

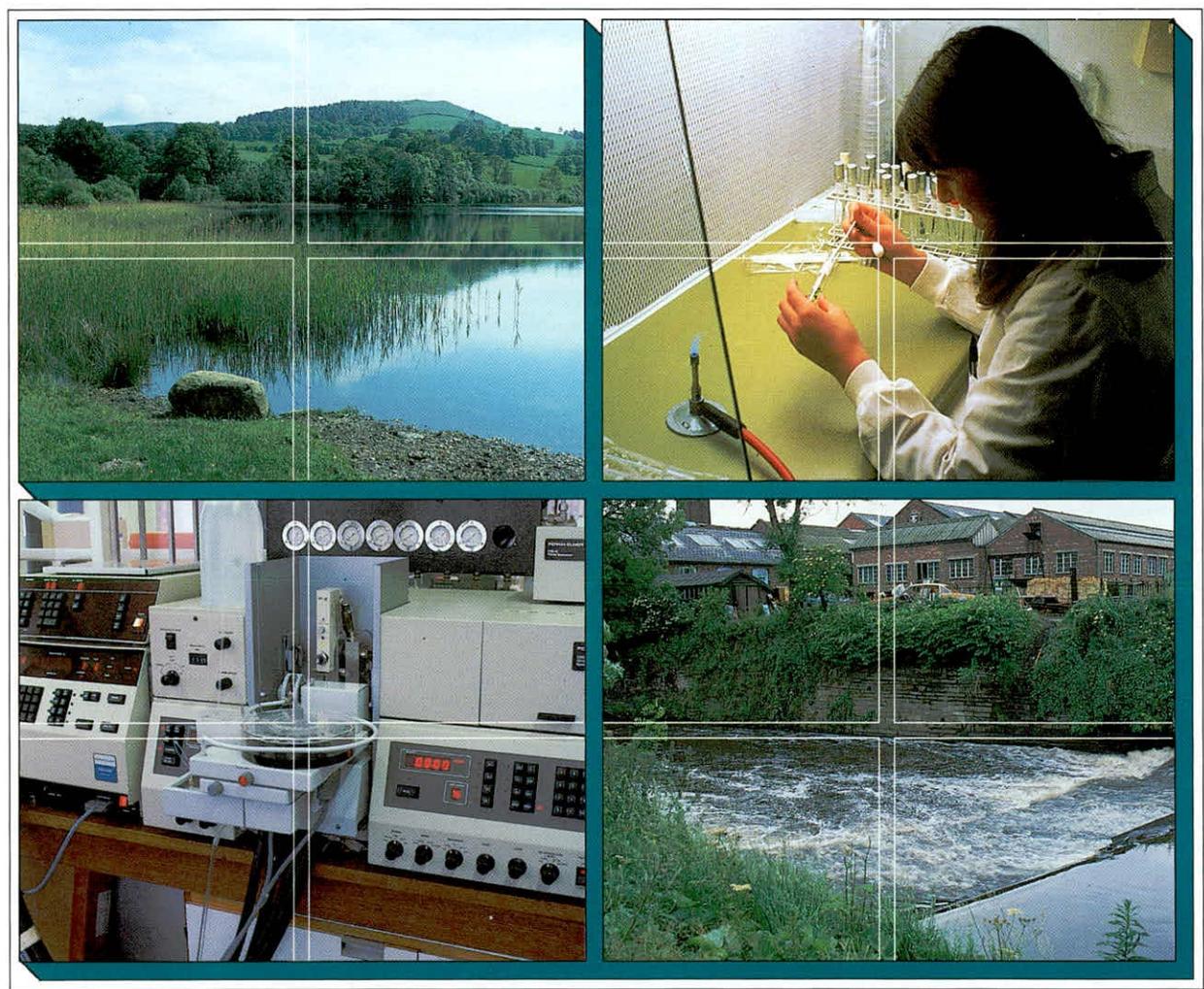
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**Institute of  
Freshwater  
Ecology**

# **An audit of performance in the processing of macro-invertebrate samples in 1992. NRA Thames Region**

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**An audit of performance in the processing  
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**NRA Thames Region**

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Project leader:	R.J.M. Gunn
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## **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 60 samples audited for Thames 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)	

NOTES: NET LOSSES  NET GAINS

TABLE 2. The 13 spring samples audited for Thames Region.

