



# **An audit of performance in the processing of macro-invertebrate samples in 1994. NRA Severn-Trent Region**

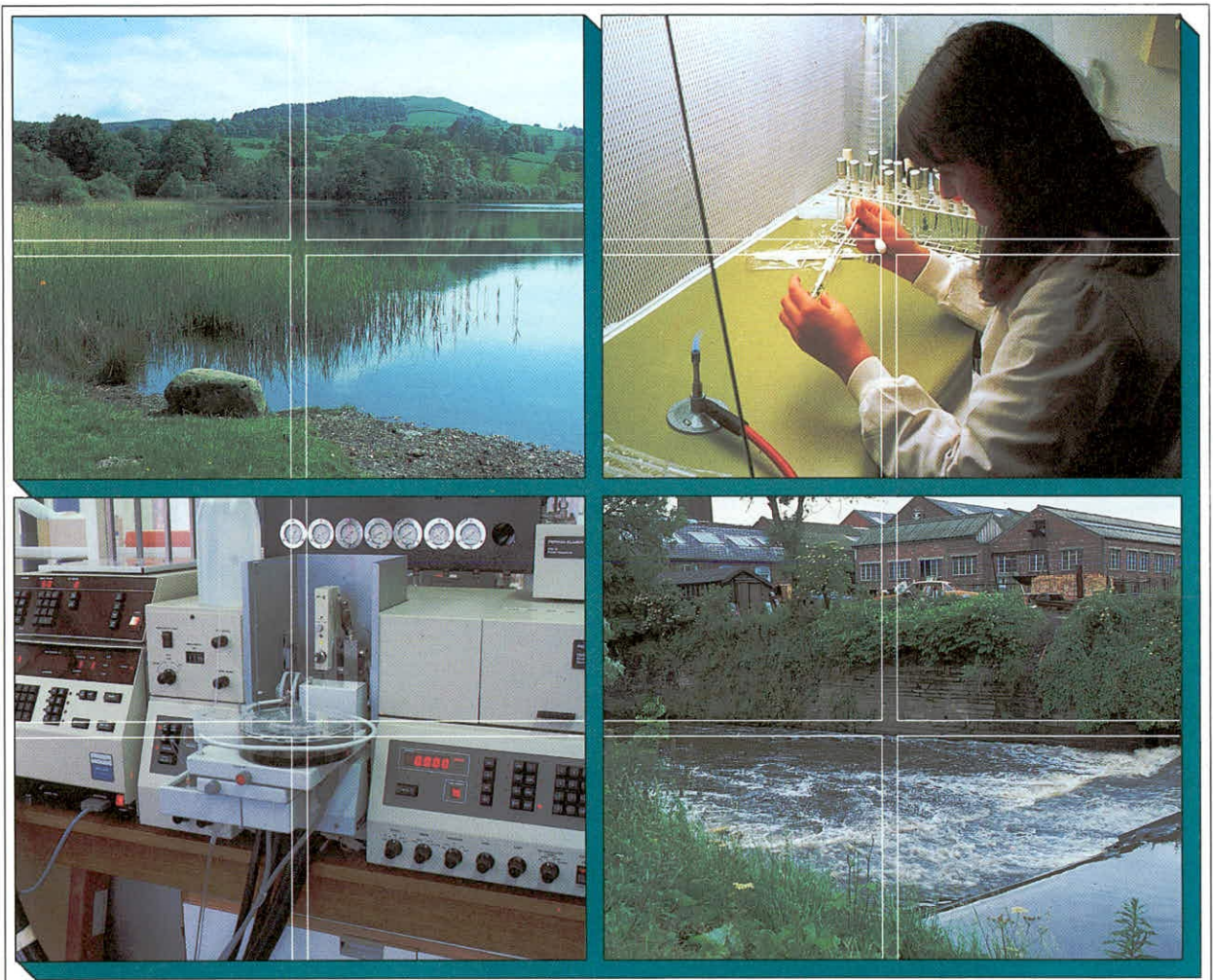
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Report To:  
IFE Report Ref. No:

National Rivers Authority, Severn-Trent Region  
RL/T04071h1/04





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**An audit of performance in the  
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NRA Severn-Trent Region**

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## **1. INTRODUCTION**

In 1994 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 NRA Severn-Trent Region. 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.

TABLE 1. The IFE Report form

EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	<input type="text"/>	RIVER	<input type="text"/>
DATE	<input type="text"/>	SITE	<input type="text"/>
SORTER	<input type="text"/>	CODE	<input type="text"/>

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 FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box is only completed when no vial is supplied with the sample)	

\* Taxa recorded on data sheet but absent from vial and found by I.F.E.  
in sample (omissions)

NET LOSSES

NET GAINS

OMISSIONS

NOTES:

TABLE 2. The 20 spring samples audited for Severn-Trent Region.

