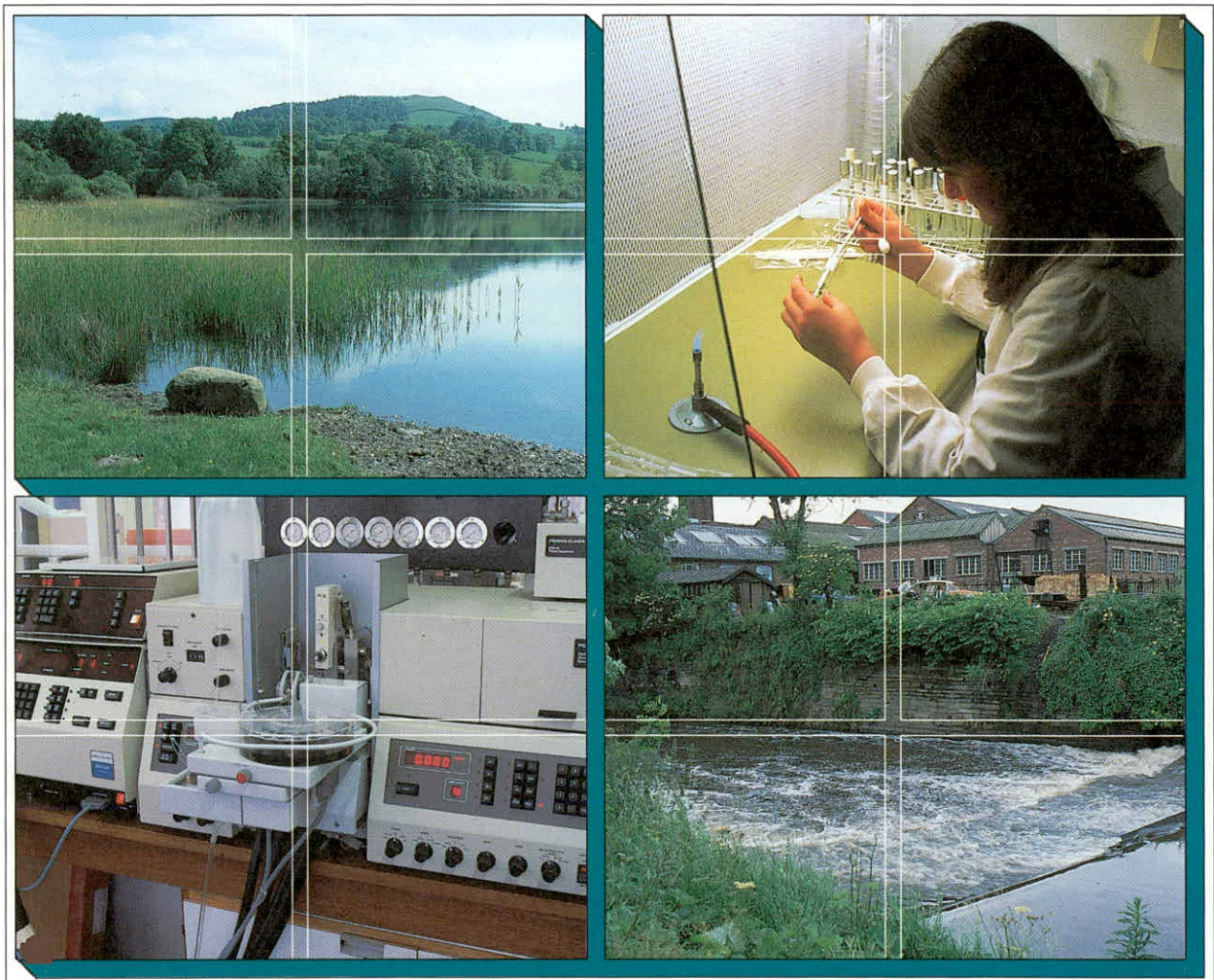




An audit of performance in the processing of macro-invertebrate samples in 1992. NRA Wessex Region

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NRA Wessex Region**

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Project leader:	R.J.M. Gunn
Report date:	February 1993
Report to:	National Rivers Authority Wessex Region
IFE Report Ref:	RL/T04071a1/09
TFS Project No:	T04071a1

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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 1992 the sampling of aquatic macro-invertebrates for the biological assessment of river quality continued throughout the United Kingdom. This task was undertaken by the National Rivers Authority (NRA) in England and Wales, the River Purification Boards (RPBs) in Scotland and the Industrial Research & Technology Unit (IRTU) in Northern Ireland.

