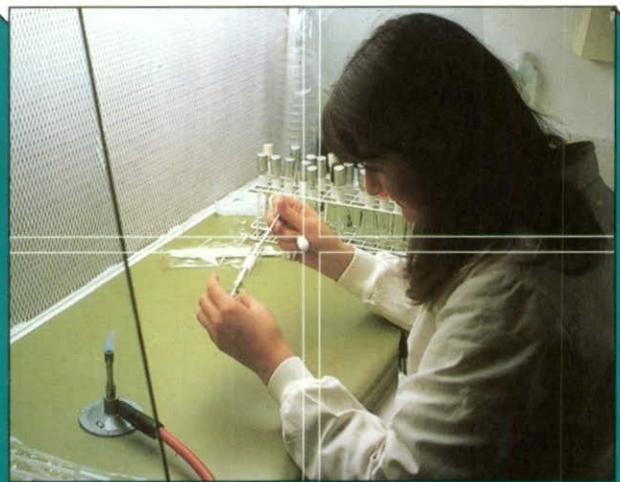
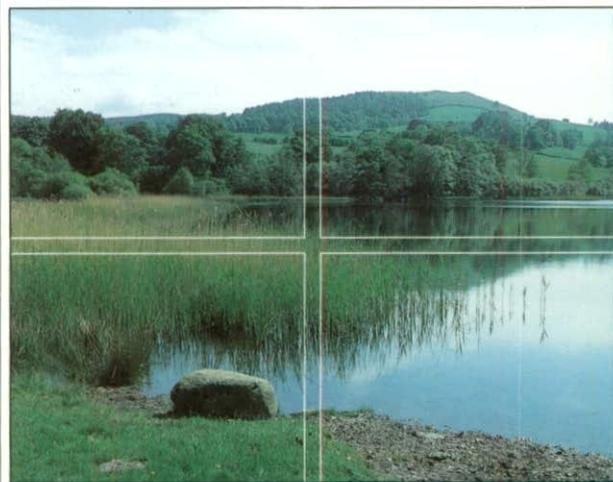


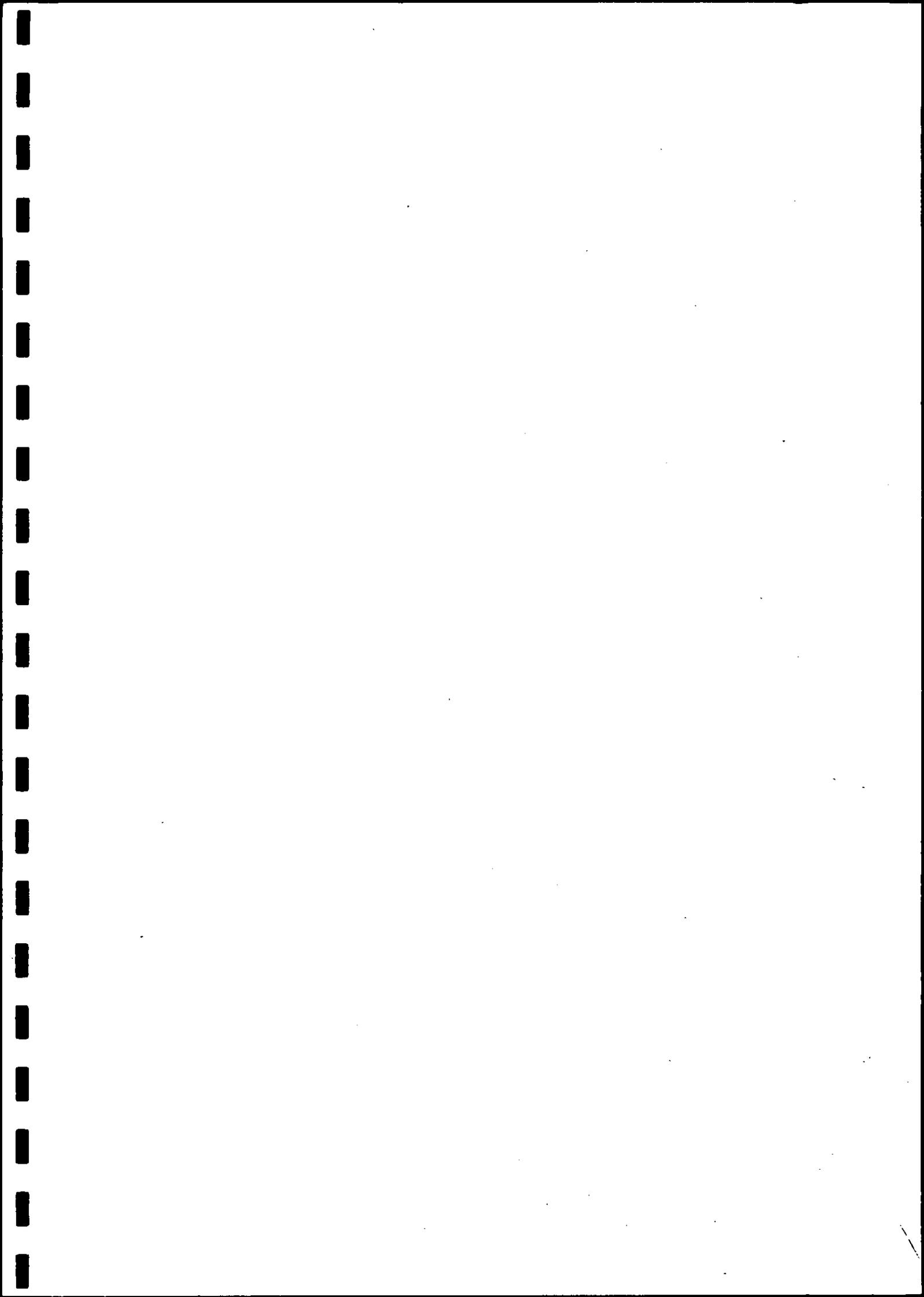


Institute of  
Freshwater  
Ecology

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

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

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## 1. INTRODUCTION

The 1990 River Quality Survey included the sampling of aquatic macro-invertebrates for biological assessment of river quality throughout the United Kingdom. In England and Wales the survey was undertaken by the National Rivers Authority (NRA), the River Purification Boards (RPBs) sampled in Scotland and the Department of Economic Development (DED) undertook the work in Northern Ireland.

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

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

In order to undertake this massive programme of fieldwork and sample processing, a large number of new staff were employed by the surveying agencies. In view of the number of staff involved and the variability of sample processing techniques, it was recognised that an independent quality control exercise was necessary to promote a consistently high level of reliability.

The IFE was contracted to undertake an audit of the sample sorting and identification performance of each NRA region, RPB and the DED. This report collates the results of 57 samples audited for Yorkshire Region of the NRA. The IFE was not required to perform any statistical analyses nor interpretation of the results of the audit.

## 2. SAMPLE SELECTION

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

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

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

### 3. SAMPLE PROCESSING

Biologists processing samples for the 1990 Survey were instructed to sort their samples, ideally within the laboratory, and select examples of each scoring taxon within the BMWP system. In most cases, the invertebrates were placed in a vial of preservative (4% formaldehyde solution or 70% industrial alcohol) and the BMWP taxa were listed on a data sheet. The vial of animals and the sorted material were then returned to the sample container and preservative added. Thus, each sample available to IFE for selection for audit should have included:

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

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

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

For a number of different reasons, some samples did not include a vial containing representative examples of the families listed on the NRA data sheet. These samples were avoided for audit, where possible. When selection of such samples was unavoidable (eg where a particular sorter would otherwise have been excluded from the audit exercise), only operations a), d) and e) above were appropriate.

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

#### 4. REPORTING

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

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

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

Results of the audits of individual samples are presented in Table 5.

#### ACKNOWLEDGEMENTS

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

TABLE 1. The IFE Report form

1990 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION  RIVER

SEASON  SITE

SORTER  SAMPLE CODE

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

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

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

NET LOSSES     NET GAINS

NOTES

TABLE 2. The 31 spring samples audited for Yorkshire Region, with sample sorter initials and numbers of taxa 'lost', 'gained' and 'omitted'

River	Site	Sorter	Losses	Gains	Omissions
Porter	Hunters Bar	SAL	0	3	0
Thick Hollins Dyke	D/s Brook Dyeing	SAL	0	0	0
Swale	Keld	RM	0	2	0
Colne	Ashgrove Road	MDR	0	1	0
Cononley Beck	U/s Aire Confl	MDR	0	1	0
Hull	Rotsea	GJB	0	1	0
Kyle	Newton-upon-Ouse	FN	0	1	0
Foss	West Lilling	GJB	0	1	1
Sleddale Beck	Commondale	RM	0	2	0
Derwent	Stamford Bridge	GJB	0	5	0
Stillingfleet Beck	Escrick	RM	0	2	0
Apedale Beck	Redmire	FN	0	1	0
Oak Beck	Knox Mill Ford	EA	0	2	0
Nidd	Hampsthwaite	EA	0	1	0
Rye	Ryton	FN	0	0	0
Aire	Apperley Bridge	VH	0	2	0
Oil Mill Beck	Kirkstall Road	VH	0	1	0
Don	Stocksbridge	FF	0	1	0
Barden Beck	Broad Park Bridge	MDR	0	1	0
Rother	Chesterfield	FC	0	0	0
Todwick Beck	Low Laithes Farm	LMB	0	0	0
Ea Beck	Stubbs Bridge	SAL	0	0	0
Wyke Beck	Pontefract Lane	VH	1	1	0
Don	Penistone	FF	0	0	0
Little Don	D/s Langsett WTW	FF	0	4	0
Park Gate Beck	D/s Clayton West STW	LMB	0	1	0
Aire	Milford Place	FC	0	0	0
Aire	U/s Cononley Beck	FC	0	1	0
Wharfe	Rhyther	FC	0	0	0
Wiske	East Harlsey	EA	0	0	0
Commondale Beck	Commondale	EC	0	0	0

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

River	Site	Sorter	Losses	Gains	Omissions
Wharfe	Hubberholme	RPC	0	5	1
Foss	West Lilling	RM	1	1	0
Ulley Brook	U/s Rother confl	RPC	0	2	1
Worth	D/s Ponden Res	FC	0	3	0
Cudworth Beck	D/s Cudworth Carrs La	MDR	0	1	0
Rother	U/s Avenue Coking Plant	LMB	0	3	0
Ryburn	Sowerby Bridge	VH	0	2	0
Dove	Farndale	FN	0	1	0
Stream Dyke	Skipsea	EA	0	1	0
Little Don	D/s Langsett WTW	SAL	0	1	0
Driffield Canal	Snakeholm	GJB	0	1	0
Todwick Beck	Low Laithes Farm	RPC	0	0	0
Derwent	Malton	RM	0	2	0
Stillingfleet Beck	Escrick	CJH	0	1	0
Swale	Gunnarside	CJH	0	2	0
Tutt	Boroughbridge	CJH	1	1	0

TABLE 4. The 10 autumn samples audited for Yorkshire Region, with sample sorter initials and numbers of taxa 'lost', 'gained' and 'omitted'.

River	Site	Sorter	Losses	Gains	Omissions
Dove	Keldholme	GJB	0	6	0
Great Fryup Beck	Street	FN	0	2	0
Oak Beck	Birk Crag	EA	0	1	0
Silsden Beck	Adj Farm	SAL	0	0	0
Alne Beck	Crankley	CJH	0	0	0
Derwent	Loftsome Bridge	LM	0	2	0
Sand Beck	Richmond	LM	1	0	0
Cawthorne Beck	Low Barugh	LMB	0	0	0
Aire	Gargrave	FC	0	4	0
Brompton Beck	Arathorne	LM	0	3	0

**TABLE 5**

**Results of individual sample audits**

1990 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION	Yorkshire	RIVER	Porter
SEASON	Spring	SITE	Hunters Bar
SORTER	SAL	SAMPLE CODE	NRA10 0242

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

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

NET LOSSES     0    NET GAINS     3

NOTES

1 Lymnaea sp. (damaged) 1 only  
 2 Sigara dorsalis 1 only  
 3 Hydraena gracilis 1 only

Additional non-scoring taxa: Empididae

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION

RIVER

SEASON

SITE

SORTER

SAMPLE CODE

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

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

NET LOSSES

NET GAINS

NOTES

1990 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION	Yorkshire	RIVER	Swale
SEASON	Spring	SITE	Keld
SORTER	RM	SAMPLE CODE	NRA10 0297

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

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

NET LOSSES        NET GAINS   

NOTES

1 Siphonurus sp. (small)  
2 Athripsodes sp. 1 only

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION	Yorkshire	RIVER	Colne
SEASON	Spring	SITE	Ashgrove Road
SORTER	MDR	SAMPLE CODE	NRA10 0082

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

		LOSSES	GAINS
<b>A</b>	<p style="text-align: center;"><u>VIAL</u></p> <p>Differences between:            i) BMWP families listed on sample data sheet and            ii) BMWP families found in VIAL by IFE</p>	<p style="text-align: center;">BMWP FAMILIES NOT FOUND BY IFE</p> <p style="text-align: center; font-size: 1.2em;">None</p>	<p style="text-align: center;">ADDITIONAL FAMILIES FOUND BY IFE</p> <p style="text-align: center; font-size: 1.2em;">None</p>
<b>B</b>	<p style="text-align: center;"><u>SAMPLE</u></p> <p>Differences between:            i) BMWP families listed on sample data sheet and            ii) BMWP families found in SAMPLE by IFE</p>	<p style="text-align: center;">BMWP FAMILIES NOT FOUND BY IFE</p> <p style="text-align: center; font-size: 1.2em;">(This box only completed when no vial supplied with sample)</p>	<p style="text-align: center;">ADDITIONAL FAMILIES FOUND BY IFE</p> <p style="text-align: center; font-size: 1.2em;">1 Baetidae</p>

NET LOSSES   

NET GAINS   

NOTES    1 Baetis sp. (abdomen only) 1 only

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION	Yorkshire	RIVER	Cononley Beck
SEASON	Spring	SITE	U/s Aire confluence
SORTER	MDR	SAMPLE CODE	NRA10 0398 (ex 0580)

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

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

NET LOSSES        NET GAINS   

NOTES    1 Hydraena gracilis 1 only

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION	Yorkshire		RIVER	Hull
SEASON	Spring		SITE	Rotsea
SORTER	GJB		SAMPLE CODE	NRA10 0186

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

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

NET LOSSES        NET GAINS   

NOTES    1. Molanna angustata

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION	Yorkshire		RIVER	Kyle
SEASON	Spring		SITE	Newton-Upon-Ouse
SORTER	FN		SAMPLE CODE	NRA10 0192

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

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

NET LOSSES        NET GAINS   

NOTES    1 Small indet nymph 1 only

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION	Yorkshire		RIVER	Foss
SEASON	Spring		SITE	West Lilling
SORTER	GJB		SAMPLE CODE	NRA10 0151

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

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

NET LOSSES        NET GAINS   

NOTES

1 Nitidulidae (terrestrial) found in vial  
 2 Dugesia polychroa/lugubris, Polycelis nigra/tenuis  
 3 Helophorus brevipalpis

1990 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION	Yorkshire	RIVER	Sleddale Beck
SEASON	Spring	SITE	Comondale
SORTER	RM	SAMPLE CODE	NRA10 0278

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

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

NET LOSSES        NET GAINS   

NOTES    1 Amphinemura sulcicollis 1 only  
          2 Wormaldia sp. 1 only

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION	Yorkshire	RIVER	Derwent
SEASON	Spring	SITE	Stamford Bridge
SORTER	GJB	SAMPLE CODE	NRA10 0101

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

		LOSSES	GAINS
<b>A</b>	<u>VIAL</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	None	None
<b>B</b>	<u>SAMPLE</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial supplied with sample)	1 Dendrocoelidae 2 Baetidae 3 Molannidae 4 Lepidostomatidae 5 Brachycentridae

NET LOSSES        NET GAINS   

- NOTES
- 1 Dendrocoelum lacteum 1 only
  - 2 Centroptilum luteolum
  - 3 Molanna angustata 1 only
  - 4 Lepidostoma hirtum
  - 5 Brachycentrus subnubilus (pupae)

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION	Yorkshire		RIVER	Stillingfleet Beck
SEASON	Spring		SITE	Escrick
SORTER	RM		SAMPLE CODE	NRA10 0286

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

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

NET LOSSES        NET GAINS   

NOTES    1 Limnophora sp. (= "Dipteran unid" on data sheet)  
           2 Ephemera sp. 1 only (abdomen only)

Non-scoring taxon:  
 For Culicidae? read Chironomidae (Tanypodinae) pupa

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION	Yorkshire	RIVER	Apedale Beck
SEASON	Spring	SITE	Redmire
SORTER	FN	SAMPLE CODE	NRA10 0018

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

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

NET LOSSES        NET GAINS   

NOTES    1 Lumbricidae recorded as "other taxa" on data sheet but not in box for Group 9

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION	Yorkshire	RIVER	Oak Beck
SEASON	Spring	SITE	Knox Mill Ford
SORTER	EA	SAMPLE CODE	NRA10 0231

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

		LOSSES	GAINS
<b>A</b>	<p style="text-align: center;"><u>VIAL</u></p> <p>Differences between:</p> <p>1) BMWP families listed on sample data sheet and</p> <p>ii) BMWP families found in VIAL by IFE</p>	<p>BMWP FAMILIES NOT FOUND BY IFE</p> <p style="text-align: center; font-weight: bold;">None</p>	<p>ADDITIONAL FAMILIES FOUND BY IFE</p> <p style="text-align: center; font-weight: bold;">None</p>
<b>B</b>	<p style="text-align: center;"><u>SAMPLE</u></p> <p>Differences between:</p> <p>1) BMWP families listed on sample data sheet and</p> <p>ii) BMWP families found in SAMPLE by IFE</p>	<p>BMWP FAMILIES NOT FOUND BY IFE</p> <p>(This box only completed when no vial supplied with sample)</p>	<p>ADDITIONAL FAMILIES FOUND BY IFE</p> <p style="text-align: center; font-weight: bold;">1 Nemouridae 2 Perlodidae</p>

NET LOSSES        NET GAINS   

NOTES

1 *Nemoura avicularis* 1 only  
 2 *Isoperla grammatica* 1 only

Additional non-scoring taxon: Empididae

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION	Yorkshire	RIVER	Nidd
SEASON	Spring	SITE	Hampsthwaite
SORTER	EA	SAMPLE CODE	NRA10 0226

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

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

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

NOTES    1 Goera pilosa 1 only

Additional non-scoring taxon: Psychodidae (Pericoma sp. 1 only)

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION

RIVER

SEASON

SITE

SORTER

SAMPLE CODE

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

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

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

NET LOSSES

NET GAINS

NOTES

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION	Yorkshire	RIVER	Aire
SEASON	Spring	SITE	Apperley Bridge
SORTER	VH	SAMPLE CODE	NRA100008

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

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

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

NET LOSSES        NET GAINS   

NOTES	1 Valvata cristata 1 only 2 Pisidium sp. 1 only
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1990 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION	Yorkshire	RIVER	Oil Mill Beck
SEASON	Spring	SITE	Kirkstall Road
SORTER	VH	SAMPLE CODE	NRA10 0232

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

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

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

NET LOSSES        NET GAINS   

NOTES    1 Indet pupa 1 only

1990 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION  RIVER   
 SEASON  SITE   
 SORTER  SAMPLE CODE

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

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

NET LOSSES  NET GAINS

NOTES

1990 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION	Yorkshire	RIVER	Barden Beck
SEASON	Spring	SITE	Broad Park Bridge
SORTER	MDR	SAMPLE CODE	NRA10 0025

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

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

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

NET LOSSES     0    NET GAINS     1

NOTES    1 Chloroperla torrentium 1 only

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION	Yorkshire		RIVER	Rother
SEASON	Spring		SITE	Chesterfield
SORTER	FC		SAMPLE CODE	NRA10 0251

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

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

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

NET LOSSES       NET GAINS

NOTES

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION

RIVER

SEASON

SITE

SORTER

SAMPLE CODE

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

LOSSES

GAINS

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

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

NET LOSSES

NET GAINS

NOTES

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION	Yorkshire	RIVER	Ea Beck
SEASON	Spring	SITE	Stubbs Bridge
SORTER	SAL	SAMPLE CODE	NRA10 0137

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

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

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

NET LOSSES        NET GAINS   

NOTES

1990 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION	Yorkshire	RIVER	Wyke Beck
SEASON	Spring	SITE	Pontefract Lane
SORTER	VH	SAMPLE CODE	NRA10 0360

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

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

NET LOSSES     1    NET GAINS     1

NOTES    2 Potamopyrgus jenkinsi

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION	Yorkshire		RIVER	Don
SEASON	Spring		SITE	Penistone
SORTER	FF		SAMPLE CODE	NRA10 0122