River	Site	Sorter	Losses	Gains	Omissions
Bow Brook	Besford Bridge	2.4	1	0	1
Swift	u/s Bitteswell Brook	2.4	1	2	0
Finham Brook	Finham Bridge	2.5	0	1	0
Cain Brook	Cain Bridge	2.5	0	4	0
Piddle Brook	Seaford	2.5	0	0	0
Scotch Brook	Stone	3.9	2	0	0
Trent	Yoxall Bridge	3.2	0	2	0
Marston Brook	Brocksford	3.9	0	1	0
Manifold	Wetton Mill	3.9	1	3	0
Leek Brook	Leekbrook	3.1	0	1	0
Torne	Auckley	4.1	0	1	1
Fairham Brook	Bunny	4.5	0	3	0
Stanton Brook	Thornton Reservoir	4.2	0	0	0
Clun	A488 Bridge	1.3	1	2	1
Severn	Cressage	1.1	0	2	1
Tern	Shiffords Bridge	1.6	0	2	0
Ffrwdwen Brook	u/s Heyhope Tip	1.3	0	0	0
Teme	Powick	1.3	0	4	0
Leen	Leen Valley Country Park	4.5	0	0	0
Thorpe Brook	u/s Melton Mowbray	4.2	0	1	0



TABLE 3. The 16 summer samples audited for Severn-Trent Region.

River	Site	Sorter	Losses	Gains	Omissions
Millichope Tributary	u/s Pools	1.6	0	1	0
Banwy	Llanerfyl Bridge	1.3	1	0	0
Severn	Bevere left bank	1.1	2	2	0
Severn	Apley Forge	1.6	0	6	0
Noverton Farm Tributary	u/s R. Teme	1.1	0	1	1
Wom Brook	Wombourne Bridge	1.1	0	3	1
Linley Brook	Nordley Common	1.6	0	1	0
Meden	Littlewood	4.1	0	3	0
Park Brook	Trentham	3.9	0	1	0
Severn	Atcham	1.6	0	5	1
Trent	d/s Knypersley Reservoir	3.9	0	3	0
Fleckney Brook	d/s Fleckney WRW	4.5	0	1	0
Ryton	Ranby	4.1	0	2	0
Wye	Ashford	4.3	0	1	0
North Beck	u/s Tuxford Beck	4.3	0	0	0
Langham Brook	u/s Stapleford Park	4.3	0	4	0

TABLE 4. The 24 autumn samples audited for Severn-Trent Region.

<b>River</b>	<b>Site</b>	<b>Sorter</b>	<b>Losses</b>	<b>Gains</b>	<b>Omissions</b>
Ryton	Ranby	4.5	0	2	0
Kingston Brook	East Leake	4.2	0	3	0
Ratby Brook	d/s Ratby	4.5	0	5	0
Soar	Barrow on Soar	4.3	0	4	0
Eye	Saxby	4.2	0	1	1
Meden	West Drayton	4.1	1	5	0
Cosby Brook	R. Soar confluence	4.2	1	2	0
Amber	Ashover	4.1	0	4	0
Meece Brook	Millmeece	3.1	1	0	0
Kingshurst Brook	R. Cole confluence	3.3	0	0	0
Cerist	Van Pool outlet	1.3	0	1	0
Trent	Walton	3.1	0	1	0
Cole	Houndsfield	3.3	0	2	0
Sow	Bishops Offley	3.1	0	3	0
Anker	Polesworth	3.3	0	2	0
Painswick Stream	d/s Painswick WRW	2.4	0	1	0
Sow	Eccleshall	3.1	0	1	1
Bramcote Brook	Potford Bridge	3.2	1	4	1
Perry	Mytton	1.1	1	5	2
Nailsworth Stream	d/s Avening WRW	2.5	0	0	0
Cam	Knee Brook confluence	2.5	0	0	0
Itchen	Ford Farm	2.4	1	1	0
Isbourne	A46 Bridge	2.5	0	0	0
Oldberrow Brook	B4480 Bridge	2.5	0	0	0

## **APPENDIX**

### **Results of individual sample audits**

EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Bow Brook
DATE	11.4.94	SITE	Besford Bridge
SORTER	2.4	CODE	NRA04 BI136593

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 2 Hydroptilidae*	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 is only completed when no vial is supplied with the sample)	3 Hydroptilidae*

\* Taxa recorded on data sheet but absent from vial and found by I.F.E. in sample (omissions)

NET LOSSES  NET GAINS  OMISSIONS

NOTES:

1 Empty shells in sample  
3 Hydroptila sp.

Date on sample pot and vial 12.4.94, that on data sheet 11.4.94

EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Swift
DATE	19.5.94	SITE	u/s Bitteswell Brook
SORTER	2.4	CODE	NRA04 BI136734

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	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 is only completed when no vial is supplied with the sample)	2 Caenidae 3 Tipulidae

\* Taxa recorded on data sheet but absent from vial and found by I.F.E.  
in sample (omissions)

NET LOSSES  NET GAINS  OMISSIONS

NOTES:

1 Lymnaea truncatula in vial  
2 Caenis luctuosa/macrura 1 only  
3 Tipula montium group 1 only

EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Finham Brook
DATE	7.4.94	SITE	Finham Bridge
SORTER	2.5	CODE	NRA04 BI136604

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 is only completed when no vial is supplied with the sample)	1 Hydropsychidae

