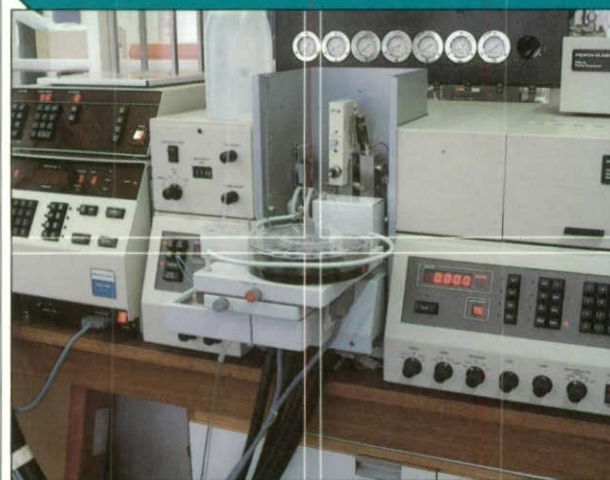
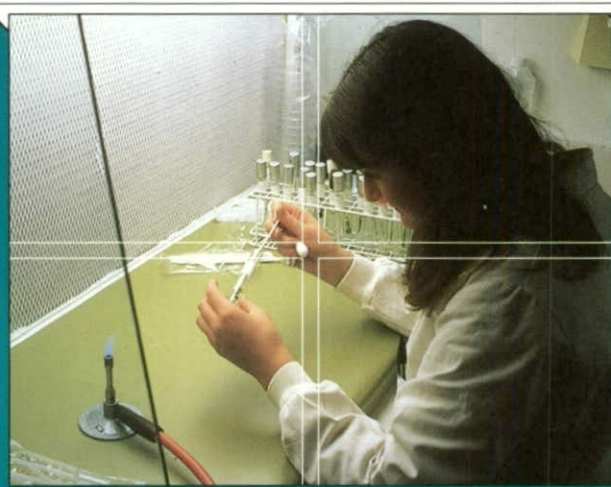
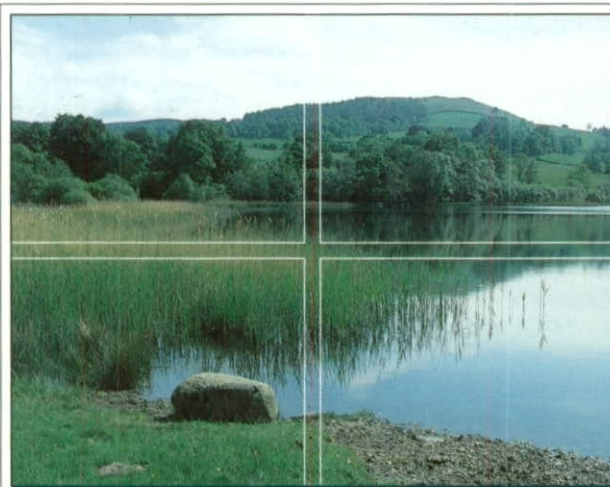




Institute of
Freshwater
Ecology

An audit of performance in the processing of macro-invertebrate samples in 1991. NRA Wessex Region

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

R.J.M. Gunn, J.F. Wright, J.M. Winder & J.H. Blackburn

| | |
|-----------------|--|
| Project leader: | J.F. Wright |
| Report date: | May 1992 |
| Report to: | National Rivers Authority Wessex Region |
| IFE Report Ref: | RL/T04053x1/09 |
| TFS Project No: | T04053x1 |

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The Institute of Freshwater Ecology is part of the Terrestrial and Freshwater Sciences Directorate of the Natural Environment Research Council.

1. INTRODUCTION

In 1991 the sampling of aquatic macro-invertebrates for the biological assessment of river quality continued throughout the United Kingdom. In England and Wales this task 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.

The majority of sites were sampled in spring, summer and autumn. Standard collection procedures, as used in the 1990 River Quality Survey, were retained 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). For a variety of reasons, a few locations were sampled in just one or two seasons.

Samples were sorted by NRA, RPB and DED 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.

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. As in 1990, the IFE was contracted to undertake an audit of the sample sorting and identification performance of each NRA region, several RPBs and the DED. This report presents the results of 60 samples audited for Wessex Region of the NRA. The IFE was not required to perform any statistical analyses nor interpretation of the results of the audit.

2. SAMPLE SELECTION

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 DED 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. Trichopteran pupae, although not routinely identified by many biologists, were to be included in the listing of families.

4. REPORTING

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

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

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

Results of the audits of individual samples are presented in the Appendix.

ACKNOWLEDGEMENTS

Thanks to Mike Furse for help and advice, to Kay Symes and Angela Matthews for assistance with cataloguing and storage of samples and to Valerie Palmer and Diana Morton for typing the manuscript.

TABLE 1. The IFE Report form

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

| | | | |
|----------------------|----------------------|--------------|--------------------------|
| REGION | <input type="text"/> | RIVER | <input type="text"/> |
| DATE | <input type="text"/> | SITE | <input type="text"/> |
| SORTER | <input type="text"/> | SAMPLE CODE | <input type="text"/> |
| AQC OF BMWP FAMILIES | | A. IN VIAL | <input type="checkbox"/> |
| | | B. IN SAMPLE | <input type="checkbox"/> |

| | | LOSSES | CAINS |
|---|---|---|-------------------------------------|
| 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 CAINS

