



The  
Riverfly  
Partnership



Presentation to  
***SEVERN & AVON FLY LIFE  
CONFERENCE***

Wednesday January 12th 2011

Paul Knight – Chairman Riverfly  
Partnership





# The Riverfly Partnership

Network of >60 supporting organisations representing anglers, conservationists, entomologists, scientists, water course managers and relevant statutory bodies.

Established following concerns over perceived decline in aquatic fly life and river water quality.

Collaborating to:

- **protect the water quality of our rivers (AMI)**
    - watching brief on water quality
  - **increase our knowledge of riverfly populations**
  - **actively conserve riverfly habitats**
- Species & Habitats Group



# Target groups



**Olives**  
(Baetidae)

Slim, fast moving, small gills along the side



**Flat Bodied (Stone Clinging)**  
(Heptageniidae)

Flattened body, spider like & slow moving



**Gammarus**



**Mayfly**  
(Ephemeridae)

Large with tusk-like projections from the head. Gills feathery and positioned over the back



**Blue-Winged Olive**  
(Ephemerellidae)

Four pairs of gills visible and held over the back. Moves slowly with a rocking horse movement



**Stonefly**

Two tails - long antenna

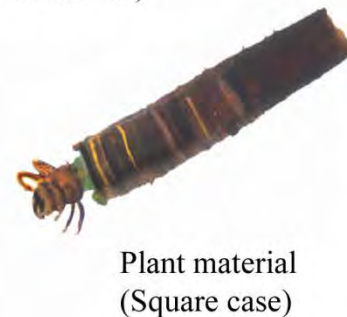
# Cased and caseless caddis

## Caseless Caddis



## Cased Caddis

(Cases constructed of various materials)



# Recording the data

Organisation	
Site name	
River	
Grid reference	
FA contact	

## River invertebrate monitoring for anglers

	Example	Month 1	Month 2
Date	27/05/2005		
Recorded by	C. Macadam & C. Bennett		

		Category	Number	Category	Number	Category	Number
Caddisflies	Cased caddisfly	B	20				
	Caseless caddisfly	A	2				
Mayfly	Mayfly (Ephemeroidea)	B	10				
	Blue-winged olive (Ephemeroidea)	B	20				
	Flat bodied up-wings (Heptageniidae)	C	100				
	Olives (Baetidae)	A	4				
Stoneflies	Stoneflies	A	3				
Freshwater shrimp	Freshwater shrimp	A	4				
	Notes	Hatches seen. River looking good.					

Note the category and record the numbers of each group from the sample, for example:

If less than ten Cased caddisflies: enter Category A and the count for the Number.

If between 10 and 100 Caseless caddisflies: enter Category B and the estimate to the nearest 10 for the Number.

If between 100 and 1000 Mayflies: enter Category C and the estimate to the nearest 100 for the Number.

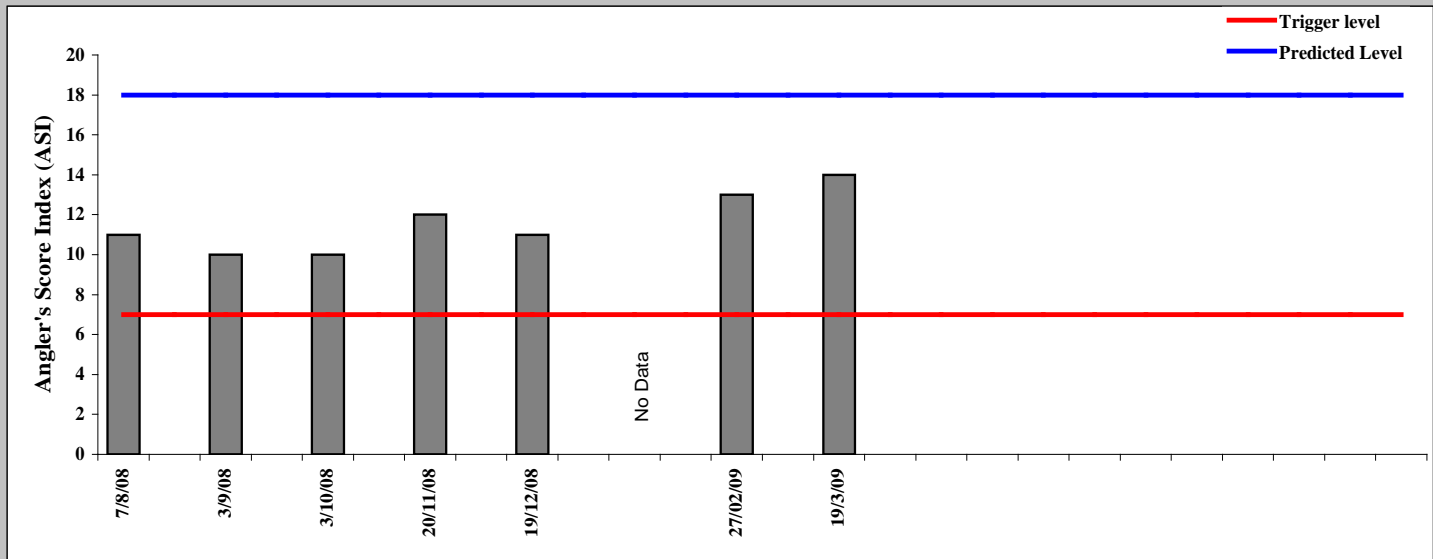
If more than 1000 Olives: enter Category D and the estimate to the nearest 1000 for the Number.