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, several RPBs and the IRTU. This report presents the results of 48 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.

Each organisation employed standard collection procedures, as used in the 1990 River Quality Survey, 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).

Samples were sorted by NRA, RPB and IRTU 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.

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 IRTU 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. Chrysomelidae and Curculionidae, which appear in the BMWP list, were also to be excluded for the purposes of the audit. 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 Kay Symes for help with production of results and to Valerie Palmer for typing the manuscript.

TABLE 1. The IFE Report form

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION RIVER

DATE SITE

SORTER SAMPLE CODE

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

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		

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES
	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 is supplied with sample)	

NET LOSSES NET GAINS

NOTES:

TABLE 2. The 9 spring samples audited for Wessex Region.

River	Site	Sorter	Losses	Gains	Omissions
Bitham Brook	Dursley	PRH	0	0	0
Semington Brook	Bulkington	PRH	0	1	0
Moors	Hurn Court	GPG	0	1	0
Allen	Stanbridge Mill	GPG	0	0	0
Hampshire Avon	Britford	PDS	1	1	1
Croford Watercourse	Ford	PDS	0	1	1
Hillfarrance Brook	Hillfarrance	PDS	0	1	0
Tone	Washbattle Bridge	PDS	0	2	0
Hampshire Avon	Durrington	DAC	1	5	0

TABLE 3. The 17 summer samples audited for Wessex Region

River	Site	Sorter	Losses	Gains	Omissions
Charlton Brook	Malmesbury	PRH	0	2	0
Brinkworth Brook	Brinkworth	PRH	0	0	0
Priston Stream	Priston	DLS	0	0	0
Chew	Pensford	DLS	1	1	0
Summerham Brook	Seend	PRH	1	2	0
Portbury Ditch	North Weston	DLS	1	0	0
Biss Brook	Penleigh House	PRH	1	0	0
Pucksey Brook	Broadwey	GPG	0	3	1
Lambrook Brook	Gawbridge Mill	GPG	0	2	1
Simene	Bridport	GPG	0	3	2
Isle	Hambridge	GPG	0	4	0
Dorset Frome	Lower Bockhampton	DAC	0	2	0
Mangerton Brook	Mangerton	GPG	0	2	0
Dorset Frome	Dorchester	DAC	0	2	0
Eastern Avon	Scales Bridge	DAC	0	0	0
Mells	Mells	DLS	0	2	0
Piddle	West Mills	DAC	1	4	0

TABLE 4. The 22 autumn samples audited for Wessex Region

River	Site	Sorter	Losses	Gains	Omissions
Winford Brook	Chew Magna	DLS	1	2	0
Lox Yeo	Loxton	DLS	0	0	0
Priston Stream	Priston	DLS	1	0	1
Newton Brook	Clays End	DLS	0	2	0
Hazelbury Bryan W/c	Bagber	GPG	0	1	0
Conyere Brook	Pendown Hill	DLS	1	0	0
Parrett	Lower Severalls	GPG	0	1	0
Moors	Fir Grove Farm	GPG	0	5	1
Lambrook Brook	Gawbridge Mill	GPG	0	1	0
Parrett	Gawbridge Mill	GPG	0	4	0
Dorset Frome	Dorchester	DAC	0	4	3
Broad	A30 Bridge	GPG	0	2	0
Dorset Frome	Holme Bridge	DAC	2	3	3
Boyd	Wick	DAC	0	3	3
Boyd	Bitton	DAC	0	2	2
Alham	Milton Clevedon	DAC	0	3	1
Sherston Avon	Easton Grey	PRH	0	4	0
Whitelake	Redlake Farm	DAC	0	2	0
Fivehead River	Fivehead	GPG	0	1	0
Stour	Gillingham	PRH	0	4	0
Nunney Brook	Vallis	DLS	0	2	0
Semington Brook	Mill Farm	PRH	1	3	1

APPENDIX

Results of individual sample audits

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Bitham Brook
DATE	13.4.92	SITE	Dursley
SORTER	PRH	SAMPLE CODE	NRA09 5310 BTH 005