NOTES

TABLE 2. The 19 spring samples audited for Wessex Region, with sample sorter initials and numbers of taxa 'lost', 'gained' and 'omitted'

| River | Site | Sorter | Losses | Gains | Omissions |
|---------------------|--------------------|--------|--------|-------|-----------|
| Hillfarrance Brook | Hillfarrance | PDS | 0 | 0 | 0 |
| Mude | Dehavilland Bridge | GPG | 0 | 1 | 0 |
| Piddle | Piddlehinton | DAC | 0 | 2 | 0 |
| Doverte Brook | Newport | GPG | 0 | 0 | 0 |
| Willett Watercourse | Leigh Cottages | GPG | 0 | 2 | 0 |
| Sutton Stream | Whistle Bridge | PDS | 0 | 2 | 0 |
| Somerset Frome | Freshford | DLS | 0 | 1 | 0 |
| Brit | Netherbury | GPG | 0 | 5 | 0 |
| Somerset Frome | Iron Mill | DAC | 0 | 2 | 0 |
| Piddle | West Mills | DAC | 0 | 8 | 0 |
| Biss | North Bradley | PRH | 0 | 6 | 0 |
| Bristol Avon | Melksham | PRH | 0 | 7 | 0 |
| Divelish | Rons Mill | PRH | 0 | 2 | 0 |
| Semington Brook | Market Lavington | PRH | 0 | 1 | 0 |
| Tone | Bishops Hull | PDS | 0 | 1 | 0 |
| Dorset Frome | Maiden Newton | DLS | 0 | 0 | 0 |
| Lydden | Cannings Court | PDS | 0 | 2 | 0 |
| Mells | Fernhill | DLS | 0 | 4 | 0 |
| Hampshire Avon | Avon Bridge | DLS | 0 | 0 | 0 |

TABLE 3. The 21 summer samples audited for Wessex Region, with sample sorter initials and numbers of taxa 'lost', 'gained' and 'omitted'

| River | Site | Sorter | Losses | Gains | Omissions |
|-----------------|-----------------------|--------|--------|-------|-----------|
| Hooke | Maiden Newton | DAC | 0 | 3 | 0 |
| Beer Hacket | Beer Hacket | PDS | 0 | 2 | 0 |
| Hampshire Avon | Durrington | DAC | 1 | 2 | 1 |
| Yeo | Goathill | PDS | 0 | 1 | 0 |
| Bristol Avon | Kellaways | PRH | 0 | 4 | 0 |
| Yeo | D/s Penn STW | PDS | 1 | 1 | 0 |
| Axe North | Knowle Hill | DAC | 0 | 2 | 0 |
| Wellow Brook | Writhlington | DLS | 0 | 1 | 0 |
| Wylfe | Crockerton Green | DLS | 0 | 2 | 0 |
| Sydling Brook | Grimstone | DAC | 0 | 0 | 0 |
| Wellow Brook | Foxcote | DLS | 0 | 0 | 0 |
| Mells | Mells | DAC | 0 | 0 | 0 |
| Chelston Stream | Ham | PDS | 0 | 1 | 0 |
| Brit | Netherbury | GPG | 0 | 0 | 0 |
| Marden | Stanley | PRH | 0 | 1 | 0 |
| Chew | Shrowl Bridge | DLS | 0 | 0 | 0 |
| Parrett | Lower Severalls | GPG | 0 | 0 | 0 |
| Hampshire Avon | Woodgreen | PRH | 0 | 4 | 0 |
| Fishers Brook | Lower Whitley | PRH | 0 | 0 | 0 |
| Avill | Dunster | GPG | 1 | 1 | 0 |
| Ozleworth Brook | Burrough Hill Farm | GPG | 0 | 0 | 0 |

TABLE 4. The 20 autumn samples audited for Wessex Region, with sample sorter initials and numbers of taxa 'lost', 'gained' and 'omitted'

| River | Site | Sorter | Losses | Gains | Omissions |
|--------------------|------------------|--------|--------|-------|-----------|
| Dorset Frome | Hurst Bridge | DAC | 0 | 5 | 0 |
| Hooke | Lower Kingcombe | DLS | 1 | 0 | 0 |
| Wylfe | Norton Bavant | DLS | 0 | 0 | 0 |
| Deane Water East | Pewsey | DAC | 0 | 0 | 0 |
| Corfe River | Wytch | DAC | 0 | 4 | 0 |
| Lam Brook | Lambridge | PRH | 0 | 4 | 0 |
| Cale | Goulds Farm | PRH | 0 | 0 | 0 |
| Hampshire Avon | Amesbury | DAC | 0 | 1 | 0 |
| Bristol Avon | Summerlands Farm | PRH | 0 | 1 | 2 |
| Bristol Avon | Frying Pan Farm | PRH | 0 | 0 | 0 |
| Hampshire Avon | Royalty | GPG | 0 | 1 | 0 |
| Doniford Stream | Sampford Brett | GPG | 0 | 1 | 0 |
| Yeo | Thornford | PDS | 0 | 1 | 2 |
| Brit | Netherbury | GPG | 0 | 5 | 1 |
| Ozleworth Brook | Kingswood | GPG | 0 | 2 | 1 |
| Hillfarrance Brook | Hillfarrance | PDS | 1 | 4 | 1 |
| Hampshire Avon | Salisbury | DLS | 0 | 1 | 0 |
| Biss Brook | Brook House Farm | PDS | 0 | 1 | 0 |
| Tone | East Nyncehead | PDS | 0 | 0 | 0 |
| Nadder | Churchfields | DLS | 0 | 2 | 1 |

APPENDIX

Results of individual sample audits

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Wessex**

RIVER **Hillfarrance Brook**

SEASON **6.3.91**

SITE **Hillfarrance**

SORTER **PDS**

SAMPLE CODE **09 5205 HLL 020**

AQC OF BMWP FAMILIES A. IN VIAL **+**

B. IN SAMPLE **+**

| LOSSES | | GAINS |
|--------|--|---|
| A | <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 | <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 |

NET LOSSES **0**

NET GAINS **0**

NOTES

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Wessex**

RIVER **Mude**

DATE **8.5.91**

SITE **Dehavilland Bridge**

SORTER **GPG**

SAMPLE CODE **09 4310 MUD 005.**

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 |
| | None | None |
| 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 |
| | (This box only completed when no vial supplied with sample) | 1 Elmidae |
| Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE | | |

NET LOSSES **0**

NET GAINS **1**

NOTES

1 Limnius volckmari (adults), Oulimnius tuberculatus(adults + larvae)

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

| | | | |
|----------------------|----------------|--------------|------------------------|
| REGION | Wessex | RIVER | Piddle |
| DATE | 27.3.91 | SITE | Piddlehinton |
| SORTER | DAC | SAMPLE CODE | 09 4441 PDD 277 |
| 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 2 Leptoceridae |

