

# The Wye and Usk Foundation

Reg.Charity no. 1080319

*Action for fisheries*



## Foundation Activities An Update November 2006



*An update of all Foundation project activities to November 2006*

Details not found in this newsletter may be available on [www.wyeuskfoundation.org](http://www.wyeuskfoundation.org)



PROJECT PART-FINANCED  
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RHAN-ARIENNIR Y PROSIECT  
GAN YR UNDEB EWROPEAIDD  
Cronfa Ddatblygu Ranbarthol Ewropeaidd



Herefordshire Rivers  
LEADER+ Programme



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# From the Director

Not for the first time I have had to write a preface to a newsletter explaining why it is the first for some considerable time. Again, I must ask your indulgence for the reason is once again the same. When I last wrote, I had spent the previous two years preparing what was, at the time, the largest project the Foundation and partners had ever successfully bid for and gained consent.

In November 2006 the situation is not really any different in respect of our commitment to restoring our two rivers. Today however, we have no less than seven significant projects, funded and running. It took us the last three years to develop these and it is a reflection of the effort of all those who have joined the Foundation staff that so many bids were successful. When these are completed, we will have secured and spent £5 million on the two rivers. That of course begs two questions: what benefits will that considerable funding have brought and just how much more is needed to restore the rivers to a satisfactory position or "good ecological status" as the Water Framework Directive would have it?

A considerable number of our supporters will judge our success by the direct benefit to the rivers' fisheries, most particularly the salmon runs, and rightly so. The salmon is one of the most phenomenal creatures on this planet. Its life history is astounding, its value to us is perhaps the greatest of any single non marine creature and stocks should be at a much higher level than they are today.

For these reasons the focus of our work is directed primarily at salmon conservation and enhancement. At the same time, there are consequential benefits to other species and they in turn are a benefit to our cause. Native crayfish have been shown to have recovered in certain streams – the Edw for example, the majority of which we have



*A simple, cost effective remedy  
to an impossible situation*

fenced and coppiced. Now we have received additional funding to continue this work on other similar streams. Native crayfish, salmon and trout will be enhanced and protected, but here, the crayfish is the economic provider. CCW and the Tubney Charitable Trust have both contributed to this aspect of our work.

So to get back to the £5 million question, have we succeeded in increasing the amount of returning salmon? I'm afraid a simple yes or no doesn't do justice to a decade of hard work, and I will try to explain why. Starting at the estuaries of the two rivers and the seaward approaches, the answer must surely be a resounding Yes! The buy out of nets and putchers has allowed many more fish to enter the rivers each and every year since the buy off in 2000. Our complaint jointly with the Wessex Trust to the EU about the Irish drift nets will allow even more back.....next year.

In respect of our work on restoring fish access to areas excluded by dams, weirs and other obstructions, yes in some cases, not yet in others and no in a few. The early fish pass work on the upper Wye has been shown to have increased the number of returning salmon. There is no better



*End of the line - redundant  
putchers no longer killing fish.*

example than the Clettwr at Erwood. Before 1996, enormous timber jams excluded fish from all but the lowest 200metres. Clearance of these, plus two small fish passes, now allows some 20 - 25 pairs to return and spawn each year. The Agency's electro fishing programme now confirms good numbers of juvenile salmon throughout the streams length.

On the Usk, we can show that fish have spawned above some of our fish passes. For example: 2004 on the Rhiangoll and 2005 above the partly completed Cynrig fish pass. However, forgive me touching on the obvious, but it will be 2009 and 2010 before the progeny of these new areas add to numbers of returning salmon. Other sites, particularly at the extremities of the catchment (i.e. smaller streams), have been of much more use to spawning brown trout. However, in the few wetter years salmon have been found too. The Cnyffiad and Digedi are examples of this.

