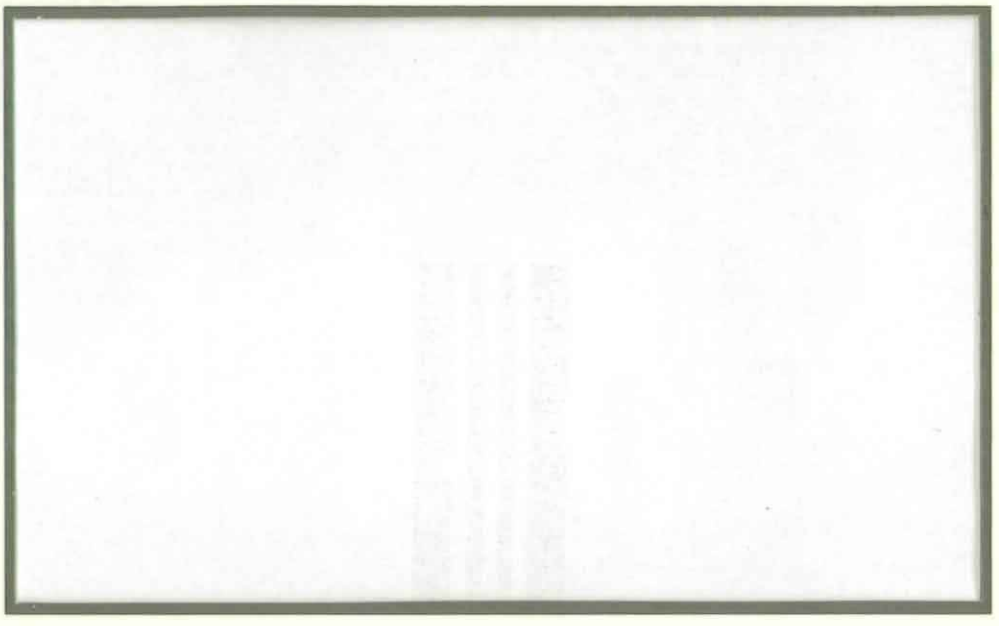
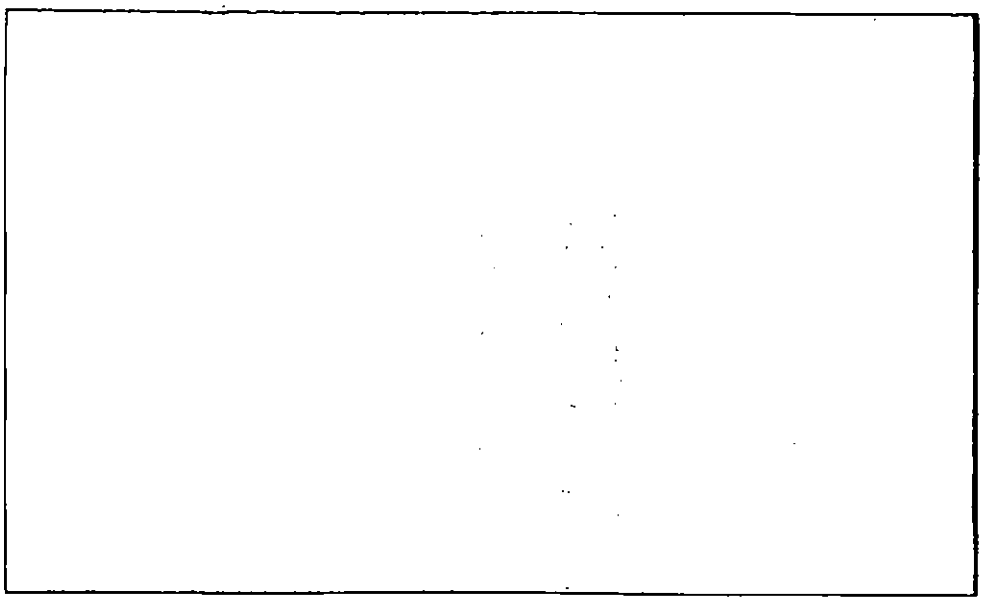


Institute of Freshwater Ecology

Natural Environment Research Council



Micheldever Station Market Town

Surveys of Aquatic Invertebrates and Plants

Survey - 8.5.91 Interim Report - 14.6.91

Interim Report to:
Aquatic Environmental Consultants
by JAB Bass:
Institute of Freshwater Ecology

FINE SEDIMENT DEPOSITS

At each survey site water depth, sediment depth and sediment type were recorded across five transects.
Site (1). - Micheldever, measurements were made at five equidistant points across the narrow channel (giving a total of 25 points).
At sites (2) and (3) ten measurements were spaced equally across the channel (fifty points at each site).

	MICHELDEVER (1)	SUTTON SCOTNEY (2)	BARTON STACEY (3)
Number of points at which the sediment category occurred			
SILT	25*	50*	45*
SAND	21*	45*	26*
DETRITUS	6*	5*	13*
GRAVEL	3	0	22
PEBBLES	16	29	13
COBBLES	2	13	13

* - depths recorded (co-occurrences possible).

SEDIMENT DEPTH

Depth recorded incorporates categories - silt, sand and detritus.

Site -	MICHELDEVER	SUTTON SCOTNEY	BARTON STACEY
mean depth (cm)	2.48	12.10	6.50

These sediments are unstable and easily translocated, the characteristics of the sample sites were judged to be "depositing", with comparatively low water velocities.