\* Taxa recorded on data sheet but absent from vial and found by I.F.E.  
in sample (omissions)

NET LOSSES  NET GAINS  OMISSIONS

NOTES:

1 Hydropsyche siltalai 1 only

EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Cain Brook
DATE	25.4.94	SITE	Cain Bridge
SORTER	2.5	CODE	NRA04 BI136699

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 is only completed when no vial is supplied with the sample)	1 Sphaeriidae 2 Ephemerellidae 3 Rhyacophilidae 4 Simuliidae

\* Taxa recorded on data sheet but absent from vial and found by I.F.E. in sample (omissions)

NET LOSSES  NET GAINS  OMISSIONS

NOTES:

- 1 Pisidium sp. 1 only
- 2 Ephemerella ignita
- 3 Agapetus sp. 1 only
- 4 Simulium ornatum group (pupa) 1 only

EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Piddle Brook
DATE	16.5.94	SITE	Seaford
SORTER	2.5	CODE	NRA04 BI136723

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 is only completed when no vial is supplied with the sample)	None

\* Taxa recorded on data sheet but absent from vial and found by I.F.E.  
in sample (omissions)

NET LOSSES

0

NET GAINS

0

OMISSIONS

0

NOTES:

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EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Scotch Brook
DATE	14.4.94	SITE	Stone
SORTER	3.9	CODE	NRA04 BI172390

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 Leptoceridae	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 is only completed when no vial is supplied with the sample)	None

\* Taxa recorded on data sheet but absent from vial and found by I.F.E. in sample (omissions)

NET LOSSES  NET GAINS  OMISSIONS

NOTES:

1 Terrestrial beetle (Nitidulidae) in vial  
2 Small Sericostoma personatum in vial (in addition to large one)  
  
Posterior end only of Asellus aquaticus found by IFE in sample. Not included as a gain for purposes of audit.

EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Trent
DATE	14.4.94	SITE	Yoxall Bridge
SORTER	3.2	CODE	NRA04 BI172408

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 is only completed when no vial is supplied with the sample)	1 Caenidae 2 Simuliidae

\* Taxa recorded on data sheet but absent from vial and found by I.F.E.  
in sample (omissions)

NET LOSSES

0

NET GAINS

2

OMISSIONS

0

NOTES:

1 Caenis horaria 1 only  
2 Simulium (Wilhelmia) sp. 1 only

EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Marston Brook
DATE	18.5.94	SITE	Brocksford
SORTER	3.9	CODE	NRA04 BI172462

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 is only completed when no vial is supplied with the sample)	1 Hydroptilidae

\* Taxa recorded on data sheet but absent from vial and found by I.F.E.  
in sample (omissions)

NET LOSSES  NET GAINS  OMISSIONS

NOTES:

1 Hydroptila sp. 1 only

EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Manifold
DATE	9.5.94	SITE	Wetton Mill
SORTER	3.9	CODE	NRA04 BI172444

A	<b>VIAL</b>  Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
		1 Leptoceridae	2 Sericostomatidae

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

\* Taxa recorded on data sheet but absent from vial and found by I.F.E. in sample (omissions)

NET LOSSES 1 NET GAINS 3 OMISSIONS 0

NOTES:

2 Sericostoma personatum  
3 Chloroperla torrentium  
4 Hydraena gracilis (adult) 1 only

EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Leek Brook
DATE	25.4.94	SITE	Leekbrook
SORTER	3.1	CODE	NRA04 BI172504

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 is only completed when no vial is supplied with the sample)	1 Nemouridae

\* Taxa recorded on data sheet but absent from vial and found by I.F.E.  
in sample (omissions)

NET LOSSES

0

NET GAINS

1

OMISSIONS

0

NOTES:

1 Amphinemura sulcicollis

## EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Torne
DATE	29.3.94	SITE	Auckley
SORTER	4.1	CODE	NRA04 BI151774

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 Gammaridae*	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 is only completed when no vial is supplied with the sample)	2 Planariidae 3 Gammaridae*

\* Taxa recorded on data sheet but absent from vial and found by I.F.E. in sample (omissions)

NET LOSSES	0	NET GAINS	1	OMISSIONS	1
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**NOTES:**

2 Polycelis nigra/tenuis, Dugesia polychroa/lugubris  
3 Gammarus pulex

EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Fairham Brook
DATE	18.4.94	SITE	Bunny
SORTER	4.5	CODE	NRA04 BI142030

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 is only completed when no vial is supplied with the sample)	1 Ancyliidae 2 Hydroptilidae 3 Simuliidae

\* Taxa recorded on data sheet but absent from vial and found by I.F.E.  
in sample (omissions)

NET LOSSES  NET GAINS  OMISSIONS

NOTES:

- 1 Acroloxus lacustris 1 only
- 2 Hydroptila sp. 1 only
- 3 Simulium ornatum group

Date on sample pot and label 22.4.94, that on data sheet 18.4.94

EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Stanton Brook
DATE	11.4.94	SITE	Thornton Reservoir
SORTER	4.2	CODE	NRA04 BI142027

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

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

\* Taxa recorded on data sheet but absent from vial and found by I.F.E.  
in sample (omissions)

