



# Tenth Annual Report

For the year ending 31<sup>st</sup> January 2011



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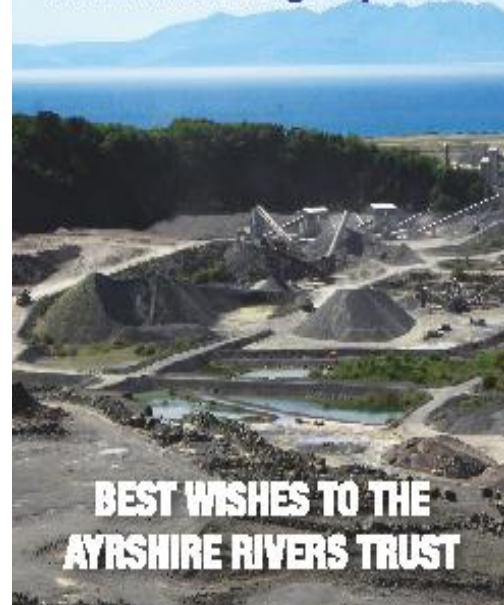
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# Mission Statement

*“To preserve a valuable part of our natural heritage for the enjoyment of current and future generations, through the conservation, enhancement and development of our freshwater habitats and the fisheries they support.”*

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**Main Cover Photo:**

**Fisherman at Oswald Bridge, River Ayr**  
(Courtesy of ART)

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Ayrshire Rivers Trust

## Chairman's Introduction

This Annual Report is a milestone, as it is our 10th. When we launched the Trust in 2001, little did we expect the Trust to grow to the size it is today. Alistair Duguid was our first employee as a biologist and from very humble offices; he evolved our ideas into a functioning organisation. Having expanded the Trusts work to enable us to employ a second biologist (Peter Minting), Alistair left us to travel the world and Brian Shaw replaced him. Brian brought management skills with him just at the time that the Trust needed them and further new projects from mussels to invasive weeds and water voles were taken on with the help of Stuart Brabbs who had taken the place of Peter Minting. More recently another biologist in Gillian McIntyre joined the team. Meanwhile Janette Galbraith has been keeping the office in order. So now we have a Trust which is widely known and respected for its conservation work on our Ayrshire Rivers as well teaching hundreds of schoolchildren about the life cycle of the salmon. This growth in activity would not have been achieved without the enthusiasm and work of our band of dedicated Trustees. Ayrshire Rivers Trust has been lucky to have been supported by such an effective team.

The realisation that this country has a considerable problem with the spread of invasive weeds which have been introduced from overseas is gaining momentum. In order to do battle with these invaders, we have been successful in obtaining EEC funding of some £230,000 spread over 3/4 years as part of a £1.6M scheme which involves Scottish Trusts and also covers Ireland. (See page 7). The size of this project has required us to use sub-contractors and it will be a great achievement if we can rid our riverbanks of these weeds which can form a thick jungle smothering all other vegetation.

As you will see from this report, we continue with our vital work of annual monitoring of the juvenile fish population in our rivers. The work on the endangered water vole continues apace and 2011 will be a vital year when new voles will be introduced.

The Income and Expenditure Report at the end is gloomy reading. A substantial fall in net grants received due to delays in projects starting, together with a fall in consultancy fees has lead to a deficit of some £26,000 for the year. The length of time it takes for the EEC to eventually pay the grants for completed work is putting a strain on our cash flow, but we will be able to weather the storm.

Lastly we need some new blood amongst the Trustees, so please let us know if you or someone you know would like to be considered as a Trustee please contact me or Brian Shaw.

**PETER KENNEDY**

**Chairman**

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## Biologist's Summary

2010 may have been a difficult year financially but the staff were involved in a range of interesting projects. The smolt trap on the Ayr not only provided lots of interesting data but the weather during the spring of 2010 was about as good as it gets, and it was a joy to visit the river every morning to check the trap. After years of diversifying away from fish it was good to organise and be involved in such an interesting project.

Several years of work with invasive species culminated in 2010 with our involvement as one of five Scottish partners in an EU Interreg project tackling invasive riparian weeds. Amongst the project outcomes will be control of Giant Hogweed Ayrshire wide for the next four years. By working with the local authorities we will be able to tackle priority areas, such as Stewarton and the lower River Ayr, in a strategic manner for the first time. The legacy of this project should be much improved river banks with a trained group of volunteers able to maintain control efforts into the future. Looking to the future we have plans for new projects to control invasive weeds, more particularly in South Ayrshire.

2010 saw the application for the Galloway Hydro Scheme review submitted. We were involved throughout in providing advice to the SavetheDoon campaign in their endeavours to protect the ecology of the River Doon, and in raising awareness about the issue to a range of local stakeholders. The consultation process appears to be inherently unfair with a limited public consultation period available to respond. In this case there was a lot of work to do to balance the information that Scottish Power had submitted in support of their application. We are aware that there are several other hydro applications pending in Ayrshire. In the right location small scale hydro schemes could be developed with little concern from ART, but we expect other applications in sensitive locations to be submitted in 2011.

In 2011 we hope to deliver the major fish pass projects on the Kilmarnock Water and the Water of Girvan, and we will continue to develop other fish passage projects.

**BRIAN SHAW**  
Senior Biologist



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## **Invasive Weeds Project 2010**

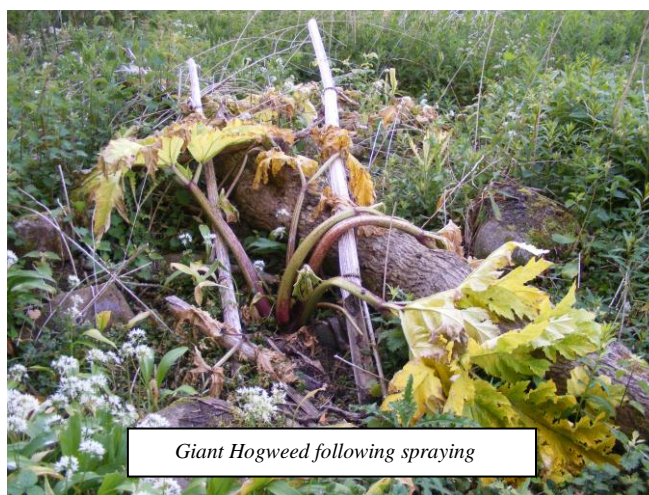
ART's ongoing effort to control Invasive Non Native Species (INNS) continues to gain momentum. The need for such control has clearly been established, and all 3 Ayrshire Councils, and the four District Salmon Fishery Boards, are supportive of our efforts.

In 2010, ART secured the necessary funding to allow us to train and equip volunteers from local angling clubs in the safe use of pesticides. Brian Shaw and Stuart Brabbs from the Trust also successfully completed the training. This new approach to INNS control allowed the Trust to co-ordinate and deliver strategic control of both Giant Hogweed and Japanese Knotweed in areas that would not otherwise have been tackled to date. Due to the success of this venture ART will continue to train volunteers through the EU funded project (see below) over the next 4 years, and anyone interested should contact the Trust.

### **Giant Hogweed (GHW)**

GHW on the upper River Ayr was treated for the third successive year. A local contractor was awarded the contract, and they were highly effective in their approach. At the time of assessment in September, barely a hogweed plant was visible alongside the upper river confirming that our strategy is working. Although the problem has reduced significantly we must continue with monitoring and control for several years to come as seeds can remain viable in the soil for at least 10 years.

The lower River Ayr from the stepping stones to the harbour also came under ART's control in 2010 for the first time. Although there was no strategic value in controlling this area, the Trust was able to provide a service to South Ayrshire Council for public health and safety reasons, and to a higher standard than had previously been in place. The lower river is particularly badly affected by this plant, and will require a long term and strategic approach to bring it under control, but this will be delivered by the Trust in the new INTERREG IV project that we commenced in September 2010 (more on this later).



The Pow Burn and its tributaries was another new area for ART's attention where GHW was rampaging out of control. ART's newly trained staff tackled this catchment and quickly reduced the problem. The weed appears to have originated in woodland near the old Sandyford blaze bings. From this point the plant spread downstream, under the airport's runway, and to the sea. Another small tributary, the Ladykirk burn, was also affected from the A77 downstream, but this was thought to be a secondary infestation probably as a result of fly tipping. One landowner preferred to undertake the spraying themselves for which we are very grateful. It is this strategic and cooperative approach that will lead to the greatest long term environmental benefit, and is essential if eradication is to be achieved.

### **Japanese Knotweed (JK)**

JK control on the River Doon commenced in 2010 thanks to support from the Doon District Salmon Fishery Board, and SEPA's restoration fund. A local contractor was employed to treat the weed where it occurred along the length of the river. A combination of spraying and stem injection was used, and the results will be assessed during the summer of 2011. A further round of control will again be delivered in 2011 followed by assessment and monitoring.

There is likely to be a requirement for ongoing control for several years although this can be expected to reduce rapidly. Some JK stands were also targeted on the Water of Girvan by recently trained volunteers for whose help we are very grateful.

### **Himalayan Balsam (HB)**

Chapelton Burn near Cassillis, and the Purclewan Burn at Dalrymple, were identified as the local sources of Himalayan Balsam in the Doon catchment. In 2010, HB on both burns was targeted by ART and BTCV (British Trust for Conservation Volunteers) during July and early August. This invasive non native species was identified as a priority last year due to its ability to rapidly dominate riparian margins. It is increasingly noticeable on the lower Doon, and has spread mainly from the Chapelton Burn. The method of control is manual pulling, and the volunteers were busy for a few days before eventually no pink, purple and white flowers remained obvious.