AQUATIC INVERTEBRATES

At all sites habitat types were sampled in proportion to their occurrence at the site. Samples were sorted in the laboratory, one quarter of each sample had all invertebrates removed, counted and identified to the lowest taxonomic levels, depending on the taxon and its life stage. The remainder of the sample was examined for taxa unrecorded in the fraction counted and any occurring were incorpoated with the preserved material. (Data sheets indicate the multiplication factor ("mf") -X4 or X1).

Taxa remaining for species determination are -
Oligochaeta, Corixidae, Trichoptera (some) and Chironomidae.
A few identifications await confirmation -
e.g. some Caenis spp.

This information will follow in July, it is unlikely to alter the number of families recorded at each site from the "Spring" data.

There are currently no noteworthy species that are glaringly obvious, the upstream site appears less species-rich. Another initial reaction was the dearth of oligochaetes (particuarly Naididae) and mollusca (appart from Sphaeriidae). As already stated, some fauna associated with fast water and clean gravel were not anticipated to occur at the chosen sites. It will be interesting to see the RIVPACS predictions, which will take into account the substrate composition.

SAMPLE AREA FORM

WA/RPB:- INSTITUTE OF FRESHWATER ECOLOGY
RIVER:- DEVER
SITE:- BARTON STACEY
NGR:- SU 438 418
RECORDER(S):- J. BASS, D. LEACH, C PINDER
DATE:- 8.5.91
SAMPLE TIME (MINS):- 3 MINS
SAMPLING METHOD:- COND. NET
DIMENSIONS OF SAMPLING DEVICE:- 22 x 22 cm (APERTURE) x 30 cm (NET DEPTH)
MESH SIZE OF NET:- 900 µm
WA/RPB SAMPLE NUMBER (IF ANY):- —
IS SAMPLING IN PROPORTION TO OCCURRENCE OF HABITATS:- YES [✓] NO [ ]
IF NO GIVE DETAILS:-

WATER WIDTH IN SAMPLE AREA ..... 13 m
DEPTH IN SAMPLE AREA (cm) AT ¼ [48] ½ [60] ¾ [65] WIDTH
ESTIMATED SURFACE VELOCITY IN MAIN FLOW CHANNEL cm sec^{-1}

CATEGORY 1	CATEGORY 2	CATEGORY 3	CATEGORY 4	CATEGORY 5
≤10 [ ]	>10-25 [✓]	>25-50 [ ]	>50-100 [ ]	>100 [ ]

SUMMARY

WIDTH	13
MEAN DEPTH	59
VELOCITY CATEGORY	2

SUBSTRATUM IN SAMPLE AREA

GIVE DETAILS FOR THE FULL WIDTH OF RIVER AT THE SAMPLING AREA IN COLUMN A INDICATE THE DOMINANT PARTICLE SIZE BY ✓ AND THE PRESENCE OF OTHERS BY +. IN COLUMN B ATTEMPT ROUGH ESTIMATES OF % COVER FOR THE FOUR CATEGORIES LISTED. IF WENTWORTH ANALYSIS IS UNDERTAKEN ACTUAL PROPORTIONS MAY BE SUBSTITUTED. (INCLUDE SUBSTRATA UNDER MACROPHYTES IN ESTIMATES OF % COVER)

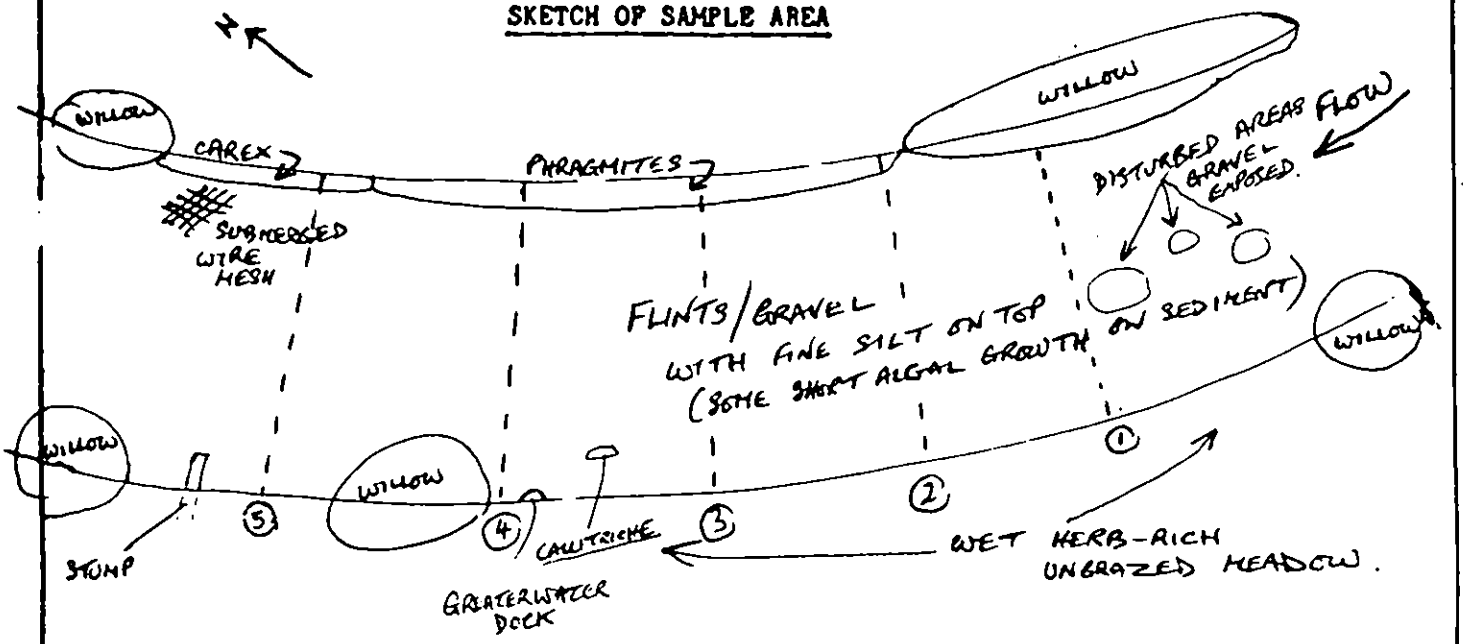
	A	B	
ROCK PAVEMENT			
>256 mm BOULDERS			
>64-256 mm COBBLES	+	10	INCORPORATING SILT OVER MUCH OF THE AREA.
>16-64 mm PEBBLES	+	30	
>2-16 mm GRAVEL	✓	30	
>0.0625-2 mm SAND	✓	10	
>0.004-0.0625 mm SILT	✓	20	
≤0.004 mm CLAY			
	TOTAL	100%	

