



Riverfly Surveys
River Exe System
2016



Riverfly Surveys

River Exe System

2016

2016 Introduction

The Anglers Riverfly Monitoring Initiative has now been running for eight years in the River Exe catchment, with new sites being added each year. To date, 618 surveys have been undertaken.

131 surveys were undertaken at the 47 sites being actively being monitored in 2016 (some new sites did not start until the summer). Again, the commitment of volunteers has been evident, with 95% of planned surveys achieved.

The suggested periods for survey were: 7-22 May (spring), 9-24 July (summer) and 10-25 September (autumn).

There are seven new sites:

- River Exe at Hatswell (to replace the unsatisfactory Morrisons site)
- The Spratford Stream (Culm tributary) at Cullompton
- River Exe at Bramford Speke) Surveyed by members of Exeter College
- The River Culm at Rewe)
- The River Creedy at Dunscombe Bridge)
- The River Creedy at Crediton Rugby Ground) Surveyed by members of Crediton
- The River Yeo at Salmonhutch) Fly Fishing Club

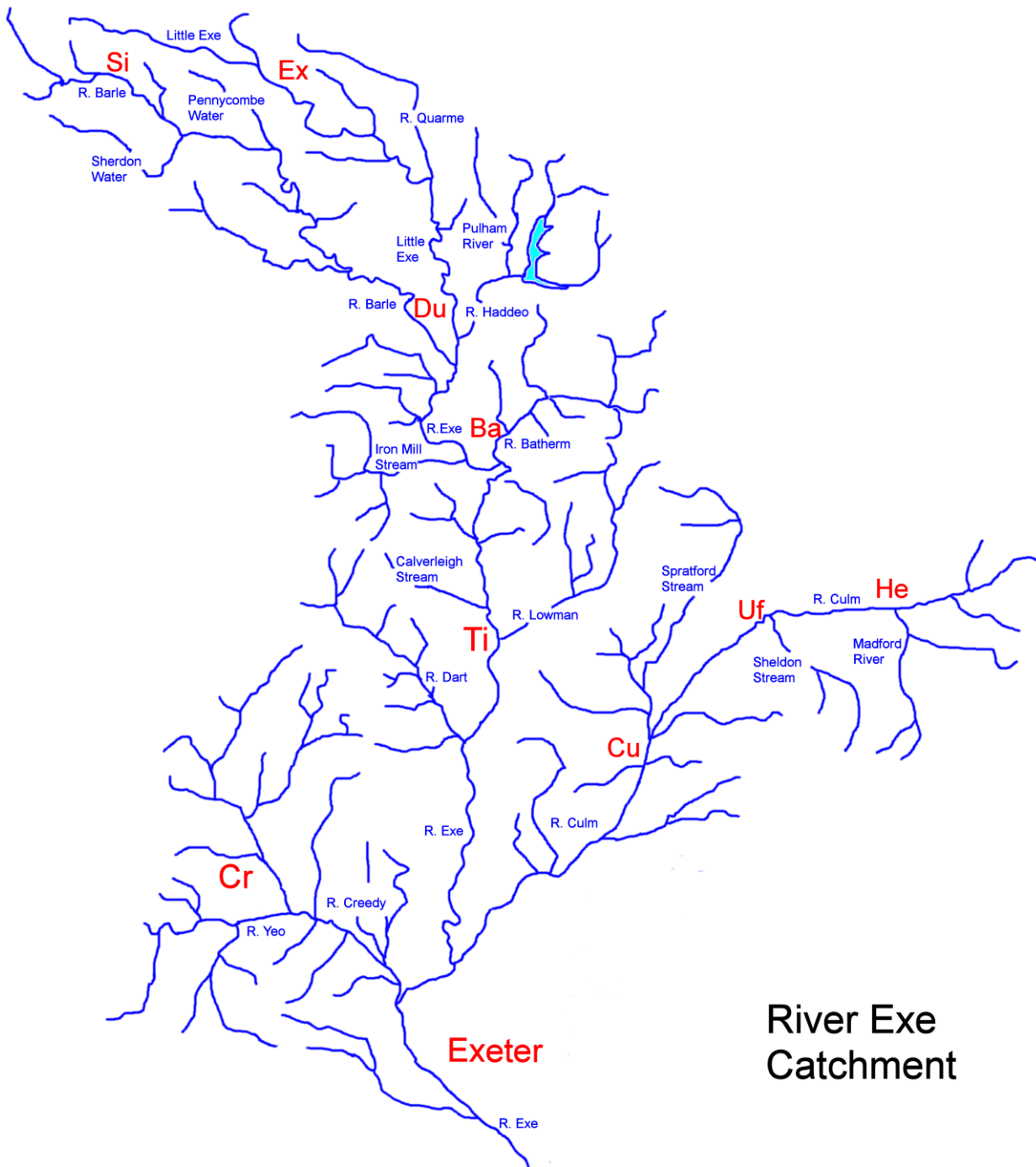
These new sites on the lower Culm and on the Creedy/Yeo system are particularly welcome.

This network continues to be supported by the River Exe and Tributaries Association (RETA) and overseen by Fred Leach.

The winter of 2015/16 was wetter and milder than average and spring 2016 was cooler and drier. The dry weather continued, only June being wetter than average, with no flood conditions.