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

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

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

NET LOSSES       NET GAINS

NOTES

1990 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION	Yorkshire	RIVER	Little Don
SEASON	Spring	SITE	D/s Langsett WTW
SORTER	FF	SAMPLE CODE	NRA10 0199

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

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

B	<u>SAMPLE</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial supplied with sample)	2 Sphaeriidae 3 Perlodidae 4 Rhyacophilidae

NET LOSSES     0    NET GAINS     4

NOTES

- 1 Leptophlebia sp.
- 2 Pisidium sp.
- 3 Isoperla grammatica 1 only
- 4 Rhyacophila dorsalis 1 only

1990 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION	Yorkshire	RIVER	Park Gate Beck
SEASON	Spring	SITE	D/s Clayton West STW
SORTER	LMB	SAMPLE CODE	NRA10 0238

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

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

NET LOSSES        NET GAINS   

NOTES    1 Polycelis nigra/tenuis 1 only

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION	Yorkshire	RIVER	Aire
SEASON	Spring	SITE	Milford Place
SORTER	FC	SAMPLE CODE	NRA10 0001

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

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

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

NET LOSSES        NET GAINS   

NOTES

1990 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION	Yorkshire	RIVER	Aire
SEASON	Spring	SITE	U/s Cononley Beck
SORTER	FC	SAMPLE CODE	NRA10 0005

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

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

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

NET LOSSES        NET GAINS   

NOTES    1 Bithynia tentaculata

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION	Yorkshire	RIVER	Wharfe
SEASON	Spring	SITE	Rhyther
SORTER	FC	SAMPLE CODE	NRA10 0340

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

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

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

NET LOSSES       NET GAINS

NOTES

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION	Yorkshire		RIVER	Wiske
SEASON	Spring		SITE	East Harlsey
SORTER	EA		SAMPLE CODE	NRA10 0355

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

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

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

NET LOSSES        NET GAINS   

NOTES

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION	Yorkshire		RIVER	Comondale Beck
SEASON	Spring		SITE	Comondale
SORTER	EC		SAMPLE CODE	NRA10 0397

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

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

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

NET LOSSES     NET GAINS

NOTES

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION	Yorkshire	RIVER	Wharfe
SEASON	Summer	SITE	Hubberholme
SORTER	RPC	SAMPLE CODE	NRA10 0336

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

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

<b>B</b>	<u>SAMPLE</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE.	(This box only completed when no vial supplied with sample)	3 Ancyliidae 4 Rhyacophilidae 5 Polycentropodidae 6 Hydroptilidae* 7 Tipulidae

NET LOSSES        NET GAINS   

NOTES

- 1,6 Hydroptila sp. empty case in vial, 1 only in sample
- 2 Potamophylax latipennis (pupa) 1 only
- 3 Ancylyus fluviatilis 1 only
- 4 Glossosoma sp. 1 only
- 5 Indet juvenile 1 only
- 7 Antocha vitripennis

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION

RIVER

SEASON

SITE

SORTER

SAMPLE CODE

AQC OF BMWP FAMILIES A. IN VIAL

B. IN SAMPLE

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

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

NET LOSSES

NET GAINS

**NOTES**

1 Terrestrial curculionid in vial  
2 Sialis sp. indet. juvenile 1 only

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION

RIVER

SEASON

SITE

SORTER

SAMPLE CODE

AQC OF BMWP FAMILIES    A. IN VIAL   

B. IN SAMPLE   

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

<b>B</b>	<u>SAMPLE</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial supplied with sample)	2 Ephemerellidae 3 Elmidae* 4 Hydroptilidae

NET LOSSES   

NET GAINS   

**NOTES**

2 Ephemerella ignita 1 only  
4 Hydroptila sp.

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION Yorkshire

RIVER Worth

SEASON Summer

SITE D/s Ponden Res

SORTER FC

SAMPLE CODE NRA10 0576

AQC OF BMWP FAMILIES    A. IN VIAL    +

B. IN SAMPLE    +

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

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

NET LOSSES 0

NET GAINS 3

**NOTES**

- 1 Pisidium sp. 1 only
- 2 Elmis aenea (larvae)
- 3 Sericostoma personatum (pupa) 1 only

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION Yorkshire

RIVER Cudworth Beck

SEASON Summer

SITE D/s Cudworth Carrs Lane

SORTER MDR

SAMPLE CODE NRA10 0091

AQC OF BMWP FAMILIES A. IN VIAL +

B. IN SAMPLE +

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

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

NET LOSSES 0

NET GAINS 1

NOTES 1 Limonia sp.