NET LOSSES **0**

NET GAINS **2**

NOTES

1 *Potamopyrgus jenkinsi* 1 only
2 *Athripsodes* sp. (juvenile) 1 only

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Wessex**

RIVER **Doverte Brook**

DATE **18.3.91**

SITE **Newport**

SORTER **GPB**

SAMPLE CODE **09 5423 DOV 030**

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 |
| | None | None |
| | Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE | |

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

NET LOSSES **0**

NET GAINS **0**

NOTES

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Wessex**

RIVER **Willett Watercourse**

DATE **20.5.91**

SITE **Leigh Cott**

SORTER **GPG**

SAMPLE CODE **09 5109 WIL 001**

AQC OF BMWP FAMILIES A. IN VIAL ☐

B. IN SAMPLE ☐

| LOSSES | | GAINS |
|--------|--|---|
| A | <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 | <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 Planariidae 2 Simuliidae |

NET LOSSES

NET GAINS

NOTES

**1 Polycelis nigra/tenuis 1 only
2 Simulium (Wilhelmia) sp.**

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Wessex**

RIVER **Sutton Stream**

DATE **8.5.91**

SITE **Whistle Bridge**

SORTER **PDS**

SAMPLE CODE **09 5202 SUT 035**

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 |
| | None | None |
| | 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 |
| | (This box only completed when no vial supplied with sample) | 1 Neritidae 2 Glossiphoniidae |
| | Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE | |

NET LOSSES **0**

NET GAINS **2**

NOTES

1 Theodoxus fluviatilis 1 only
2 Glossiphonia complanata 1 only

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Wessex**

RIVER **Somerset Frome**

DATE **22.4.91**

SITE **Freshford**

SORTER **DLS**

SAMPLE CODE **09 5311 SFR 002**

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 |
| | None | None |
| | 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 |
| | (This box only completed when no vial supplied with sample) | 1 Haliplidae |
| | Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE | |

NET LOSSES **0**

NET GAINS **1**

NOTES
1 Haliplus sp. (larva) 1 only

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

| | | | |
|--------|----------------|-------------|------------------------|
| REGION | Wessex | RIVER | Brit |
| DATE | 17.4.91 | SITE | Netherbury |
| SORTER | GPG | SAMPLE CODE | 09 4481 BRT 100 |

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 Piscicolidae 2 Hydrophilidae 3 Leptoceridae 4 Lepidostomatidae 5 Brachycentridae |

NET LOSSES

NET GAINS

NOTES

- 1 **Piscicola geometra** 1 only
- 2 **Hydraena gracilis** 1 only
- 3 **Athripsodes** sp.
- 4 **Lepidostoma hirtum**
- 5 **Brachycentrus subnubilus** (pupa) 1 only

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Wessex**

RIVER **Somerset Frome**

DATE **15.4.91**

SITE **Iron Mill**

SORTER **DAC**

SAMPLE CODE **09 5311 SFR 260**

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 |
| | None | None |
| | Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE | |

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

NET LOSSES **0**

NET GAINS **2**

NOTES

1 Brachyptera risi 1 only
2 Hydroptila sp. 1 only

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Wessex**

RIVER **Piddle**

DATE **20.5.91**

SITE **West Mills**

SORTER **DAC**

SAMPLE CODE **09 4445 PDD 020**

AQC OF BMWP FAMILIES A. IN VIAL ☒

B. IN SAMPLE ☒

| | LOSSES | GAINS |
|----------|--|---|
| A | VIAL | |
| | BMWP FAMILIES NOT FOUND BY IFE | ADDITIONAL FAMILIES FOUND BY IFE |
| | None | 1 Hydrometridae 2 Brachycentridae |
| | 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 only completed when no vial supplied with sample) | 3 Neritidae 4 Hydrobiidae 5 Sphaeriidae 6 Leuctridae 7 Dryopidae 8 Tipulidae |
| | Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE | |

NET LOSSES **0**

NET GAINS **8**

NOTES

- 1 "In sample" written on sheet
- 2 Brachycentrus subnubilus
- 3 Theodoxus fluviatilis
- 4 Bithynia tentaculata 1 only

- 5 Pisidium sp.
- 6 Leuctra geniculata
- 7 Dryops sp. (adult) 1 only
- 8 Antocha vitripennis 1 only

Hydrometridae or Rhyacophilidae omitted from No of taxa count of 27
Curculionidae not included in 1991 survey but Hydronomus alismatis (aquatic) in sample.

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION Wessex

RIVER Biss

DATE 8.4.91

SITE North Bradley

SORTER PRH

SAMPLE CODE 09 5310 BIS 030

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 <i>Lymnaeidae</i> 2 <i>Planorbidae</i> 3 <i>Calopterygidae</i> 4 <i>Psychomyiidae</i> 5 <i>Hydroptilidae</i> 6 <i>Leptoceridae</i> |

NET LOSSES

NET GAINS

NOTES

- 1 *Lymnaea peregra* 1 only
- 2 *Gyraulus albus* 1 only
- 3 *Calopteryx splendens* 1 only
- 4 *Tinodes waeneri*
- 5 *Hydroptila* sp.
- 6 *Mystacides azurea* 1 only

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

| | | | |
|--------|---------|-------------|-----------------|
| REGION | Wessex | RIVER | Bristol Avon |
| DATE | 16.5.91 | SITE | Melksham |
| SORTER | PRH | SAMPLE CODE | 09 5301 BAV 585 |

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

| | LOSSES | GAINS |
|--|---|--|
| A | VIAL | |
| | BMWP FAMILIES NOT FOUND BY IFE | ADDITIONAL FAMILIES FOUND BY IFE |
| Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE | None | None |
| B | SAMPLE | |
| | BMWP FAMILIES NOT FOUND BY IFE | ADDITIONAL FAMILIES FOUND BY IFE |
| Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE | (This box only completed when no vial supplied with sample) | 1 Planorbidae 2 Ancyliidae 3 Baetidae 4 Leptophlebiidae 5 Coenagriidae 6 Aeshnidae 7 Elmidae |

NET LOSSES ☐0 NET GAINS ☐7

NOTES

- 1 Gyraulus albus, Hippentis complanatus
- 2 Acroloxus lacustris 1 only
- 3 Cloeon dipterum 1 only
- 4 Habrophlebia fusca 1 only
- 5 Ischnura elegans
- 6 Indet Aeshnid nymphs (juveniles)
- 7 Oulimnius sp. (larvae)