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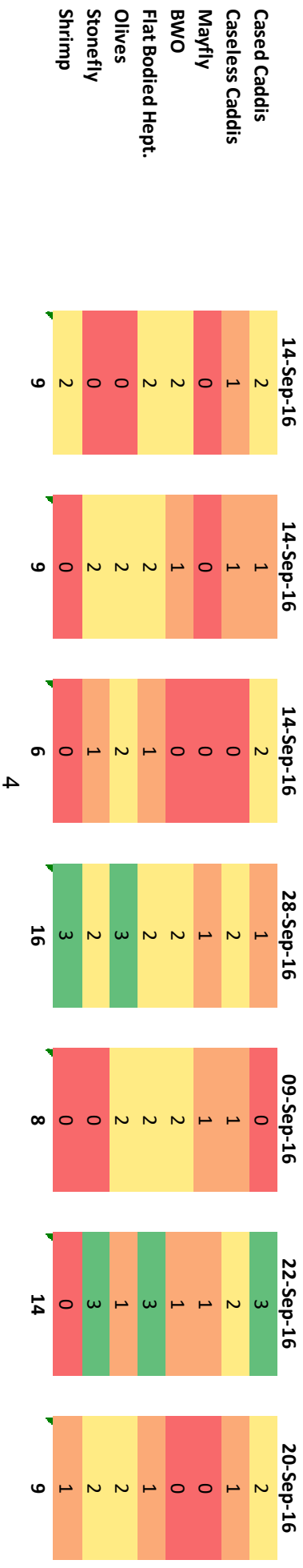
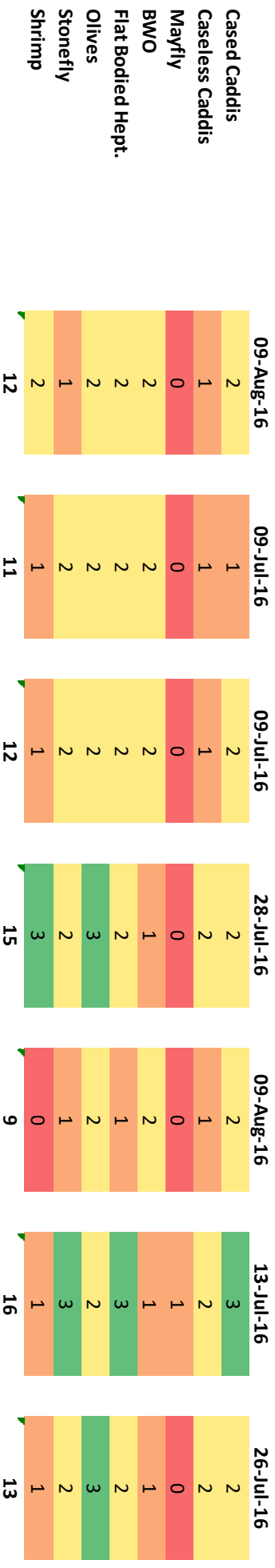
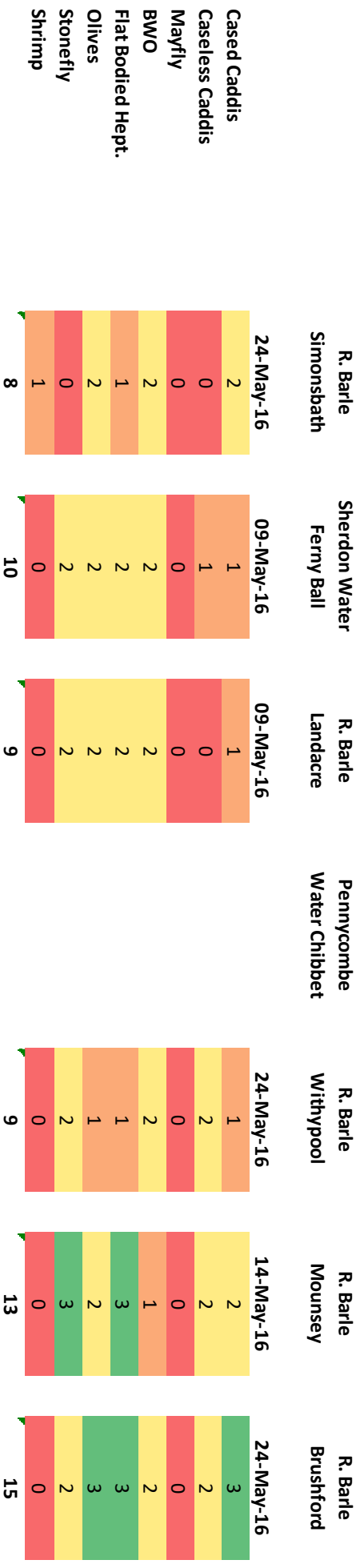
River Exe
Catchment