NET LOSSES  NET GAINS  OMISSIONS

NOTES:



EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Clun
DATE	24.5.94	SITE	A488 Bridge Clun
SORTER	1.3	CODE	NRA04 BI112814

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 Gammaridae* 2 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 is only completed when no vial is supplied with the sample)	3 Gammaridae* 4 Polycentropodidae 5 Tipulidae

\* Taxa recorded on data sheet but absent from vial and found by I.F.E. in sample (omissions)

NET LOSSES  NET GAINS  OMISSIONS

NOTES:

3 Gammarus pulex  
4 Polycentropus flavomaculatus 1 only  
5 Dicranota sp. 1 only

EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Severn Worfe Tern
DATE	11.5.94	SITE	Cressage
SORTER	1.1	CODE	NRA04 BI112745

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 Simuliidae*	2 Dytiscidae

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 is only completed when no vial is supplied with the sample)	3 Brachycentridae 4 Simuliidae*

\* Taxa recorded on data sheet but absent from vial and found by I.F.E. in sample (omissions)

NET LOSSES 0

NET GAINS 2

OMISSIONS 1

NOTES:

2 Potamonectes depressus (adult)  
3 Brachycentrus subnubilus (larva + pupa)  
4 Simulium ornatum group, S.(Wilhelmia) sp.

EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Tern Ternhill Source
DATE	20.4.94	SITE	Shiffords Bridge
SORTER	1.6	CODE	NRA04 BI112677

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 is only completed when no vial is supplied with the sample)	1 Ephemeraidae 2 Tipulidae

\* Taxa recorded on data sheet but absent from vial and found by I.F.E.  
in sample (omissions)

NET LOSSES  NET GAINS  OMISSIONS

NOTES:

1 Ephemera danica 1 only  
2 Dicranota sp. 1 only

EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Ffrwdwen Brook
DATE	3.5.94	SITE	u/s Heyope Tip
SORTER	1.3	CODE	NRA04 BI112723

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 is only completed when no vial is supplied with the sample)	None

\* Taxa recorded on data sheet but absent from vial and found by I.F.E.  
in sample (omissions)

NET LOSSES  NET GAINS  OMISSIONS

NOTES:

EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Teme
DATE	28.4.94	SITE	Powick
SORTER	1.3	CODE	NRA04 BI112717

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 is only completed when no vial is supplied with the sample)	1 Valvatidae 2 Caenidae 3 Hydroptilidae 4 Simuliidae

\* Taxa recorded on data sheet but absent from vial and found by I.F.E.  
in sample (omissions)

NET LOSSES  NET GAINS  OMISSIONS

NOTES:

- 1 Valvata cristata 1 only
- 2 Caenis luctuosa/macrura 1 only
- 3 Hydroptila sp.
- 4 Simulium reptans var galeratum

EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Leen
DATE	3.5.94	SITE	Leen Valley Country Park
SORTER	4.5	CODE	NRA04 BI142108

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 is only completed when no vial is supplied with the sample)	None

\* Taxa recorded on data sheet but absent from vial and found by I.F.E. in sample (omissions)

NET LOSSES

0

NET GAINS

0

OMISSIONS

0

NOTES:

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EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Thorpe Brook
DATE	3.5.94	SITE	u/s Melton Mowbray
SORTER	4.2	CODE	NRA04 BI142053

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 is only completed when no vial is supplied with the sample)	1 Elmidae

\* Taxa recorded on data sheet but absent from vial and found by I.F.E. in sample (omissions)

NET LOSSES  NET GAINS  OMISSIONS

NOTES:

1 *Elmis aenea* (adults)

EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Millichope Tributary
DATE	15.8.94	SITE	u/s Pools
SORTER	1.6	CODE	NRA04 BI113178

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 is only completed when no vial is supplied with the sample)	1 Scirtidae

\* Taxa recorded on data sheet but absent from vial and found by I.F.E.  
in sample (omissions)

NET LOSSES  NET GAINS  OMISSIONS

NOTES:

1 Elodes sp. (larva) 1 only



EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Banwy
DATE	2.8.94	SITE	Llanerfyl Bridge
SORTER	1.3	CODE	NRA04 BI113126

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 Perlidae	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 is only completed when no vial is supplied with the sample)	None

\* Taxa recorded on data sheet but absent from vial and found by I.F.E.  
in sample (omissions)

NET LOSSES

1

NET GAINS

0

OMISSIONS

0

NOTES:

1 Cast skin (Perla bipunctata) in vial

EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Severn
DATE	12.8.94	SITE	Bevere left bank
SORTER	1.1	CODE	

A	<b>VIAL</b>  Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	<b>BMWP FAMILIES NOT FOUND BY IFE</b>	<b>ADDITIONAL FAMILIES FOUND BY IFE</b>
		1 Platycnemididae 2 Limnephilidae	3 Coenagriidae 4 Leptoceridae

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

\* Taxa recorded on data sheet but absent from vial and found by I.F.E.  
in sample (omissions)

NET LOSSES  NET GAINS  OMISSIONS

NOTES:

3 Indet Coenagriidae (juveniles)  
4 Mystacides longicornis

EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-trent	RIVER	Severn
DATE	11.8.94	SITE	Apley Forge
SORTER	1.6	CODE	NRA04 BI113166

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 Physidae

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 is only completed when no vial is supplied with the sample)	2 Erpobdellidae 3 Ephemerellidae 4 Gerridae 5 Leptoceridae 6 Tipulidae

\* Taxa recorded on data sheet but absent from vial and found by I.F.E.  
in sample (omissions)

NET LOSSES

0

NET GAINS

6

OMISSIONS

0

NOTES:

- 1 Physa fontinalis
- 2 Indet Erpobdellidae (juveniles)
- 3 Ephemerella ignita 1 only
- 4 Gerris lacustris
- 5 Mystacides azurea, M.nigra/longicornis
- 6 Antocha vitripennis

# EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Noverton Farm Tributary
DATE	13.6.94	SITE	u/s R.Teme
SORTER	1.1	CODE	NRA04 BI112897

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 Gammaridae*	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 is only completed when no vial is supplied with the sample)	2 Gammaridae* 3 Hydropsychidae

\* Taxa recorded on data sheet but absent from vial and found by I.F.E.  
in sample (omissions)

NET LOSSES

0

NET GAINS

1

OMISSIONS

1

NOTES:

2 Gammarus pulex  
3 Hydropsyche fulvipes 1 only

EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Wom Brook
DATE	10.8.94	SITE	Wombourne Bridge
SORTER	1.1	CODE	NRA04 BI113164

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 is only completed when no vial is supplied with the sample)	2 Dendrocoelidae* 3 Lymnaeidae 4 Hydropsychidae 5 Simuliidae

\* Taxa recorded on data sheet but absent from vial and found by I.F.E.  
in sample (omissions)

NET LOSSES

0

NET GAINS

3

OMISSIONS

1

NOTES:

2 Dendrocoelum lacteum  
3 Lymnaea peregra 1 only  
4 Hydropsyche siltalai  
5 Simulium aureum group

EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Linley Brook
DATE	22.8.94	SITE	Nordley Common
SORTER	1.6	CODE	NRA04 BI13196

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 is only completed when no vial is supplied with the sample)	1 Heptageniidae

\* Taxa recorded on data sheet but absent from vial and found by I.F.E. in sample (omissions)

NET LOSSES  NET GAINS  OMISSIONS

NOTES:

1 Ecdyonurus sp. 1 only

EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Meden
DATE	14.7.94	SITE	Littlewood
SORTER	4.1	CODE	NRA04 BI152062

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 is only completed when no vial is supplied with the sample)	1 Dendrocoelidae 2 Elmidae 3 Simuliidae

\* Taxa recorded on data sheet but absent from vial and found by I.F.E.  
in sample (omissions)

NET LOSSES

0

NET GAINS

3

OMISSIONS

0

NOTES:

- 1 Dendrocoelum lacteum 1 only
- 2 Elmis aenea (larvae)
- 3 Simulium ornatum group (larvae + pupa)

EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Park Brook
DATE	31.7.94	SITE	Trentham
SORTER	3.9	CODE	NRA04 BI172660

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 is only completed when no vial is supplied with the sample)	1 Elmidae

\* Taxa recorded on data sheet but absent from vial and found by I.F.E.  
in sample (omissions)

NET LOSSES  NET GAINS  OMISSIONS

NOTES:

1 *Elmis aenea* (adults)



EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Severn
DATE	6.7.94	SITE	Atcham
SORTER	1.6	CODE	NRA04 BI113015

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 Chloroperlidae

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 is only completed when no vial is supplied with the sample)	3 Hydrobiidae 4 Heptageniidae 5 Caenidae 6 Aphelocheiridae* 7 Psychomyiidae

\* Taxa recorded on data sheet but absent from vial and found by I.F.E. in sample (omissions)

NET LOSSES  NET GAINS  OMISSIONS

NOTES:

2 Chloroperla torrentium  
3 Potamopyrgus jenkinsi 1 only  
4 Heptagenia sulphurea 1 only  
5 Caenis luctuosa/macrura  
6 Aphelocheirus aestivalis  
7 Psychomyia pusilla 1 only

EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Trent
DATE	15.8.94	SITE	d/s Knypersley Reservoir
SORTER	3.9	CODE	NRA04 BI172645

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 is only completed when no vial is supplied with the sample)	1 Lymnaeidae 2 Planorbidae 3 Piscicolidae

\* Taxa recorded on data sheet but absent from vial and found by I.F.E. in sample (omissions)

NET LOSSES  NET GAINS  OMISSIONS

NOTES:

- 1 Lymnaea peregra
- 2 Armiger crista, Gyraulus sp. (juveniles)
- 3 Piscicola geometra 1 only

Label in sample says "+ crayfish". Assumed returned to river

EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Fleckney Brook
DATE	26.7.94	SITE	d/s Fleckney WRW
SORTER	4.5	CODE	NRA04 BI142310

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 is only completed when no vial is supplied with the sample)	1 Baetidae

\* Taxa recorded on data sheet but absent from vial and found by I.F.E. in sample (omissions)