River	Site	Losses	Gains	Omissions
The Cut	Cannon Hill, Bray Wick	1	6	0
Aldbourne	G.S. Ramsbury	2	4	1
Bow Brook	Hartley Wespall	0	2	1
Great Brook	Chimney Lane, Aston	0	2	0
Holy Brook	u/s R. Kennet	1	3	0
Ray (Oxon)	B4027 Bridge, Islip	1	5	1
Bourne (Berks)	u/s R. Pang	0	1	0
Mole	Wick Farm, Horley	0	2	1
Og	u/s R. Kennet	0	0	0
Holton Brook	u/s R. Thame	0	3	1
Misbourne	d/s Gerrards Cross STW	0	2	0
Thames	Henley	2	5	3
Loddon	Wargrave	1	0	3

TABLE 3. The 29 summer samples audited for Thames Region

River	Site	Losses	Gains	Omissions
Blackwater	d/s Sandhurst STW	0	1	0
Thames	Sandford Lock Cut	0	4	2
Ock	Ock Bridge	0	3	1
Holy Brook	u/s R. Kennet	0	2	2
Kennet	Newbury	3	4	3
Ray	Swindon	0	2	0
Redhill Brook	Redhill Aerodrome	0	2	0
Gatwick Stream	Tinsley Green	1	3	0
Ashridge Stream	u/s Emm Brook	0	0	0
Foudry Brook	Grazeley	0	3	0
New Years Green Bourne	u/s Frays River	2	1	0
Lee	u/s Lea Bridge Weir	0	0	0
Hogsmill	d/s STW	0	1	0
Beane	Hartham Common	1	3	0
Alderbourne	u/s Colnbrook	3	1	1
Lee	Hackney Marshes	0	1	0
Pinn	u/s Frays River	0	0	0
Stanstead Mill Stream	Amwell Magna	0	1	0
Lee	Springhill	0	1	0
Pinn	Kings College Road	0	1	0
Mimram	Codicote Bottom	5	0	1
Lee	Amwell Magna	1	1	0
Hogsmill	u/s STW	1	0	0
Lee	Enfield Weir	0	0	0
Wandle	Three-Arch Bridge	0	1	0
Beane	Watton-at-Stone	0	5	0
Lee	Hartham Common	1	3	0
Duke of Northumberland's	River Gardens	1	3	0
Mimram	Panshanger	0	2	0

TABLE 4. The 18 autumn samples audited for Thames Region

River	Site	Losses	Gains	Omissions
Baldon Brook	u/s R. Thame	0	1	2
Tuckmill Brook	d/s Shrivenham STW	0	7	0
Derry Brook	Ashton Keynes	0	1	0
Scotsgrove Brook	u/s Haddenham STW	1	3	2
Sherborne Brook	d/s Sherborne STW	1	3	0
Wey	u/s Tillingbourne	4	1	3
Danes Brook	u/s Holton Brook	0	6	0
Veneymore Stream	d/s Little Faringdon Trout Farm	0	8	1
Stort	Hazel End	1	2	0
Tykes Water	u/s Colne	0	4	0
Dollis Brook	Bridge Lane	0	1	0
Ellen Brook	A414 Bridge, Hatfield	0	0	0
Pool	Winsford Road	0	3	1
Mimmshall Brook	Waterend	0	0	0
Gade	Cassiobury Park	0	2	0
Ravensbourne	Ladywell Park	0	0	0
Colne	London Colney	0	2	0
Misbourne	u/s Gerrards Cross STW	0	4	0



**APPENDIX**

**Results of individual sample audits**

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	The Cut
DATE	16.4.92	SITE	Cannon Hill, Bray Wick
SORTER		SAMPLE CODE	NRA07 0097

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 Valvatidae 3 Hydrobiidae 4 Lymnaeidae 5 Physidae 6 Planorbidae 7 Tipulidae

NET LOSSES  NET GAINS

NOTES:

- 1 Terrestrial Isopod in vial
- 2 Valvata cristata
- 3 Potamopyrgus jenkinsi
- 4 Lymnaea peregra, L.palustris
- 5 Physa fontinalis
- 6 Bathyomphalus contortus 1 only
- 7 Nephrotoma sp.