Summary 2016

	River	Location	2016			Average 2011-15		
			Spr	Sum	Aut	Spr	Sum	Aut
Barle & Tributaries	Barle	Simonsbath	8	12	9	11.0	9.2	10.3
	Sherdon Water	Sherdon Water	10	11	9	10.0	9.5	9.5
	Barle	Landacre	9	12	6	9.5	10.0	10.5
	Pennycombe Water	Chibbet		15	16	16.0	17.0	14.5
	Barle	Withypool	9	9	8	8.8	5.6	7.0
	Barle	Mounsey	13	16	14	12.2	11.0	9.3
	Barle	Brushford	15	13	9	11.6	12.0	11.0
Little Exe & Tributaries	L. Exe	u/s Exford Westermill Fm	10	7	8	11.0	8.0	10.0
	L. Exe	d/s Exford Court Fm	13	7	9	13.0	12.0	12.0
	L. Exe	Winsford	14	10	12	12.4	10.8	10.4
	Quarme	Witheridge Farm	13	10	13	13.0	11.6	11.4
	L. Exe	Hollam	13	11	9	11.4	10.4	10.3
	Pulham	d/s Brompton Regis	12	10	9	11.8	10.0	10.0
	Lower Haddeo	Lower Haddeo	15	16	17	18.8	15.8	16.0
	L. Exe	Perry Farm	15	10	11	13.0	11.6	11.0
Middle Exe and Tributaries	Exe	Exebridge	16	9	12	12.5	13.2	11.0
	Iron Mill Stream	Iron Mill Stream	10	7	7	8.0		9.5
	Batherm	u/s Bampton	10	10	9	10.5	11.5	8.5
	Batherm	d/s Bampton	11	9	9	12.6	10.2	8.4
	Exe	Cove Bridge	10	10	7	12.3	12.2	8.5
	Calverleigh Stream	Palmers Mill		9	6	9.0	10.0	9.5
	Exe	Hatswell	10	9	7			
	Exe	Tiverton Morrisons	7	5	6	9.3	9.4	6.3
Lower Exe & Tributaries	Lowman u/s	Chieflowman	11	9	6	13.5	10.3	10.0
	Lowman Trib	Uplowman	11	8	6	12.5	9.0	8.7
	Lowman	Collipriest	14	9	9	12.8	10.6	10.0
	Exe	Tiverton u/s STW	14	4		7.5	7.0	5.7
	Exe	Tiverton d/s STW	12	7		9.5	7.0	7.0
	Exe	Bickleigh d/s Black Bridge	17	10	11	14.3	12.8	10.0
	Dart	Templeton Bridge	9	5		11.0	11.0	8.0
	Dart	Thongsleigh	10	4		12.0	12.5	7.0
	Dart	Riverside	9	4		9.0	10.0	7.5
Culm & Tributaries	Madford River	Holcombe	16	18	14	16.3	14.0	13.0
	Culm	u/s Hemyock	17	17	13	16.3	14.8	11.4
	Culm	Whitehall	12	9	6	11.0	9.0	7.2
	Culm	Culmstock	11	13	12	13.3	11.3	7.0
	Culm	Woodhayne Barton	10	10	8	10.0	9.5	9.0
	Sheldon Stream	Craddock	8	8	7	14.0	12.0	10.3
	Culm	u/s Uffculme	10	13	9	11.0	11.7	10.7
	Culm	Ford Farm	14	14	14	14.3	12.5	13.5
	Culm	Hayne Barton	11	11	7	10.0	10.0	11.0
	Spratford Stream	Cullompton		4	5			
	Culm	Rewe		6	5			
Lower Exe and Creedy	Exe	Brampford Speke		10	8			
	Creedy	Duncombe Bridge	17	12	10			
	Yeo	Salmonhutch	14	11	7			
	Creedy	Crediton Rugby Club	12	10	11			

RIVER BARLE AND TRIBUTARIES

2016 DETAIL



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LITTLE EXE AND TRIBUTARIES

2016 DETAIL

Category	Little Exe Westermill Farm	Little Exe Court Farm	Little Exe Winsford	R. Quarne Witheridge Fm	Little Exe Hollam	Pulham d/s Brompton R	Lower Haddoe	Little Exe Perry Farm
Cased Caddis	17-May-16 1	17-May-16 2	08-May-16 3	08-May-16 2	22-May-16 2	22-May-16 2	14-May-16 2	24-May-16 2
Caseless Caddis	17-May-16 1	17-May-16 2	08-May-16 1	08-May-16 1	22-May-16 2	22-May-16 2	14-May-16 2	24-May-16 2
Mayfly	17-May-16 0	17-May-16 0	08-May-16 0	08-May-16 0	22-May-16 1	22-May-16 1	14-May-16 1	24-May-16 2
BWO	17-May-16 0	17-May-16 0	08-May-16 2	08-May-16 2	22-May-16 1	22-May-16 0	14-May-16 1	24-May-16 2
Flat Bodied Hept.	17-May-16 2	17-May-16 3	08-May-16 2	08-May-16 2	22-May-16 3	22-May-16 1	14-May-16 3	24-May-16 2
Olives	17-May-16 3	17-May-16 3	08-May-16 2	08-May-16 2	22-May-16 2	22-May-16 3	14-May-16 2	24-May-16 2
Stonefly	17-May-16 3	17-May-16 3	08-May-16 2	08-May-16 2	22-May-16 1	22-May-16 3	14-May-16 2	24-May-16 2
Shrimp	17-May-16 0	17-May-16 0	08-May-16 2	08-May-16 2	22-May-16 1	22-May-16 0	14-May-16 2	24-May-16 1
	10	13	14	13	13	12	15	15
Cased Caddis	28-Jul-16 1	28-Jul-16 1	10-Jul-16 2	10-Jul-16 1	25-Jul-16 2	25-Jul-16 2	13-Jul-16 2	26-Jul-16 2
Caseless Caddis	28-Jul-16 1	28-Jul-16 1	10-Jul-16 1	10-Jul-16 1	25-Jul-16 2	25-Jul-16 2	13-Jul-16 2	26-Jul-16 1
Mayfly	28-Jul-16 0	28-Jul-16 0	10-Jul-16 0	10-Jul-16 0	25-Jul-16 0	25-Jul-16 1	13-Jul-16 1	26-Jul-16 1
BWO	28-Jul-16 0	28-Jul-16 1	10-Jul-16 2	10-Jul-16 2	25-Jul-16 0	25-Jul-16 2	13-Jul-16 2	26-Jul-16 1
Flat Bodied Hept.	28-Jul-16 1	28-Jul-16 1	10-Jul-16 2	10-Jul-16 2	25-Jul-16 2	25-Jul-16 0	13-Jul-16 2	26-Jul-16 1
Olives	28-Jul-16 1	28-Jul-16 0	10-Jul-16 2	10-Jul-16 1	25-Jul-16 2	25-Jul-16 2	13-Jul-16 2	26-Jul-16 2
Stonefly	28-Jul-16 2	28-Jul-16 2	10-Jul-16 1	10-Jul-16 1	25-Jul-16 2	25-Jul-16 1	13-Jul-16 3	26-Jul-16 2
Shrimp	28-Jul-16 1	28-Jul-16 1	10-Jul-16 0	10-Jul-16 2	25-Jul-16 1	25-Jul-16 0	13-Jul-16 2	26-Jul-16 0
	7	7	10	10	11	10	16	10
Cased Caddis	28-Sep-16 1	01-Sep-16 1	21-Sep-16 2	21-Sep-16 2	23-Sep-16 2	23-Sep-16 2	22-Sep-16 3	20-Sep-16 2
Caseless Caddis	28-Sep-16 1	01-Sep-16 1	21-Sep-16 1	21-Sep-16 1	23-Sep-16 1	23-Sep-16 1	22-Sep-16 3	20-Sep-16 1
Mayfly	28-Sep-16 0	01-Sep-16 0	21-Sep-16 0	21-Sep-16 0	23-Sep-16 1	23-Sep-16 0	22-Sep-16 1	20-Sep-16 1
BWO	28-Sep-16 0	01-Sep-16 1	21-Sep-16 1	21-Sep-16 1	23-Sep-16 0	23-Sep-16 0	22-Sep-16 0	20-Sep-16 1
Flat Bodied Hept.	28-Sep-16 2	01-Sep-16 0	21-Sep-16 2	21-Sep-16 2	23-Sep-16 2	23-Sep-16 2	22-Sep-16 3	20-Sep-16 2
Olives	28-Sep-16 2	01-Sep-16 2	21-Sep-16 2	21-Sep-16 2	23-Sep-16 1	23-Sep-16 2	22-Sep-16 2	20-Sep-16 1
Stonefly	28-Sep-16 0	01-Sep-16 2	21-Sep-16 2	21-Sep-16 2	23-Sep-16 2	23-Sep-16 2	22-Sep-16 3	20-Sep-16 2
Shrimp	28-Sep-16 2	01-Sep-16 2	21-Sep-16 2	21-Sep-16 3	23-Sep-16 0	23-Sep-16 0	22-Sep-16 2	20-Sep-16 1
	8	9	12	13	9	9	17	11