NET LOSSES  NET GAINS  OMISSIONS

NOTES:

1 Baetis rhodani

# EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Ryton
DATE	21.7.94	SITE	Ranby
SORTER	4.1	CODE	NRA04 BI152087

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

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

\* Taxa recorded on data sheet but absent from vial and found by I.F.E.  
in sample (omissions)

NET LOSSES 0 NET GAINS 2 OMISSIONS 0

## NOTES:

1 Polycelis nigra/tenuis 1 only  
2 Physa fontinalis 1 only

EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Wye
DATE	21.7.94	SITE	Ashford
SORTER	4.3	CODE	NRA04 BI152083

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 is only completed when no vial is supplied with the sample)	1 Planariidae

\* Taxa recorded on data sheet but absent from vial and found by I.F.E. in sample (omissions)

NET LOSSES  NET GAINS  OMISSIONS

NOTES:

1 Polycelis felina 1 only

# EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	North Beck
DATE	17.7.94	SITE	u/s Tuxford Beck
SORTER	4.3	CODE	NRA04 BI152072

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 is only completed when no vial is supplied with the sample)	None

\* Taxa recorded on data sheet but absent from vial and found by I.F.E.  
in sample (omissions)

NET LOSSES 0 NET GAINS 0 OMISSIONS 0

NOTES:

EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Langham Brook
DATE	27.7.94	SITE	u/s Stapleford Park
SORTER	4.3	CODE	NRA04 BI142333

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 is only completed when no vial is supplied with the sample)	1 Valvatidae 2 Ephemerellidae 3 Gerridae 4 Corixidae

\* Taxa recorded on data sheet but absent from vial and found by I.F.E.  
in sample (omissions)

NET LOSSES  NET GAINS  OMISSIONS

NOTES:

- |   |
|---|
| 1 Valvata piscinalis<br>2 Ephemerella ignita<br>3 Gerris sp. (nymph) 1 only<br>4 Sigara sp. (damaged specimen), Indet Corixidae (nymph) |
|---|

EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Ryton
DATE	5.11.94	SITE	Ranby
SORTER	4.5	CODE	NRA04 BI152239

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 is only completed when no vial is supplied with the sample)	1 Chironomidae 2 Simuliidae

\* Taxa recorded on data sheet but absent from vial and found by I.F.E.  
in sample (omissions)

NET LOSSES

0

NET GAINS

2

OMISSIONS

0

NOTES:

1 Potthastia longimana group, Prodiamesa olivacea  
2 Simulium ornatum group 1 only



EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Kingston Brook
DATE	19.10.94	SITE	East Leake
SORTER	4.2	CODE	NRA04 BI142484

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 Tipulidae

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 is only completed when no vial is supplied with the sample)	2 Unionidae 3 Gammaridae

\* Taxa recorded on data sheet but absent from vial and found by I.F.E.  
in sample (omissions)

NET LOSSES

0

NET GAINS

3

OMISSIONS

0

NOTES:

- 1 Tipula montium group, Dicranota sp.  
2 Anodonta sp.  
3 Gammarus pulex 1 only

EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Ratby Brook
DATE	14.11.94	SITE	d/s Ratby
SORTER	4.5	CODE	NRA04 BI142561

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 is only completed when no vial is supplied with the sample)	1 Glossiphoniidae 2 Hydrophilidae 3 Psychomyiidae 4 Tipulidae 5 Simuliidae

\* Taxa recorded on data sheet but absent from vial and found by I.F.E.  
in sample (omissions)

NET LOSSES

0

NET GAINS

5

OMISSIONS

0

NOTES:

- 1 Glossiphonia complanata 1 only
- 2 Indet Hydrophilid (larva) 1 only
- 3 Lype sp.
- 4 Tipula sp. 1 only
- 5 Simulium ornatum group 1 only

EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Soar
DATE	24.10.94	SITE	Barrow on Soar
SORTER	4.3	CODE	NRA04 BI142495

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 is only completed when no vial is supplied with the sample)	1 Dendrocoelidae 2 Corophiidae 3 Caenidae 4 Leptoceridae

\* Taxa recorded on data sheet but absent from vial and found by I.F.E. in sample (omissions)

NET LOSSES

0

NET GAINS

4

OMISSIONS

0

NOTES:

- 1 Dendrocoelum lacteum 1 only
- 2 Corophium curvispinum 1 only
- 3 Caenis luctuosa/macrura 1 only
- 4 Mystacides azurea, Athripsodes aterrimus

EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Eye
DATE	21.11.94	SITE	Saxby
SORTER	4.2	CODE	NRA04 BI142583

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*	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 is only completed when no vial is supplied with the sample)	2 Erpobdellidae* 3 Chironomidae

\* Taxa recorded on data sheet but absent from vial and found by I.F.E. in sample (omissions)

NET LOSSES

0

NET GAINS

1

OMISSIONS

1

NOTES:

2 Erpobdella octoculata  
3 Potthastia longimana group 1 only

EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Meden
DATE	27.10.94	SITE	West Drayton
SORTER	4.1	CODE	NRA04 BI152234