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Aldbourn
DATE	11.5.92	SITE	G.S.Ramsbury
SORTER		SAMPLE CODE	NRA07 0083

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 Hydrobiidae 2 Physidae 3 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)	4 Lymnaeidae 5 Baetidae 6 Haliplidae 7 Elmidae* 8 Tipulidae

NET LOSSES 2 NET GAINS 4

NOTES:

- 4 Lymnaea peregra 1 only
- 5 Baetis vernus 1 only
- 6 Haliplus lineatocollis (adult) 1 only
- 7 Elmis aenea (larva) 1 only
- 8 Gnophomyia lugubris 1 only (possibly terrestrial)

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Bow Brook
DATE	21.5.92	SITE	u/s R.Loddon, Hartley Wespall
SORTER		SAMPLE CODE	NRA07 0089

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*	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 Lymnaeidae 3 Caenidae* 4 Elmidae

NET LOSSES 0 NET GAINS 2

NOTES:

2 Lymnaea palustris  
3 Caenis luctuosa/macrura  
4 Oulimnius tuberculatus (adult) 1 only

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Great Brook
DATE	9.4.92	SITE	Chimney Lane, Aston
SORTER		SAMPLE CODE	NRA07 0037

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 Psychomyiidae 2 Goeridae

NET LOSSES  NET GAINS

NOTES:

1 Lype sp. 1 only  
2 Goera pilosa 1 only

Note on data sheet that Aeshnid returned and Ancylids not in vial.

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Holy Brook
DATE	19.5.92	SITE	u/s R.Kennet
SORTER		SAMPLE CODE	NRA07 0110

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 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)	2 Valvatidae 3 Physidae 4 Caenidae

NET LOSSES  NET GAINS

NOTES:

- 2 Valvata piscinalis
- 3 Physa fontinalis
- 4 Caenis luctuosa/macrura

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Ray (Oxon)
DATE	26.5.92	SITE	Islip
SORTER		SAMPLE CODE	NRA07 0060

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 Planorbidae* 2 Gerridae	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 4 Planorbidae* 5 Notonectidae 6 Hydrophilidae 7 Elmidae 8 Leptoceridae

NET LOSSES 1 NET GAINS 5

NOTES:

1,4 Valvata cristata in vial; Anisus vortex, Bathyomphalus contortus and Gyraulus albus in sample.  
3 Lymnaea peregra  
5 Notonecta sp. (nymph) 1 only  
6 Helophorus brevipalpis (adult) 1 only  
7 Oulimnius sp. (larva) 1 only  
8 Athripsodes aterrimus (pupae)  
Identifiable Planariid and Dendrocoelid not found in vial but hypopharynx and other remains present, so no "loss" recorded.

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Bourne (Berks)
DATE	1.4.92	SITE	u/s R.Pang
SORTER		SAMPLE CODE	NRA07 0426

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 Sericostomatidae

NET LOSSES 0 NET GAINS 1

NOTES:

1 Sericostoma personatum 1 only  
Note in vial that Polycentropodid, Nemourid and Dendrocoelid missing

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Mole
DATE	13.4.92	SITE	Wick Farm, Horley
SORTER		SAMPLE CODE	NRA07 0152

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*	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 Planariidae* 3 Planorbidae 4 Haliplidae

NET LOSSES 0 NET GAINS 2

NOTES:

2 Dugesia polychroa/lugubris 1 only  
3 Gyraulus albus 1 only  
4 Haliplus fluviatilis (adult) 1 only

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Og
DATE	19.5.92	SITE	u/s R.Kennet
SORTER		SAMPLE CODE	NRA07 0124

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 0 NET GAINS 0

NOTES:

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Holton Brook
DATE	2.4.92	SITE	u/s R.Thame
SORTER		SAMPLE CODE	NRA07 0044

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 Nemouridae*	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 Nemouridae* 4 Elmidae 5 Tipulidae

NET LOSSES 0 NET GAINS 3

NOTES:

- 2 Glossiphonia complanata
- 3 Nemoura cinerea
- 4 Oulimnius tuberculatus (adults + larvae)
- 5 Tipula paludosa 1 only

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Misbourne
DATE	21.5.92	SITE	d/s Gerrards Cross STW
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	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 Hydrobiidae 2 Physidae

NET LOSSES 0 NET GAINS 2

NOTES:

1 Potamopyrgus jenkinsi  
2 Physa fontinalis 1 only

Note on data sheet that "Libellulidae + Gerridae not in sample". Not found by IFE in vial or sample.