Despite being an attractive plant, it is essential that anglers get busy on their own stretches and uproot this nuisance. 'Take 5 (*minutes*), pull 5 (*plants*)' is a strategy that we hope anglers on the Doon will adopt. Without a doubt, the Doon is on the cusp of a 'population explosion' of balsam that may be irreversible if anglers and owners don't take the time to deal with this weed. A trip to the Stinchar or Garnock would soon convince even those most sceptical that this plant is undesirable. Mile after mile of the Garnock is dominated by HB, and access is restricted as a result. Banks become more prone to erosion during winter when the plant dies back, and this can contribute to diffuse pollution and the siltation of spawning redds. ART will co-ordinate efforts in 2011 but individuals can make a huge difference too.

### **INTERREG IV Project**

ART has successfully secured European Funding from the EU Regional Development Fund for the purpose of controlling priority invasive non-native riparian plants and restoring native biodiversity (CIRB). The project will operate from September 2010 to the end of 2014, and involves Scottish, Northern and Southern Irish partners.

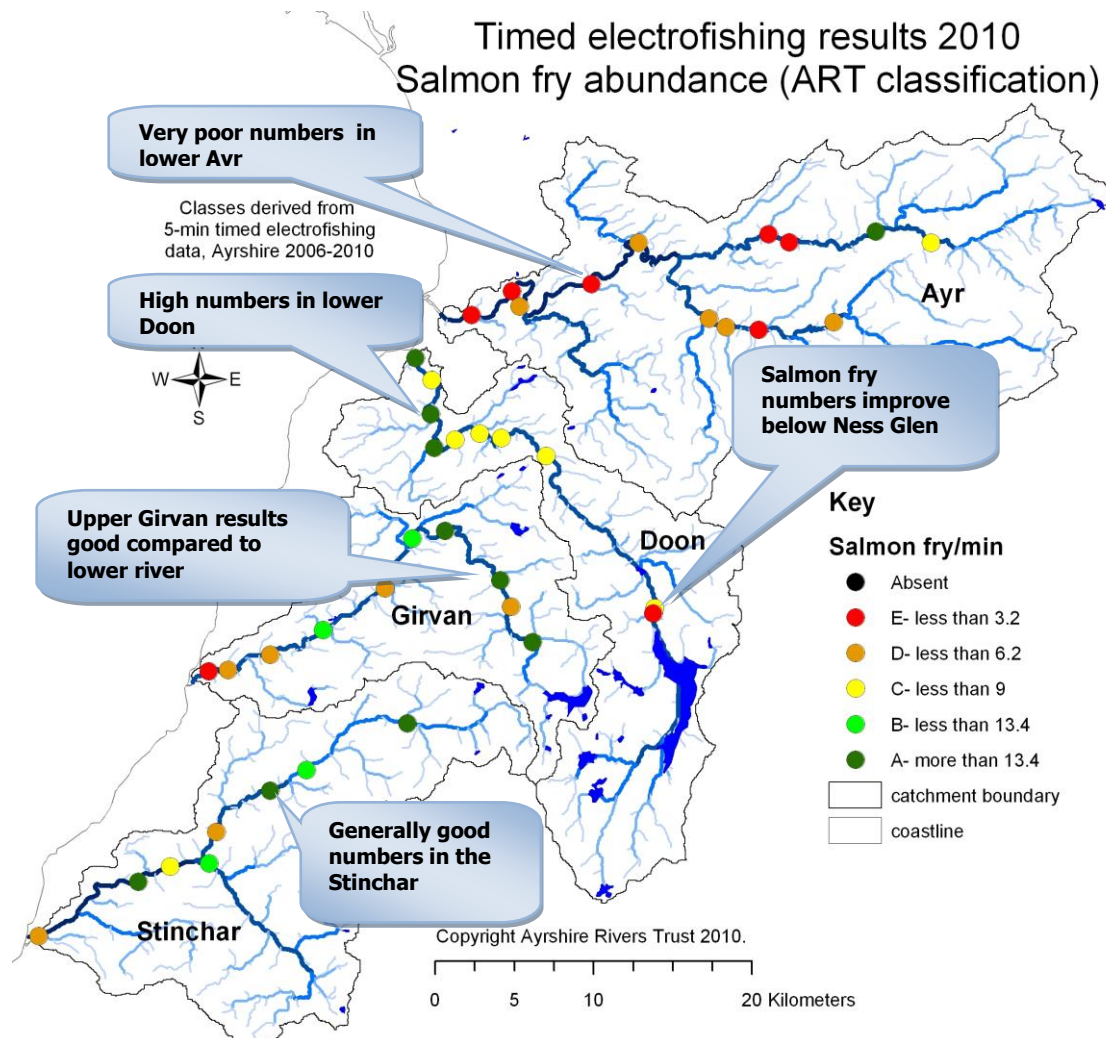
Dr Chris Horrill of RAFTS worked on this application for over a year, co-ordinating the applications from all the Scottish partners; Ayrshire Rivers Trust, Tweed Forum, Argyll Fisheries Trust, Galloway Fishery Trust and RAFTS. ART has the largest and most ambitious component of all the Scottish Partners. The INTERREG IV project will allow us to deliver GHW control across Ayrshire where it occurs in, or threatens riparian habitats. We will also commence strategic JK control in the Ayr and Girvan catchments. Details of the project will be available through our web site where a project page will be maintained.

INTERREG IV requires full transparency and extremely high standards of delivery and reporting throughout the project. At the time of writing, we have put in place management systems and reporting procedures to ease the process of compliance and funding claims. We also produced eight tender documents that will allow us to secure the services of professional contractors at competitive rates.

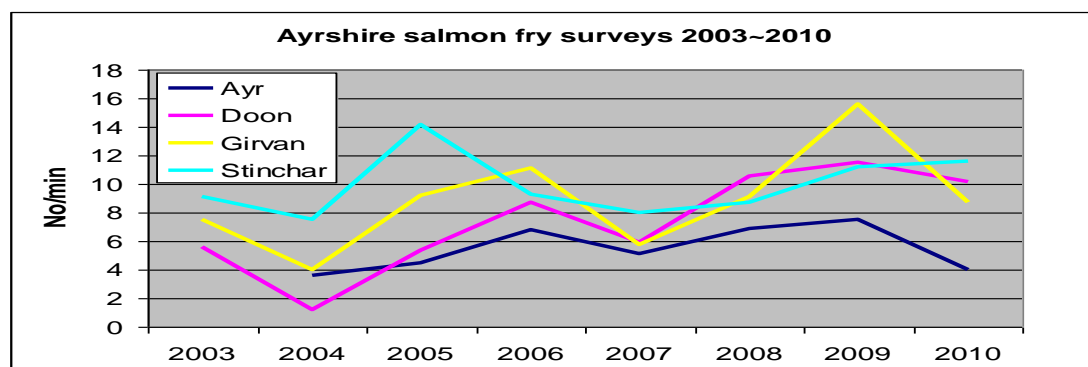
Full details of all the invasive weeds that we encounter in Ayrshire are available at the 'Project' pages in our web site. Please familiarise yourself with these plants, and take the time to know what grows on your stretch of river and how best to deal with it. ART are always available to assist with advice.