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 Hydroptilidae	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 is only completed when no vial is supplied with the sample)	2 Caenidae 3 Calopterygidae 4 Aphelocheiridae 5 Haliplidae 6 Chironomidae

\* Taxa recorded on data sheet but absent from vial and found by I.F.E.  
in sample (omissions)

NET LOSSES

1

NET GAINS

5

OMISSIONS

0

NOTES:

- 1 Empty cases in vial and sample
- 2 Caenis luctuosa/macrura 1 only
- 3 Calopteryx splendens 1 only
- 4 Aphelocheirus aestivalis (nymph) 1 only
- 5 Halipus sp. (larva) 1 only
- 6 Chironomini 1 only

EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Cosby Brook
DATE	31.10.94	SITE	R.Soar confluence
SORTER	4.2	CODE	NRA04 BI142532

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 Hirudidae

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 is only completed when no vial is supplied with the sample)	3 Psychomyiidae

\* Taxa recorded on data sheet but absent from vial and found by I.F.E.  
in sample (omissions)

NET LOSSES

1

NET GAINS

2

OMISSIONS

0

NOTES:

2 Haemopsis sanguisuga  
3 Tinodes waeneri

EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Amber
DATE	3.10.94	SITE	Ashover
SORTER	4.1	CODE	NRA04 BI152152

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 is only completed when no vial is supplied with the sample)	1 Leptophlebiidae 2 Perlodidae 3 Dytiscidae 4 Polycentropodidae

\* Taxa recorded on data sheet but absent from vial and found by I.F.E. in sample (omissions)

NET LOSSES

0

NET GAINS

4

OMISSIONS

0

NOTES:

- 1 Paraleptophlebia sp.
- 2 Isoperla grammatica
- 3 Platambus maculatus (larva) 1 only
- 4 Polycentropus flavomaculatus 1 only

EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Meece Brook
DATE	22.11.94	SITE	Millmeece
SORTER	3.1	CODE	NRA04 BI172881

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 Baetidae	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 is only completed when no vial is supplied with the sample)	None

\* Taxa recorded on data sheet but absent from vial and found by I.F.E.  
in sample (omissions)

NET LOSSES

1

NET GAINS

0

OMISSIONS

0

NOTES:

1 Abdomen only in vial. IFE instructed not to include posterior ends  
of specimens for purposes of audit.



EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Kingshurst Brook
DATE	20.10.94	SITE	R.Cole confluence
SORTER	3.3	CODE	NRA04 BI172822

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 is only completed when no vial is supplied with the sample)	None

\* Taxa recorded on data sheet but absent from vial and found by I.F.E.  
in sample (omissions)

NET LOSSES  NET GAINS  OMISSIONS

NOTES:

EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Cerist
DATE	18.10.94	SITE	Van Pool outlet
SORTER	1.3	CODE	NRA04 BI113402

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 is only completed when no vial is supplied with the sample)	1 Glossiphoniidae

\* Taxa recorded on data sheet but absent from vial and found by I.F.E.  
in sample (omissions)

NET LOSSES  NET GAINS  OMISSIONS

NOTES:

1 Helobdella stagnalis 1 only

EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Trent
DATE	24.10.94	SITE	Walton
SORTER	3.1	CODE	NRA04 BI172830

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 is only completed when no vial is supplied with the sample)	1 Caenidae

\* Taxa recorded on data sheet but absent from vial and found by I.F.E. in sample (omissions)

NET LOSSES

0

NET GAINS

1

OMISSIONS

0

NOTES:

1 Caenis luctuosa/macrura 1 only

EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Cole
DATE	12.10.94	SITE	Houndsfield
SORTER	3.3	CODE	NRA04 BI172805

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 Caenidae

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 is only completed when no vial is supplied with the sample)	2 Lymnaeidae

\* Taxa recorded on data sheet but absent from vial and found by I.F.E. in sample (omissions)

NET LOSSES

0

NET GAINS

2

OMISSIONS

0

NOTES:

1 *Caenis luctuosa/macrura*, *C.horaria*  
2 *Lymnaea peregra*

EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Sow
DATE	22.11.94	SITE	Bishops Offley
SORTER	3.1	CODE	NRA04 BI172871

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 is only completed when no vial is supplied with the sample)	1 Planariidae 2 Hydrophilidae 3 Chironomidae

\* Taxa recorded on data sheet but absent from vial and found by I.F.E.  
in sample (omissions)

NET LOSSES

0

NET GAINS

3

OMISSIONS

0

NOTES:

- 1 Polycelis sp. 1 only
- 2 Hydraena riparia (adults)
- 3 Orthocladiinae, Tanytarsini

EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Anker
DATE	4.10.94	SITE	Polesworth
SORTER	3.3	CODE	NRA04 BI172786

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 is only completed when no vial is supplied with the sample)	1 Gammaridae 2 Simuliidae

\* Taxa recorded on data sheet but absent from vial and found by I.F.E.  
in sample (omissions)

NET LOSSES

0

NET GAINS

2

OMISSIONS

0

NOTES:

- 1 Gammarus pulex 1 only  
2 Simulium ornatum group, S.erythrocephalum

EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Painswick Stream
DATE	1.9.94	SITE	d/s Painswick WRW
SORTER	2.4	CODE	NRA04 BI127288

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 is only completed when no vial is supplied with the sample)	1 Lymnaeidae

\* Taxa recorded on data sheet but absent from vial and found by I.F.E.  
in sample (omissions)

NET LOSSES

0

NET GAINS

1

OMISSIONS

0

NOTES:

1 Lymnaea peregra 1 only

EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Sow
DATE	22.11.94	SITE	Eccleshall
SORTER	3.1	CODE	NRA04 BI172872

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*	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 is only completed when no vial is supplied with the sample)	2 Calopterygidae 3 Limnephilidae*

\* Taxa recorded on data sheet but absent from vial and found by I.F.E. in sample (omissions)

NET LOSSES

0

NET GAINS

1

OMISSIONS

1

NOTES:

2 Calopteryx splendens 1 only  
3 Chaetopteryx villosa (pupa) 1 only



EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Bramcote/Potford Brook
DATE	4.10.94	SITE	Potford Bridge
SORTER	3.2	CODE	NRA04 BI172799

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* 2 Scirtidae

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 is only completed when no vial is supplied with the sample)

\* Taxa recorded on data sheet but absent from vial and found by I.F.E. in sample (omissions)

NET LOSSES

1

NET GAINS

4

OMISSIONS

1

NOTES:

3 Baetis vernalis  
4 Haliphus sp. (larvae)  
5 Elmia aenea, Oulimnius sp. (larvae)  
6 Hydropsyche angustipennis, H. pellucidula  
7 Microtendipes sp. 1 only

EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Perry
DATE	24.11.94	SITE	Mytton
SORTER	1.1	CODE	NRA04 BI113567

A	<b>VIAL</b>  Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	<b>BMWP FAMILIES NOT FOUND BY IFE</b>	<b>ADDITIONAL FAMILIES FOUND BY IFE</b>
		1 Dendrocoelidae* 2 Planorbidae 3 Lepidostomatidae*	4 Physidae 5 Sphaeriidae

B	<b>SAMPLE</b>  Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	<b>BMWP FAMILIES NOT FOUND BY IFE</b>	<b>ADDITIONAL FAMILIES FOUND BY IFE</b>
		(This box is only completed when no vial is supplied with the sample)	6 Dendrocoelidae* 7 Erpobdellidae 8 Gyrinidae 9 Hydroptilidae 10 Lepidostomatidae*

\* Taxa recorded on data sheet but absent from vial and found by I.F.E. in sample (omissions)

NET LOSSES  NET GAINS  OMISSIONS

NOTES:

- 4 Physa fontinalis 1 only
- 5 Pisidium sp., Sphaerium sp.
- 6 Dendrocoelum lacteum
- 7 Erpobdella octoculata
- 8 Orectochilus villosus (larva) 1 only
- 9 Hydroptila sp. (pupa) 1 only
- 10 Lepidostoma hirtum

EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Nailsworth Stream
DATE	10.10.94	SITE	d/s Avening WRW
SORTER	2.5	CODE	NRA04 BI127376

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 is only completed when no vial is supplied with the sample)	None

\* Taxa recorded on data sheet but absent from vial and found by I.F.E. in sample (omissions)

NET LOSSES

0

NET GAINS

0

OMISSIONS

0

NOTES:

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EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Cam
DATE	12.9.94	SITE	Knee Brook confluence
SORTER	2.5	CODE	NRA04 BI137323

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 is only completed when no vial is supplied with the sample)	None

\* Taxa recorded on data sheet but absent from vial and found by I.F.E. in sample (omissions)

NET LOSSES

0

NET GAINS

0

OMISSIONS

0

NOTES:

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EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Itchen
DATE	5.9.94	SITE	Ford Farm
SORTER	2.4	CODE	NRA04 BI137309

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	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 is only completed when no vial is supplied with the sample)	2 Glossiphoniidae

\* Taxa recorded on data sheet but absent from vial and found by I.F.E.  
in sample (omissions)

NET LOSSES  NET GAINS  OMISSIONS

NOTES:

1 Empty case in vial  
2 Glossiphonia complanata, Hemiclepsis marginata

EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Isbourne
DATE	5.9.94	SITE	A46 Bridge
SORTER	2.5	CODE	NRA04 BI137302

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 is only completed when no vial is supplied with the sample)	None

\* Taxa recorded on data sheet but absent from vial and found by I.F.E.  
in sample (omissions)

NET LOSSES

0

NET GAINS

0

OMISSIONS

0

NOTES:

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EXTERNAL AUDIT OF BIOLOGICAL SAMPLES - 1994

REGION	Severn-Trent	RIVER	Oldberrow Brook
DATE	14.9.94	SITE	B4480 Bridge
SORTER	2.5	CODE	NRA04 BI137337

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 is only completed when no vial is supplied with the sample)	None

\* Taxa recorded on data sheet but absent from vial and found by I.F.E. in sample (omissions)

NET LOSSES  NET GAINS  OMISSIONS

NOTES:

