONAL FAMILIES FOUND BY IFE  4 Caenidae

<b>B</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  5 Neritidae 6 Planorbidae
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NET LOSSES        NET GAINS   

NOTES

3 Empty Molanna case in sample  
 4 Caenis luctuosa/macrura  
 5 Theodoxus fluviatilis 1 only  
 6 Gyraulus albus, Hippeutis complanatus



# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Bristol Frome
SEASON	Summer	SITE	Winterbourne Down
SORTER	DAC	SAMPLE CODE	NRA09 T319

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

	LOSSES	GAINS
<b>A</b> <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>B</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
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NET LOSSES                        NET GAINS   

NOTES

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION	Wessex		RIVER	Allen
SEASON	Autumn		SITE	Walford Mill
SORTER	GPG		SAMPLE CODE	NRA09 T008

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

		LOSSES	GAINS
<b>A</b>	<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>B</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 Polycentropodidae 2 Goeridae

NET LOSSES        NET GAINS   

NOTES

1 Polycentropus flavomaculatus 1 only  
2 Silo nigricornis

1990 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Wessex**

RIVER **Brit**

SEASON **Autumn**

SITE **Oxbridge**

SORTER **DAC**

SAMPLE CODE **NRA09 T055**

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>None</b>	<b>None</b>

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)	<b>1 Ancylidae</b>

NET LOSSES

NET GAINS

NOTES **1 Ancylus fluviatilis 1 only**

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION <span style="border: 1px solid black; padding: 2px;">Wessex</span>	RIVER <span style="border: 1px solid black; padding: 2px;">Bristol Avon</span>
SEASON <span style="border: 1px solid black; padding: 2px;">Autumn</span>	SITE <span style="border: 1px solid black; padding: 2px;">Cow Bridge</span>
SORTER <span style="border: 1px solid black; padding: 2px;">PDS</span>	SAMPLE CODE <span style="border: 1px solid black; padding: 2px;">NRA09 T009</span>

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

	LOSSES	GAINS
<b>A</b> <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  <b>1 Gerridae</b>	ADDITIONAL FAMILIES FOUND BY IFE  <b>None</b>

<b>B</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  <b>None</b>
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NET LOSSES 1                    NET GAINS 0

NOTES

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION **Wessex**

RIVER **Norton Brook**

SEASON **Autumn**

SITE **Cleaves Wood**

SORTER **PRH**

SAMPLE CODE **NRA09 T070**

AQC OF BMWP FAMILIES A. IN VIAL

B. IN SAMPLE

		LOSSES	GAINS
<b>A</b>	<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  <b>None</b>	ADDITIONAL FAMILIES FOUND BY IFE  <b>None</b>
<b>B</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  <b>None</b>

NET LOSSES

NET GAINS

NOTES

1990 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Wessex**

RIVER **Isle**

SEASON **Autumn**

SITE **Ilford Bridge**

SORTER **DLS**

SAMPLE CODE **NRA09 T031**

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>None</b>	<b>None</b>
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)	<b>1 Hydrobiidae</b> <b>2 Molannidae</b> <b>3 Simuliidae</b>

NET LOSSES

NET GAINS

NOTES  
**1 Potamopyrgus jenkinsi 1 only**  
**2 Molanna angustata 1 only**  
**3 Simulium angustitarse group 1 only**