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Thames
DATE	15.3.93	SITE	Henley
SORTER		SAMPLE CODE	NRA07 PTHR.0088

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 Viviparidae 2 Planorbidae* 3 Ancyliidae 4 Unionidae* 5 Limnephilidae*	6 Baetidae

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)	7 Planorbidae* 8 Unionidae* 9 Haliplidae 10 Elmidae 11 Polycentropodidae 12 Psychomyiidae 13 Limnephilidae*

NET LOSSES 2 NET GAINS 5

NOTES:

- 2 Valvata cristata (+ V.piscinalis) in vial
- 3 Empty Ancylid shell found by IFE in sample
- 6 Cloeon dipterum
- 7 Planorbis carinatus, Bathyomphalus contortus, Gyraulius albus
- 8 Anodonta sp.
- 9 Haliplus obliquus (adult), H.sp. (larva)
- 10 Oulimnius sp. (larva) 1 only
- 11 Polycentropus flavomaculatus
- 12 Lype sp., Tinodes waeneri
- 13 Halesus sp.

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Loddon
DATE	15.3.93	SITE	Wargrave
SORTER		SAMPLE CODE	NRA07 PLDR.0032

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 Planorbidae 2 Unionidae* 3 Psychomyiidae* 4 Simuliidae*	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)	5 Unionidae* 6 Psychomyiidae* 7 Simuliidae*

NET LOSSES 1 NET GAINS 0

NOTES:

1 Valvata cristata (+ V.piscinalis) in vial  
 5 Unio sp. 1 only  
 6 Lype sp.  
 7 Simulium erythrocephalum

Note in sample says "Molanna 1 of". Not found by IFE in vial or sample.  
 Ephemera lineata, Stenelmis canaliculata and Leptocerus lusitanicus present in sample.

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Blackwater
DATE	15.6.92	SITE	d/s Sandhurst STW
SORTER		SAMPLE CODE	NRA07 0087

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 Hydropsychidae

NET LOSSES 0 NET GAINS 1

NOTES:

1 Hydropsyche angustipennis

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Thames
DATE	11.8.92	SITE	Top of Sandford Lock Cut
SORTER		SAMPLE CODE	NRA07 0075

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 Oligochaeta* 2 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)	3 Physidae 4 Oligochaeta* 5 Erpobdellidae 6 Haliplidae* 7 Gyrinidae 8 Elmidae

NET LOSSES 0 NET GAINS 4

NOTES:

- 3 Physa fontinalis 1 only
- 5 Erpobdella octoculata
- 6 Haliplus flavicollis, H.fluviatilis, H.lineatocollis (adults)
- 7 Gyrinus sp. (larva) 1 only
- 8 Oulimnius sp. (larva) 1 only

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Ock
DATE	10.6.92	SITE	Ock Bridge, Lyford
SORTER		SAMPLE CODE	NRA07 0055

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 Corixidae*	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	2 Glossiphoniidae 3 Corixidae* 4 Hydrophilidae 5 Goeridae

NET LOSSES 0 NET GAINS 3

NOTES:

- 2 Helobdella stagnalis 1 only
- 3 Sigara dorsalis
- 4 Helophorus brevipalpis (adults)
- 5 Goera pilosa

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Holy Brook
DATE	20.8.92	SITE	U/s R.Kennet
SORTER		SAMPLE CODE	NRA07 0110

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 Aphelocheiridae* 2 Hydropsychidae*	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 Piscicolidae 4 Leuctridae 5 Aphelocheiridae* 6 Hydropsychidae*

NET LOSSES 0 NET GAINS 2

NOTES:

3 Piscicola geometra 1 only  
 4 Leuctra geniculata 1 only  
 5 Aphelocheirus aestivalis  
 6 Hydropsyche contubernalis, H.pellucidula

Note on data sheet that "Dendrocoelids seen on stones, not in vial."  
 Not found by IFE in vial or sample.

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Kennet
DATE	30.7.92	SITE	Hambridge Road, Newbury
SORTER		SAMPLE CODE	NRA07 0111

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 Erpobdellidae 2 Gammaridae* 3 Ephemeridae* 4 Dytiscidae 5 Elmidae* 6 Polycentropodidae	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)	7 Valvatidae 8 Asellidae 9 Gammaridae* 10 Ephemeridae* 11 Elmidae* 12 Psychomyiidae 13 Tipulidae

NET LOSSES 3

NET GAINS 4

NOTES:

- 7 Valvata piscinalis
  - 8 Asellus aquaticus 1 only
  - 9 Gammarus pulex
  - 10 Ephemera danica
  - 11 Elmis aenea, Limnius volckmari (adults + larvae)
  - 12 Psychomyia pusilla 1 only
  - 13 Antocha vitripennis
- Note on data sheet that "Rhyacophilid put in net but not seen again"  
Rhyacophila dorsalis found by IFE in sample.