MIDDLE EXE AND TRIBUTARIES

2016 DETAIL

Location	Date	Caseless Caddis	Caseless Caddis	Mayfly	BWO	Flat Bodied Hept.	Olives	Stonefly	Shrimp
R. Exe Exebridge	24-May-16	2	2	1	2	3	2	3	1
	26-May-16	0	1	1	1	2	2	2	1
Iron Mill Stream	17-May-16	1	1	0	2	2	3	1	0
	01-Aug-16	1	1	1	1	1	2	1	2
Bathern u/s Bampton	02-Aug-16	1	1	1	1	1	2	1	2
	17-May-16	1	2	0	2	2	2	2	1
Bathern d/s Bampton	02-Aug-16	1	2	0	2	2	0	1	2
	21-Sep-16	1	2	0	0	0	2	2	2
R. Exe Cove Bridge	24-Jul-16	0	0	1	2	1	2	3	1
	23-May-16	0	1	0	2	2	2	2	1
Galverleigh Stream Palmers Mill	11-Jul-16	1	1	1	1	1	2	1	0
	11-Jul-16	2	1	0	1	2	1	2	0
R. Exe Hatswell	07-May-16	1	2	1	1	2	1	1	1
	11-Jul-16	2	1	0	1	2	1	2	0
R. Exe Tiverton Morrisons	08-May-16	0	1	2	0	2	1	1	0
	11-Jul-16	1	0	0	0	1	1	2	0
20-Sep-16	20-Sep-16	2	2	0	1	2	2	2	1
	21-Sep-16	0	1	0	0	2	2	1	1
21-Sep-16	21-Sep-16	1	2	0	0	0	2	2	2
	21-Sep-16	1	2	0	0	0	2	2	2
22-Sep-16	22-Sep-16	0	1	1	1	0	1	1	1
	12-Sep-16	2	1	1	0	1	1	1	0
12-Sep-16	12-Sep-16	1	1	1	0	0	1	2	0
	12-Sep-16	1	1	1	0	0	1	2	0