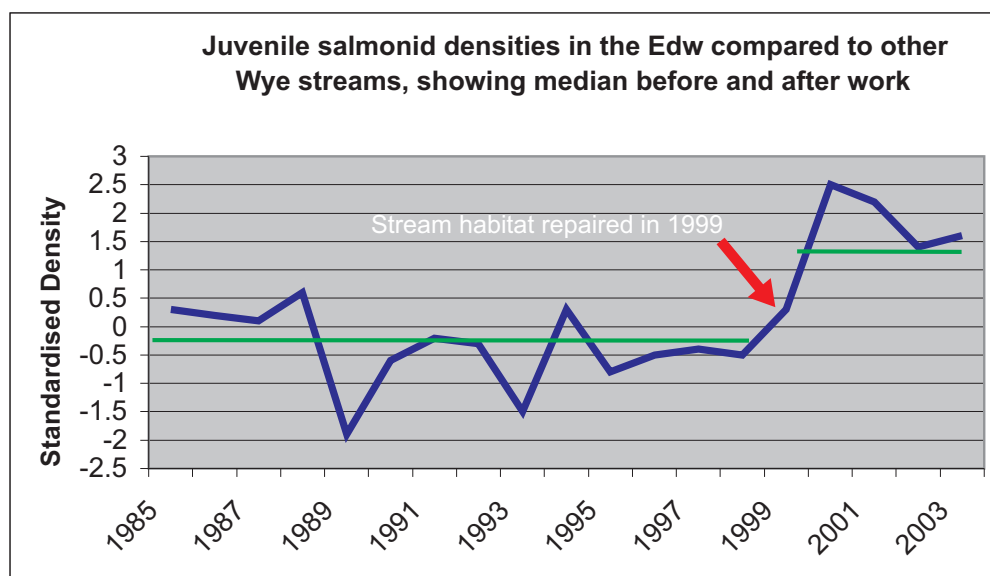
The habitat restoration aspect of our work is perhaps the least well understood of anything we do. Fencing out stock allows the bank side growth to stabilise the banks and retain silt, while narrowing the width but increasing the depth and consequential flow to a state much more favourable to salmon fry and parr. Clean gravel and flows of 12– 16 cms/sec are more likely to be found in tributaries from which grazing and trampling animals are excluded.

Allowing in light by managing streamside trees increases the number of drifting invertebrates so crucial in a young salmon's growth. Our own research and that of many others clearly demonstrates this. Dipped sheep are kept out with a fence as this toxic chemical reduces invertebrate populations, and the whole restored stream corridor can often be the only wildlife shelter in

areas of heavily grazed or commercially afforested parts of our catchments. Does this work increase the numbers of returning adults? Again, yes and no. For the restored habitats to deliver more fish, it is essential that we have absolutely every available adult fish on the redds in these streams. This particularly applies to the Wye. It is the reason we set out to encourage all Wye fishers to return every



*The Ennig in Talgarth, before and after stream restoration work*







*The Llynfi Dulas, before and after fencing, coppicing and car removal.*



salmon with our catch and release scheme. **Every fish is crucial to recovery in this river.** Just imagine how effective a hatchery might be with insufficient numbers of fish in it.

That said we are seeing improved returns; take the Llynfi Dulas or Edw for example, the graph on the previous page compares the Edw's performance against all other Wye tributaries – that's the yes part of the answer!

Our acid waters work on the upper Wye certainly shows increasing numbers of fry. In part this is due to the removal of a dam at Pantmawr and a stone lodged in the crucial access channel in falls on the uppermost part of the Wye. Benefits are also accruing from the liming work, fish are now present in the Tarening for the first time since at least the early 70's and are to be found in the Bidno right up to the Hafren Forest.

The numbers of salmon fry and parr in the main stem are steadily rising. However, answering the key question, these extra fish have brought no benefit to returning numbers. That will not happen until 2009 and onwards: it takes five or so years to go from returning fish to the next retuning generation. If only we had started in this section earlier!

Hatchery? An audit of all that went in and all those that came out would suggest that in the early years (up to 2002) this was neither a satisfactory use of fish nor resources. Hatcheries suffer from the proverbial "all one's eggs in one basket" risk and a single year's wipe out means the gain of about six years of work are cancelled out. The answer here to the key question then is a big NO. It was

unreliable water quality that undid our first facility at Green bottom.