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Ray
DATE	13.7.92	SITE	Moredon Bridge, Swindon
SORTER		SAMPLE CODE	NRA07 0058

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 Sphaeriidae 2 Hydroptilidae

NET LOSSES 0 NET GAINS 2

NOTES:

1 Pisidium sp.  
2 Hydroptila sp.

Note on data sheet that "Haliplidae not in vial". Not found by IFE in vial or sample.

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Redhill Brook
DATE	18.8.92	SITE	Redhill Aerodrome
SORTER		SAMPLE CODE	NRA07 0365

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 Baetidae 2 Dytiscidae

NET LOSSES 0 NET GAINS 2

NOTES:

1 Baetis vernus  
2 Ilybius sp. (larva) 1 only

Note on data sheet that "Leptoceridae not in vial". Not found by IFE in vial or sample.

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Gatwick Stream
DATE	2.7.92	SITE	Tinsley Green
SORTER		SAMPLE CODE	NRA07 0145

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 Ancylidae 3 Corixidae 4 Hydrophilidae

NET LOSSES 1 NET GAINS 3

NOTES:

2 Ancylus fluviatilis  
3 Hesperocorixa sahlbergi 1 only  
4 Helophorus brevipalpis (adult) 1 only

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Ashridge Stream
DATE	9.7.92	SITE	u/s Emm Brook
SORTER		SAMPLE CODE	NRA07 0393

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 0 NET GAINS 0

NOTES:

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Foudry Brook
DATE	10.8.92	SITE	Hartley Court Farm, Grazeley
SORTER		SAMPLE CODE	NRA07 0103

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 Planorbidae 2 Caenidae 3 Limnephilidae

NET LOSSES 0 NET GAINS 3

NOTES:

1 Gyraulus albus 1 only  
2 Caenis luctuosa/macrura 1 only  
3 Halesus digitatus 1 only

Note on data sheet that "Piscicolidae not in vial". Not found by IFE in vial or sample.

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	New Years Green Bourne
DATE	18.8.92	SITE	u/s Frays River
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	1 Gerridae 2 Hydrometridae	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 Caenidae

NET LOSSES  2

NET GAINS  1

NOTES:

3 Caenis horaria, C.luctuosa/macrura  
Unionidae not found by IFE in vial or sample. Assumed that specimen was returned to river.

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Lee
DATE	24.8.92	SITE	u/s Lea Bridge Weir
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	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  NET GAINS

NOTES:

Note on data sheet that "Lymnaeidae not in sample". Not found by IFE in vial or sample.

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Hogsmill
DATE	18.8.92	SITE	d/s STW
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	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 Physidae

NET LOSSES  NET GAINS

NOTES:

1 Physa fontinalis

Note on data sheet that "Coenagriidae, Dendrocoelidae, Baetidae, Hydrobiidae and Planorbidae not in sample". Bathyomphalus contortus found by IFE in vial; remainder not found in vial or sample.

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Beane
DATE	27.7.92	SITE	Hartham Common
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	1 Limnephilidae	2 Phryganeidae

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 Caenidae 4 Hydropsychidae

NET LOSSES 1 NET GAINS 3

NOTES:

2 Agrypnia obsoleta/varia  
3 Caenis luctuosa/macrura  
4 Hydropsyche sp. (juvenile) 1 only

Note on data sheet that "Ancyliidae not in vial". Not found by IFE in vial or sample.

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Alderbourne
DATE	11.6.92	SITE	u/s Colnbrook
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	1 Ancyliidae 2 Gerridae 3 Hydrophilidae 4 Simuliidae*	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)	5 Goeridae 6 Simuliidae*

NET LOSSES 3 NET GAINS 1

NOTES:

1 None in vial, empty shells only in sample  
5 Goera pilosa (pupa) 1 only  
6 Simulium angustitarse group (pupa) 1 only

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Lee
DATE	24.8.92	SITE	Hackney Marshes
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	None	1 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 0 NET GAINS 1

NOTES:

1 Valvata piscinalis

Note on data sheet that "Gerridae, Baetidae and Hydrobiidae not in sample". Not found by IFE in vial or sample.