LOWER EXE AND TRIBUTARIES

2016 DETAIL

	Lowman Chieflowman	Lowman Trib Upflowman	Lowman Colliprest	R Exe Tiverton u/s STW	R Exe Tiverton d/s STW	R Exe Bickleigh d/s Black Bridge	Dart Templeton Bridge	Dart Thongelsleigh	Dart Riverside
Cased Caddis	17-May-16 1	17-May-16 2	01-May-16 1	01-May-16 2	01-May-16 1	22-May-16 2	20-May-16 1	20-May-16 1	20-May-16 1
Caseless Caddis	17-May-16 1	17-May-16 0	01-May-16 2	01-May-16 1	01-May-16 0	22-May-16 1	20-May-16 0	20-May-16 0	20-May-16 0
Mayfly	17-May-16 2	17-May-16 1	01-May-16 0	01-May-16 1	01-May-16 1	22-May-16 2	20-May-16 1	20-May-16 1	20-May-16 0
BWO	17-May-16 2	17-May-16 1	01-May-16 2	01-May-16 2	01-May-16 2	22-May-16 2	20-May-16 0	20-May-16 1	20-May-16 0
Flat Bodled Hept.	17-May-16 2	17-May-16 2	01-May-16 2	01-May-16 2	01-May-16 2	22-May-16 3	20-May-16 2	20-May-16 2	20-May-16 2
Olives	17-May-16 3	17-May-16 2	01-May-16 2	01-May-16 2	01-May-16 2	22-May-16 2	20-May-16 2	20-May-16 2	20-May-16 3
Stonelfy	17-May-16 1	17-May-16 0	01-May-16 2	01-May-16 2	01-May-16 2	22-May-16 2	20-May-16 2	20-May-16 1	20-May-16 2
Shrimp	17-May-16 0	17-May-16 3	01-May-16 3	01-May-16 2	01-May-16 2	22-May-16 2	20-May-16 1	20-May-16 2	20-May-16 1
	11	11	14	14	12	17	9	10	9
Cased Caddis	29-Jul-16 0	29-Jul-16 0	24-Jul-16 2	07-Aug-16 1	07-Aug-16 2	01-Jul-16 1	21-Jul-16 1	21-Jul-16 0	21-Jul-16 0
Caseless Caddis	29-Jul-16 0	29-Jul-16 1	24-Jul-16 0	07-Aug-16 0	07-Aug-16 1	01-Jul-16 1	21-Jul-16 0	21-Jul-16 0	21-Jul-16 0
Mayfly	29-Jul-16 0	29-Jul-16 0	24-Jul-16 1	07-Aug-16 0	07-Aug-16 0	01-Jul-16 0	21-Jul-16 0	21-Jul-16 0	21-Jul-16 0
BWO	29-Jul-16 1	29-Jul-16 1	24-Jul-16 0	07-Aug-16 0	07-Aug-16 0	01-Jul-16 0	21-Jul-16 0	21-Jul-16 0	21-Jul-16 0
Flat Bodled Hept.	29-Jul-16 2	29-Jul-16 1	24-Jul-16 1	07-Aug-16 0	07-Aug-16 0	01-Jul-16 2	21-Jul-16 2	21-Jul-16 1	21-Jul-16 1
Olives	29-Jul-16 2	29-Jul-16 2	24-Jul-16 0	07-Aug-16 1	07-Aug-16 2	01-Jul-16 2	21-Jul-16 1	21-Jul-16 0	21-Jul-16 1
Stonelfy	29-Jul-16 2	29-Jul-16 1	24-Jul-16 2	07-Aug-16 1	07-Aug-16 0	01-Jul-16 2	21-Jul-16 1	21-Jul-16 1	21-Jul-16 1
Shrimp	29-Jul-16 2	29-Jul-16 2	24-Jul-16 3	07-Aug-16 1	07-Aug-16 2	01-Jul-16 2	21-Jul-16 1	21-Jul-16 2	21-Jul-16 1
	9	8	9	4	7	10	5	4	4
Cased Caddis	28-Sep-16 1	28-Sep-16 1	21-Sep-16 1			21-Sep-16 2			
Caseless Caddis	28-Sep-16 1	28-Sep-16 0	21-Sep-16 1			21-Sep-16 1			
Mayfly	28-Sep-16 0	28-Sep-16 0	21-Sep-16 0			21-Sep-16 0			
BWO	28-Sep-16 0	28-Sep-16 0	21-Sep-16 0			21-Sep-16 0			
Flat Bodled Hept.	28-Sep-16 0	28-Sep-16 1	21-Sep-16 2			21-Sep-16 2			
Olives	28-Sep-16 2	28-Sep-16 1	21-Sep-16 2			21-Sep-16 2			
Stonelfy	28-Sep-16 0	28-Sep-16 1	21-Sep-16 0			21-Sep-16 2			
Shrimp	28-Sep-16 2	28-Sep-16 2	21-Sep-16 3			21-Sep-16 2			
	6	6	9			11			