The more recent installation at Painscastle (touchwood), has so far managed to avoid these water quality problems. We have kept its use to seeding sites where weirs are subsequently to be removed and hence fish are put out before they can become prey to high water temperatures and disease. In fact one site above a weir was stocked with hatchery fry for a few years and registered an A on the Agency's scale A – F for salmon densities. Here then, there is a cautious Yes.

Overall, the vast majority of our work has not had time to deliver fish yet. Although we have been in the business for 10 years, it is only during the last 5 years that the really big scale improvements have been completed. I hope therefore that I have given you genuine reasons to be optimistic. For some, there are of course reasons to take the reverse view but for anyone who loves the Usk and Wye, cares about its salmon, trout and all the wildlife; enjoys the beauty of the legion of valleys, there are plenty of reasons to be optimistic and carry the plans forward to conclusion. How much more? Well, we think we are over two thirds of the way there. Simon Evans the Foundation's Deputy Director writes next about the progress of each project and explains what progress is being made.

Seasons greetings to you all and many thanks for all the kind emails, letters and phone calls we get that make the work so rewarding but, above all for your continued support

*Dr Stephen Marsh - Smith*

# The Foundation's Projects

## Stretching the pound

The Foundation has delivered most of its work through partnership projects. In this way there are added benefits, most importantly every pound donated to the Foundation goes a lot further, ten times further in fact as it draws in both cash and contribution in kind from statutory bodies, such as Environment Agency Wales, Countryside Council for Wales, Brecon Beacons National Park and Europe. The next benefit in importance is that having all these organisations 'on board' and focussed towards the aims of the Foundation smooths the path of the projects and allows them to undertake the huge amount of work that is necessary to make a difference in these catchments.

## The Projects

The Foundation is currently running 7 projects:

**pHish** Powys Habitat Improvement Project is working on the Upper Wye.

**UP! (trans)** and **UP! (Ob2)** together form the Usk project

**Lugg and Arrow** (Radnor) extends the Objective 2 work to the Welsh headwaters of these important tributaries.

**Herefordshire Rivers Project**, is working in the English Lugg and Arrow

**Middle Wye Improvement Project** is offering assistance to fisheries in Herefordshire.

Finally in conjunction with CCW and the Tubney Charitable Trust we have launched the **Crayfish project** to improve the fortunes of the endangered native white clawed crayfish in the Wye.

These cover almost our entire geographical area (but not the Lower Usk or Wye below Monmouth – though we are working on funding for these areas). The first of these projects, pHish, started in 2002 and the last, Lugg and Arrow Radnor, finishes in 2008. The total planned spend is £3.8 million.

The first four are Wales Objective 2 projects and all follow a similar model: improve the fish stocks in a sustainable way and boost the local economy by encouraging angling visitors to return. The local economy aspect is crucial to comply with the conditions required by European Structural Development Funds. These funds are designed to increase wealth and boost sustainable development in Objective 2 areas.

One of the ways the Foundation delivers this economic remit is through the "Passport" scheme. We market and let fishing for owners and farmers, from mountain streams to majestic main river beats. This scheme has doubled in size every year since it started in 2003 and so far this year has brought in over 3,000 rod days to the area and

generated over £50,000 in direct sales for owners. The benefit of this scheme is being extended to the middle catchment by the Rural Enterprise Scheme and this project is based around improving both availability for anglers to the Herefordshire Wye and the fisheries' ability to host them. The Leader + project on the English Lugg and Arrow is more of an environmental and social project, based on improving fish passage and education.

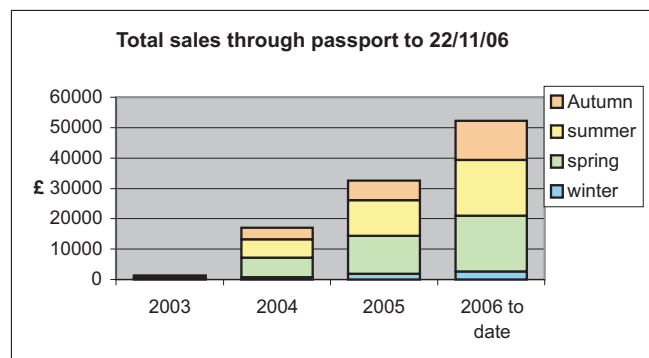
## The Work

Some raw and very big numbers here:

These 7 projects will together.....