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

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 is supplied with sample)	None

NET LOSSES NET GAINS

NOTES:

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Semington Brook
DATE	11.5.92	SITE	Bulkington
SORTER	PRH	SAMPLE CODE	NRA09 5309 SMG 090

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

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 is supplied with sample)	1 Leptophlebiidae

NET LOSSES 0 NET GAINS 1

NOTES:

1 Habrophlebia fusca 1 only

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Moors
DATE	22.4.92	SITE	Hurn Court
SORTER	GPG	SAMPLE CODE	NRA09 MOO 008

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

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 is supplied with sample)	1 Haliplidae

NET LOSSES 0 NET GAINS 1

NOTES:

1 Haliplus sp. (larva) 1 only

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Allen
DATE	5.3.92	SITE	Stanbridge Mill
SORTER	GPG	SAMPLE CODE	NRA09 4335 ALN 130

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

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 is supplied with sample)	None

NET LOSSES NET GAINS

NOTES:

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Hampshire Avon
DATE	5.3.92	SITE	Britford
SORTER	PDS	SAMPLE CODE	NRA09 4328 HAV 510

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

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 Planariidae* 2 Dendrocoelidae	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 is supplied with sample)	3 Planariidae* 4 Lepidostomatidae

NET LOSSES 1 NET GAINS 1

NOTES:

3 Polycelis nigra/tenuis
4 Lepidostoma personatum

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Croford Watercourse
DATE	6.5.92	SITE	Ford
SORTER	PDS	SAMPLE CODE	NRA09 5205 CRO 023

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

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 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 is supplied with sample)	2 Taeniopterygidae 3 Chironomidae*

NET LOSSES 0

NET GAINS 1

NOTES:

2 Brachyptera risi
3 Tanypodinae, Orthocladiinae

Cordulegasteridae not found by IFE in vial or sample. Assumed that specimen was returned to river.

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Hillfarrance Brook
DATE	6.5.92	SITE	Hillfarrance
SORTER	PDS	SAMPLE CODE	NRA09 5205 HLL 020

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

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 is supplied with sample)	1 Valvatidae

NET LOSSES 0 NET GAINS 1

NOTES:

1 Valvata cristata 1 only

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Tone
DATE	9.3.92	SITE	Washbattle Bridge
SORTER	PDS	SAMPLE CODE	NRA09 5205 TON 463

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

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 is supplied with sample)	1 Ancylidae 2 Lepidostomatidae

NET LOSSES NET GAINS

NOTES:

1 Ancylus fluviatilis
2 Lepidostoma hirtum

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Hampshire Avon
DATE	11.5.92	SITE	Durrington
SORTER	DAC	SAMPLE CODE	NRA09 4321 HAV 740

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

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 Curculionidae	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES
	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 is supplied with sample)	2 Neritidae 3 Ancylidae 4 Leuctridae 5 Dytiscidae 6 Goeridae

NET LOSSES 1 NET GAINS 5

NOTES:

- 1 Aquatic species of Curculionidae are not included in 1992 audit.
- 2 Theodoxus fluviatilis 1 only
- 3 Ancylus fluviatilis 1 only
- 4 Leuctra geniculata 1 only
- 5 Indet Colymbetinae (larva) 1 only
- 6 Silo nigricornis 1 only

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Charlton Brook
DATE	6.7.92	SITE	Malmesbury
SORTER	PRH	SAMPLE CODE	NRA09 5301 CHT 003

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

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 is supplied with sample)	1 Haliplidae 2 Gyrinidae

NET LOSSES 0 NET GAINS 2

NOTES:

1 Haliplus fluviatilis (adults)
2 Gyrinus sp. (larva) 1 only

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Brinkworth Brook
DATE	1.6.92	SITE	Brinkworth
SORTER	PRH	SAMPLE CODE	NRA09 5307 BRN 055

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

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
	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 is supplied with sample)	None

NET LOSSES 0 NET GAINS 0

NOTES:

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Priston Stream
DATE	1.6.92	SITE	Priston
SORTER	DLS	SAMPLE CODE	NRA09 5301 PRS 010

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

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 is supplied with sample)	None

NET LOSSES NET GAINS

NOTES:

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Chew
DATE	7.7.92	SITE	Pensford
SORTER	DLS	SAMPLE CODE	NRA09 5314 CHW 095

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

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 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 is supplied with sample)	None

NET LOSSES 1 NET GAINS 1

NOTES:

2 Valvata piscinalis

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Summerham Brook
DATE	1.7.92	SITE	Seend
SORTER	PRH	SAMPLE CODE	NRA09 5309 SUM 040

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

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 Asellidae	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 is supplied with sample)	2 Hydrophilidae 3 Limnephilidae

NET LOSSES 1 NET GAINS 2

NOTES:

2 Helophorus brevipalpis (adult) 1 only
3 Limnephilus lunatus 1 only

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Portbury Ditch
DATE	24.6.92	SITE	North Weston
SORTER	DLS	SAMPLE CODE	NRA09 5216 PRT 030

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

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 Libellulidae	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 is supplied with sample)	None

NET LOSSES 1 NET GAINS 0

NOTES:

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Biss Brook
DATE	10.8.92	SITE	Penleigh House
SORTER	PRH	SAMPLE CODE	NRA09 5310 BIS 125

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

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 Dytiscidae	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 is supplied with sample)	None

NET LOSSES 1 NET GAINS 0

NOTES:

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Pucksey Brook
DATE	24.8.92	SITE	Broadway
SORTER	GPG	SAMPLE CODE	NRA09 4460 PCK 005

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

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 Haliplidae*	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 is supplied with sample)	2 Ancylidae 3 Leptophlebiidae 4 Corixidae 5 Haliplidae*

NET LOSSES 0 NET GAINS 3

NOTES:

2 Ancylus fluviatilis 1 only
3 Habrophlebia fusca 1 only
4 Sigara venusta (adult), Indet Corixid (nymph)
5 Haliphus sp. (larvae)

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Lambrook Brook
DATE	9.6.92	SITE	Gawbridge Mill
SORTER	GPG	SAMPLE CODE	NRA09 5203 LMB 008

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

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 Glossiphoniidae*	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 is supplied with sample)	2 Physidae 3 Glossiphoniidae* 4 Elmidae

NET LOSSES 0 NET GAINS 2

NOTES:

2 Physa fontinalis 1 only
3 Helobdella stagnalis
4 Elmis aenea (larva) 1 only

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Simene
DATE	8.7.92	SITE	Bridport
SORTER	GPG	SAMPLE CODE	NRA09 4482 SIM 001

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

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 Ancylidae* 2 Hydrophilidae*	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 is supplied with sample)	3 Ancylidae* 4 Caenidae 5 Haliplidae 6 Hydrophilidae* 7 Hydropsychidae

NET LOSSES NET GAINS

NOTES:

- 3 Ancylus fluviatilis
- 4 Caenis horaria, C.rivulorum, C.luctuosa/macrura
- 5 Haliplus sp. (larvae)
- 6 Helophorus brevipalpis (adults)
- 7 Hydropsyche sp. (pupa) 1 only

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Isle
DATE	29.6.92	SITE	Hambridge
SORTER	GPG	SAMPLE CODE	NRA09 5201 ISL 025

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

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
	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 is supplied with sample)	1 Physidae 2 Platycnemididae 3 Hydrophilidae 4 Elmidae

NET LOSSES NET GAINS

NOTES:

- 1 Physa fontinalis
- 2 Platycnemis pennipes 1 only
- 3 Helophorus brevipalpis (adults), Indet Hydrophilid (larva)
- 4 Oulimnius sp. (larvae)

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Frome (Dorset)
DATE	28.7.92	SITE	Lower Bockhampton
SORTER	DAC	SAMPLE CODE	NRA09 4455 DFR 290

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

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
	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 is supplied with sample)	1 Hydroptilidae 2 Phryganeidae

NET LOSSES 0 NET GAINS 2

NOTES:

1 Ithytrichia sp. 1 only
2 Phryganea sp. 1 only

Aquatic Curculionid species (Hydronomus alismatis) found in sample by IFE. Curculionidae not included in 1992 audit, so no "gain" recorded.