Category	Abundance	Number
A	1-9	Accurate count
B	10-99	Nearest 10
C	100-999	Nearest 100
D	over 1000	Nearest 1000



# Angler's Monitoring Initiative (AMI)

## River Avon - West Amesbury



Predicted level  
EA - Trigger level

18
7

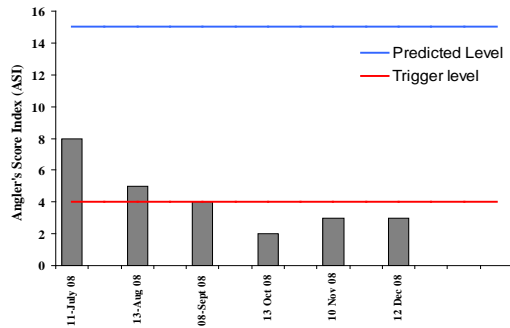
\* Estimated number is optional

Date	7/8/08		3/9/08		3/10/08		20/11/08		19/12/08		27/02/09			
	Category	Estimated Number *	Category	Estimated Number *	Category	Estimated Number *	Category	Estimated Number *	Category	Estimated Number *	Category	Estimated Number *		
	(A - D)		(A - D)		(A - D)		(A - D)		(A - D)		(A - D)			
Cased caddis	A		A		A		B		A	8		B		
Caseless caddis	A		A		B		A		B	11		B		
Mayfly (Ephemeroidea)	A	5	A	1	A	3	B	30	A	8		B		
BWO (Ephemerellidae)	B		A		A		A	8	A	2				
Flat bodied (Heptageniidae)							A	1	A	2		A		
Olives (Baetidae)	B		C		C		B		B			C		
Stoneflies	A	2	A											
Freshwater shrimp	C		B		B		C		C			C		
<b>Total</b>		<b>11</b>		<b>10</b>		<b>10</b>		<b>12</b>		<b>11</b>		<b>0</b>		<b>13</b>

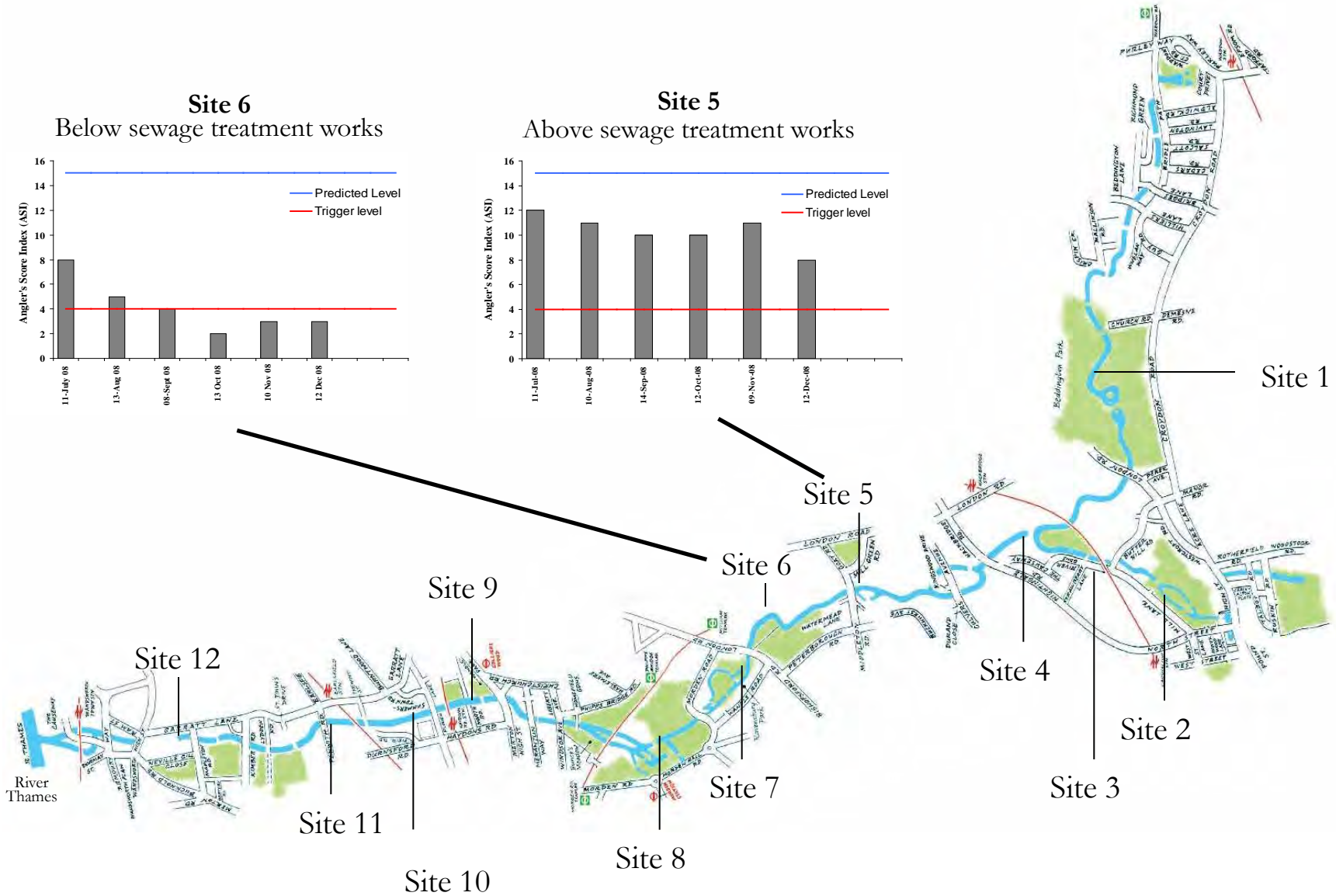
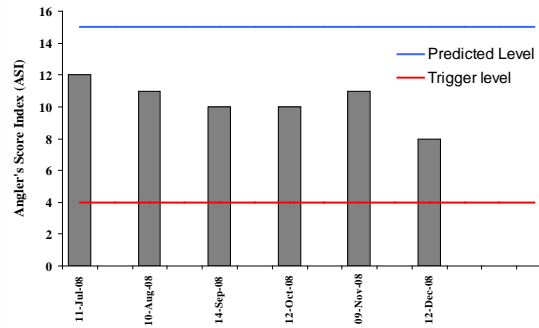
# Wandle Piscators