CULM AND TRIBUTARIES

2016 DETAIL

Location	Date	Caseid Caddis	Caseless Caddis	Mayfly	BWO	Flat Bodied Hept.	Olives	Stonefly	Shrimp
Madford River Holcombe	19-May-16	1	2	0	2	3	3	2	16
	19-May-16	1	2	0	2	3	3	2	17
	13-Jul-16	2	1	1	2	2	3	1	12
R. Culm U/S Hemyock	19-May-16	1	2	0	2	3	3	2	17
	13-Jul-16	1	1	1	2	2	2	1	12
	13-Jul-16	1	1	1	2	2	2	1	9
R. Culm Whitchhall	13-May-16	2	1	1	2	2	3	1	12
	13-Jul-16	1	1	1	2	2	2	1	9
	21-Jul-16	2	2	0	2	3	2	0	13
R. Culm Culinstock	18-May-16	1	1	1	2	2	3	0	11
	21-Jul-16	2	2	0	2	3	2	0	13
	18-Jul-16	1	1	0	2	2	2	1	10
R. Culm Woodhayne Barton	18-May-16	1	2	1	0	1	4	1	10
	18-Jul-16	1	1	0	1	2	2	2	10
	13-Jul-16	1	1	0	2	2	2	0	8
Sheldon Strm Cradock	13-May-16	1	0	1	0	2	2	1	8
	13-Jul-16	1	1	0	2	2	2	0	8
	23-Sep-16	1	1	0	2	2	2	1	7
R. Culm U/S Uffculme	27-May-16	1	2	1	2	1	2	0	10
	25-Jul-16	3	2	0	2	2	2	1	13
	12-Oct-16	2	2	1	0	1	2	1	9
R. Culm Ford Farm	23-May-16	1	2	0	2	2	3	2	14
	10-Aug-16	2	2	0	2	2	2	2	14
	02-Oct-16	1	2	0	2	2	3	2	14
R. Culm Hayne Barton	19-May-16	1	2	0	2	2	2	2	11
	18-Jul-16	2	0	1	0	2	2	2	11
	20-Sep-16	2	1	0	2	0	2	1	7
Spartford Stream Cullompton	14-Jul-16	0	0	0	0	0	0	0	0
	21-Sep-16	0	0	0	0	0	1	0	5
	21-Sep-16	0	0	0	0	0	1	0	5
Culm Rewe	06-Jul-16	1	1	0	0	0	0	0	6
	21-Sep-16	0	0	0	0	0	1	0	4
	21-Sep-16	0	0	0	0	0	1	0	4
Caseid Caddis	13-Jul-16	3	1	0	3	3	3	2	18
	13-Jul-16	1	1	0	3	3	3	3	17
	13-Jul-16	1	1	1	2	2	2	1	9
Caseless Caddis	13-Jul-16	2	2	0	2	2	3	0	13
	21-Jul-16	2	2	0	2	2	2	0	13
	22-Sep-16	2	3	0	2	2	2	2	12
Mayfly	13-Jul-16	1	1	1	2	2	3	1	10
	18-Jul-16	1	1	0	1	2	2	2	10
	20-Sep-16	1	2	1	0	0	3	1	8
BWO	13-Jul-16	0	0	0	0	0	0	0	8
	13-Jul-16	0	0	0	0	0	0	0	8
	23-Sep-16	0	0	0	0	0	2	1	7
Flat Bodied Hept.	13-Jul-16	3	3	1	2	2	2	2	13
	13-Jul-16	3	3	2	2	2	2	2	13
	21-Jul-16	2	2	1	2	2	2	1	10
Olives	13-Jul-16	3	3	2	2	2	2	2	13
	13-Jul-16	3	3	2	2	2	2	2	13
	21-Jul-16	2	2	1	2	2	2	1	10
Stonefly	13-Jul-16	2	2	1	2	2	2	1	10
	13-Jul-16	2	2	1	2	2	2	1	10
	21-Jul-16	2	2	1	2	2	2	1	10
Shrimp	13-Jul-16	2	2	1	2	2	2	1	10
	13-Jul-16	2	2	1	2	2	2	1	10
	21-Jul-16	2	2	1	2	2	2	1	10

R. Exe
Bramford
Speke

R. Creedy
Duncombe
Bridge

R. Yeo
Salmonhutch

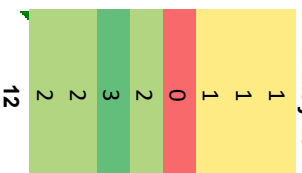
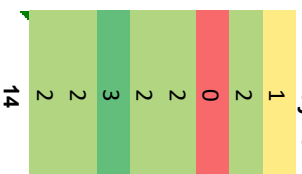
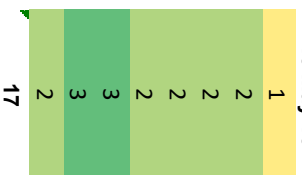
R. Creedy
Rugby Ground

Cased Caddis
Caseless Caddis
Mayfly
BWO
Flat Bodied Hept.
Olives
Stonefly
Shrimp

16-May-16

14-May-16

17-May-16



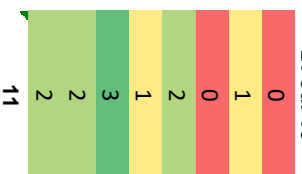
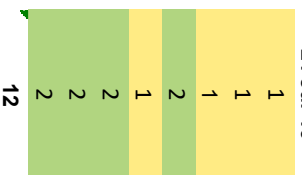
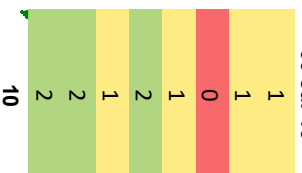
Cased Caddis
Caseless Caddis
Mayfly
BWO
Flat Bodied Hept.
Olives
Stonefly
Shrimp

06-Jul-16

24-Jul-16

21-Jul-16

22-Jul-16



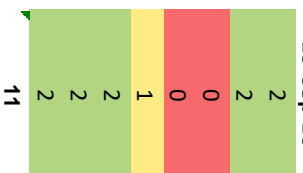
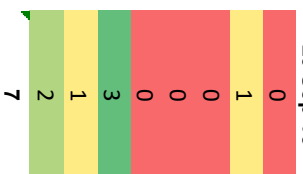
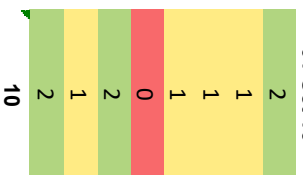
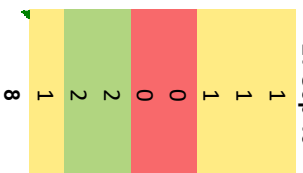
Cased Caddis
Caseless Caddis
Mayfly
BWO
Flat Bodied Hept.
Olives
Stonefly
Shrimp

21-Sep-16

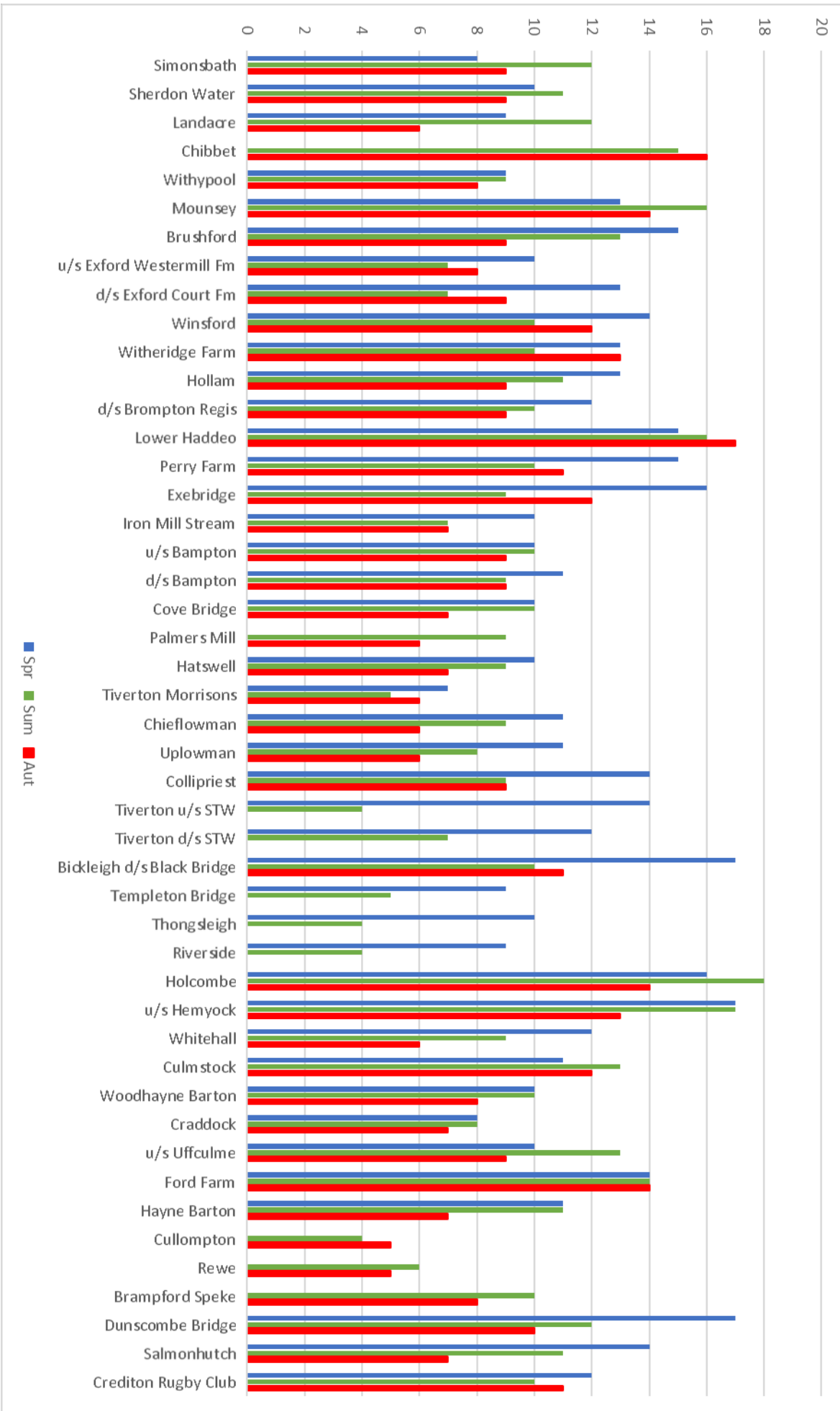
01-Oct-16

20-Sep-16

25-Sep-16



2016 Riverfly All Results



2016 Riverfly Results Analysis

Overview

All data is useful but it becomes particularly so when it is complete and continuous. We can then look for changes, provided that the same sites are compared. The following table shows the number of sites with complete records (i.e. all three surveys each year) up to and including 2016.

Years with complete and continuous data	2016	2015-2016	2014-2016	2013-2016	2012-2016	2011-2016	2010-2016
Number of Years prior to 2016	0	1	2	3	4	5	6
Number of Sites	36	28	21	15	9	7	7

It can be seen, for example, that 21 sites have complete data for this year and the previous two; 15 sites have the previous three years of full record. This enables comparison between 2016 results and the previous two or three year averages respectively.

Group/Species Analysis

This section looks at changes for each of the eight Riverfly groups.

The following table is based only on the 15 sites which have complete data for 2016 and the three previous years. The average for these is compared with the average for 2016.

Averages	3-yr Comparison 2013-15			15 sites		
	2016 Average			3-yr Average		
	Spr	Sum	Aut	Spr	Sum	Aut
Cased caddis	1.80	1.87	1.87	1.76	1.62	1.71
Caseless caddis	1.73	1.40	1.60	1.60	1.49	1.44
Mayfly (Ephemeraidae)	0.53	0.40	0.40	0.62	0.36	0.47
BWO (Ephemerellidae)	1.60	1.47	0.33	1.04	1.33	0.60
Flat bodied (Heptageniidae)	2.33	1.87	1.60	2.27	1.62	1.38
Olives (Baetidae)	2.40	2.00	2.00	2.33	2.36	2.16
Stoneflies	1.93	1.87	2.07	1.89	1.73	1.44
Freshwater shrimp	1.13	1.20	1.20	1.49	1.44	1.36
Totals	13.47	12.07	11.07	13.00	11.96	10.56
Comparison (Difference)						
	Spr	Sum	Aut		Agg.	
Cased caddis	0.04	0.24	0.16		0.40	
Caseless caddis	0.13	-0.09	0.16		0.07	
Mayfly (Ephemeraidae)	-0.09	0.04	-0.07		-0.02	
BWO (Ephemerellidae)	0.56	0.13	-0.27		-0.13	
Flat bodied (Heptageniidae)	0.07	0.24	0.22		0.47	
Olives (Baetidae)	0.07	-0.36	-0.16		-0.51	
Stoneflies	0.04	0.13	0.62		0.76	
Freshwater shrimp	-0.36	-0.24	-0.16		-0.40	
Totals	0.47	0.11	0.51		0.62	

Overall and on average, the results for 2016 appear better for these sites than for the previous three years. Olives and Shrimp numbers are down but cased-caddis, flat bodied and stonefly numbers are up. However, these data only represent about a third of the data, mainly from the upper reaches which appear to do better than the lowland sites. (A two-year average based on more sites shows that results were worse overall, with olives and shrimp particularly down.)