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Wessex**

RIVER **Divelish**

DATE **18.3.91**

SITE **Rons Mill**

SORTER **PRH**

SAMPLE CODE **09 4334 DIV 020**

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 Beraeidae |

| 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 Psychomyiidae |

NET LOSSES **0**

NET GAINS **2**

NOTES

1 **Beraeodes minutus**
2 **Tinodes waeneri** 1 only

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Wessex**

RIVER **Semington Brook**

DATE **3.6.91**

SITE **Market Lavington**

SORTER **PRH**

SAMPLE CODE **09 5309 SMG 180**

AQC OF BMWP FAMILIES A. IN VIAL ☐

B. IN SAMPLE ☐

| LOSSES | | GAINS |
|--------|---|--|
| A | VIAL | |
| | 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 | SAMPLE | |
|---|---|--|
| | 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 Lymnaeidae |

NET LOSSES **0**

NET GAINS **1**

NOTES

1 Lymnaea peregra 1 only

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Wessex**

RIVER **Tone**

DATE **3.6.91**

SITE **Bishops Hull**

SORTER **PDS**

SAMPLE CODE **09 5205 TON 192**

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 |
| | None | None |
| | 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 |
| | (This box only completed when no vial supplied with sample) | 1 Leptophlebiidae |
| | Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE | |

NET LOSSES **0**

NET GAINS **1**

NOTES

1 Habrophlebia fusca 1 only

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION

Wessex

RIVER

Dorset Frome

DATE

6.6.91

SITE

Maiden Newton

SORTER

DLS

SAMPLE CODE

09 4451 DFR 455

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

0

NET GAINS

0

NOTES

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Wessex**

RIVER **Lydden**

DATE **18.3.91**

SITE **Cannings Court**

SORTER **PDS**

SAMPLE CODE **09 4333 LYN 145**

AQC OF BMWP FAMILIES A. IN VIAL ☐

B. IN SAMPLE ☐

| LOSSES | | GAINS |
|--------|--|---|
| A | <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 | <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 Leptophlebiidae 2 Elmidae |

NET LOSSES **0**

NET GAINS **2**

NOTES

**1 Habrophlebia fusca 1 only
2 Elmis aenea (adult + larva)**

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Wessex**

RIVER **Mells**

DATE **8.4.91**

SITE **Fernhill**

SORTER **DLS**

SAMPLE CODE **09 5312 MLL 125**

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 2 Nemouridae 3 Hydrophilidae 4 Tipulidae |

NET LOSSES

NET GAINS

NOTES

- 1 Potamopyrgus jenkinsi 1 only
- 2 Nemoura cambrica/erratica, Amphinemura standfussi
- 3 Hydraena gracilis 1 only
- 4 Eloeophila sp. 1 only

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Wessex**

RIVER **Hampshire Avon**

DATE **16.5.91**

SITE **Avon Bridge**

SORTER **DLS**

SAMPLE CODE **09 4321 HAV 580**

AQC OF BMWP FAMILIES A. IN VIAL ☐

B. IN SAMPLE ☐

LOSSES

GAINS

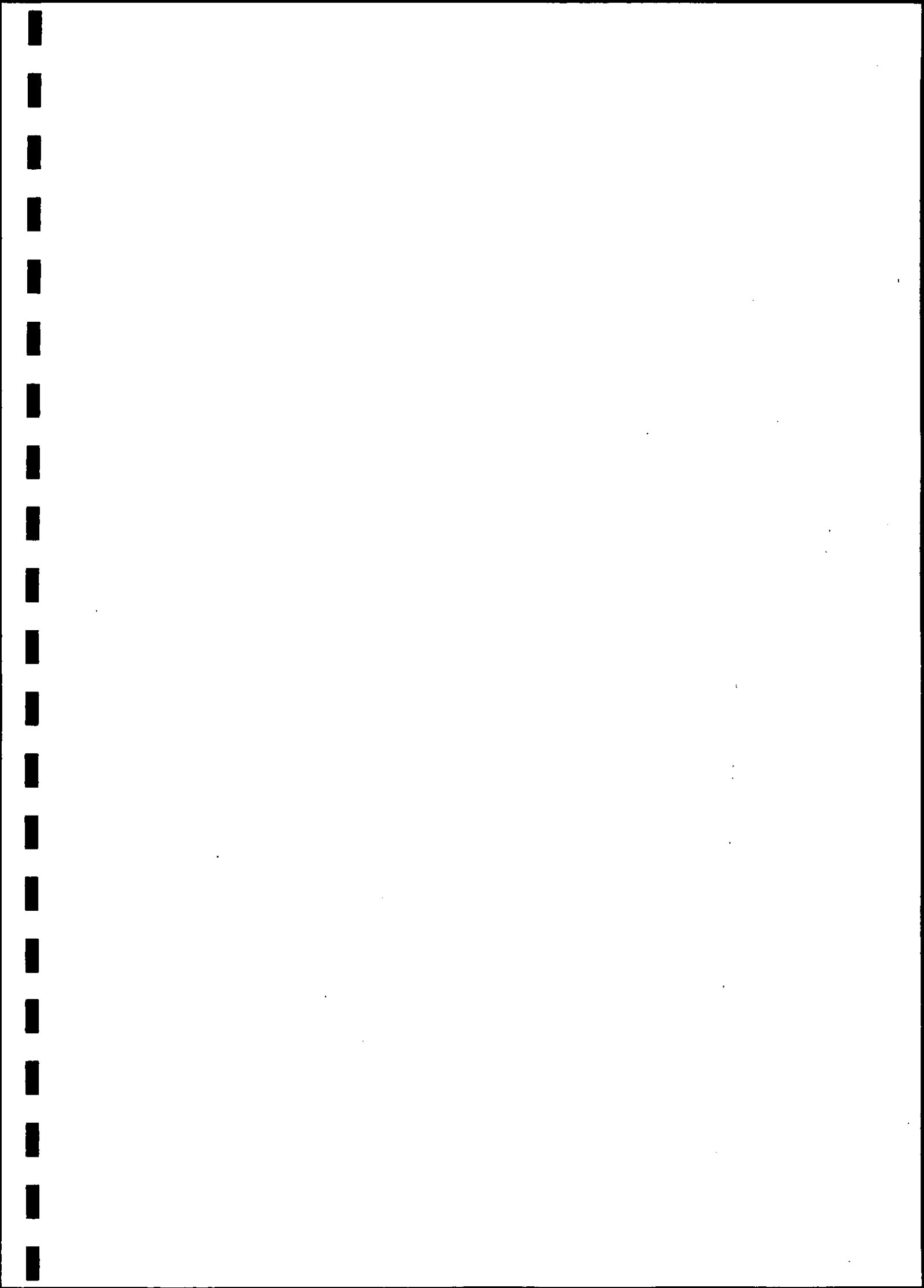
| A | <u>VIAL</u> | BMWP FAMILIES NOT FOUND BY IFE | ADDITIONAL FAMILIES FOUND BY IFE |
|---|---|-----------------------------------|-------------------------------------|
| | Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE | None | None |