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION Yorkshire

RIVER Rother

SEASON Summer

SITE U/s Avenue Coking Plant

SORTER LMB

SAMPLE CODE NRA10 0250

AQC OF BMWP FAMILIES    A. IN VIAL    +

B. IN SAMPLE    +

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

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

NET LOSSES 0

NET GAINS 3

NOTES

1 Pisidium sp.  
 2 Brychius sp. (adults)  
 3 Elmis aenea (larva) 1 only

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION	Yorkshire	RIVER	Ryburn
SEASON	Summer	SITE	Sowerby Bridge
SORTER	VH	SAMPLE CODE	NRA10 0253

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

	LOSSES	GAINS
<b>A</b> <u>VIAL</u>  Differences between: 1) BMWP families listed on sample data sheet and 11) BMWP families found in VIAL by IFE	BMWP FAMILIES NOT FOUND BY IFE  None	ADDITIONAL FAMILIES FOUND BY IFE  None

<b>B</b> <u>SAMPLE</u>  Differences between: 1) BMWP families listed on sample data sheet and 11) BMWP families found in SAMPLE by IFE	BMWP FAMILIES NOT FOUND BY IFE  (This box only completed when no vial supplied with sample)	ADDITIONAL FAMILIES FOUND BY IFE  1 Planariidae 2 Lymnaeidae
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NET LOSSES                        NET GAINS   

NOTES    1 Polycelis nigra/tenuis  
2 Lymnaea peregra 1 only

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION Yorkshire

RIVER Dove

SEASON Summer

SITE Farndale

SORTER FN

SAMPLE CODE NRA10 0130

AQC OF BMWP FAMILIES A. IN VIAL +

B. IN SAMPLE +

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

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

NET LOSSES 0

NET GAINS 1

NOTES

1 Helophorus brevivalpis 1 only

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION	Yorkshire	RIVER	Stream Dyke
SEASON	Summer	SITE	Skipsea
SORTER	EA	SAMPLE CODE	NRA10 0288

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

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

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

NET LOSSES        NET GAINS   

NOTES    1 Helobdella stagnalis 1 only

1990 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION

RIVER

SEASON

SITE

SORTER

SAMPLE CODE

AQC OF BMWP FAMILIES A. IN VIAL

B. IN SAMPLE

LOSSES

GAINS

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

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

NET LOSSES

NET GAINS

NOTES

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION	Yorkshire	RIVER	Driffield Canal
SEASON	Summer	SITE	Snakeholm
SORTER	GJB	SAMPLE CODE	NRA10 0133

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

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

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

NET LOSSES        NET GAINS   

NOTES

Potamopyrgus jenkinsi 1 only

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION Yorkshire

RIVER Todwick Beck

SEASON Summer

SITE Low Laithes Farm

SORTER RPC

SAMPLE CODE NRA10 0308

AQC OF BMWP FAMILIES    A. IN VIAL    +

B. IN SAMPLE    +

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

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

NET LOSSES 0

NET GAINS 0

NOTES

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION	Yorkshire	RIVER	Derwent
SEASON	Summer	SITE	Malton
SORTER	RM	SAMPLE CODE	NRA10 0104

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

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

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

NOTES

1 Piscicola geometra 1 only  
 2 Gyridae sp. (larva) 1 only

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION	Yorkshire		RIVER	Stillingfleet Beck
SEASON	Summer		SITE	Escrick
SORTER	CJH		SAMPLE CODE	NRA10 0286

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

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

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

NET LOSSES        NET GAINS   

NOTES    1 Baetis vernus 1 only

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION	Yorkshire	RIVER	Swale
SEASON	Summer	SITE	Gunnorside
SORTER	CJH	SAMPLE CODE	NRA10 0296

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

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

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

NET LOSSES        NET GAINS   

NOTES

1 *Drusus annulatus* (juveniles)  
2 *Sericostoma personatum* (juvenile) 1 only

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION	Yorkshire		RIVER	Tutt
SEASON	Summer		SITE	Boroughbridge
SORTER	CJH		SAMPLE CODE	NRA10 0312