## Electrofishing 2010

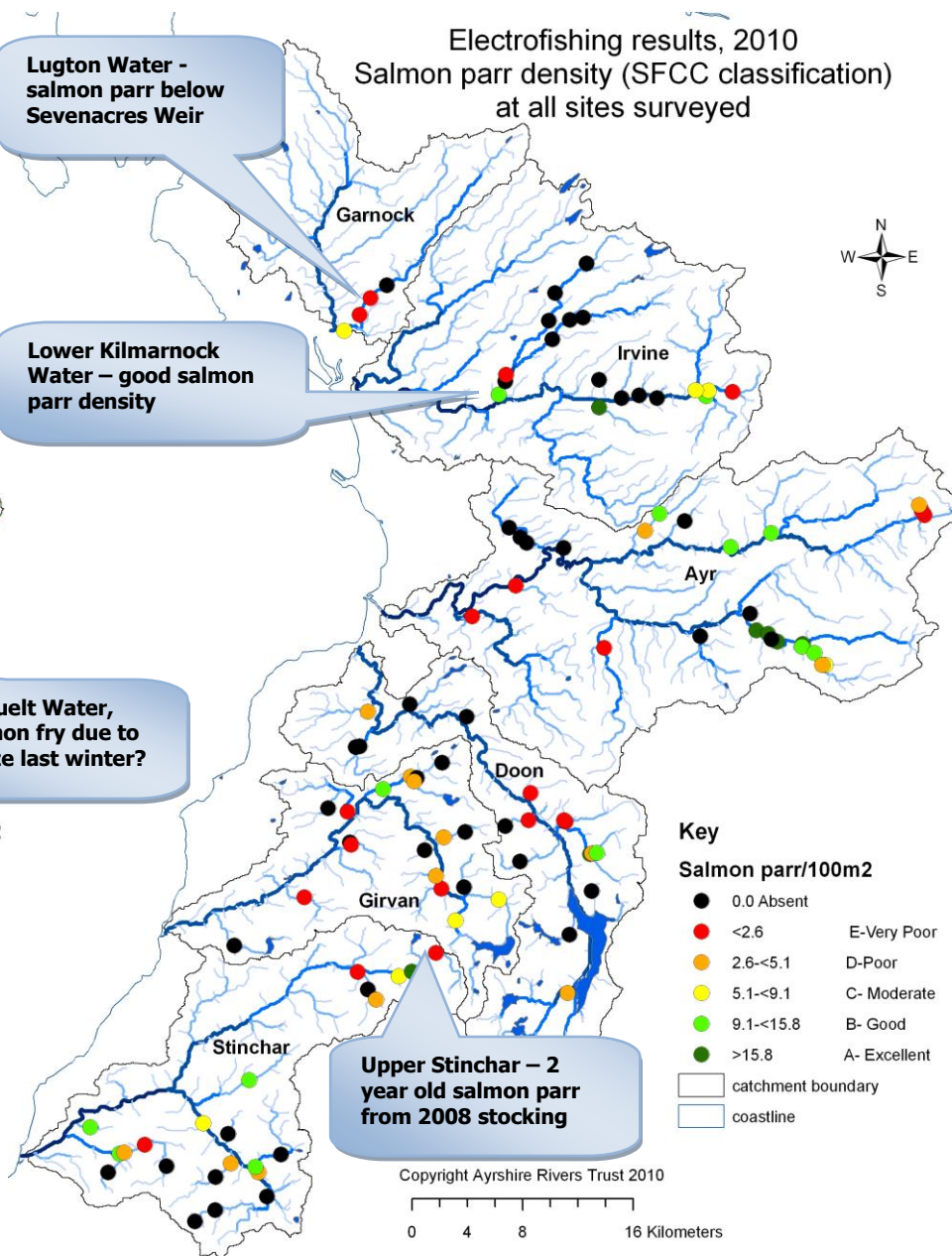
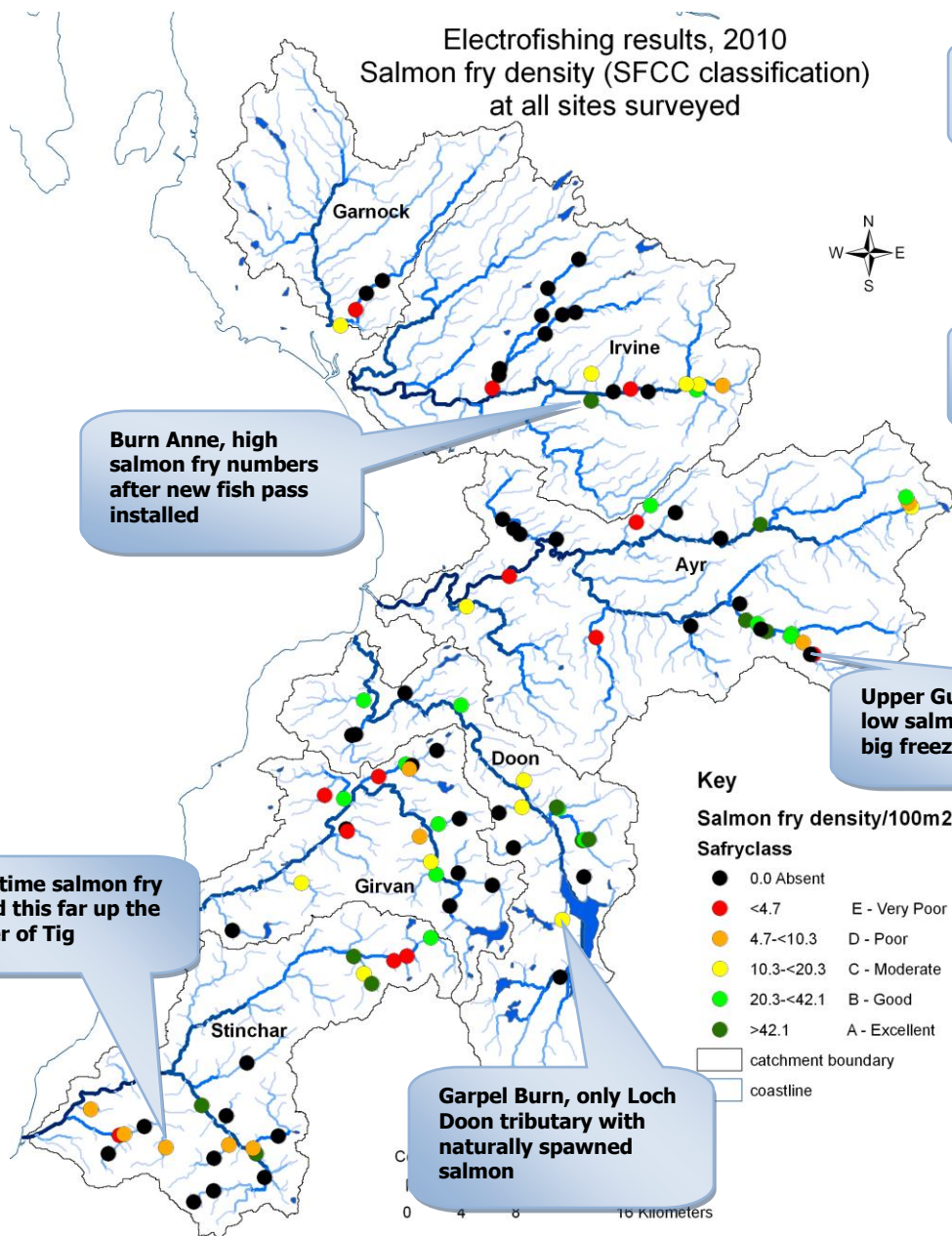
The map below shows the results from our main stem salmon fry monitoring in 2010. This technique involves surveying suitable habitat for five minutes in sites from the bottom of each river to the top. On the following two pages are the results from the tributary sites surveys, the results are expressed as fish densities per 100m<sup>2</sup> with selected findings highlighted.



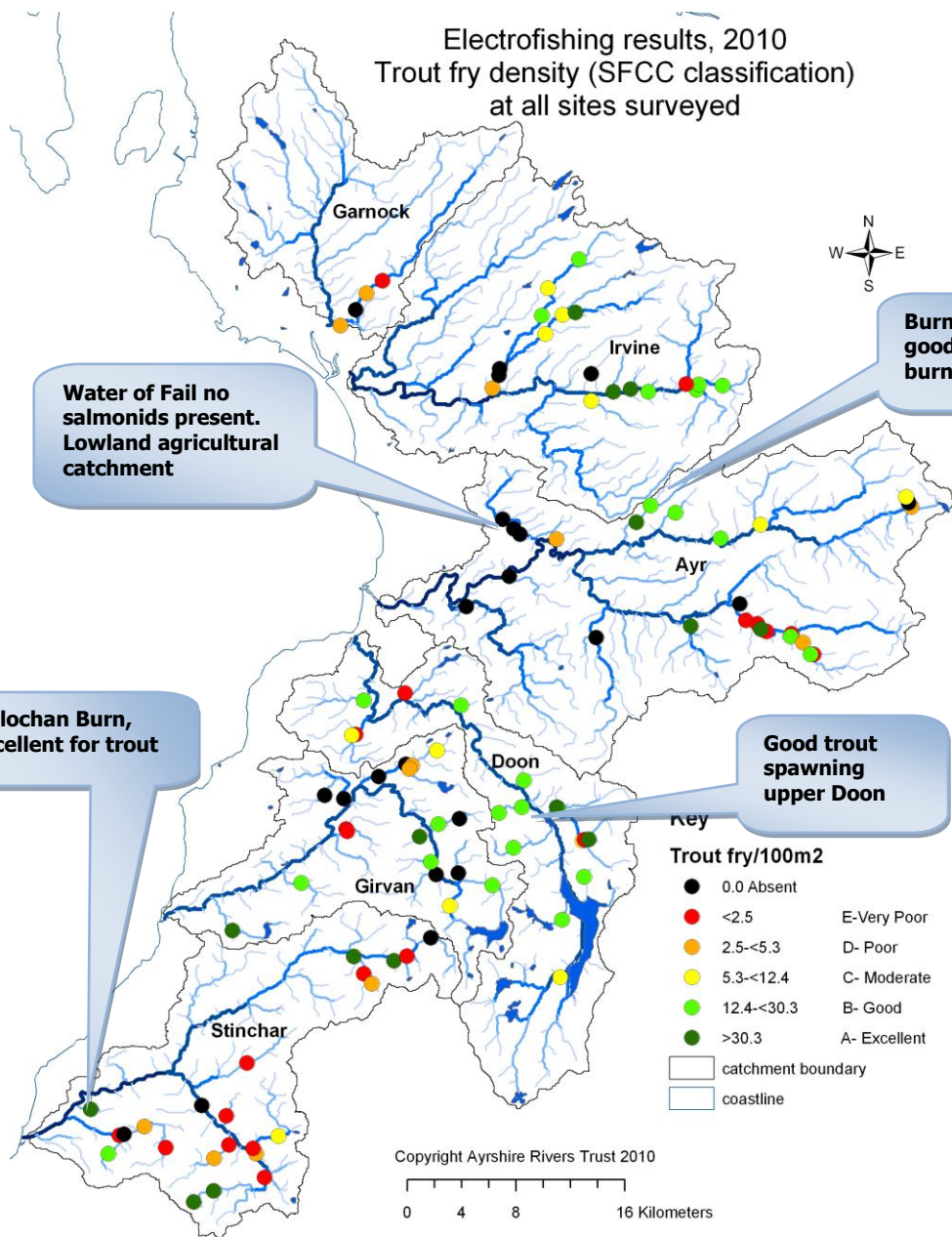
The graph below shows the mean salmon fry numbers from each of the rivers over the last eight years. The results from the Girvan and Stinchar have generally been higher than the Ayr or Doon, although in recent years the Doon results have improved. All four rivers are different in character but it appears as if there are factors which affect all rivers e.g. in 2007 when all the results were relatively low, and in 2009 when they were all high.