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Mangerton Brook
DATE	15.7.92	SITE	Mangerton
SORTER	GPG	SAMPLE CODE	NRA09 4483 MNG 015

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

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
	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 is supplied with sample)	1 Hydrophilidae 2 Goeridae

NET LOSSES NET GAINS

NOTES:

1 Hydraena gracilis (adults)
2 Silo pallipes 1 only

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Frome (Dorset)
DATE	23.6.92	SITE	Dorchester
SORTER	DAC	SAMPLE CODE	NRA09 4455 DFR 305

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

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 is supplied with sample)	1 Hydroptilidae 2 Sericostomatidae

NET LOSSES 0 NET GAINS 2

NOTES:

1 Hydroptila sp.
2 Sericostoma personatum 1 only

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Eastern Avon
DATE	3.8.92	SITE	Scales Bridge
SORTER	DAC	SAMPLE CODE	NRA09 4321 EAV 001

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

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 is supplied with sample)	None

NET LOSSES NET GAINS

NOTES:

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Mells
DATE	22.6.92	SITE	Mells
SORTER	DLS	SAMPLE CODE	NRA09 5312 MLL 060

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

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
	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 is supplied with sample)	1 Physidae 2 Leuctridae

NET LOSSES 0

NET GAINS 2

NOTES:

1 Physa fontinalis 1 only
2 Leuctra sp. (juvenile) 1 only

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Piddle
DATE	8.6.92	SITE	West Mills
SORTER	DAC	SAMPLE CODE	NRA09 4445 PDD 020

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

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 Curculionidae	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES
	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 is supplied with sample)	2 Hydropsychidae 3 Hydroptilidae 4 Sericostomatidae 5 Tipulidae

NET LOSSES 1 NET GAINS 4

NOTES:

- 1 Aquatic species but Curculionidae not included in 1992 audit.
- 2 Hydropsyche siltalai 1 only
- 3 Oxyethira sp. 1 only
- 4 Sericostoma personatum (pupa) 1 only
- 5 Dicranota sp. 1 only

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Winford Brook
DATE	6.10.92	SITE	Chew Magna
SORTER	DLS	SAMPLE CODE	NRA09 WNF 002

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

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 Sericostomatidae	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 is supplied with sample)	2 Glossiphoniidae 3 Hydroptilidae

NET LOSSES 1 NET GAINS 2

NOTES:

2 Helobdella stagnalis 1 only
3 Hydroptila sp. 1 only

Astacidae recorded by NRA but not found by IFE in vial or sample. Assumed that specimen was returned to river.

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Lox Yeo
DATE	20.10.92	SITE	Loxton
SORTER	DLS	SAMPLE CODE	NRA09 5212 LXY 010

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

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 is supplied with sample)	None

NET LOSSES NET GAINS

NOTES:

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Priston Stream
DATE	12.10.92	SITE	Priston
SORTER	DLS	SAMPLE CODE	NRA09 5301 PRS 010

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

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 Lymnaeidae* 2 Perlodidae	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 is supplied with sample)	3 Lymnaeidae*

NET LOSSES 1 NET GAINS 0

NOTES:

3 Lymnaea peregra

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Newton Brook
DATE	12.10.92	SITE	Clays End
SORTER	DLS	SAMPLE CODE	NRA09 5301 NWT 015

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

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 is supplied with sample)	1 Leptophlebiidae 2 Leuctridae

NET LOSSES 0 NET GAINS 2

NOTES:

1 Paraleptophlebia submarginata 1 only
2 Leuctra geniculata 1 only

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Hazelbury Bryan Watercourse
DATE	28.9.92	SITE	Bagber
SORTER	GPG	SAMPLE CODE	NRA09 4333 HZB

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

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 is supplied with sample)	1 Hydrophilidae

NET LOSSES 0 NET GAINS 1

NOTES:

1 Helophorus brevipalpis (adult) 1 only

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Conygre Brook
DATE	12.10.92	SITE	Pendown Hill
SORTER	DLS	SAMPLE CODE	NRA09 5301 ONY 010

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

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 Elmidae	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 is supplied with sample)	None

NET LOSSES 1 NET GAINS 0

NOTES:

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Parrett
DATE	7.10.92	SITE	Lower Severalls
SORTER	GPG	SAMPLE CODE	NRA09 PRR 540

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

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 is supplied with sample)	1 Gammaridae