BOULDERS + COBBLES	10
PEBBLES + GRAVEL	60
SAND	10
SILT + CLAY	20
TOTAL	100

DEVER - SUTTON SCOTNEY 8.5.91

---- TRANSECTS (WATER & SEDIMENT DEPTHS)

SKETCH OF SAMPLE AREA



WATER CLARITY:- CLEAR AND BRIGHT [✓] CLOUDY [ ] TURBID [ ]

WATER COLOUR:-

MACROPHYTES (INCLUDING MOSSES AND LARGE ALGAE) IN SAMPLE/SURVEY AREA. IDENTIFY TO SPECIES IF POSSIBLE. LIST IN ORDER OF ABUNDANCE. TICK SPECIES SAMPLED FOR INVERTEBRATES.

MACROPHYTES IN SAMPLE AREA

FRINGING PHRAGMITES 1/2 } ONE BANK
CAREX 1/4 }

ISOLATED CALLITRICHE PLANTS WITH SILT & ALGAE OVERLYING

EXTRA SPECIES IN SURVEY AREA

FRINGING PLANTS ON THE S.W. BANK INCLUDED JUNCUS sp. MIMULUS sp. MENTHA sp. GEUM RIVALE

COVER %:- SHORT GROWTH OF ALGAE (ON SILT) 10 MOSS X HIGHER PLANTS <1 TOTAL 10

DETRITUS (ROTTING VEGETABLE MATTER, LEAVES):- PRESENT ✓ ABSENT [ ]

ADDITIONAL INFORMATION (INCLUDING CHANGES IN SAMPLE AREA SINCE LAST VISIT)

6" PIPE WITH NO DECERNABLE FLOW c. 45M UPSTREAM ON S.W. BANK POSSIBLY FROM SMALL SEWAGE WORKS NEARBY.

SAMPLING - 2 MINS. SILT/PEBBLES/GRAVEL
1 MIN. TRAILING PLANTS & ROOTS/PHRAGMITES/CAREX.

DOMINANT INVERTEBRATES NOTED - CHIRONOMIDAE (CATEGORY 3.)
HYDRACARINA (CATEGORY 2)

FISH RECORDED - STONE LOACH.

WA/RPB River DEVER Site/Sample BARTON STACEY (UMBINED) NGR

Date 8.5.91 Proportion picked ¼ x W.S. Multiplication factor (mf) x 4

Code	Cat	Family	n x mf	Species present (+ counts (n) in brackets)
0312		Planariidae	5 x 1	POLYCELIS TENUIS (4) POLYCELIS FELINA (1)
0313		Dendrocoelidae	3 x 1	DENDROCOELUM LACTEUM (3)
1301		Neritidae		
1302		Viviparidae		
1303		Valvatidae		(DEAD SHELL)
1304		Hydrobiidae	1 x 1	POTAMOPYRGUS JENKINSI (1)
1307		Lymnaeidae		
1308		Physidae		
1309		Planorbidae	1 x 1	ANISUS VORTEX (1)
1310		Ancylidae		(DEAD SHELL)
1402		Unionidae		
1403		Sphaeriidae	13 x 4	PISIDIUM NITIDUM (12) P. CASERTANUM (1)
1602		Naididae		
1603		Tubificidae		
		Oligochaeta	✓ x 1	
1604		Enchytraeidae		
1605		Haplotaxidae		
1606		Lumbriculidae		
1608		Lumbricidae		
1701		Piscicolidae		
1702		Glossiphoniidae	4 x 1	GLOSSIPHONIA COMPLANATA (2) THERONYZON TESSULATUM (2)
1703		Hirudidae		
1704		Erpobdellidae	2 x 1	ERPOBDELLA OCTOCULATA (2)
1900		HYDRACARINA	17 x 4	
1908		Sperchonidae		
1911		Lebertiidae		
1913		Limnesiidae		
1914		Hygrobatidae		
		Crustacea		
2803		Asellidae	4 x 1	ASELLUS AQUATICUS (4)
2807		Gammaridae	21 x 4	GAMMARUS PULEX (20)
2810		Astacidae		
		OSTRACODA	8 x 4	
3001		Siphlonuridae		
3002		Baetidae	1 x 1	(JUV.)
3003		Heptageniidae		
3004		Leptophlebiidae		
3005		Ephemerellidae	3 x 1	EPHEMERELLA IGNITA (3)
3007		Ephemeridae	10 x 4	EPHEMERA DANICA (40)
3008		Caenidae	91 x 4	CAENIS RIVULORUM (82) CAENIS LUCTUOSA (7) CAENIS PUSILLA (1) ?
3101		Taeniopterygidae		
3102		Nemouridae		
3103		Leuctridae	2 x 1	1 (JUV.) + LEUCTRA GENICULATA (1)
3104		Capniidae		
3105		Perlodidae		
3106		Perlidae		
3107		Chloroperlidae		
		ODONATA		
3201		Platycnemididae		
3202		Coenagriidae		
3204		Agriidae		
3206		Cordulegasteridae		
		Aeshnidae		