## River Wandle, South London

**Site 6**  
Below sewage treatment works

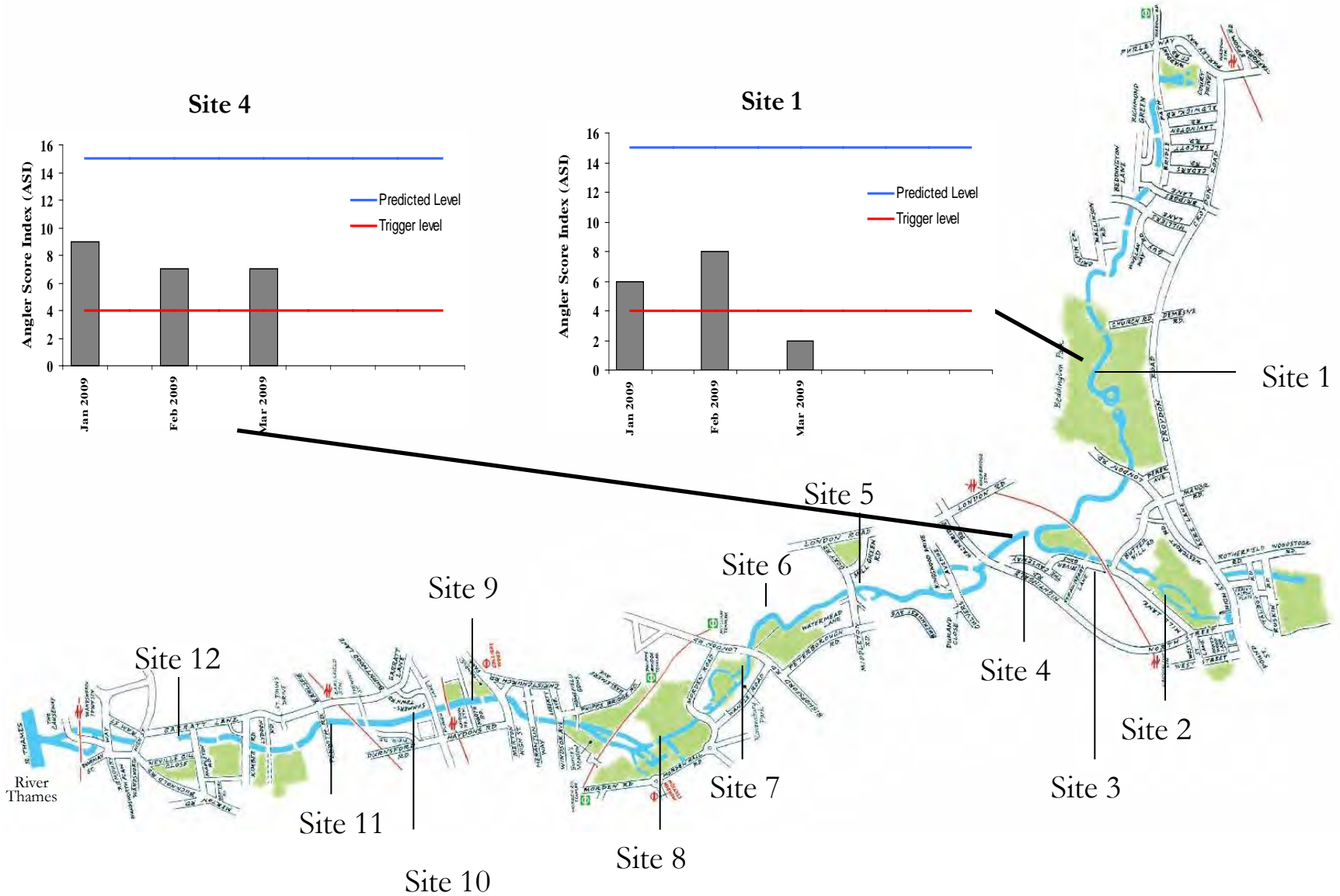
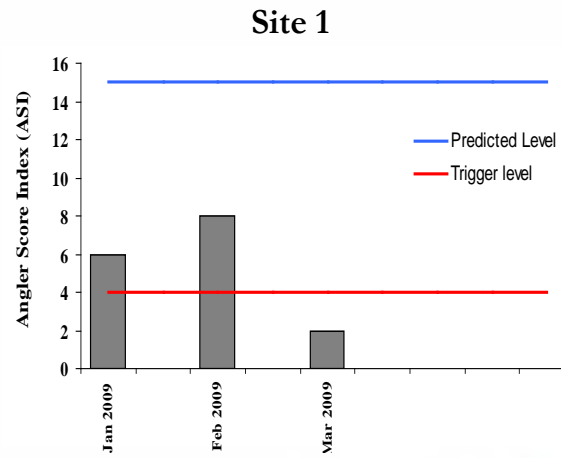
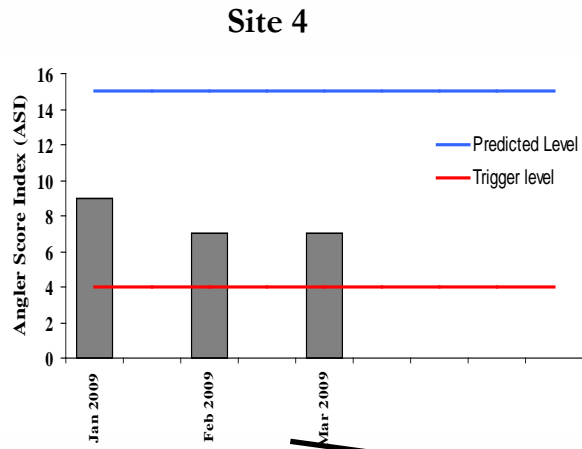