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Pinn
DATE	17.8.92	SITE	u/s Frays River
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	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 0 NET GAINS 0

NOTES:

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Stanstead Mill Stream
DATE	13.8.92	SITE	Amwell Magna
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	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 Unionidae

NET LOSSES 0

NET GAINS 1

NOTES:

1 Anodonta sp. 1 only

Note on data sheet that "Aeshnidae and Piscicolidae not in sample".  
Not found by IFE in vial or sample.

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Lee
DATE	24.8.92	SITE	Springhill
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	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 Lymnaeidae

NET LOSSES  NET GAINS

NOTES:

1 Lymnaea peregra

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Pinn
DATE	17.8.92	SITE	Kings College Road
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	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 Planorbidae

NET LOSSES  NET GAINS

NOTES:

1 Armiger crista 1 only

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Mimram
DATE	13.8.92	SITE	Codicote Bottom
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	1 Dendrocoelidae 2 Hydrobiidae* 3 Libellulidae 4 Gerridae 5 Rhyacophilidae 6 Simuliidae	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)	7 Hydrobiidae*

NET LOSSES  5 NET GAINS  0

NOTES:

1 Potamopyrgus jenkinsi

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Lee
DATE	13.8.92	SITE	Amwell Magna
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	1 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)	2 Tipulidae

NET LOSSES  NET GAINS

NOTES:

2 Tipula sp. (pupa) 1 only

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Hogsmill
DATE	18.8.92	SITE	u/s STW
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	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  NET GAINS

NOTES:

Note on data sheet that "Aeshnidae not in sample". Not found by IFE in vial or sample.

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Lee
DATE	25.8.92	SITE	Enfield Weir
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	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:

Note on data sheet that "Viviparidae, Unionidae and Gammaridae not in sample". Viviparus viviparus found by IFE in vial and sample; Anodonta sp. found in sample; Gammaridae found in neither vial nor sample.

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Wandle
DATE	18.8.92	SITE	Three-Arch Bridge
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	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 Elmidae

NET LOSSES

0

NET GAINS

1

NOTES:

1 Elmis aenea (larva) 1 only

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Beane
DATE	27.7.92	SITE	Watton-at-Stone
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	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 2 Rhyacophilidae 3 Psychomyiidae 4 Phryganeidae 5 Goeridae

NET LOSSES  NET GAINS

NOTES:

1 Valvata cristata  
 2 Agapetus sp.  
 3 Tinodes waeneri 1 only  
 4 Agrypnia obsoleta/varia  
 5 Silo nigricornis 1 only

Note on data sheet that "Ancyliidae not in vial". Not found by IFE in vial or sample.

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Lee
DATE	13.8.92	SITE	Hartham Common
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	1 Rhyacophilidae	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 Valvatidae 3 Hydropsychidae 4 Tipulidae

NET LOSSES  1 NET GAINS  3

NOTES:

2 Valvata cristata, V.piscinalis  
3 Hydropsyche sp. (juvenile) 1 only  
4 Antocha vitripennis (pupa) 1 only

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Duke of Northumberland
DATE	18.8.92	SITE	River Gardens
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	1 Gerridae	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 Haliplidae 3 Elmidae 4 Hydroptilidae

NET LOSSES  NET GAINS

NOTES:

2 Haliplus sp. (larva) 1 only  
3 Elmis aenea (larva) 1 only  
4 Hydroptila sp. (larvae + pupae)

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Mimram
DATE	13.8.92	SITE	Panshanger
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	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 Calopterygidae 2 Corixidae

NET LOSSES  NET GAINS

NOTES:

1 Calopteryx splendens  
2 Indet Corixid (nymph) 1 only

Note on data sheet that "Leptoceridae, Astacidae, Ancylidae, Hydroptilidae and Gerridae not in sample. Hydroptila sp. found by IFE in sample; remainder not found in vial or sample.