WA/RPB River DEVER Site/Sample STACEY Date 8.5.71

Code	Cat	Family	n x mf	Species present (+ counts (n) in brackets)
		HEMIPTERA		
3301		Mesoveliidae		
3304		Veliidae		
3305		Gerridae		
3308		Aphelocheiridae		
3309		Notonectidae		
3311		Corixidae	J.	
		PLEIDAE	23 x 4	PLEA LEACHI (23)
		COLEOPTERA		
3501		Haliplidae		
3503		Dytiscidae		
3504		Gyrinidae	1 x 1	(JUV)
3505		Hydrophilidae		
3509		Helodidae		
3511		Elminthidae	13 x 4	ELMIS AENEA (11) RIOLUS SUBVIOLACEUS (2) ?
3601		Sialidae	11 x 4	
3701		Osmylidae		
3702		Sisyridae		
		TRICHOPTERA		
3801		Rhyacophilidae		
3802		Philopotamidae		
3803		Polycentropodidae	4 x 1	POLYCENTROPUS FLAVICHACULATUS (4)
3804		Psychomyiidae		
3805		Hydropsychidae		
3806		Hydroptilidae		
3807		Phryganeidae		
3808		Limnephilidae	47 x 4	CHAETOPTERYX VILLOSA (31) MELAMPOPHYLAX MUCOREUS (7)
3809		Molannidae		ANABOLIA NERVOSA (27)
3810		Beraeidae		
3811		Odontoceridae		
3812		Leptoceridae	4 x 4	ATHRIPSODES CINEREUS (4)
3813		Goeridae	15 x 4	SILO PALLIPES (8) SILO NIGRICORNIS (7)
3814		Lepidostomatidae		
3815		Brachycentridae		
3816		Sericostomatidae	1 x 1	SERICOSTOMA PERSONATUM (1)
		DIPTERA		
4001		Tipulidae		
4002		Psychodidae		
4003		Ptychopteridae		
4004		Dixidae		
4008		Ceratopogonidae	7 x 4	
		Chironomidae	65+	
4009		Tanypodinae		
4011		Diamesinae		
4030		Prodiamesinae		
4013		Orthocladiinae		
4031		Chironomini		
4032		Tanytarsini		
4015		Simuliidae		
4016		Stratiomyidae		
4017		Empididae		
4018		Dolichopodidae		
4019		Rhagionidae		
4020		Tabanidae		
4025		Muscidae		

SAMPLE AREA FORM

WA/RPB:- INSTITUTE OF FRESHWATER ECOLOGY

RIVER:- DEVER

SITE:- SUTTON SCOTNEY

NGR:- SU 466 398

RECORDER(S):- J. BASS, D. LEACH, C. PINDER

DATE:- 8.5.91

SAMPLE TIME (MINS):- 3 MINS

SAMPLING METHOD:- POND NET

DIMENSIONS OF SAMPLING DEVICE:- 22 x 22 cm (APERTURE) x 30 cm (DEPTH)

MESH SIZE OF NET:- 900μm

WA/RPB SAMPLE NUMBER (IF ANY):- ——

IS SAMPLING IN PROPORTION TO OCCURRENCE OF HABITATS:- YES [✓] NO [ ]

IF NO GIVE DETAILS:-

WATER WIDTH IN SAMPLE AREA ..... 7 .. m

DEPTH IN SAMPLE AREA (cm) AT ¼ [30] ½ [45] ¾ [35] WIDTH

ESTIMATED SURFACE VELOCITY IN MAIN FLOW CHANNEL cm sec^{-1}

CATEGORY 1	CATEGORY 2	CATEGORY 3	CATEGORY 4	CATEGORY 5
≤10 [ ]	>10-25 [✓]	>25-50 [ ]	>50-100 [ ]	>100 [ ]