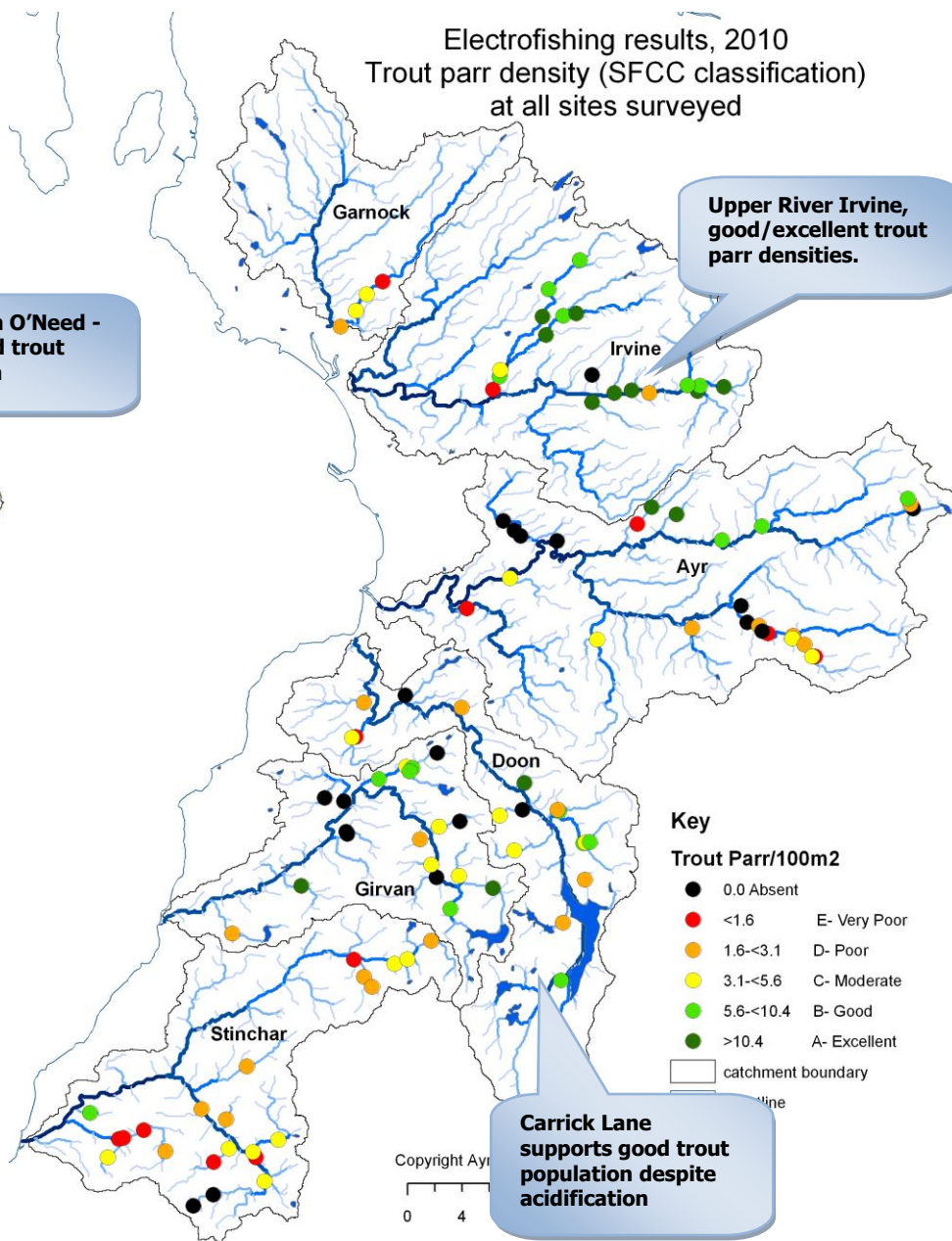




Electrofishing results, 2010  
Trout fry density (SFCC classification)  
at all sites surveyed



Electrofishing results, 2010  
Trout parr density (SFCC classification)  
at all sites surveyed





## River Ayr Smolt Trap Project 2010

In 2010 we operated a rotary screw smolt trap on the River Ayr. The aim of the project was to investigate the Ayr salmon and sea trout smolt production, and to collect as much data as possible including run timing, size distribution, genetic samples and predator damage. Sea trout smolt production was of specific interest as for the last five years the Ayr District Salmon Fishery Board has stocked the upper river with sea trout alevins purchased from outwith the catchment.

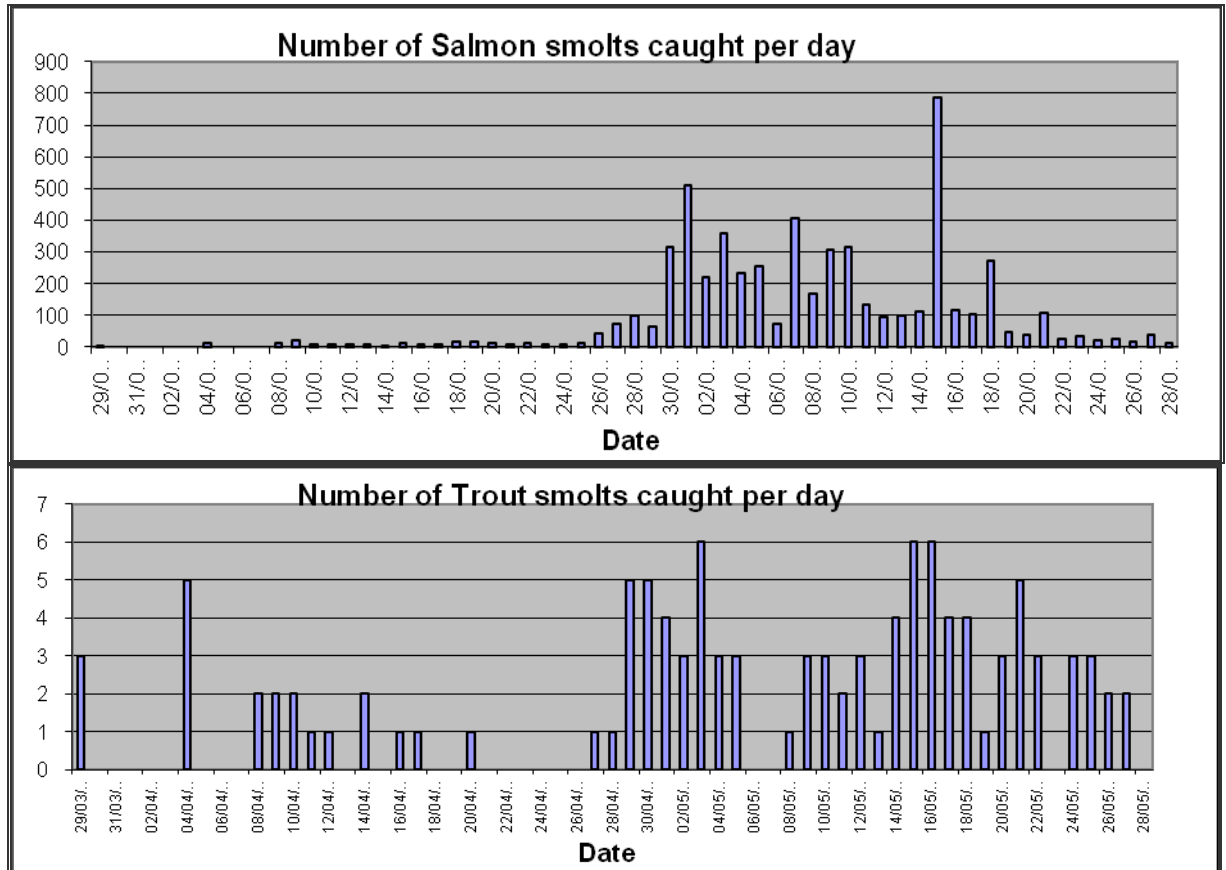
The Rotary Screw Trap (RST) was operated at a site in the middle reaches on the River Ayr between the months of March to May 2010. A RST is a specialised fish trap designed to intercept and trap fish migrating in a downstream direction. The trap consists of a revolving conical cage, two flotation pontoons, and a tank to contain the fish. Fish that enter the revolving cage are gently funnelled downstream into the holding tank.



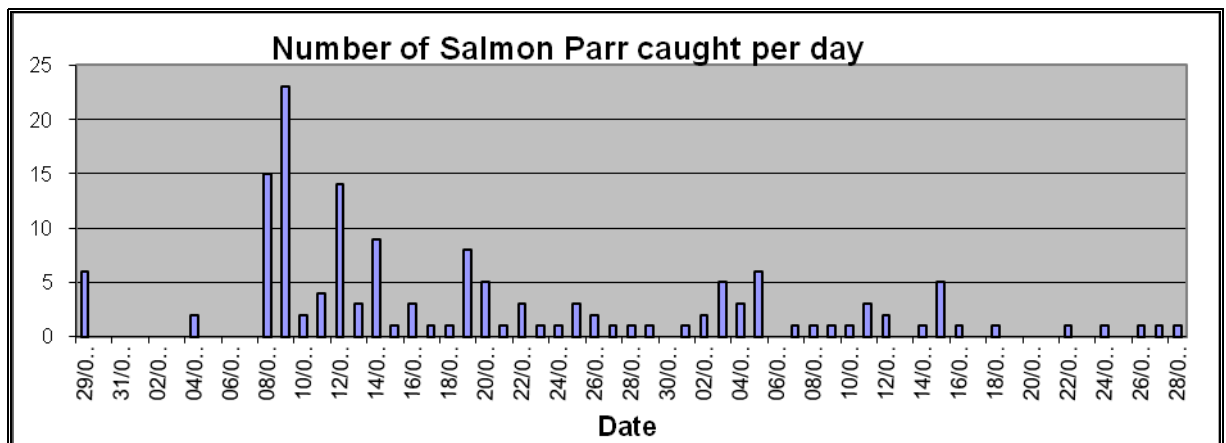
The RST operated for 24 hours a day, 55 days out of a total of 65 available between the 24<sup>th</sup> March and the 28<sup>th</sup> May. The trap was checked twice daily as leaf debris and litter built up quickly in the holding tank, and had to be removed to prevent damaging fish. Trapped fish were removed and processed in the morning. Fish were rarely caught in the trap during daylight hours. The highest daily catch occurred in early May when 798 smolts were found in the trap one morning.