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Baldon Brook
DATE	8.10.92	SITE	u/s R.Thame
SORTER		SAMPLE CODE	NRA07 0002

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 Hydrobiidae* 2 Chironomidae*	None

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

NET LOSSES  0 NET GAINS  1

NOTES:

1,3 Empty shell in vial, Potamopyrgus jenkinsi in sample  
4 Asellus meridianus  
5 Orthocladiinae

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Tuckmill Brook
DATE	22.10.92	SITE	d/s Shrivenham STW
SORTER		SAMPLE CODE	NRA07 0079

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 Hydrobiidae 2 Lymnaeidae 3 Ancylidae 4 Oligochaeta 5 Calopterygidae 6 Elmidae 7 Psychomyiidae

NET LOSSES  NET GAINS

NOTES:

- 1 Potamopyrgus jenkinsi
- 2 Lymnaea peregra
- 3 Acroloxus lacustris
- 4 Indet Tubificids
- 5 Calopteryx splendens 1 only
- 6 Oulimnius sp. (larvae)
- 7 Tinodes waeneri 1 only

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Derry Brook
DATE	1.9.92	SITE	Ashton Keynes
SORTER		SAMPLE CODE	NRA07 0021

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 Elmidae

NET LOSSES 0 NET GAINS 1

NOTES:

1 Limnius volckmari (larva) 1 only

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Scotsgrove Brook
DATE	5.10.92	SITE	u/s Haddenham STW
SORTER		SAMPLE CODE	NRA07 0062

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 Dendrocoelidae 2 Planorbidae* 3 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)	4 Hydrobiidae 5 Planorbidae* 6 Ancylidae 7 Tipulidae 8 Chironomidae*

NET LOSSES  1

NET GAINS  3

NOTES:

4 Potamopyrgus jenkinsi  
 2,5 Terrestrial snail in vial, Anisus vortex, Gyraulus albus, Bathyomphalus contortus in sample  
 6 Ancylus fluviatilis  
 7 Tipula sp. 1 only  
 8 Chironomini, Tanytarsini

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Sherborne Brook
DATE	17.9.92	SITE	d/s Sherborne STW
SORTER		SAMPLE CODE	NRA07 0064

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	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 Valvatidae 3 Gyrinidae 4 Psychomyiidae

NET LOSSES 1 NET GAINS 3

NOTES:

1 Terrestrial adult in vial  
 2 Valvata piscinalis  
 3 Orectochilus villosus (larvae)  
 4 Psychomyia pusilla/Metalype fragilis (juvenile) 1 only

Note on data sheet that Dendrocoelidae & Hydroptilidae "not in vial"  
 Not found by IFE in vial or sample.

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Wey
DATE	27.10.92	SITE	u/s Tillingbourne
SORTER		SAMPLE CODE	NRA07 0259

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 Dendrocoelidae 2 Caenidae* 3 Coenagriidae* 4 Corixidae* 5 Dytiscidae 6 Leptoceridae 7 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)	8 Physidae 9 Caenidae* 10 Coenagriidae* 11 Corixidae*

NET LOSSES 4 NET GAINS 1

NOTES:

8 Physa acuta/heterostropha 1 only  
 9 Caenis luctuosa/macrura 1 only  
 10 Ischnura elegans 1 only  
 11 Sigara dorsalis, S.falleni

Note on data sheet that "Unionidae returned and Gerrid not caught".  
 Not found by IFE in vial or sample.

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Danes Brook
DATE	8.10.92	SITE	u/s Holton Brook
SORTER		SAMPLE CODE	NRA07 0020

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 Hydrobiidae 2 Planorbidae 3 Sphaeriidae 4 Scirtidae 5 Psychomyiidae 6 Simuliidae

NET LOSSES 0 NET GAINS 6

NOTES:

- 1 Potamopyrgus jenkinsi
- 2 Anisus leucostoma, Armiger crista, Gyraulus albus
- 3 Pisidium sp.
- 4 Elodes sp., Cyphon sp.? (larvae)
- 5 Lype sp.
- 6 Simulium aureum group, S.ornatum group

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Veneymore Stream
DATE	22.10.92	SITE	d/s L.Faringdon Trout Farm
SORTER		SAMPLE CODE	NRA07 0080

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*	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 Planariidae 3 Ancyliidae 4 Sphaeriidae* 5 Asellidae 6 Scirtidae 7 Psychomyiidae 8 Hydropsychidae 9 Goeridae 10 Tipulidae

NET LOSSES  0 NET GAINS  8

NOTES:

- 2 Polycelis nigra/tenuis
- 3 Ancyclus fluviatilis
- 4 Pisidium sp.
- 5 Asellus meridianus
- 6 Elodes sp. (larva) 1 only
- 7 Lype sp. 1 only
- 8 Hydropsyche siltalai 1 only
- 9 Silo nigricornis
- 10 Tipula montium group, Dicranota sp.