SUMMARY

WIDTH	7m
MEAN DEPTH	37cm
VELOCITY CATEGORY	2

SUBSTRATUM IN SAMPLE AREA

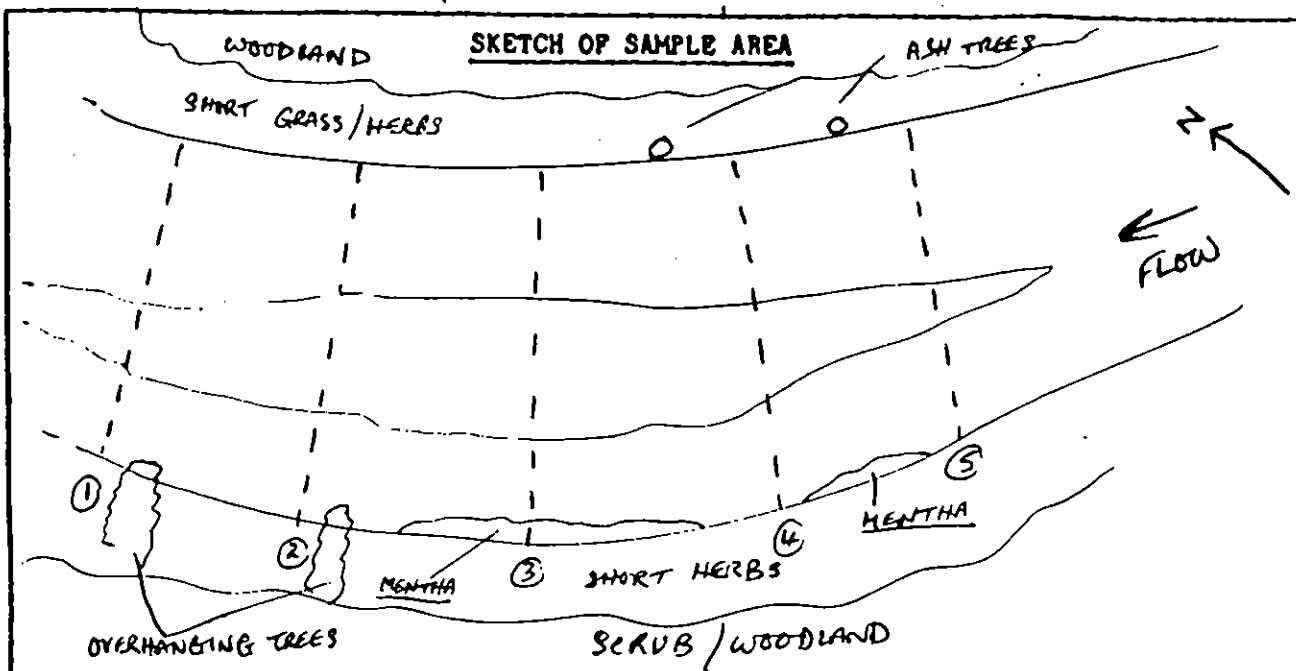
GIVE DETAILS FOR THE FULL WIDTH OF RIVER AT THE SAMPLING AREA IN COLUMN A INDICATE THE DOMINANT PARTICLE SIZE BY ✓ AND THE PRESENCE OF OTHERS BY +. IN COLUMN B ATTEMPT ROUGH ESTIMATES OF % COVER FOR THE FOUR CATEGORIES LISTED. IF WENTWORTH ANALYSIS IS UNDERTAKEN ACTUAL PROPORTIONS MAY BE SUBSTITUTED. (INCLUDE SUBSTRATA UNDER MACROPHYTES IN ESTIMATES OF % COVER)

	A	B	
ROCK PAVEMENT			
>256 mm BOULDERS			
>64-256 mm COBBLES	+	(20)	} OVERLAIN BY SILT & DETRITUS (SEPARATE DEPTH MEASUREMENTS TAKEN)
>16-64 mm PEBBLES	— ✓	(50)	
>2-16 mm GRAVEL	✓	(25)	
>0.0625-2 mm SAND	+	(5)	
>0.004-0.0625 mm SILT	✓	100	+ DETRITUS
≤0.004 mm CLAY			
	TOTAL	100%	

BOULDERS + COBBLES	
PEBBLES + GRAVEL	
SAND	
SILT + CLAY	100
TOTAL	100

DEVER - BARTON STACEY 8.5.91

SKETCH OF SAMPLE AREA



WATER CLARITY:- CLEAR AND BRIGHT ☐ CLOUDY ☐ TURBID ☐

WATER COLOUR:-

MACROPHYTES (INCLUDING MOSSES AND LARGE ALOAE) IN SAMPLE/SURVEY AREA. IDENTIFY TO SPECIES IF POSSIBLE. LIST IN ORDER OF ABUNDANCE. TICK SPECIES SAMPLED FOR INVERTEBRATES.

MACROPHYTES IN SAMPLE AREA

RESTRICTED MARGINAL GROWTH OF MENTHA & DISLODGED RANUNCULUS + CALLITRICHE

EXTRA SPECIES IN SURVEY AREA

IRIS (YELLOW FLAG)
GLYCERIA
PHALARIS ARUNDINACEA
VERONICA SPP.
MIMULUS ..

} MARGINAL GROWTH ON SW. BANK

COVER %:- EPHEMERAL ALGAE (ON DETRITUS) 10 MOSS – HIGHER PLANTS 5 TOTAL 15

DETRITUS (ROTTING VEGETABLE MATTER, LEAVES):- PRESENT ✓ ABSENT ☐

ADDITIONAL INFORMATION (INCLUDING CHANGES IN SAMPLE AREA SINCE LAST VISIT)

FAIRLY UNIFORM DEPTH & FLOW, SILTY GRAVEL. FLOW RESTRICTED UPSTREAM OF ROAD BRIDGE (c. 50M DOWNSTREAM). SUPPLEMENTARY SAMPLE (15 SEC. KICK) TAKEN IN FAST FLOWING (50 cm sec^{-1}) RIFFLE BELOW BRIDGE. (DATA KEPT SEPARATELY) CASED CADDIS PRESENT IN CONSPICUOUS NOS., ALSO MAYFLY LARVAE (EPHEMERA DANICA). BROWN TROUT UP TO c. 40cm SEEN 3-SPINED STICKLEBACK PRESENT

WA/RPB River DEVER Site/Sample SUTTON/COMBINED SLOTNEY NGR

Date 8.5.91 Proportion picked Multiplication factor (mf)