**Site 5**  
Above sewage treatment works

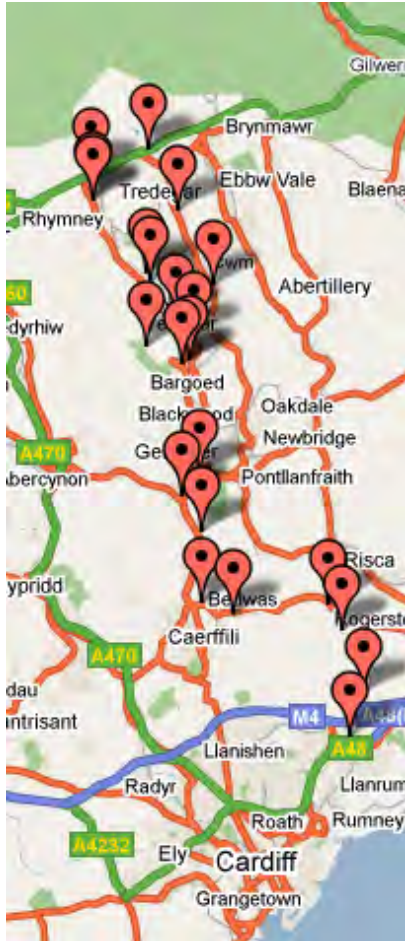


# Wandle Piscators

## River Wandle, South London



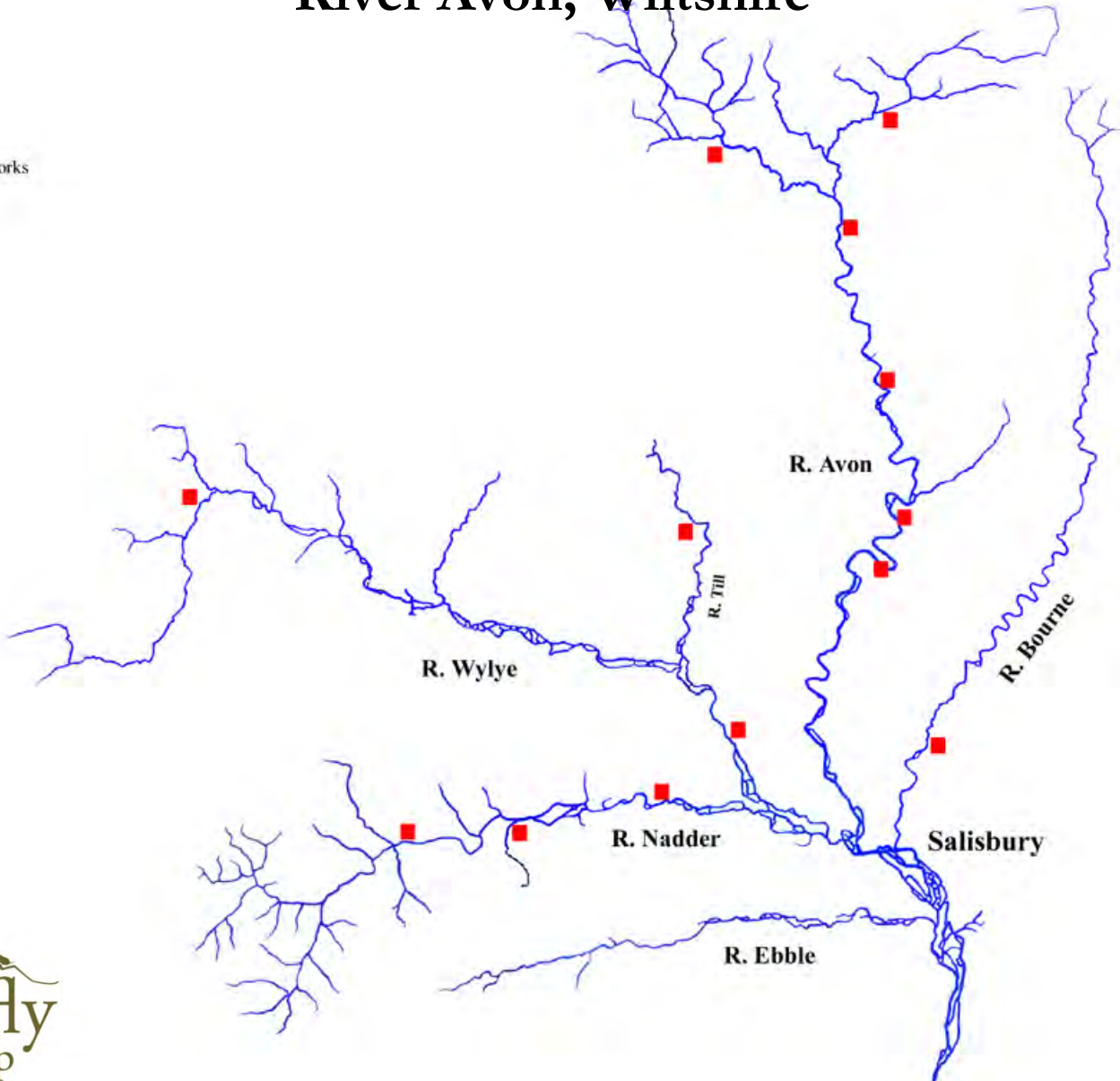
# Distribution of 170/350 sites





# River Avon, Wiltshire

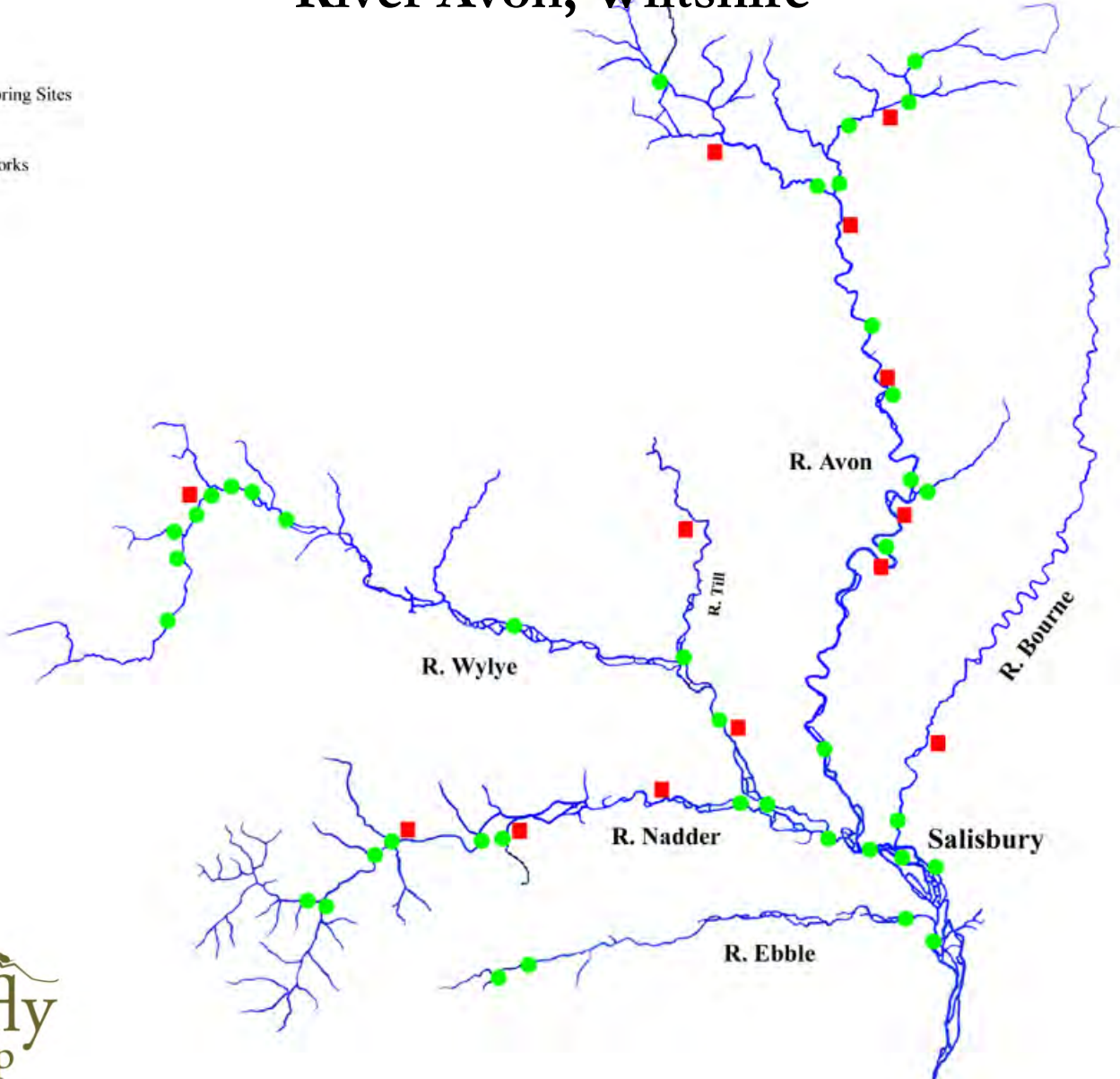