Another way of looking at group/species numbers is to look for absence in the surveys. The following table shows the absence of each group compared with previous years. Note that as the number of samples varies each year, the results are only indicative.

Year	2009		2010		2011		2012		2013		2014		2015		2016	
Total number of surveys	26		39		63		65		77		103		115		130	
Cased caddis absent	2	8%	0	0%	3	5%	1	2%	8	10%	8	8%	11	10%	18	14%
Caseless caddis absent	1	4%	0	0%	5	8%	4	6%	12	16%	9	9%	17	15%	22	17%
Mayfly absent	23	88%	31	79%	49	78%	45	69%	52	68%	64	62%	69	60%	83	64%
BWO absent	6	23%	18	46%	26	41%	21	32%	31	40%	33	32%	45	39%	54	42%
Flat bodied absent	0	0%	2	5%	3	5%	8	12%	11	14%	9	9%	5	4%	19	15%
Olives absent	0	0%	2	5%	0	0%	3	5%	3	4%	2	2%	0	0%	8	6%
Stonefly absent	1	4%	1	3%	9	14%	16	25%	13	17%	19	18%	16	14%	16	12%
Shrimp absent	6	23%	8	21%	19	30%	8	12%	14	18%	17	17%	21	18%	34	26%

Nevertheless, they show that the number of sites where no specimens were found was higher in six out of the eight groups than the average of previous years.

Whilst average-type statistics indicate what is happening, it is also worth considering local issues, whether in the data or reported at the time. These include:

- The absence or low numbers of shrimp and flat-bodied from sites which normally include them was noted...
- ...However, the new sites on the Spratford Stream, just above the main junction with the Culm, and the Culm at Rewe produced results that were dominated by shrimp, with little else.
- Generally low numbers of olives were also noted, which is confirmed by the data. Eight samples had none at all.

Site Analysis

The comparisons can be seen in the summary table on page 3. The spring results were better than previous years at 53% of sites but this declined so that the figures were only 46% by summer and 37% by autumn; i.e. 63% were worse. Was this due to the dry conditions?

The Culm results raise particular concerns. First results (summer) at the new sites at/below Cullompton were very disappointing and were reported at the time. The autumn results were little better. The Sheldon Stream results at Craddock were also poor compared with previous years. This is considered an important tributary of the river. The scores for 2016 were 8/8/7 compared with previous averages of 14/12/10. It was noted that the stream looked poor from the start, with signs of benthic algae and blanket weed. (Juvenile surveys on the River Culm have found no trout or salmon fry at any of the 9 sites surveyed by RETA in 2016.)

There were poor summer results on the River Exe either side of Tiverton STW and at the three sites on the River Dart. (Unfortunately the autumn surveys at these sites were not undertaken.)

Other Developments

Training days for new volunteers (and refreshing existing volunteers) were led by Fred Leach on 16 April and 27 June at Exebridge. This has enabled the introduction of the new sites.

Support was given (also by the EA) to the Blackdown Hills AONB Open Day which was held this year on the River Otter on 1st June. The Blackdown Hills AONB also organised invertebrate monitoring training on 19 August (with EA support Viv Fowler?). It would be sensible if any future regular survey data is included within the RETA system...

...Similarly, it is understood that surveys are being taken (by ENPA?) at Marsh Bridge and New Bridge on the Barle. Efforts are being made to co-ordinate future results from these sites.

Young anglers experienced kick sampling in the River Exe at the Junior Fishing Day organised by RETA on 1st August.

There were no emergency incidents, but the EA was notified of results that raised concerns and investigated these. Volunteers are reminded to contact the EA Hotline (0800 80 70 60) and/or Fred Leach or Richard Horrocks if they have concerns.

Next Steps

The Anglers Riverfly Monitoring Initiative (ARMI) has been developing a national database to the point where we should soon load our results. The data hierarchy has also evolved and it is therefore sensible to configure our data to comply with the new standards. Consequently, a process of Quality Assurance and review is being undertaken before the data is transferred. This will mean some changes. For example, all sites will have a catchment, a watercourse and a site name. Grid references are also being checked. Two ARMI "Groups" are proposed within the overall ARMI "Hub" that is the Exe catchment: The Upper Exe is co-ordinated by Fred Leach and the Lower Exe by Richard Horrocks. It is hoped to complete this exercise, including loading the data onto the national database, by Spring 2017.

Fred Leach will be attending the 4th National Riverfly Partnership Conference on Thursday 17th November at the Natural History Museum, London.

This report will be considered at the meeting with the Environment Agency on 1 November 2016. RETA would like to see our invertebrate data used with other data, such as water quality and juvenile surveys, to ensure that action is targeted effectively.

Richard Horrocks
Lower Exe ARMI Group Co-ordinator
27 October 2016

Blackdown Hills AONB
Open Day
1 June 2016



Fred Leach Training Day Exebridge
27 June 2016

Young anglers at the RETA junior
fishing day 1 August 2016