| 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



1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION

Wessex

RIVER

Hooke

SEASON

6.6.91

SITE

Maiden Newton

SORTER

DAC

SAMPLE CODE

09 4452 HKE 001

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 Simuliidae |

| 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 Leuctridae 3 Hydroptilidae |

NET LOSSES

0

NET GAINS

3

NOTES

- 1 Simulium ornatum group, S.(Wilhelmia) sp.
- 2 Leuctra sp. (juvenile) 1 only
- 3 Ithytrichia sp. 1 only

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Wessex**

RIVER **Beer Hacket**

DATE **5.8.91**

SITE **Beer Hacket**

SORTER **PDS**

SAMPLE CODE **09 5202 BRH 001**

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 2 Elmidae |

NET LOSSES

NET GAINS

NOTES

1 *Potamopyrgus jenkinsi*
2 *Elmis aenea* (adult) 1 only

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Wessex**

RIVER **Hampshire Avon**

DATE **5.8.91**

SITE **Durrington**

SORTER **DAC**

SAMPLE CODE **09 4321 HAV 740**

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 Glossiphoniidae* 2 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) | 3 Piscicolidae 4 Glossiphoniidae* 5 Leuctridae |

NET LOSSES

NET GAINS

NOTES

- 2 **Curculionidae** not included in 1991 survey
- 3 **Piscicola geometra** 1 only
- 4 **Hemiclepsis marginata**
- 5 **Leuctra fusca** in sample, cast skin in vial

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION Wessex

RIVER Yeo

DATE 31.7.91

SITE Goathill

SORTER PDS

SAMPLE CODE 09 5202 YEO 440

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 Caenidae |

NET LOSSES 0

NET GAINS 1

NOTES

1 Caenis luctuosa/macrura 1 only

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Wessex**

RIVER **Bristol Avon**

DATE **15.7.91**

SITE **Kellaways**

SORTER **PRH**

SAMPLE CODE **09 5301 BAV 775**

AQC OF BMWP FAMILIES A. IN VIAL

B. IN SAMPLE

| LOSSES | | GAINS |
|--------|--|---|
| A | VIAL | |
| | 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 1 Molannidae |

| B | SAMPLE | |
|---|--|---|
| | 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 2 Valvatidae 3 Coenagriidae 4 Gerridae |

NET LOSSES

NET GAINS

NOTES

- 1 *Molanna angustata*
- 2 *Valvata piscinalis* 1 only
- 3 *Pyrrhosoma nymphula* 1 only
- 4 Indet Gerrid nymphs

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Wessex**

RIVER **Yeo**

DATE **17.7.91**

SITE **D/s Penn STW**

SORTER **PDS**

SAMPLE CODE **09 5202 YEO 260**

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 Valvatidae | 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 Elmidae |

NET LOSSES **1**

NET GAINS **1**

NOTES

2 Elmis aenea (adults), Limnius volckmari (larva)

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Wessex**

RIVER **Axe North**

DATE **1.7.91**

SITE **Knowle Hill**

SORTER **DAC**

SAMPLE CODE **09 5212 AXN 030**

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 |
| | None | None |
| | 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 |
| | (This box only completed when no vial supplied with sample) | 1 Glossiphoniidae 2 Simuliidae |
| | Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE | |

NET LOSSES

NET GAINS

NOTES

1 Glossiphonia complanata 1 only
2 Simulium ornatum group (larvae + pupae)

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Wessex**

RIVER **Wellow Brook**

DATE **1.8.91**

SITE **Writhlington**

SORTER **DLS**

SAMPLE CODE **09 5313 WLL 095**

AQC OF BMWP FAMILIES A. IN VIAL ☒

B. IN SAMPLE ☒

| LOSSES | | GAINS |
|--------|--|---|
| A | <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 | <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 Dytiscidae |

NET LOSSES **0**

NET GAINS **1**

NOTES

1 Oreodytes sanmarkii (adult) 1 only

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

| | | | |
|--------|----------------|-------------|-------------------------|
| REGION | Wessex | RIVER | Wylfe |
| DATE | 13.6.91 | SITE | Crockerton Green |
| SORTER | DLS | SAMPLE CODE | 09 4323 WYL 340 |

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 Hydroptilidae 2 Tipulidae |

NET LOSSES ☐0 NET GAINS ☐2

NOTES

1 Oxyethira sp. 1 only
2 Dicranota sp.

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION

RIVER

DATE

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

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Wessex**

RIVER **Wellow Brook**

DATE **1.8.91**

SITE **Foxcote**

SORTER **DLS**

SAMPLE CODE **09 5313 WLL 090**

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 **0**

NET GAINS **0**

NOTES

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

| | | | |
|--------|----------------|-------------|------------------------|
| REGION | Wessex | RIVER | Mells |
| DATE | 24.6.91 | SITE | Mells |
| SORTER | DAC | SAMPLE CODE | 09 5312 MLL 060 |