NET LOSSES NET GAINS

NOTES:

1 Gammarus pulex

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Moors
DATE	7.9.92	SITE	Fir Grove Farm
SORTER	GPG	SAMPLE CODE	NRA09 4336 MOO 060

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

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 Sphaeriidae*	2 Psychomyiidae

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 is supplied with sample)	3 Planariidae 4 Sphaeriidae* 5 Calopterygidae 6 Elmidae 7 Leptoceridae

NET LOSSES 0 NET GAINS 5

NOTES:

- 2 Lype sp.
- 3 Dugesia polychroa/lugubris
- 4 Pisidium sp. 1 only
- 5 Calopteryx splendens 1 only
- 6 Elmis aenea + Oulimnius sp. (larvae), Oulimnius tuberculatus (adult)
- 7 Mystacides azurea 1 only

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Lambrook Brook
DATE	22.10.92	SITE	Gawbridge Mill
SORTER	GPG	SAMPLE CODE	NRA09 5203 LMB 008

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

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
	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 is supplied with sample)	1 Haliplidae

NET LOSSES NET GAINS

NOTES:

1 Halipus lineatocollis (adult) 1 only

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Parrett
DATE	7.10.92	SITE	Gawbridge Mill
SORTER	GPG	SAMPLE CODE	NRA09 5203 PRR 440

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

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 is supplied with sample)	1 Planariidae 2 Neritidae 3 Polycentropodidae 4 Hydroptilidae

NET LOSSES NET GAINS

NOTES:

- 1 Polycelis sp. 1 only
- 2 Theodoxus fluviatilis
- 3 Polycentropus flavomaculatus 1 only
- 4 Hydroptila sp. (larva + pupa)

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Frome (Dorset)
DATE	16.10.92	SITE	Dorchester
SORTER	DAC	SAMPLE CODE	NRA09 4455 DFR 305

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

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 Lymnaeidae* 2 Heptageniidae* 3 Caenidae*	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 is supplied with sample)	4 Lymnaeidae* 5 Heptageniidae* 6 Ephemerellidae 7 Caenidae* 8 Hydrophilidae 9 Hydroptilidae 10 Sericostomatidae

NET LOSSES 0 NET GAINS 4

NOTES:

- 4 Lymnaea peregra
- 5 Heptagenia sulphurea
- 6 Ephemerella ignita 1 only
- 7 Caenis luctuosa/macrura
- 8 Laccobius striatulus (adult) 1 only
- 9 Hydroptila sp. 1 only
- 10 Sericostoma personatum

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Broad
DATE	14.10.92	SITE	A30 Bridge
SORTER	GPG	SAMPLE CODE	NRA09 5203 BRO 020

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

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 is supplied with sample)	1 Planariidae 2 Elmidae

NET LOSSES NET GAINS

NOTES:

1 Polycelis nigra/tenuis, Dugesia polychroa/lugubris
2 Oulimnius tuberculatus (adult) 1 only

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Frome (Dorset)
DATE	14.10.92	SITE	Holme Bridge
SORTER	DAC	SAMPLE CODE	NRA09 4459 DFR 049

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

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 Planariidae* 2 Lymnaeidae* 3 Ancyliidae* 4 Leptoceridae 5 Tipulidae	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 is supplied with sample)	6 Planariidae* 7 Lymnaeidae* 8 Ancyliidae* 9 Caenidae 10 Hydropsychidae 11 Hydroptilidae

NET LOSSES 2 NET GAINS 3

NOTES:

- 6 Polycelis nigra/tenuis, Planaria torva
- 7 Lymnaea peregra
- 8 Ancylyus fluviatilis
- 9 Caenis luctuosa/macrura 1 only
- 10 Cheumatopsyche lepida, Hydropsyche contubernalis
- 11 Ithytrichia sp.