Code	Unit	Family	n x mf	Species present (+ counts (n) in brackets)
0312		Planariidae	4 x 1	POLYCELIS TENUIS (4)
0313		Dendrocoelidae		
1301		Neritidae		
1302		Viviparidae		
1303		Valvatidae	20 x 4	VALVATA PISCINALIS (17) VALVATA CRISTATA (3)
1304		Hydrobiidae	10 x 4	POTAMOPHARGUS JENKINSI (10)
1307		Lymnaeidae		(LYMNAEA PALUSTRIS - DEAD)
1308		Physidae	2 x 1	PHYSA FONTINALIS (2)
1309		Planorbidae	2 x 4	ANISUS VORTEX (8) GYRAULUS ALBUS (5) BATHYOMPHALUS CONTORTUS (1)
1310		Ancylidae	2 x 1	
1402		Unionidae		
1403		Sphaeriidae	39 x 4	PISIDIUM NITIDUM (16 +3) P. CASERTANUM (12) P. SUBTRUNCATUM (5) P. HILIUM (1)
1602		Naididae		
1603		Tubificidae		
		Oligochaeta	14 x 4	(10) + (4)
1604		Enchytraeidae		
1605		Haplotaxidae		
1606		Lumbriculidae		
1608		Lumbricidae		
1701		Piscicolidae		
1702		Glossiphoniidae	6 x 1	GLOSSIPHONIA COMPLANATA (4) HELOBDELLA STAGNALIS (2)
1703		Hirudidae		
1704		Erpobdellidae		
1900		HYDRACARINA	6 x 4	(6) + (1)
1908		Sperchonidae		
1911		Lebertiidae		
1913		Limnesiidae		
1914		Hygrobatidae		
		Crustacea	1 x 1	(1)
2803		Asellidae	24 x 4	ASELLUS AQUATICUS (24)
2807		Gammaridae	21 x 4	GAMMARUS PULEX (7) CRANGONYX PSEUDOGRACILIS (14)
2810		Astacidae		
		OSTRACODA	3 x 4	(3)
3001		Siphlonuridae		
3002		Baetidae	19 x 4	CENTROPTILUM PENNULATUM (16) + (2) CENTROPTILUM SP (1)
3003		Heptageniidae		
3004		Leptophlebiidae		
3005		Ephemerellidae	2 x 4	EPHEMERELLA IGNITA (2)
3007		Ephemeridae	1 x 1	EPHEMERA DANICA (1)
3008		Caenidae	11 x 4 / 7 x 1	CAENIS RIVULORUM (7) 6 x 4 + 1 x 1 CAENIS SP (5) + (1)
3101		Taeniopterygidae		
3102		Nemouridae		
3103		Leuctridae	5 x 1	LEUCTRA GENICULATA (1) LEUCTRA SP. (3) + (1)
3104		Capniidae		
3105		Perlodidae		
3106		Perlidae		
3107		Chloroperlidae		
		ODONATA		
3201		Platycnemididae		
3202		Coenagriidae		
3204		Agriidae		
3206		Cordulegasteridae		
		Aeshnidae		

DEUCE SCOTNEY

Code	Cat	Family	n x mf	Species present (+ counts (n) in brackets)
		HEMIPTERA		
3301		Mesoveliidae		
3304		Veliidae		
3305		Gerridae		
3308		Aphelocheiridae		
3309		Notonectidae		
3311		Corixidae	22 x 4	(20) + (2)
		COLEOPTERA		
3501		Haliplidae		
3503		Dytiscidae		
3504		Gyrinidae		
3505		Hydrophilidae		
3509		Helodidae		
3511		Elminthidae		
		PUPAE	1 x 1	PUPA sp. (1)
3601		Sialidae	2 x 4 2 x 1	SIALIS LUTARIA (3) + (1)
3701		Osmylidae		
3702		Sisyridae		
		TRICHOPTERA		
3801		Rhyacophilidae		
3802		Philopotamidae		
3803		Polycentropodidae		
3804		Psychomyiidae		
3805		Hydropsychidae	2 x 1	HYDROSYCHE SICTALAI (1) + (1)
3806		Hydroptilidae	3 x 1 6 x 1	HYDROPTILA sp (8) OXYTHIRA sp (1)
3807		Phryganeidae		
3808		Limnephilidae	✓	
3809		Molannidae		
3810		Beraeidae		
3811		Odontoceridae		
3812		Leptoceridae	✓	
3813		Goeridae		
3814		Lepidostomatidae		
3815		Brachycentridae		
3816		Sericostomatidae	✓	
		DIPTERA		
4001		Tipulidae		
4002		Psychodidae		
4003		Ptychopteridae		
4004		Dixidae		
4008		Ceratopogonidae	9 x 4 (2 on 1)	(9) + (2)
		Chironomidae	✓	(38) +
4009		Tanypodinae		
4011		Diamesinae		
4030		Prodiamesinae		
4013		Orthocladiinae		
4031		Chironomini		
4032		Tanytarsini		
4015		Simuliidae	1 x 1	SIMULIUM ORNATUM (1)
4016		Stratiomyidae	1 x 1	NEMOTELUS sp (1)
4017		Empididae		
4018		Dolichopodidae		
4019		Rhagionidae		
4020		Tabanidae		
4025		Muscidae		
		DIPTERA PUPA	2 . 1	

SAMPLE AREA FORM

WA/RPB:- INSTITUTE OF FRESHWATER ECOLOGY
RIVER:- DEVER
SITE:- MICHELDEVER
NGR:- SU 508 393
RECORDER(S):- J. BASS, D. LEACH, C. PINDER
DATE:- 8.5.91
SAMPLE TIME (MINS):- 3 MINS
SAMPLING METHOD:- POND NET
DIMENSIONS OF SAMPLING DEVICE:- 22 x 22 cm (APERTURE) x 30 cm (NET DEPTH)
MESH SIZE OF NET:- 900 µm
WA/RPB SAMPLE NUMBER (IF ANY):- —
IS SAMPLING IN PROPORTION TO OCCURRENCE OF HABITATS:- YES ☑ NO ☐
IF NO GIVE DETAILS:-