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

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

NET LOSSES

NET GAINS

NOTES

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Wessex**

RIVER **Chelston Stream**

DATE **17.6.91**

SITE **Ham**

SORTER **PDS**

SAMPLE CODE **09 5205 CHE 013**

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

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Wessex**

RIVER **Brit**

DATE **18.7.91**

SITE **Netherbury**

SORTER **GPG**

SAMPLE CODE **09 4481 BRT 100**

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

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Wessex**

RIVER **Marden**

DATE **17.6.91**

SITE **Stanley**

SORTER **PRH**

SAMPLE CODE **09 5308 MAR 025**

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 Simuliidae |

NET LOSSES **0**

NET GAINS **1**

NOTES

1 Simulium erythrocephalum (larvae)

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

| | | | |
|--------|-------------------------------------|-------------|--|
| REGION | <input type="text" value="Wessex"/> | RIVER | <input type="text" value="Chew"/> |
| DATE | <input type="text" value="8.7.91"/> | SITE | <input type="text" value="Shrowl Bridge"/> |
| SORTER | <input type="text" value="DLS"/> | SAMPLE CODE | <input type="text" value="09 5314 CHW 210"/> |

| | | | | |
|----------------------|------------|--------------------------------|--------------|--------------------------------|
| AQC OF BMWP FAMILIES | A. IN VIAL | <input type="text" value="1"/> | B. IN SAMPLE | <input type="text" value="1"/> |
|----------------------|------------|--------------------------------|--------------|--------------------------------|

| | LOSSES | GAINS | | | | | | |
|--|---|----------------------------------|--------------------------------|----------------------------------|--|---|------|--|
| A | <table border="1"> <tr> <th><u>VIAL</u></th><th>BMWP FAMILIES NOT FOUND BY IFE</th><th>ADDITIONAL FAMILIES FOUND BY IFE</th></tr> <tr> <td>Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE</td><td>None</td><td>None</td></tr> </table> | <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 | |
| <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 | <table border="1"> <tr> <th><u>SAMPLE</u></th><th>BMWP FAMILIES NOT FOUND BY IFE</th><th>ADDITIONAL FAMILIES FOUND BY IFE</th></tr> <tr> <td>Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE</td><td>(This box only completed when no vial supplied with sample)</td><td>None</td></tr> </table> | <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 | |
| <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 | <input type="text" value="0"/> | NET GAINS | <input type="text" value="0"/> |
|------------|--------------------------------|-----------|--------------------------------|

NOTES

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Wessex**

RIVER **Parrett**

DATE **1.7.91**

SITE **Lower Severalls**

SORTER **GPG**

SAMPLE CODE **09 5203 PRR 540**

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

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Wessex**

RIVER **Hampshire Avon**

DATE **11.7.91**

SITE **Woodgreen**

SORTER **PRH**

SAMPLE CODE **09 4326 HAV 376**

AQC OF BMWP FAMILIES A. IN VIAL ☐

B. IN SAMPLE ☐

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

NET LOSSES

NET GAINS

NOTES

- 1 Aphelocheirus aestivalis 1 only
- 2 Helophorus brevipalpis (adult) 1 only
- 3 Tinodes waeneri 1 only
- 4 Dicranota sp.

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION

RIVER

DATE

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

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Wessex**

RIVER **Avill**

DATE **12.8.91**

SITE **Dunster**

SORTER **GPG**

SAMPLE CODE **09 5105 AVL 050**

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 Leptoceridae | 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 Dytiscidae |

NET LOSSES ☒

NET GAINS ☒

NOTES

2 Oreodytes septentrionalis (larva) 1 only

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Wessex**

RIVER **Ozleworth Brook**

DATE **17.6.91**

SITE **Burroughhill Farm**

SORTER **GPG**

SAMPLE CODE **09 5423 OZL 010**

AQC OF BMWP FAMILIES A. IN VIAL ☐

B. IN SAMPLE ☐

LOSSES

GAINS

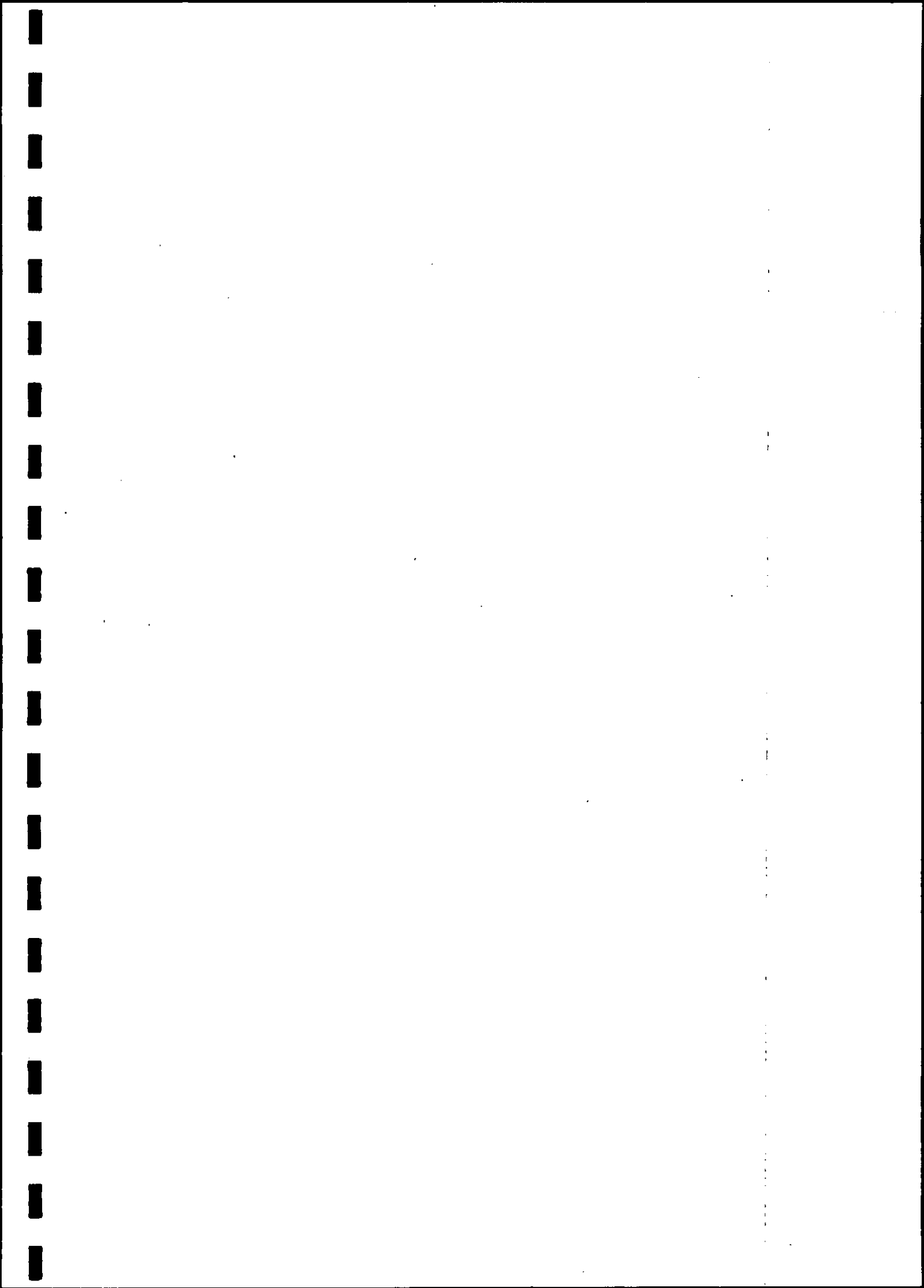
| A | <u>VIAL</u> | BMWP FAMILIES NOT FOUND BY IFE | ADDITIONAL FAMILIES FOUND BY IFE |
|---|---|-----------------------------------|-------------------------------------|
| | Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE | None | None |