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Stort
DATE	5.10.92	SITE	Hazel End
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	1 Physidae	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 Elmidae

NET LOSSES  1 NET GAINS  2

NOTES:

1 Succinea sp. in vial  
 2 Indet Hydrophilid (larva) 1 only  
 3 Elmis aenea (larvae)

Note on data sheet that Gerridae, Lymnaeidae & Planorbidae not in sample. Lymnaea palustris, Anisus vortex & Bathyomphalus contortus found by IFE in sample.

Sample pot damaged in transit.

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Tykes Water
DATE	9.9.92	SITE	u/s Colne
SORTER		SAMPLE CODE	NRA07 0281

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 Hydrobiidae 2 Physidae 3 Elmidae 4 Limnephilidae

NET LOSSES  NET GAINS

NOTES:

- 1 Potamopyrgus jenkinsi 1 only
- 2 Physa sp. (juvenile) 1 only
- 3 Elmis aenea, Oulimnius sp. (larvae)
- 4 Micropterna sequax 1 only

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Dollis Brook
DATE	7.10.92	SITE	Bridge Lane
SORTER		SAMPLE CODE	NRA07 0188

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 Ancyliidae

NET LOSSES  0

NET GAINS  1

NOTES:

1 Acroloxus lacustris 1 only  
Note on data sheet that Physidae & Planorbidae not in sample.  
Physa fontinalis found by IFE in vial and sample.

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Ellen Brook
DATE	23.11.92	SITE	A414 Bridge, Hatfield
SORTER		SAMPLE CODE	NRA07 0273

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:

Note on data sheet that Hydrobiidae & Erpobdellidae not in sample. Empty Hydrobiid shells found by IFE in sample.

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Pool
DATE	8.12.92	SITE	Winsford Road
SORTER		SAMPLE CODE	NRA07 0235

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 Planorbiidae*	2 Valvatidae

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)	3 Physidae 4 Planorbidae* 5 Hydropsychidae

NET LOSSES  NET GAINS

NOTES:

1,4 Valvata cristata in vial, Hippeutis complanatus (1 only) in sample.  
2 Valvata cristata  
3 Physa sp. (juvenile) 1 only  
5 Hydropsyche angustipennis 1 only

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Mimmshall Brook
DATE	9.9.92	SITE	Waterend
SORTER		SAMPLE CODE	NRA07 0197

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	Lid dislodged from vial in transit. Contents dispersed in sample. Identification check not applicable.	N/a

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	None

NET LOSSES  NET GAINS

NOTES:

Note on data sheet that Ancyliidae not in sample & Chironomidae may not be in vial. Ancylyus fluviatilis, Tanypodinae, Orthocladiinae, Chironomini & Tanytarsini found by IFE in sample.

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Gade
DATE	26.10.92	SITE	Cassiobury Park
SORTER		SAMPLE CODE	NRA07 0194

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 Coenagriidae 2 Elmidae

NET LOSSES 0 NET GAINS 2

NOTES:

1 Ischnura elegans  
2 Elmis aenea (larva) 1 only

Note on data sheet that Dendrocoelidae & Planorbidae not in sample (left on rock in field). Not found by IFE in vial or sample.

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Ravensbourne
DATE	8.12.92	SITE	Ladywell Park
SORTER		SAMPLE CODE	NRA07 0238

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:

Note on data sheet that Ancylidae, Gyridae, Glossiphoniidae & Hirudidae not in sample. Ancylus fluviatilis found by IFE in sample.

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Colne
DATE	9.9.92	SITE	London Colney
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	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 Elmidae

NET LOSSES  NET GAINS

NOTES:

1 Acroloxus lacustris 1 only  
2 Oulimnius sp. (larva) 1 only

Note on data sheet that Psychomyiidae & Unionidae not in sample. Assumed that Unionidae returned to river. Tinodes waeneri found by IFE in vial & sample.

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	Thames	RIVER	Misbourne
DATE	10.9.92	SITE	u/s Gerrards Cross STW
SORTER		SAMPLE CODE	NRA07 0198

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 Dendrocoelidae 2 Sphaeriidae 3 Rhyacophilidae 4 Psychomyiidae

NET LOSSES  NET GAINS

NOTES:

1 Dendrocoelum lacteum 1 only  
 2 Sphaerium sp. 1 only  
 3 Rhyacophila dorsalis 1 only  
 4 Lype reducta

Note on data sheet that Astacidae not in sample. Assumed that it was returned to river.

Sample pot damaged in transit.