In all, 6035 salmonids were caught in the trap over the period of operation. All juvenile salmonids were anaesthetised, measured for length and sampled if required. Scale samples were collected from 800 fish as well as 900 genetic samples including all trapped trout smolts.

Other species trapped included eels, river and brook lamprey, perch, stone loach and minnow. The salmonid total includes two salmon kelts and two stocked brown trout. All fish were released downstream of the trap following processing (with the exception of those used in recapture trials). Three recapture trials were performed. Marked fish were transported approximately 1km upstream and released. Recaptured fish were noted and from the results of these trials, the effectiveness of the trapping was assessed.

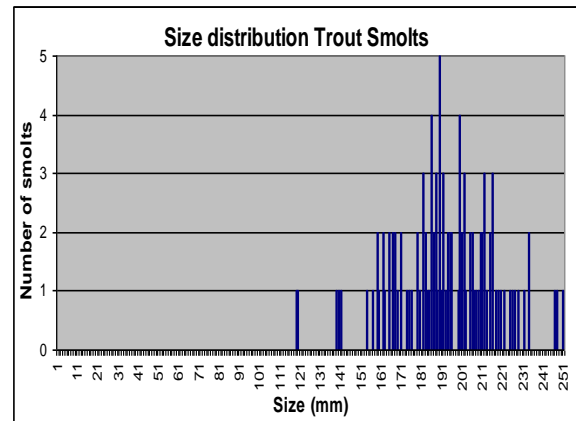
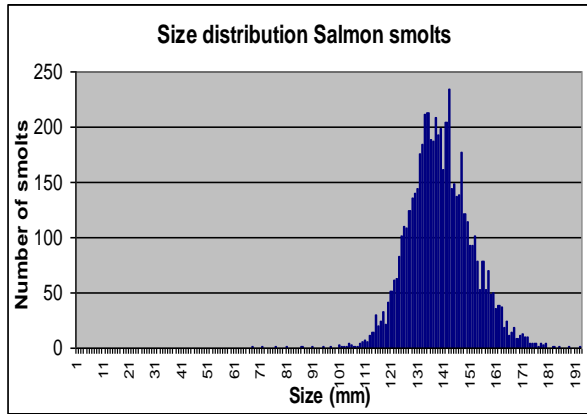


Of interest was the downstream movement of salmon parr (mainly one year old fish). The salmon parr movement occurred in advance of the main smolt run and helps to explain the situation we have often found in the lower river during electrofishing surveys, namely low numbers of salmon fry but with significantly higher numbers of parr. It appears as if downstream migration of salmon parr is an important mechanism for ensuring that suitable parr habitat in the lower river is occupied. It also highlights the importance of protecting the very productive upper river spawning sites. The distance over which this movement of salmon parr occurs is not known.



Salmon smolt size ranged from 101 to 193mm with a mean size of 139mm. The mean size of trout smolts was 185mm, ranging from 119 to 251mm. Some of the sea trout smolts were of a size (up to 250mm or 10") that could possibly be taken by trout anglers.



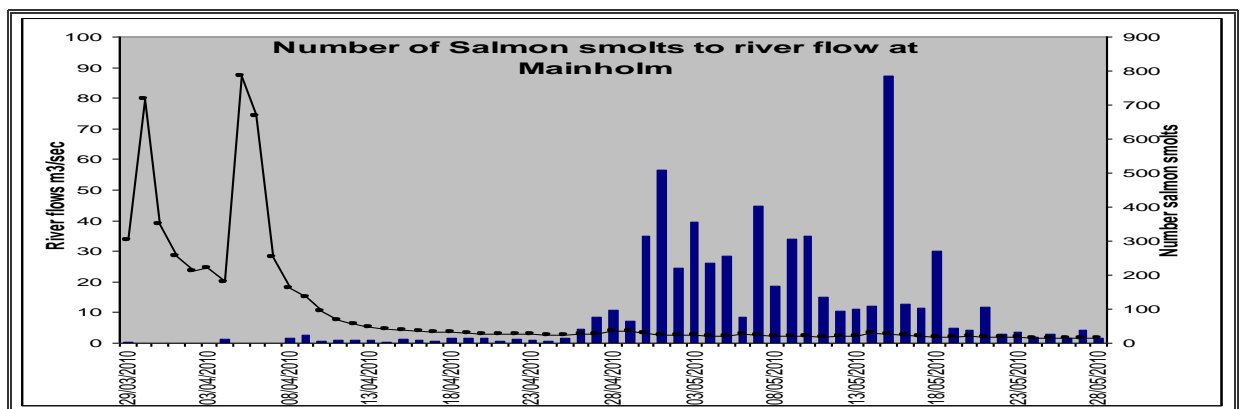


*Largest salmon smolt at 193mm*



*251mm sea trout smolt*

After mid April low water conditions prevailed across the catchment, but the smolt migration was consistent despite reducing river levels. The main smolt run commenced around the 21st of April, approximately two weeks after the last spate. River flows throughout the smolt migration period were generally low with only a few small rises up to 4" occurring. A spate during May would have compressed the smolt migration period, with a greater exodus during high water conditions.



During April the number of salmon smolts captured was relatively low and stable until the 26th when there was a significant increase heralding the start of the main smolt run. From early to mid May, a high number of smolts were captured peaking on the 15th when almost 800 smolts were recorded. Towards the end of the month the daily catch declined. In the absence of any spates in May 2010 the smolt migration appeared to progress independently of river levels. The pattern for sea trout smolts was slightly different with daily catches more consistent over the entire period of operation, although 72% of the sea trout smolts were captured in May (86% for salmon). The highest daily number recorded was six. Only 1.9% of all the smolts captured were sea trout smolts.

Predator damage was recorded using a standard scoring method for different types of damage/marks. Different types of predators tend to leave recognisable scars or marks. Approximately 7% of salmonid smolts were recorded with predator damage. Fish eating birds

were responsible for most of the damage to smolts however several fish also appeared to have bite marks from larger fish. The low water conditions which prevailed during the spring of 2010 undoubtedly favour predatory birds which at the time of the project were likely to be rearing young. Predator marked smolts are those that escape from predators, it is impossible to quantify the actual number of smolts lost to predators using a smolt trap, but it can be assumed to be significant.

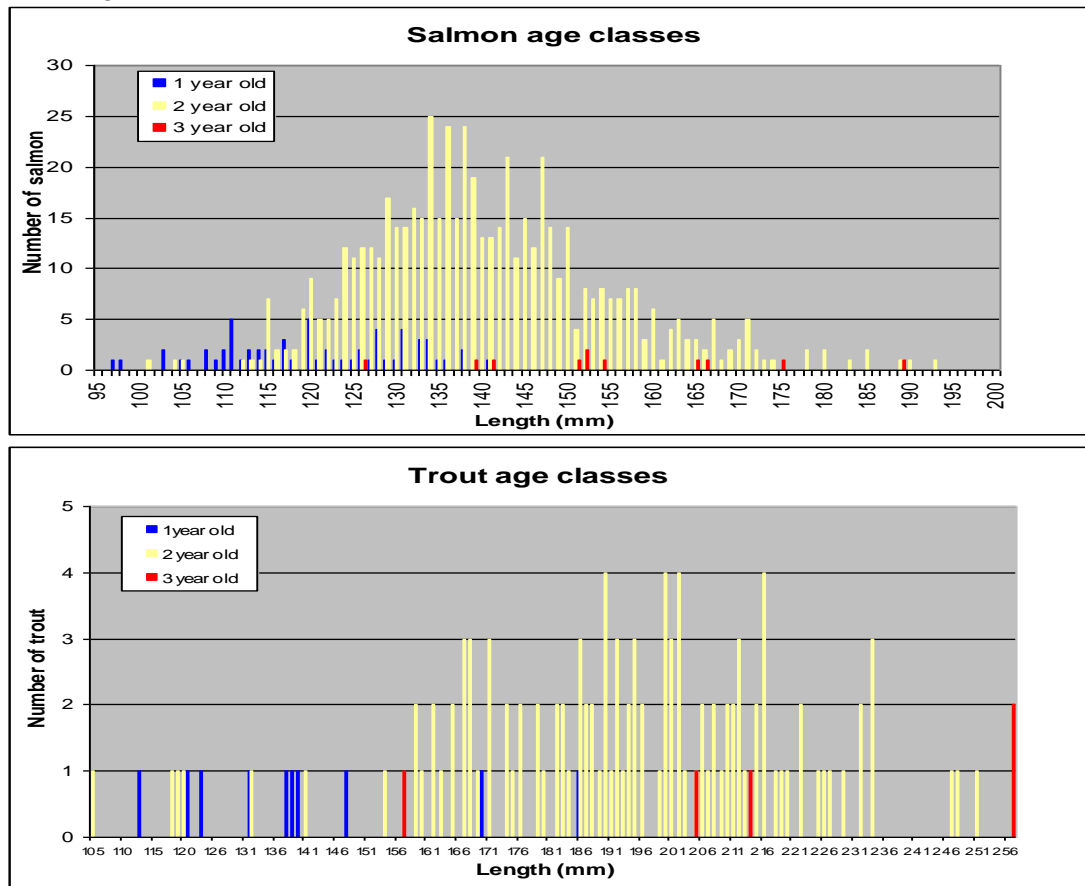


*Salmon smolt with bird damage*



*Laceration from beak*

In order to assess the efficiency of the trap, 3 recapture trials were completed. The average recapture rate was 15.3%. 791 scale samples have been examined. 10% of the salmon smolts captured were one year old, 88% were two year old, and 2% were three year olds with a similar age distribution for sea trout.