| 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



1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Wessex**

RIVER **Dorset Frome**

DATE **28.11.91**

SITE **Hurst Bridge**

SORTER **DAC**

SAMPLE CODE **09 4457 DFR 190**

AQC OF BMWP FAMILIES A. IN VIAL **+**

B. IN SAMPLE **+**

LOSSES

GAINS

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

| B | <u>SAMPLE</u> | BMWP FAMILIES NOT FOUND BY IFE | ADDITIONAL FAMILIES FOUND BY IFE |
|---|--|---|---|
| | Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE | (This box only completed when no vial supplied with sample) | 1 Valvatidae 2 Sphaeriidae 3 Ephemerellidae 4 Caenidae 5 Lepidostomatidae |

NET LOSSES **0**

NET GAINS **5**

NOTES

- 1 Valvata piscinalis 1 only
- 2 Pisidium sp.
- 3 Ephemerella ignita 1 only
- 4 Caenis rivulorum 1 only
- 5 Indet lepidostomatid (juvenile) 1 only

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Wessex**

RIVER **Hooke**

DATE **2.9.91**

SITE **Lower Kingcombe**

SORTER **DLS**

SAMPLE CODE **09 4452 HKE 051**

AQC OF BMWP FAMILIES A. IN VIAL **+**

B. IN SAMPLE **+**

LOSSES

GAINS

| 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 Cordulegasteridae | None |

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

NET LOSSES **1**

NET GAINS **0**

NOTES

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Wessex**

RIVER **Wylfe**

DATE **5.9.91**

SITE **Norton Bavant**

SORTER **DLS**

SAMPLE CODE **09 4323 WYL 285**

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 **0**

NET GAINS **0**

NOTES

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Wessex**

RIVER **Deane Water East**

DATE **3.9.91**

SITE **Pewsey**

SORTER **DAC**

SAMPLE CODE **09 4321 DNE 015**

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 **0**

NET GAINS **0**

NOTES

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Wessex**

RIVER **Corfe River**

DATE **26.11.91**

SITE **Wytch**

SORTER **DAC**

SAMPLE CODE **09 4490 CRF 010**

AQC OF BMWP FAMILIES A. IN VIAL **+**

B. IN SAMPLE **+**

LOSSES

GAINS

| 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 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 only completed when no vial supplied with sample) | 2 Hydrobiidae 3 Elmidae 4 Polycentropodidae |

NET LOSSES **0**

NET GAINS **4**

NOTES

- 1 *Platambus maculatus* (larvae)
- 2 *Potamopyrgus jenkinsi*
- 3 *Elmis aenea* (adult + larvae)
- 4 *Plectrocnemia conspersa* 1 only

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Wessex**

RIVER **Lam Brook**

DATE **25.11.91**

SITE **Lambridge**

SORTER **PRH**

SAMPLE CODE **09 5301 LAM 008**

AQC OF BMWP FAMILIES A. IN VIAL **+**

B. IN SAMPLE **+**

LOSSES

GAINS

| 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 Heptageniidae |

| B | SAMPLE | BMWP FAMILIES NOT FOUND BY IFE | ADDITIONAL FAMILIES FOUND BY IFE |
|---|--|---|---|
| | Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE | (This box only completed when no vial supplied with sample) | 2 Hydropsychidae 3 Limnephilidae 4 Lepidostomatidae |

NET LOSSES **0**

NET GAINS **4**

NOTES

- 1 Ecdyonurus sp.
- 2 Hydropsyche siltalai
- 3 Indet limnephilid (juvenile) 1 only
- 4 Lepidostoma hirtum 1 only

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Wessex**

RIVER **Cale**

DATE **11.11.91**

SITE **Goulds Farm**

SORTER **PRH**

SAMPLE CODE **09 4332CAL 100**

AQC OF BMWP FAMILIES A. IN VIAL **+**

B. IN SAMPLE **+**

| LOSSES | | GAINS |
|---|-----------------------------------|-------------------------------------|
| A | <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 | ADDITIONAL FAMILIES FOUND BY IFE |
| | None | None |

| 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 | ADDITIONAL FAMILIES FOUND BY IFE |
| | (This box only completed when no vial supplied with sample) | None |

NET LOSSES **0**

NET GAINS **0**

NOTES

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Wessex**

RIVER **Hampshire Avon**

DATE **12.11.91**

SITE **Amesbury**

SORTER **DAC**

SAMPLE CODE **09 4321 HAV 690**

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 Hydroptilidae |

NET LOSSES **0**

NET GAINS **1**

NOTES **1 Ithytrichia sp.**

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Wessex**

RIVER **Bristol Avon**

DATE **28.11.91**

SITE **Summerlands Farm**

SORTER **PRH**

SAMPLE CODE **09 5301 BAV 810**

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 Asellidae* 2 Baetidae* | 3 Limnephilidae |

| 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) | 4 Asellidae* 5 Baetidae* |