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

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

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

NET LOSSES 1                      NET GAINS 1

NOTES

1 Indet Sciomyzid found in vial  
2 Hesperocorixa sahlbergi

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION	Yorkshire		RIVER	Dove
SEASON	Autumn		SITE	Keldholme
SORTER	GJB		SAMPLE CODE	NRA10 0129

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

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

<b>B</b>	<u>SAMPLE</u>	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial supplied with sample)	1 Taeniopterygidae 2 Nemouridae 3 Hydropsychidae 4 Limnephilidae 5 Leptoceridae 6 Lepidostomatidae

NET LOSSES        NET GAINS   

- NOTES
- 1 Taeniopteryx nebulosa
  - 2 Protonemura sp. (juveniles), Nemoura avicularis
  - 3 Hydropsyche sp. (juveniles)
  - 4 Drusus annulatus
  - 5 Mystacides azurea, Athripsodes sp.
  - 6 Lasiocephala basalis

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION	Yorkshire		RIVER	Great Fryup Beck
SEASON	Autumn		SITE	Street
SORTER	FN		SAMPLE CODE	NRA10 0163

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

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

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

NET LOSSES        NET GAINS   

NOTES	1 Helophorus brevipalpis (adult) 1 only 2 Elmis aenea (adult) 1 only
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# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION	Yorkshire	RIVER	Oak Beck
SEASON	Autumn	SITE	Birk Crag
SORTER	EA	SAMPLE CODE	NRA10 0230

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

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

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

NET LOSSES        NET GAINS   

NOTES

1 Ephemerella ignita 1 only

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION	Yorkshire		RIVER	Silsden Beck
SEASON	Autumn		SITE	Adj Farm
SORTER	SAL		SAMPLE CODE	NRA10 0272

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

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

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

NOTES

1990 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION  RIVER   
 SEASON  SITE   
 SORTER  SAMPLE CODE

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

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

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

NET LOSSES  NET GAINS

NOTES

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION	<b>Yorkshire</b>	RIVER	<b>Derwent</b>
SEASON	<b>Autumn</b>	SITE	<b>Loftsome Bridge</b>
SORTER	<b>LM</b>	SAMPLE CODE	<b>NRA10 0108</b>

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

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

NET LOSSES        NET GAINS   

NOTES

**1 Dendrocoelum lacteum 1 only**  
**2 Molanna angustata 1 only**

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION	<b>Yorkshire</b>	RIVER	<b>Sand Beck</b>
SEASON	<b>Autumn</b>	SITE	<b>Richmond</b>
SORTER	<b>LN</b>	SAMPLE CODE	<b>NRA10 0518</b>

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

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

NET LOSSES       NET GAINS

NOTES **1 Terrestrial species**

# 1990 RIVER QUALITY SURVEY

## AQC - BIOLOGICAL SAMPLES

REGION	Yorkshire		RIVER	Cawthorne Beck
SEASON	Autumn		SITE	Low Barugh
SORTER	LMB		SAMPLE CODE	NRA10 0068

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

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

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

NET LOSSES     NET GAINS

NOTES

1990 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION	<b>Yorkshire</b>	RIVER	<b>Aire</b>
SEASON	<b>Autumn</b>	SITE	<b>Gargrave</b>
SORTER	<b>FC</b>	SAMPLE CODE	<b>NRA10 0003</b>

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

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

NET LOSSES        NET GAINS   

NOTES

**1 Baetis scambus/fuscatus**  
**2 Psychomyia pusilla 1 only**  
**3 Athripsodes sp. 1 only**  
**4 Indet Lepidostomatid (juvenile) 1 only**

1990 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION	<b>Yorkshire</b>	RIVER	<b>Brompton Beck</b>
SEASON	<b>Autumn</b>	SITE	<b>Arathorne</b>
SORTER	<b>LM</b>	SAMPLE CODE	<b>NRA10 0381</b>

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

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

NET LOSSES     NET GAINS

NOTES

**1 Ecdyonurus sp. 1 only**  
**2 Caenis luctuosa/macrura 1 only**  
**3 Elodes sp. (larva) 1 only**