■ Sewage Treatment Works





# River Avon, Wiltshire

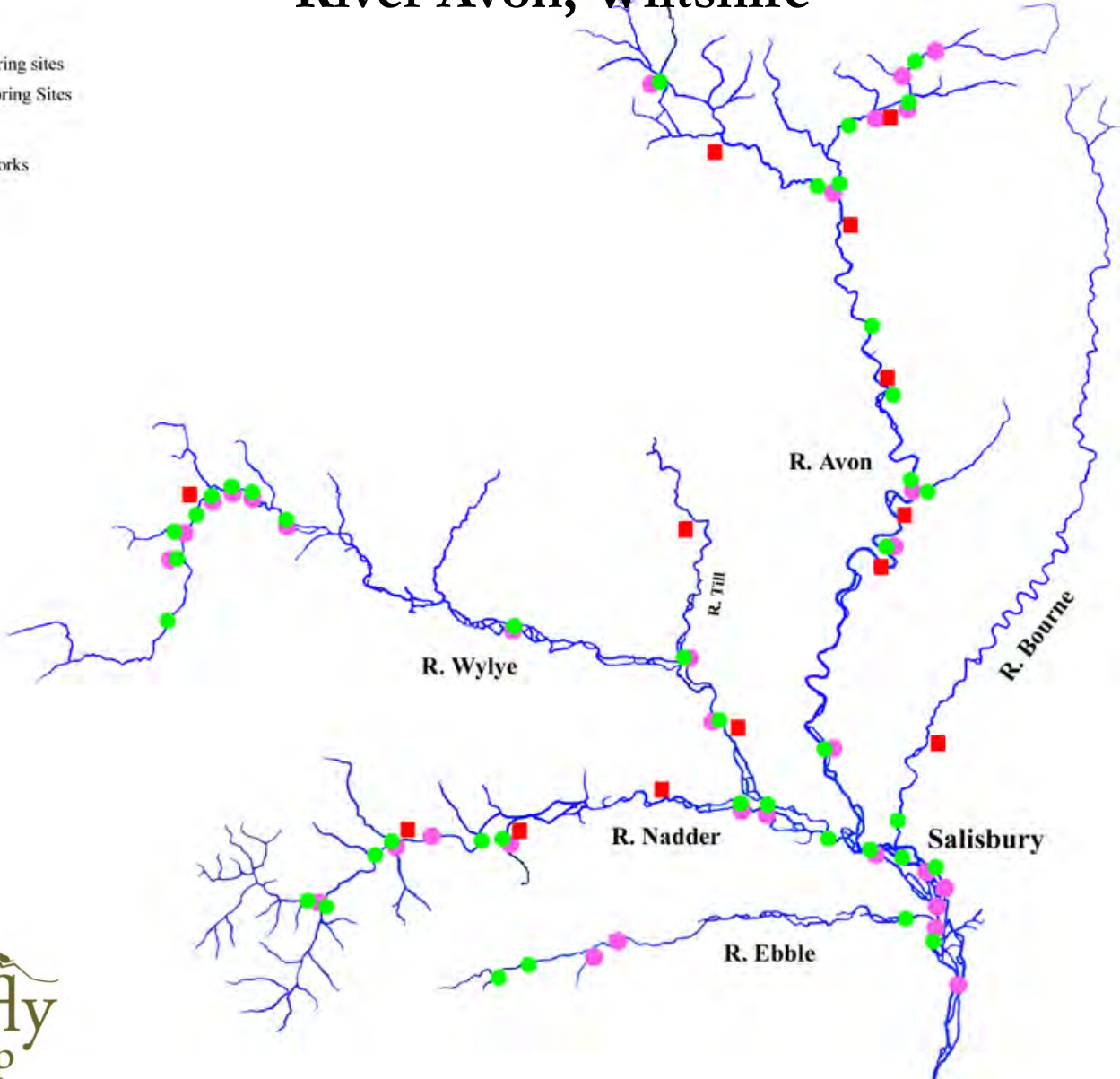
- EA Biological Monitoring Sites
- Sewage Treatment Works