The genetic samples collected during the smolt trapping exercise have been banked and stored at Pitlochry Freshwater Laboratory. In due course we hope to be able to analyse the sea trout samples to try and ascertain the influence of the stocking programme.

We are grateful to the following funders: Scottish Government Fishery Management Planning Funding, River Ayr DSFB, and Scottish Coal. Thanks also to Robert Cuthbertson, Middleton Hill Farm for assistance with deploying the trap, Mr & Mrs Vernon for the site and Galloway Fisheries Trust who loaned the trap for the duration of the project.

For further details, see smolt trap report on <http://www.ayrshirerivertrust.org/documents.htm>



## Salmonid Egg survival trials

The strategy adopted by many fish species, including salmon and trout is to produce many eggs, which then receive no attention post spawning. This strategy works as only a few of the 5000 eggs laid by a typical female salmon need to survive to maturation to ensure the survival of the species. Mortality levels are highest during the earliest life stages including the incubation phase when the eggs are buried within the river gravel. Mortality in the incubation phase can occur due to a range of factors including movement, inadequate water movement through the gravel to remove metabolic waste and exchange oxygen, or physio-chemical factors such as pH.

We have already carried out some research into oxygen levels within river gravels and will report on further egg survival trials in the lower River Ayr in next years annual report. In spring 2010 we carried out some egg survival trials in the upper River Doon, at the foot of Ness Glen. We were interested in egg survival in this part of the catchment as previous salmon fry surveys had found consistently low numbers. Loch Doon and its tributaries are known to suffer from acidification and episodes of low pH. The upper River Doon starts at Loch Doon dam and during the winter pH levels can be low. We were interested to establish whether low pH was a contributory factor responsible for the low numbers of salmon fry found in monitoring sites at the foot of Ness Glen.

Eyed salmon eggs from the Doon DSFB hatchery at Craigengillan were planted into Whitlock-Vibert egg boxes in a number of locations in the upper River Doon as well as in local tributaries where pH levels are normally higher.



**Recording pH during River Doon trial sites**



**Whitlock-Vibert egg box**

The egg boxes were each stocked with 100 eyed ova on the 13<sup>th</sup> March 2010 and buried to a consistent depth in suitable gravel. On the 19<sup>th</sup> April 2010, when eggs from the same batch had hatched in the hatchery, the boxes were removed from the gravel and the number of hatched eggs recorded. The results in the River Doon sites were good with 100% survival in five boxes and 99% in the sixth box. In the tributary site the control boxes had been washed out during spate conditions with the loss of the eggs. The pH of the River Doon was considerably lower than that recorded in the inflowing burns but the minimum value recorded was 6.5; well above the lethal threshold for salmon eggs.

These results suggest that low pH is not currently a limiting factor affecting salmon eggs hatching or the low salmon fry numbers at the foot of Ness Glen. Electrofishing at a new site 300m further downstream during summer 2010 found higher numbers of salmon fry. This suggests that factors such as the availability or quality of spawning gravels in the short stretch at the foot of Ness Glen may be of greater relevance. It should be noted that the Ness Glen site consistently supports high salmon parr densities, obviously migrants from downstream.

## Water Voles & mink

Following last year's announcement that ART had secured funding for a water vole captive breeding programme and reintroduction trial, we can report that despite a few setbacks along the way, we are approaching a point in time when water voles will be reintroduced to the Darley Burn in Troon.

The release of animals that was planned for late summer 2010 was postponed for several reasons, not least due to a rogue mink showing up on the burn. Although the mink was captured relatively quickly, we decided that delaying the introduction of captive bred animals was sensible. Also, as we had planned to release water voles bred from Lanarkshire stock, we took this delay as an opportunity to strengthen the gene pool of that stock by capturing a few Ayrshire water voles from remote upland locations and introducing them to the breeding program. We were assisted with the trapping effort by Adam Anderson and Joanne Hamilton, ecologists working on wind farm developments in South Ayrshire. Their input was invaluable, and we managed to trap three suitable animals from two populations in the Stinchard catchment, two males and a female. These animals were shipped to the breeding facility in Devon during November where they will overwinter before being introduced to new mates in spring 2011. Initially we intend to breed at least one litter of pure Ayrshire animals, then outcross the progeny with Lanarkshire water voles thus maximising the Ayrshire genes.

Despite the very low number of water voles surviving in Ayrshire, we occasionally receive unconfirmed reports that an animal has been seen here or there. During September 2010



whilst on the River Irvine on other Trust business, Stuart Brabbs observed a water vole on the lower river which was more than a little surprising considering the reports of mink that we often hear of in this area. As a result of this sighting, we secured the support of Scottish Wildlife Trust and volunteers from Bioforce, a local company, and began mink monitoring in the vicinity of this sighting. A short survey was undertaken of the area during winter, but this failed to identify any evidence of water voles resident in the area. Hopefully next year we will be able to report more fully on the status of water voles on the lower river and the success of mink control.

During the course of the year ART staff developed a lightweight mink monitoring raft. The



The design is based on the tried and tested GCT raft, but overcomes the problems associated with the weight and portability of the raft once wet. Another benefit of ART's raft is its ease of construction which makes it suitable for volunteer involvement. The cost is reduced from the GCT raft. Rafts can be used to monitor mink and water vole movements and also double as a trapping station when mink appear. Our Rafts have been trialled and proven durable over the last few months, and there is considerable interest from other Trusts.



## **GENETICS**

### **FASMOP: Focusing Atlantic Salmon Management on Populations**

As acronyms go the latest genetic project leaves a lot to be desired but the project itself is starting to reveal some very interesting results, highly relevant to salmon management in Scotland. The project is a collaboration between RAFTS, Marine Scotland, fishery trusts and salmon fishery boards. Dedicated project staff are located in the Marine Scotland Freshwater Fisheries Lab in Pitlochry. FASMOP covers most of the salmon rivers in Scotland and there have been some very interesting findings regarding the influence of escaped farm fish on indigenous salmon populations, and the influence of stocking on numbers of returning adults.

To date the Ayrshire results have been relatively uncontroversial. For the first analysis period a total of 437 genetic samples from 17 sites across Ayrshire were included. The main priority for ART was to identify distinct breeding populations in the Ayrshire salmon rivers. The results revealed typical high genetic diversity and showed that there may be genetically distinct populations of salmon in each river, with multiple breeding populations. The samples from two sites contained a high number of samples taken from fish from the same family (i.e. one pair of spawning fish). These sites were in the Garpel Burn, a Loch Doon tributary, and the upper Muck Water in the Stinchar catchment. It is known that a low number of adult salmon enter Loch Doon each year so it is little surprise to find that many of the salmon parr in the Garpel Burn are related. The Muck Water site is close to the upper limit of spawning in that burn and it is possible that relatively low numbers of adults spawn that far upstream.

For 2010 a reduced allocation of samples were available for analysis, so in order to try and answer a specific question all the samples collected came from three sites in the River Ayr. During the operation of the Ayr smolt trap a significant downstream movement of one year old parr was recorded; these were fish considered unlikely to smolt that year. This finding provided answers as to why parts of the lower river support relatively good parr densities despite low salmon fry production in the area. A key assumption on which our genetic analysis to date has been based is that juvenile salmon remain close to where they were spawned prior to sampling, as significant migration pre sampling would make interpretation difficult.

Our strategy for the 2010 program therefore was to sample salmon fry at the end of the summer, hopefully before any significant downstream migration had occurred. Genetic samples from 50 fry at three locations in the River Ayr were submitted for analysis. The final results from the project will be available in summer 2011.

### **Galloway & Carrick Trout Study 2010-2012**

Following a request from Andy Ferguson and Robin Ade, ART were delighted to participate in a project examining the genetic variability of trout populations in catchments draining the Galloway & Carrick Hills. ART staff collected genetic samples whilst electrofishing in the Doon & Girvan catchments from a variety of locations. The preliminary results show that there is substantial genetic differentiation between samples with the pooled samples from the Girvan & Doon showing the highest variability. Of course this should be of little surprise as samples were collected from both above and below lochs and impassable waterfalls, so there would have been a mixture of resident & migratory trout contributing depending on the location.

In 2011 we will collect some samples from the Stinchar to add to those already collected. There is one particular area of the Stinchar catchment where trout with noticeably black mouthparts are common. We wait to see if these are classified as a sub-species!

## Salmon in the classroom

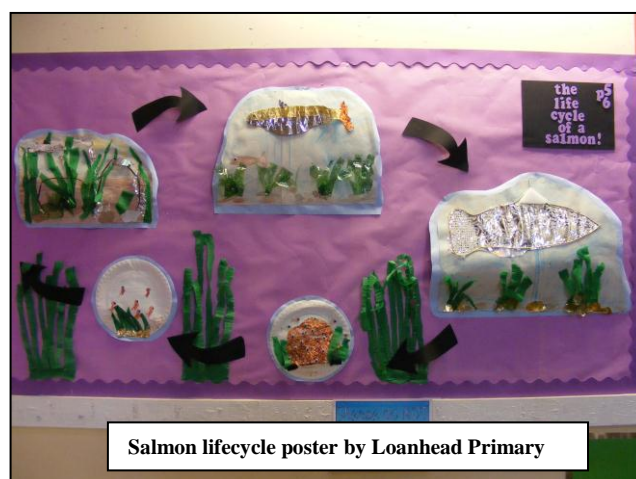
In 2010 Salmon in the Classroom was delivered to 11 schools within Ayrshire. The schools involved were St Johns (Stevenston), Mayfield, Blacklands and Castlepark in North Ayrshire, Wellington, Glenburn and Dundonald in South Ayrshire, and Nether Robertland, Crossroads, Kilmaurs and Loanhead for East Ayrshire. In total approximately 362 pupils were involved and 20 members of staff (including teachers, students and volunteering staff).

In 2009 a specially designed ruler was introduced to the project, sponsored by Straid Farm, Lendalfoot. The ruler proved to be very popular with pupils and staff alike, and the initial run of 1000 rulers was used up during 2010. For 2011 a new sponsor for the ruler was secured. The rulers are a good technique for learning; many of the teachers commented on how well the pupils had remembered the different stages of the lifecycle, even though it had not been revised in class. The upper side of the ruler showed the salmon lifecycle with images of each life stage and on the back were images of the salmon rivers of Ayrshire.



Above: Mayfield pupils netting their fish

The schools range from small rural to large urban schools. It is obvious from the interaction with pupils that the overwhelming majority of pupils and teachers enjoyed the project, but obviously we want it to be more than just an enjoyable day for pupils and teachers alike. We have a formal feedback sheet which is given to all school teachers on completion of the project. In 2010 we introduced a pupil's feedback form. Both provide invaluable information which can be used to improve the project. A summary of the responses returned by teachers and pupils in 2010 are shown in the tables below. Once a school has completed the project they are given a completion certificate along with the feedback forms. This certificate details which organisation funded the project at their school, and shows photographs of the pupils.



Salmon lifecycle poster by Loanhead Primary

**Table 1: Summary of teacher feedback responses 2010 (Results expressed as %)**

	Initial Talk	Salmon Aquarium		Day 2: Salmon egg release		
		Operation	Instructions	Organisation	Health and Safety	Visit Duration
<b>Very Happy</b>	88	63	88	88	88	88
<b>Happy</b>	12	33	12	12	12	12
<b>Okay</b>	0	0	0	0	0	0
<b>Poor</b>	0	0	0	0	0	0
<b>Needs improved</b>	0	0	0	0	0	0



**Table 2: Teachers 2010 feedback continued**

	Day 3: Visit to river for Electrofishing		Overall Project		
	Organisation	Duration	General Interest	Academic Value	Trust and staff
<b>Very Happy</b>	88	88	100	76	88
<b>Happy</b>	0	12	0	24	12
<b>Okay</b>	12	0	0	0	0
<b>Poor</b>	0	0	0	0	0
<b>Needs improved</b>	0	0	0	0	0

**Table 3: Pupils feedback summary 2010 (Results expressed as %)**

	Enjoy presentation	Looking after salmon	Releasing salmon	Electrofishing	Bug hunting	Different fish	Learn anything	Do it again
<b>Yes</b>	70	80	24	100	50	100	100	100
<b>Undecided</b>	30	20	76	0	50	0	0	0
<b>No</b>	0	0	0	0	0	0	0	0

Generally the responses from the participating teachers were positive. Over 90% of the responses were in the very happy or happy categories. 100% of the schools were interested in participating in the future.

ART found the pupils' feedback extremely valuable as it shows they enjoyed the fish aspects of the project. The majority of pupils did not like releasing the alevins into the river as they wanted to keep them in the class or take them home. 100% of the pupils taking part felt that they had learnt something from the project; how to identify between the fish species and learning about the different stages of the salmon were the most popular; finally all pupils would like to do the project again.

The recently introduced Curriculum for Excellence (CfE) which every pupil's learning is now based around, provides a range of learning experiences and outcomes. In 2010 ART identified and listed the learning outcomes which can be achieved through SITC. Alignment of the project outcomes with the learning outcomes and experiences highlighted in the CfE should increase the academic value of the project. We consider that the SITC project has huge potential in assisting schools to fulfil the aims of the CfE.

Funding for SITC 2010 was provided by the following organisations: East Ayrshire Council, Scottish Natural Heritage, Spirit Aerosystems and Wellington School. Ayrshire Rivers Trust is very grateful for the continued financial support provided by the funders.

In 2009 we expanded the Salmon in the Classroom (SITC) project with 19 schools participating. Additional help was required so Dr Nick Martin, a retired teacher and lecturer, was enlisted to help deliver day one of the projects. This proved to be an excellent move, and once again the project received very positive feedback from pupils and teachers alike.

If you would like to sponsor the Ayrshire Rivers Trust Salmon in the Classroom project in the future please let the Trust know.

## Snippets

### Portillo haggis fails to make union

We have had some unusual requests in the office, but when we got a call from a TV film production company asking how wide the River Ayr was, and whether it would be okay to film haggis hurling over the river, that took the biscuit. It took an even more surreal slant when the film company said that Michael Portillo would be doing the hurling! Always eager to assist, the Trust organised a location at Auchincruive Estate; we were even able to supply whisky tumblers at the last minute to toast the doomed haggis. The



Scottish haggis hurling champion, a beefy highland games competitor, was able to reach the other side with ease. We will gloss over Michael Portillo's efforts; let's just say he was built for a career in politics and broadcasting. Unfortunately the scene ended up on the cutting room floor, but maybe one day it will appear in an out-takes programme.

### River lampreys

After many years operating in Ayrshire without a sighting of an adult river lamprey we had two in 2010. One turned up in the smolt trap at Stairaird on the River Ayr. It looked like it had spawned and it had the classic sucker marks on its skin from mating. The other was found lying dead on the banks of the River Girvan, at the weirs above Girvan. It was fresh run but half eaten. It is likely that it was taken by an otter or other predator as it was passing over the weir. River lampreys spawn in the



river in the spring when the water temperature goes above 10°C but run upstream in the autumn, overwintering in the river. So two sightings in two different rivers, however river lampreys are probably present in all our rivers.

### [www.savethedoon.com](http://www.savethedoon.com)

The [www.savethedoon.com](http://www.savethedoon.com) group ran a highly effective campaign to highlight the threat posed to the Doon Valley by the proposal from Scottish Power to abstract more water from the Doon. The Trust was involved with the group from the start advising on biological, fisheries and regulatory matters. In Nov 2010 Scottish Power submitted their application for a variation to the CAR licence covering activities such as water abstraction from Loch Doon. Applicants can take as long as they wish to develop and submit an application but consultees only have a 28 day period to assess the application and to respond. For controversial applications such as the Doon proposal the 28 day period was felt by many to be far too short. After considering the application and the supporting documents provided by Scottish Power it was clear to ART that there was a need to provide an interim response to local stakeholders to



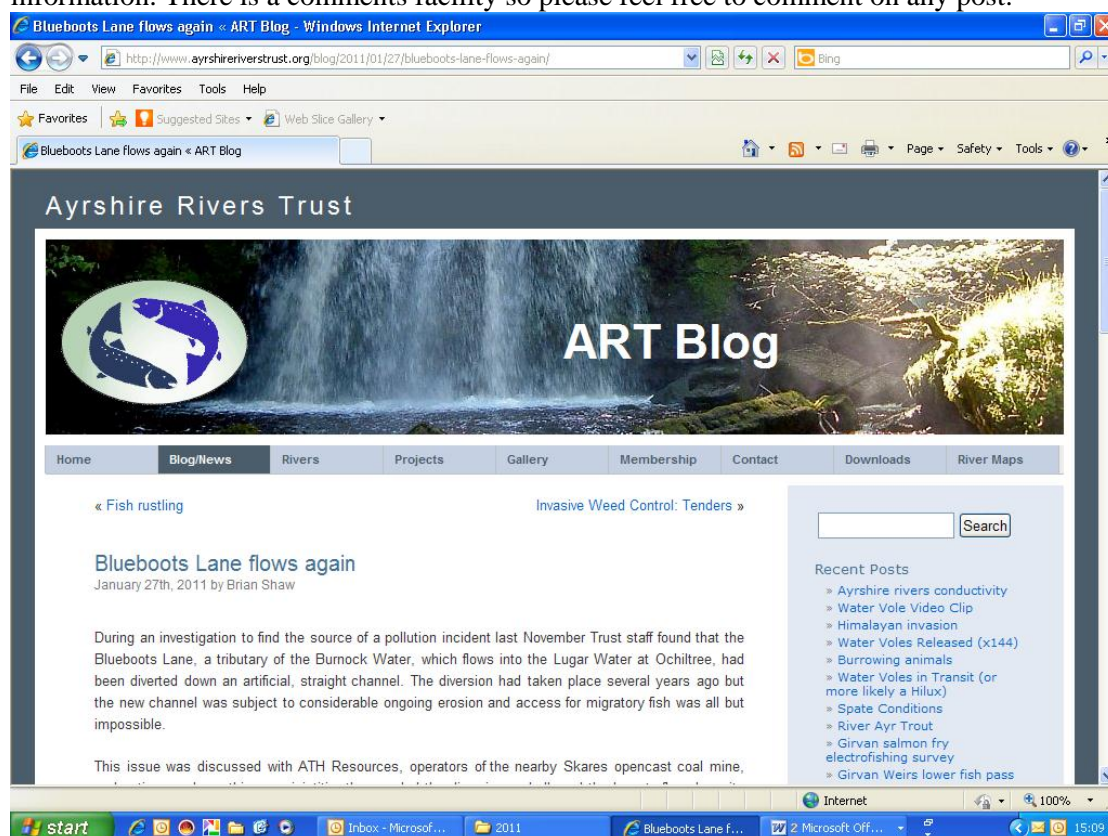
balance the information provided by Scottish Power. The SavetheDoon group received a huge amount of support from across the spectrum, and objections were submitted against the proposal from a wide range of individuals and organisations including SNH, East & South Ayrshire Councils, local MSP's and the Doon Salmon Fishery Board. SEPA's decision on the application has been delayed until late 2011 at the earliest, but we wait with interest.