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Boyd
DATE	20.10.92	SITE	Wick
SORTER	DAC	SAMPLE CODE	NRA09 5303 BYD 045

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

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 Sphaeriidae* 2 Limnephilidae* 3 Tipulidae*	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES
	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 is supplied with sample)	4 Sphaeriidae* 5 Glossiphoniidae 6 Hydroptilidae 7 Limnephilidae* 8 Leptoceridae 9 Tipulidae*

NET LOSSES 0 NET GAINS 3

NOTES:

- 4 Sphaerium sp., Pisidium sp.
- 5 Theromyzon tessulatum, Indet Glossiphoniid
- 6 Hydroptila sp.
- 7 Indet Limnephilids (juveniles)
- 8 Athripsodes cinereus 1 only
- 9 Tipula montium group

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Boyd
DATE	20.10.92	SITE	Bitton
SORTER	DAC	SAMPLE CODE	NRA09 5303 BYD 012

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

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 Caenidae* 2 Rhyacophilidae*	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 is supplied with sample)	3 Planariidae 4 Planorbidae 5 Caenidae* 6 Rhyacophilidae*

NET LOSSES 0 NET GAINS 2

NOTES:

- 3 Polycelis nigra/tenuis 1 only
- 4 Armiger crista
- 5 Caenis luctuosa/macrura
- 6 Rhyacophila dorsalis

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Alham
DATE	23.11.92	SITE	Milton Clevedon
SORTER	DAC	SAMPLE CODE	NRA09 5209ALH0S0

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

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 Chironomidae*	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES
	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 is supplied with sample)	2 Lymnaeidae 3 Ephemerellidae 4 Tipulidae 5 Chironomidae*

NET LOSSES 0 NET GAINS 3

NOTES:

- 2 Lymnaea peregra 1 only
- 3 Ephemerella ignita 1 only
- 4 Palaria (Palaria) sp. 1 only
- 5 Orthocladiinae

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Sherston Avon
DATE	23.11.92	SITE	Easton Grey
SORTER	PRH	SAMPLE CODE	NRA09 5305SHR080

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

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 is supplied with sample).	1 Sphaeriidae 2 Caenidae 3 Sialidae 4 Lepidostomatidae

NET LOSSES

NET GAINS

NOTES:

- 1 Pisidium sp., Sphaerium sp.
- 2 Caenis rivulorum 1 only
- 3 Sialis lutaria 1 only
- 4 Lepidostoma hirtum 1 only

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Whitelake
DATE	17.12.92	SITE	Redlake Farm
SORTER	DAC	SAMPLE CODE	NRA09 5210WHL015

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

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 is supplied with sample)	1 Leptophlebiidae 2 Limnephilidae

NET LOSSES NET GAINS

NOTES:

1 Habrophlebia fusca
2 Indet Limnephilids (juveniles)

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Fivehead
DATE	9.11.92	SITE	Fivehead
SORTER	GPG	SAMPLE CODE	NRA09 5201FIV015

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

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 is supplied with sample)	1 Calopterygidae

NET LOSSES NET GAINS

NOTES:

1 Calopteryx sp. (juvenile) 1 only

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Stour
DATE	9.11.92	SITE	Gillingham
SORTER	PRH	SAMPLE CODE	NRA09 4331STR930

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

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 is supplied with sample)	1 Planariidae 2 Lymnaeidae 3 Erpobdellidae 4 Simuliidae

NET LOSSES NET GAINS

NOTES:

- 1 Polycelis nigra/tenuis 1 only
- 2 Lymnaea peregra 1 only
- 3 Erpobdella octoculata
- 4 Simulium ornatum group 1 only

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Nunney Brook
DATE	3.11.92	SITE	Vallis
SORTER	DLS	SAMPLE CODE	NRA09 5312NUN002

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

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	1 Planorbidae

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 is supplied with sample)	2 Sialidae

NET LOSSES NET GAINS

NOTES:

1 Armiger crista
2 Sialis fuliginosa 1 only

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Wessex	RIVER	Semington Brook
DATE	7.12.92	SITE	Mill Farm
SORTER	PRH	SAMPLE CODE	NRA09 5309SMG139

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

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 Sericostomatidae 2 Tipulidae*	3 Coenagriidae

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 is supplied with sample)	4 Scirtidae 5 Leptoceridae 6 Tipulidae*

NET LOSSES 1

NET GAINS 3

NOTES:

- 1 Stone-cased Limnephilids (L.extricatus) in vial
- 2 Indet Cyclorrhaphan (larva) in vial
- 3 Indet Coenagriid (juvenile)
- 4 Elodes sp. (larva) 1 only
- 5 Mystacides longicornis/nigra 1 only
- 6 Tipula montium group