NET LOSSES **0**

NET GAINS **1**

NOTES

3 Limnephilus sp, Potamophylax group
4 Asellus aquaticus
5 Cloeon dipterum, Centroptilum luteolum

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Wessex**

RIVER **Bristol Avon**

DATE **13.11.91**

SITE **Frying Pan Farm**

SORTER **PRH**

SAMPLE CODE **09 5301 BAV 570**

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 **0**

NET GAINS **0**

NOTES

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Wessex**

RIVER **Hampshire Avon**

DATE **28.11.91**

SITE **Royalty**

SORTER **GPG**

SAMPLE CODE **09 4328 HAV 010**

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 Lepidostomatidae |

NET LOSSES **0**

NET GAINS **1**

NOTES **1 Lepidostoma hirtum 1 only**

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Wessex**

RIVER **Doniford Stream**

DATE **20.11.91**

SITE **Sampford Brett**

SORTER **GPG**

SAMPLE CODE **09 5109 DNF 030**

AQC OF BMWP FAMILIES A. IN VIAL **+**

B. IN SAMPLE **+**

LOSSES

GAINS

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

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

NET LOSSES **0**

NET GAINS **1**

NOTES

1 Athripsodes sp. (juvenile) 1 only

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION

RIVER

DATE

SITE

SORTER

SAMPLE CODE

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

LOSSES

GAINS

| A | VIAL | BMWP FAMILIES NOT FOUND BY IFE | ADDITIONAL FAMILIES FOUND BY IFE |
|---|--|--------------------------------|----------------------------------|
| | Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE | 1 Oligochaeta* 2 Caenidae* | None |

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

NET LOSSES

NET GAINS

NOTES

3 Tubificidae, Lumbriculidae
4 Caenis luctuosa/macrura
5 Platambus maculatus (larvae)

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Wessex**

RIVER **Brit**

DATE **11.11.91**

SITE **Netherbury**

SORTER **GPG**

SAMPLE CODE **09 4481 BRT 100**

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 Odontoceridae* | 2 Lepidostomatidae |

| 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 Planariidae 4 Valvatidae 5 Leuctridae 6 Gyrinidae 7 Odontoceridae* |

NET LOSSES **0**

NET GAINS **5**

NOTES

- 2 Lepidostoma hirtum
- 3 Dugesia lugubris/polychroa 1 only
- 4 Valvata piscinalis
- 5 Leuctra hippopus 1 only
- 6 Orectochilus villosus (larva) 1 only
- 7 Odontocerus albicorne 1 only

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Wessex**

RIVER **Ozleworth Brook**

DATE **23.9.91**

SITE **Kingswood**

SORTER **GPG**

SAMPLE CODE **09 5243 OZL 030**

AQC OF BMWP FAMILIES A. IN VIAL **+**

B. IN SAMPLE **+**

| LOSSES | | GAINS |
|--|--------------------------------|----------------------------------|
| A | VIAL | |
| 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 Dytiscidae* | None |

| B | SAMPLE | |
|--|---|--|
| 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 only completed when no vial supplied with sample) | 2 Dytiscidae* 3 Elmidae 4 Rhyacophilidae |

NET LOSSES **0**

NET GAINS **2**

NOTES

2 Oreodytes sanmarkii (adults)
3 Elmis aenea, Limnius volckmari, Oulimnius sp. (larvae)
4 Rhyacophila dorsalis 1 only

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Wessex**

RIVER **Hillfarrance Brook**

DATE **3.9.91**

SITE **Hillfarrance**

SORTER **PDS**

SAMPLE CODE **09 5205 HLL 020**

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 Leptoceridae* 2 Sericostomatidae | 3 Beraeidae |

| 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) | 4 Hydroptilidae 5 Limnephilidae 6 Leptoceridae* 7 Simuliidae |

NET LOSSES **1**

NET GAINS **4**

NOTES

- 3 Beraeodes minutus
- 4 Hydroptila sp. (pupae)
- 5 Chaetopteryx villosa 1 only
- 6 Mystacides nigra/longicornis
- 7 Simulium ornatum group (larva + pupa)

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION Wessex

RIVER Hampshire Avon

DATE 21.11.91

SITE Salisbury

SORTER DLS

SAMPLE CODE 09 4326 HAV 530

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 0

NET GAINS 1

NOTES

1 Dugesia lugubris/polychroa 1 only

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION **Wessex**

RIVER **Biss Brook**

DATE **21.11.91**

SITE **Brook House Farm**

SORTER **PDS**

SAMPLE CODE **09 5310 BIS 055**

AQC OF BMWP FAMILIES A. IN VIAL **+**

B. IN SAMPLE **+**

| LOSSES | | GAINS |
|--------|---|-------------------------------------|
| A | VIAL | |
| | 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 |
| | | None |
| | | None |

| B | SAMPLE | |
|---|---|---|
| | 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 only completed when no vial supplied with sample) |
| | | 1 Limnephilidae |

NET LOSSES **0**

NET GAINS **1**

NOTES

1 Indet limnephilid (juvenile) 1 only

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION

RIVER

DATE

SITE

SORTER

SAMPLE CODE

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

LOSSES

GAINS

| A | <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 | ADDITIONAL FAMILIES FOUND BY IFE |
|---|--|-----------------------------------|-------------------------------------|
| | | None | None |

| 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 | ADDITIONAL FAMILIES FOUND BY IFE |
|---|--|---|-------------------------------------|
| | | (This box only completed when no vial supplied with sample) | None |

NET LOSSES

NET GAINS

NOTES

1991 RIVER QUALITY SURVEY

AQC - BIOLOGICAL SAMPLES

REGION Wessex

RIVER Nadder

DATE 7.11.91

SITE Churchfields

SORTER DLS

SAMPLE CODE 09 4322 NDD 015

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 Hydropsychidae* | 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 Caenidae 3 Hydropsychidae* 4 Hydroptilidae |

NET LOSSES 0

NET GAINS 2

NOTES

2 *Caenis luctuosa/macrura*
3 *Hydropsyche pellucidula*
4 *Ithytrichia* sp. 1 only