WATER WIDTH IN SAMPLE AREA ..... 4 m
DEPTH IN SAMPLE AREA (cm) AT ¼ [15] ½ [17] ¾ [13] WIDTH
ESTIMATED SURFACE VELOCITY IN MAIN FLOW CHANNEL cm sec^{-1}

CATEGORY 1	CATEGORY 2	CATEGORY 3	CATEGORY 4	CATEGORY 5
≤10	>10-25 ✓	>25-50	>50-100	>100

SUMMARY

WIDTH	4 m
MEAN DEPTH	15 cm
VELOCITY CATEGORY	2

SUBSTRATUM IN SAMPLE AREA

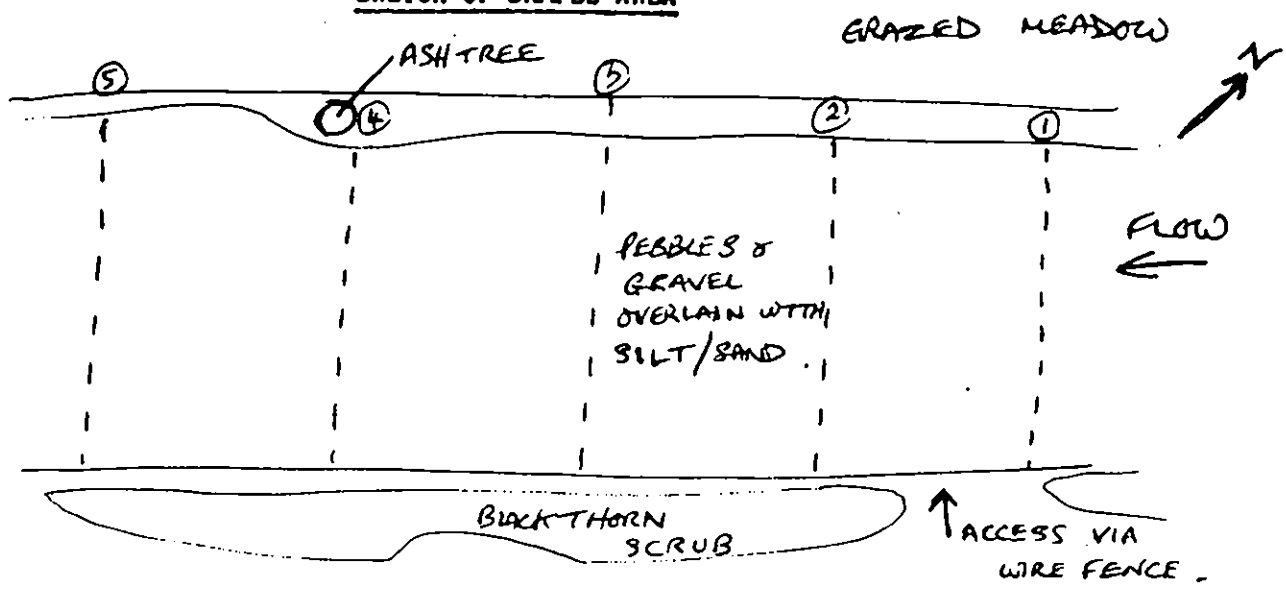
GIVE DETAILS FOR THE FULL WIDTH OF RIVER AT THE SAMPLING AREA IN COLUMN A INDICATE THE DOMINANT PARTICLE SIZE BY ✓ AND THE PRESENCE OF OTHERS BY +. IN COLUMN B ATTEMPT ROUGH ESTIMATES OF % COVER FOR THE FOUR CATEGORIES LISTED. IF WENTWORTH ANALYSIS IS UNDERTAKEN ACTUAL PROPORTIONS MAY BE SUBSTITUTED. (INCLUDE SUBSTRATA UNDER MACROPHYTES IN ESTIMATES OF % COVER)

	A	B	
ROCK PAVEMENT			
>256 mm BOULDERS			
>64-256 mm COBBLES			
>16-64 mm PEBBLES	+	(30)	MEASURABLE DEPTHS OF SILT + DETRITUS OVER OTHER SUBSTRATES
>2-16 mm GRAVEL	✓	(50)	
>0.0625-2 mm SAND	✓	(20)	
>0.004-0.0625 mm SILT	+	100	
≤0.004 mm CLAY			
	TOTAL	100%	

BOULDERS + COBBLES	
PEBBLES + GRAVEL	
SAND	
SILT + CLAY	100
TOTAL	100

R. DEVER - MICHELDEVER 8.5.91

SKETCH OF SAMPLE AREA



WATER CLARITY:- CLEAR AND BRIGHT [✓] CLOUDY [ ] TURBID [ ]

WATER COLOUR:-

MACROPHYTES (INCLUDING MOSSES AND LARGE ALGAE) IN SAMPLE/SURVEY AREA. IDENTIFY TO SPECIES IF POSSIBLE. LIST IN ORDER OF ABUNDANCE. TICK SPECIES SAMPLED FOR INVERTEBRATES.