- ❖ Restore the habitat of 143km of degraded river.
- ❖ Restore access to over 430km of nursery habitat for migrating salmon and trout.
- ❖ 62km of the Upper Wye and Liffon were too acid to support fish life, liming is correcting this.
- ❖ Improve angler numbers and revenue for over 117 beats.
- ❖ Run a successful salmon hatchery that can stock up to 200,000 salmon fry each year to the Wye.
- ❖ Educate and engage the local people to encourage and understand the better management of their rivers.
- ❖ Arrest the decline of other important species.

Whilst all the projects work towards the above targets each has its own particular slant, which is detailed on the next page. It will I hope, give you an update of what the Foundation has been up to. A 10-year review will be published in the New Year and will detail exactly what each project has achieved.





## pHish

This £2m project is the largest ever run by the Foundation, and is also the longest, starting in 2002 but not finishing until 2008. Although this project covers the whole of the Welsh Wye it's main focus has been on the very upper reaches. The most significant of the fish passes constructed in the project has been at Pant-Mawr on the Upper Wye, this allowed fish to colonise the sections of the upper Wye unaffected by acidity. The liming work in the Upper Wye in 2003, 2005 and 2006 has tackled those streams that were too acid and now streams such as the Tarennig and upper Bidno are supporting salmon. The liming work has also increased the productivity of this part of the river (calcium is required for leaf breakdown), and the upper Wye, traditionally the home of the famous Wye springers, now has fish present in what were completely dead areas. Elsewhere, five access projects have been completed and 44km of habitat has been restored so far.



## UP!

The Usk project (£1.1million) is two paired projects. Below Brecon work has concentrated on reopening the middle Usk tributaries. The catchment survey done in 2004 showed that, with the exception of the Grwyne, all the tributaries between Brecon and Abergavenny had major blockages on them. The project tackled four of these: Menasign, Cynrig, Crawnon and Rhiangoll and 2006's electro-fishing shows salmon populations establishing in the new areas opened by these works. One interesting result has been on the Rhiangoll, where a good historic electro-fishing data set has allowed us to prove that where the fish pass work allows larger trout to access the headwaters, coupled with the habitat improvement work (that you can see from the A479) this has led to a 400% increase in trout fry numbers in the upper reaches and an increase in the production of catchable trout numbers throughout the catchment.



Upstream of Brecon, whilst access work has allowed salmon to return to the Honddu and improved access in the Cilieni, the main thrust has been towards restoring the damaged stream habitat. Four of these were amongst the worst we have ever come across and we are pleased to be able to report that all these reaches have now been restored taking the total to 32km of stream restoration completed by UP!



*Removal of this blocking weir on the Menasgin has opened up 7km of excellent nursery habitat for both trout and salmon*





*The Nant Bran on Eppynt, before and 6 months after coppicing and fencing*

*Grove farm weir, previously a complete barrier, now made passable with a baulk fish pass installed this year*

## Herefordshire Rivers

In December 2005 we started work in the english part of the Lugg and Arrow. This £181K project, run in conjunction with the Environment Agency, will restore fish access within these two catchments. This summer, work started with four EA owned weirs on the Lugg, receiving fish passes, whilst the Foundation has made the three weirs on the English Arrow passable to salmon and trout – we hope! For the first time in over 100 years salmon are able to access the welsh headwaters of these streams. They offer some of the best nursery areas in the whole Wye catchment. As I write this, we are all waiting to see the if recent rains have brought fish over these obstacles.

A key part of this project is involving the local community in the efforts to improve the rivers and this will start with the salmon homecoming project. Through this initiative children will raise and hatch salmon eggs in the classroom. In this way they learn about the life cycle and the problems afflicting the rivers, before the fry are planted out above an obstacle that will be eased, to seed the new area.

## Lugg and Arrow Radnor

In September this year we finally received approval from WEFO to start work in the welsh headwaters of the Lugg and Arrow. This project took 18 months to put together but when we finally started, the results of the catchment survey conducted as part of this project confirmed that all the work was justified. There were some shocking results with 104 obstructions to fish migration found so far. These range from major weirs requiring fish passes to blocked culverts. In addition the all too familiar problems of over shading and overgrazing are all present. The work is starting in a few weeks time with the first site being on the Upper Lugg near Pillioth.