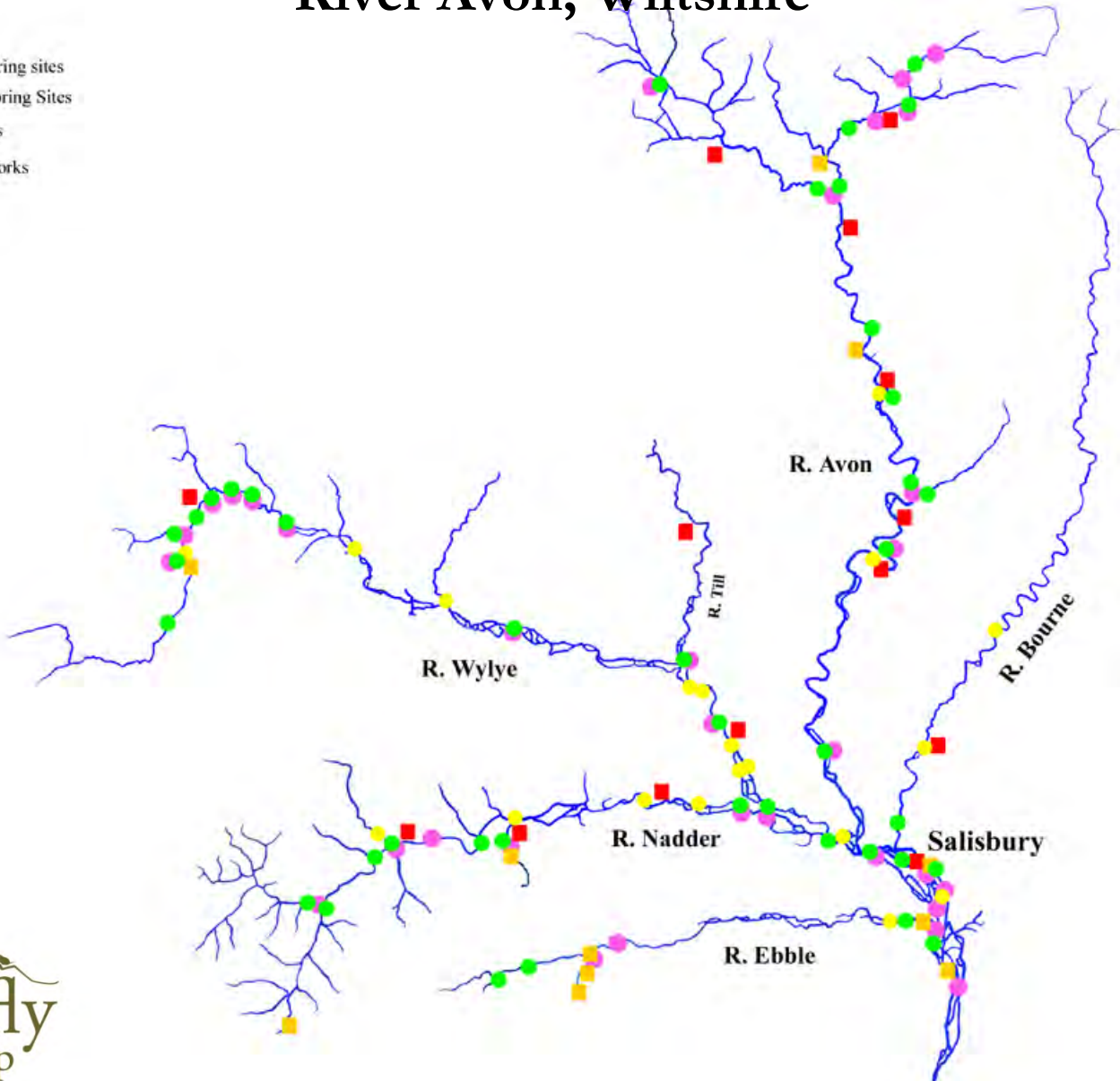
# River Avon, Wiltshire

- EA Chemical monitoring sites
- EA Biological Monitoring Sites
- Sewage Treatment Works