MACROPHYTES IN SAMPLE AREA	EXTRA SPECIES IN SURVEY AREA
NARROW FRINGE OF:- VERONICA BECCABUNGA CATABROSSA MENTHA	

COVER %:- ALGAE (ON UNSTABLE SILT) [5] MOSS [—] HIGHER PLANTS [5] TOTAL [10]

DETRITUS (ROTTING VEGETABLE MATTER, LEAVES):- PRESENT [✓] ABSENT [ ]

ADDITIONAL INFORMATION (INCLUDING CHANGES IN SAMPLE AREA SINCE LAST VISIT)

3MIN POND NET SAMPLE - 90% FROM SAND/GRAVEL/SILT
10% FROM ALGAE & FRINGING PLANTS

UNFENCED MEADOW ALLOWED ACCESS TO STREAM BY CATTLE (?)
INTERMITTENT RECOVERY OF VEGETATION ANTICIPATED

REDSHANK GIVING DISPLAY CALL

3-SPINED STICKLEBACK PRESENT.

WA/RPB River DEVER Site/Sample MICHELDEVER (COMBINED) NGR

Date 3.5.91 Proportion picked Multiplication factor (mf)

Code	Cat	Family	n x mf	Species present (+ counts (n) in brackets)
0312		Planariidae		
0313		Dendrocoelidae		
1301		Neritidae		
1302		Viviparidae		
1303		Valvatidae	23 x 4	VALVATA PISCINALIS (5) + (13)
1304		Hydrobiidae		
1307		Lymnaeidae	1 x 1	LYMNAEA PALUSTRIS (1)
1308		Physidae		
1309		Planorbidae	1 x 1	(- DEAD SHELLS) + BATHYCHAMAEUS LENTICATUS (1)
1310		Ancylidae		
1402		Unionidae		
1403		Sphaeriidae +	95 x 4	PISIDIUM NITIDUM, P. SUBTRUNCATUM, P. CASERTANUM + P. JUV. TOTAL 119 x 4
1602		Naididae	24 x 4	
1603		Tubificidae		
		Oligochaeta	✓	
1604		Enchytraeidae		
1605		Haplotaxidae		
1606		Lumbriculidae		
1608		Lumbricidae		
1701		Piscicolidae		
1702		Glossiphoniidae	6 x 1	HELOBDELLA STAGNALIS (1) + (4) GLOSSIPHONIA COMPLANATA (1)
1703		Hirudidae		
1704		Erpobdellidae	2 x 1	ERPOBDELLA OCTOCULATA (2)
1900		HYDRACARINA	29 x 4	(10) + (19)
1908		Sperchonidae		
1911		Lebertiidae		
1913		Limnesiidae		
1914		Hygrobatidae		
		Crustacea		
2803		Asellidae	5 x 4	ASELLUS AQUATICUS (5)
2807		Gammaridae	10 x 4	GAMMARUS PULEX (10)
2810		Astacidae		
		OSTRACODA	9 x 4	(4) + (5)
3001		Siphlonuridae		
3002		Baetidae	2 x 1	CENTROPTILUM PENNULATUM (1) CENTROPT. SP (1)
3003		Heptageniidae		
3004		Leptophlebiidae		
3005		Ephemerellidae	8 x 1	EPHEMERELLA IGNITA (3) + (3)
3007		Ephemeridae		
3008		Caenidae	11 x 1	CAENIS SP (1) (V. SMALL) + (10)
3101		Taeniopterygidae		
3102		Nemouridae		
3103		Leuctridae		
3104		Capniidae		
3105		Perlodidae		
3106		Perlidae		
3107		Chloroperlidae		
		ODONATA		
3201		Platycnemididae		
3202		Coenagriidae		
3204		Agriidae		
3206		Cordulegasteridae		
		Aeshnidae		

MICHELDEVER

Code	Cat	Family	n x mf	Species present (+ counts (n) in brackets)
		HEMIPTERA		
3301		Mesoveliidae		
3304		Veliidae		
3305		Gerridae		
3308		Aphelocheiridae		
3309		Notonectidae		
3311		Corixidae		
		COLEOPTERA		
3501		Haliplidae	2 x 1	HALIPLIDAE SP (LARVAE) (2)
3503		Dytiscidae	1 x 1	AGABUS SP (LARVA) (1)
3504		Gyrinidae		
3505		Hydrophilidae		
3509		Helodidae		
3511		Elminthidae		
3601		Sialidae	1 x 1	SIALIS LUTARIA (1)
3701		Osmylidae		
3702		Sisyridae		
		TRICHOPTERA		
3801		Rhyacophilidae		
3802		Philopotamidae		
3803		Polycentropodidae		
3804		Psychomyiidae		
3805		Hydropsychidae		
3806		Hydroptilidae		
3807		Phryganeidae		
3808		Limnephilidae		
3809		Molannidae		
3810		Beraeidae		
3811		Odontoceridae		
3812		Leptoceridae		
3813		Goeridae		
3814		Lepidostomatidae		
3815		Brachycentridae		
3816		Sericostomatidae		
		DIPTERA		
4001		Tipulidae	5 x 1	DICRANOTA SP (5)
4002		Psychodidae		
4003		Ptychopteridae		
4004		Dixidae		
4008		Ceratopogonidae	48 x 1	(48) +
		Chironomidae		(9) +
4009		Tanypodinae		
4011		Diamesinae		
4030		Prodiamesinae		
4013		Orthocladiinae		
4031		Chironomini		
4032		Tanytarsini		
4015		Simuliidae		
4016		Stratiomyidae		
4017		Empididae		
4018		Dolichopodidae		
4019		Rhagionidae		
4020		Tabanidae		
4025		Muscidae		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