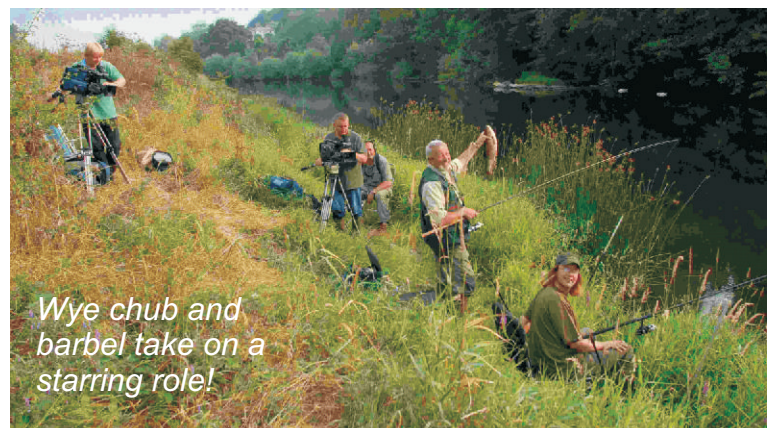
## Herefordshire Wye Improvement Project

This £261K project started in August this year and builds on the highly successful Passport scheme, which will now grow further and expand into the Herefordshire Wye, Lugg, Arrow and Monnow.



One beat near Hereford, which joined this year, did not have a single let at the start of the year. With the help of the passport, 121 anglers fished the beat this year and it attracted favourable comments for both the spring salmon fishing and then the summer coarse fishing. It even featured on a TV programme entitled 'Dream Fishing' in November. There are many miles of the middle Wye that are underlet and there are a substantial number of anglers who want to fish it but don't know how to. This project will bring the two together for the benefit of all.

The decline in the Wye as a salmon fishery has meant many of the beat's facilities fell into disrepair. Now salmon numbers are improving but these beats are unprepared for tenants: for example, paths are impassable, banks overgrown and huts derelict. This project offers a grant pool for fishery owners to improve their beat's infrastructure. Please contact Seth Johnson-Marshall at the Foundation if you are an owner who wants help from this project.



*Wye chub and barbel take on a starring role!*



## A few headline results ...

I have mentioned in the text some of the results of our work, and in next year's review we will have the space to provide a detailed breakdown of the positive changes we are seeing, but here are a few results worth shouting about now.

### **Restoring the Upper Wye:**

Salmon fry present in Tarennig in 2005 for the first time since electro-fishing began and fry and parr present in 2006. In fact, in 1985 there were no salmon upstream of Llangurig, now in 2006 juveniles are to be found throughout the upper catchment.

### **Habitat restoration:**

Trout numbers have more than trebled in the Llynfi Dulas following work by the Foundation.

### **Reducing exploitation:**

In 1998 the Wye had one of the lowest rates of catch and release in the country at 7%. By 2005 this had increased to 85%, the highest for any river in the UK with a rod catch of more than 500 fish.

### **Opening up new areas:**

The Usk project has opened up over 100km of previously blocked tributaries to salmon and trout. In addition to the benefits shown above on the Rhiangoll, the work on the Cynrig has created a B grade salmon fry site where there were no salmon before, whilst on the Crawnnon the lower fish pass has changed the site above from an E grade to a B grade for salmon. Now, with the upper pass complete this year, further benefits will accrue in this stream.

### **Angling catches:**

Wye spring salmon catches have increased every year for the past 5 years, whilst matches held on the Upper Wye have shown improved coarse fish catches with dace and perch making a welcome comeback.

Finally, our thanks go out to all who have helped fund and assist with these projects that will have a lasting effect on our two great rivers.

*Simon Evans*

***If you would like to support the work of the Foundation, please use the enclosed proforma***

**The Wye and Usk Foundation**  
*Action for fisheries*



*The Clwydog seven years after the restoration of the stream corridor.*