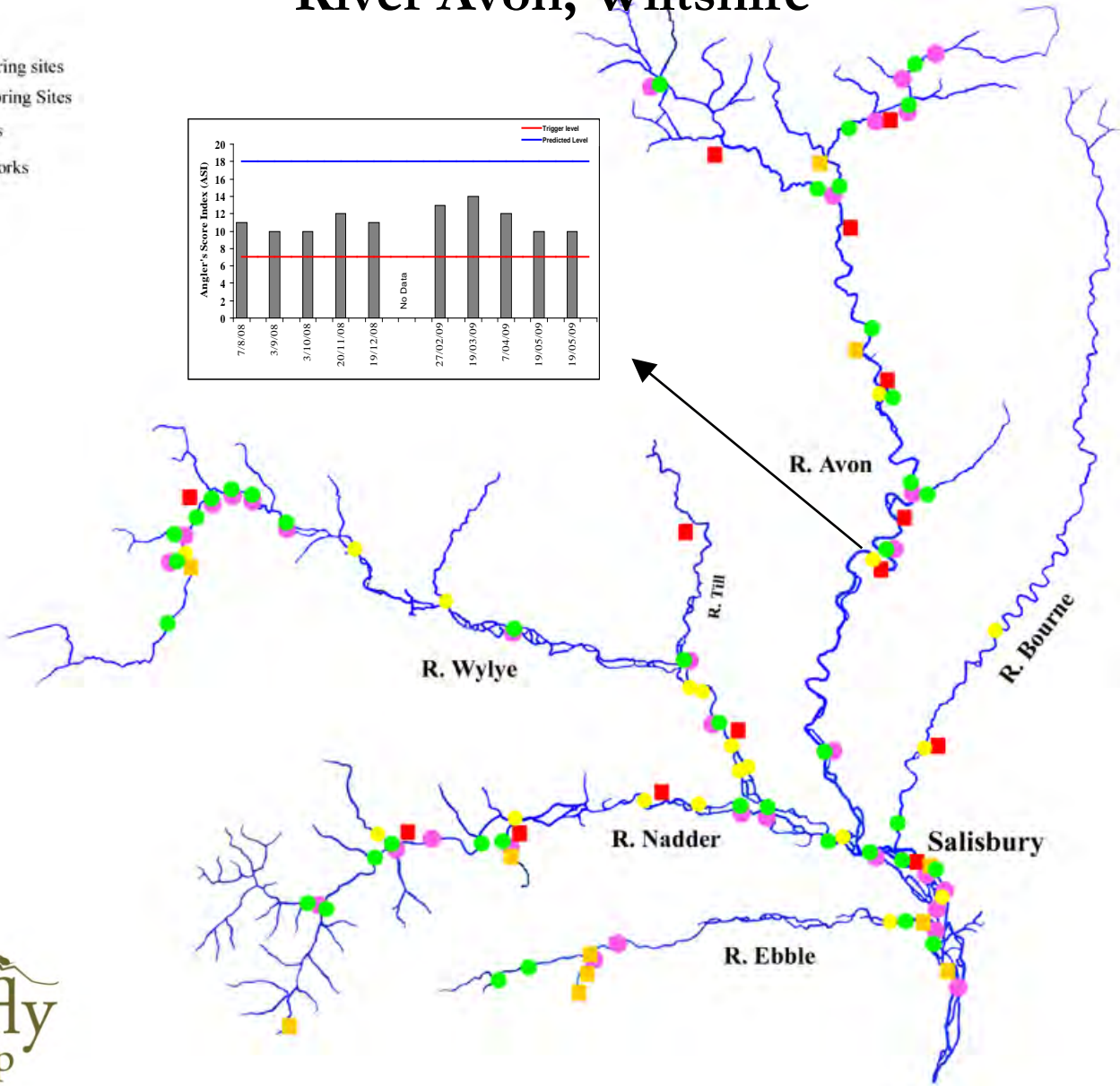
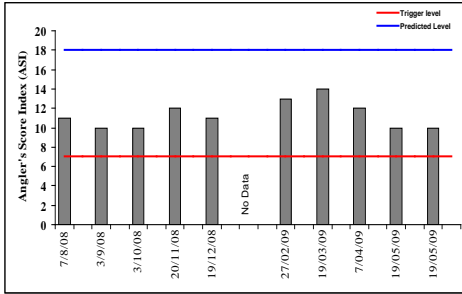
# River Avon, Wiltshire

- EA Chemical monitoring sites
- EA Biological Monitoring Sites
- AMI Monitoring Sites
- Sewage Treatment Works
- Fish Farms



# River Avon, Wiltshire

- EA Chemical monitoring sites
- EA Biological Monitoring Sites
- AMI Monitoring Sites
- Sewage Treatment Works
- Fish Farms




# Status

- 40+ Monitoring Groups, 350+ AMI sites, 650 trained volunteers. Volunteer time estimated at >£500k/yr
- Activity across 18 of the 20 EA areas, RAFTS in Scotland & Northern Ireland pilot 2010
- Community partners carrying out an effective watching brief on water quality allowing responsive action by the statutory bodies.

*3 pollution cases identified in SE Wales alone have led to successful EA prosecutions of the companies responsible - 40k fines, plus costs*

- Links to European Union Water Framework Directive in helping to ensure the GES of UK rivers



## For 1 hour a month...

- Highlight severe changes in water quality and ensure early action by the statutory bodies
- Enable an informed dialogue
- Act as a deterrent to potential polluters
- Lead to long term dataset – to monitor change
- Help ensure good ecological status – good fish populations +
- Help protect areas of special interest  
Biodiversity Action Plan habitats and species
- Increased community cohesion, new training opportunities, direct conservation action, new angle to their sport, etc.



# Critical components

- bottom up interest, volunteer led
- in partnership with statutory bodies
- practice in partnership at all times
- open dialogue
- health and safety and quality control
- infrastructure for data management
- provide support and feedback, regular updates
- regular forums and field days



# Resource requirements

1. Statutory Body Ecology Contact: inaugural workshop, register sample sites, set site trigger levels, liaison with and feedback to Local AMI Coordinator
2. RP Tutor & training workshops
3. AMI Local Co-ordinator (liaison RP & Ecology Contact)
4. Interested volunteers
5. Support infrastructure – investment, partners, communication, website, data management, feedback, continued learning programme for volunteers etc



# Potential demonstrated. Infrastructure required

1. AMI data only held locally, yet effectively used
2. Urgent requirement to bring together historic AMI data in live central database (seed funds secured)
3. Urgent requirement for long term funding & infrastructure investment
4. Regional strategic development between EA & AMI e.g. Wiltshire. Current reliance on Ecology Contacts' knowledge (increasingly mobile resource)

# Subimago to imago







[www.riverflies.org](http://www.riverflies.org)