## Ayrshire Fisherman's maps

The River Stinchar Fisherman's map has proven to be a great success with regular sales. The ultimate aim was to expand the selection, and to that end we hope to have the River Doon map available in late 2011. Some of the artwork has already been produced. As well as scenes from the river there will be a sketch of traditional Doon flies. Keep an eye on our website for details <http://www.ayrshirerivertrust.org/river-map.htm> .

## ART Blog

Reports from our server show us that the blog is by far the most popular page on our website <http://www.ayrshirerivertrust.org/blog> . We try to keep the blog updated with interesting information. There is a comments facility so please feel free to comment on any post.



## Tackle in the Attic

Someone from the Trust came up with the inspired name of "Tackle in the Attic". The concept was that many anglers, families of anglers, or even recent divorcees of anglers, may have a lot of old or unused fishing tackle lying around. There is a demand for old fishing tackle and there are well known internet auction sites where items can be brought to the attention of the world for relatively modest fees. One donation of old tackle from Robert Dalrymple included a range of unused, boxed Hardy lures. These were purchased by a collector in New Zealand for a very useful sum of money. The Trust would be grateful for any

donation of tackle or collectable items as the funds raised will contribute to the running of the Trust.

## **Ayr glacier**

The long spell of exceptionally cold weather in December 2010 resulted in a remarkable build up of ice in the lower River Ayr. There was a thaw in mid December but unlike most of Scotland we had experienced little snowfall. Consequently when the thaw arrived river levels only increased by about 18". Usually a rapid thaw after a long cold spell culminates in a huge spate and any ice is carried out to sea. The small rise in river levels failed to break the frozen river surface in the Craigie area resulting in the build up of a huge quantity of ice upstream.



This was consolidated when the big freeze returned, and at one point the ice was backed as far upstream as Oswald Bridge. This proved to be a remarkable attraction, featuring in national newspapers and also on national television, drawing a large crowd of onlookers daily. Traffic crossing the river was brought to a virtual standstill as drivers slowed to have a look, and a few minor accidents occurred as necks were turned to witness the sight. The ice eventually thawed in late December but not before providing an unforgettable sight for many locals and visitors.



## **Rivercams**

Two webcams were installed on the Stinchar & Girvan during 2010. They show views of the river showing the height and colour of the water. We hope they will be useful for river users such as anglers and canoeists. In due course we would like to expand the range of cameras to cover all of the Ayrshire rivers.

See <http://www.farsondigitalwatercams.com/livewebcams/scotland>

## **Priority catchments**

Within the 2009-2014 planning cycle of the Water Framework Directive SEPA prioritised fourteen catchments in Scotland which are impacted by diffuse pollution. Five of the fourteen catchments are located in Ayrshire; the Ayr, Doon, Garnock, Irvine and North Ayrshire Coastal burns. The main driver for the classification of the Ayrshire catchments was their influence on bathing water quality. For details see [http://www.sepa.org.uk/water/river\\_basin\\_planning/dp\\_priority\\_catchments.aspx#catchments](http://www.sepa.org.uk/water/river_basin_planning/dp_priority_catchments.aspx#catchments)

SEPA have been carrying out intensive surveying and landowner visits within the priority catchments, with the SEPA Ayr office playing a key role in developing methodology and procedures. Ayrshire Rivers Trust was very pleased to be able to assist SEPA when they held two farm workshops at Aird Farm and Garryhorn Farm.



### Ponesk Burn re-diversion

Trust staff have been actively involved with Scottish Coal and partners in the development of the re-diversion of the Ponesk Burn. The Ponesk Burn, in the upper River Ayr was originally diverted in the 1970's so that coal reserves under its original course could be accessed. The last remaining coal reserves in the area are now below its existing course, and Scottish Coal plan to re-divert the burn back close to its original course.

ART are fully supportive of the project which will increase the length of the affected part of the burn considerably, reducing its gradient and removing several barriers to fish passage. The works will involve a fish rescue and relocation in summer 2011.



### Sevenacres Weir, Lugton Water

The 2.4m high weir at Sevenacres on the Lugton Water is an impassable obstacle to migratory salmonids, and is one of the most significant features on this River Garnock tributary. There was at one time a fish pass on the weir but it has long since collapsed (*the remains of which are highlighted on the right hand side of the photo opposite*). The weir was selected by SEPA for assessment by consultants looking at fish passage improvements at fourteen weirs across Scotland.

The consultants recommended partial removal of the weir, and the installation of an informal fish pass, e.g. rock ramp. Full removal (*ART's preferred option*) was considered impracticable due to the risk of channel realignment and sediment movement.



Implementing the consultant's recommendations will be difficult in the current financial climate but the Water Framework Directive provides an important driver for river restoration including removal of barriers or improvements to fish passage.

## Events

### **Fishery Management Seminar “Fish and a Whole Lot More”, Auchincruive Estate - Saturday 27<sup>th</sup> February**

In a first for the Trust, we held a seminar entitled “Fish and a Whole Lot More”, chaired by Peter Kennedy, Chairman of the Trust. Over 60 anglers and conservationists attended; keen to hear the views of a panel of experts. Eric Verspoor of Marine Scotland gave a quite fascinating presentation on genetics which contained many scientific facts and figures which he demystified in a clear and concise manner, and left us all better informed and eager to discover more about this ever-evolving subject. The current plight of the Sea Trout was expertly covered by Andy Walker of the Wild Trout Trust, and whilst acknowledging the rapid decline of these magnificent creatures, he gave some optimism to the anglers present that action to reverse the trend is on-going. Rounding off the “Fish” theme of the day Andrew Wallace, of RAFTS & ASFB, gave an excellent overview of Fishery Management in Scotland.

The “Whole Lot More” of the Seminar was a heady mixture of bugs and pollution. Craig MacAdam of Buglife talked about the importance of invertebrates to our countryside and water courses, a subject which is probably not given the prominence it deserves, whilst Lucy Filby, of SEPA, discussed the problems of diffuse pollution within Ayrshire, and gave reassurance to all attendees that SEPA were determined to improve the environment of our river courses and beyond. The Trust’s Head Biologist Brian Shaw gave a lively and informative talk on the role of the Trust, and a question and answer session brought the seminar to a successful conclusion.

Following the success of the seminar we intend to hold others, and details will be published nearer the time.

### **Holy Fair, Mauchline – Saturday 29<sup>th</sup> May & Catrine Festival – Saturday 5<sup>th</sup> June**

The Holy Fair, celebrating the life and times of Robert Burns, is an annual occasion which we had never attended before as an organisation, however we felt that it was an ideal place to spread our message of conservation. Stuart Brabbs re-invented an old card game to attract children and families to our stall, eager to win a prize, and a tank of invertebrates, extracted from the River Ayr in Mauchline that morning, enchanted everyone with its rich diversity of species and clarity of the water. The following Saturday we attended the Catrine Festival, and after another highly successful Duck Race, the proceeds were shared between the Trust and the Festival Committee



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**Fisherman's Supper, The Ivy Rooms, Miller Road, Ayr –  
Friday 5<sup>th</sup> November**

Our ever successful Fisherman's Supper was once again held at the Ivy Rooms, and after a lovely meal we were entertained by all the guests sitting at the top table, Mr Jim Stevens, Mr Ian McGregor, Mr Bill Nolan, Mr Tommy Wilson & Mr Brian Shaw. Jim Stevens, Vice Chairman of the Trust, "topped and tailed" proceedings with a warm welcome and a heartfelt vote of thanks, whilst Ian McGregor handled the "bit in-between" with his usual aplomb.

After the Trusts' head Biologist, Brian Shaw, gave an excellent overview of the previous year's work, and an insight into the year ahead, it was over to our two guest speakers for the fun part of the evening. The first of our speakers, Bill Nolan, is a "weel kent" face, especially in Rugby circles (or should that be ovals), however he is also an enthusiastic angler, and with such diverse sports as these playing such a large part of his life it was only natural that they should figure prominently in his wonderfully humorous stories and jokes.

Tommy Wilson, our other main speaker, made a triumphal return to the Supper, having previously appeared in 2006. His slick repartee had many convulsed with laughter, and I think it's fair to say that we don't want to wait another four years to see him again.

A mini auction, which raised over £700, was also held, with many thanks to all the following who donated excellent lots of fishing days out on the rivers Spey, Tay, Doon and Stinchar:- Gordon Dawson, Lord Richard Wellesley, Gordonian Fishings, Robert Dalrymple, Carlos Van Heddegem & Stuart Lang.

As always we finished the evening with a raffle which raised over £500, and everyone at the Trust would like to thank all who donated prizes – it is very much appreciated! Thanks are also due to the Ivy Rooms, who combined an excellent meal with faultless service

The 2011 Fisherman's Supper will be at the same venue once again, although it has now been renamed the "Kylestrome", which many of you may remember as it's original name, and it will be held on **Friday November 18<sup>th</sup>** - **please keep this date free in your diary!**





# **AYRSHIRE RIVERS TRUST**

## **INCOME AND EXPENDITURE FOR THE YEAR ENDED 31 JANUARY 2011**

	Year to 31 January 2011		Year to 31 January 2010	
	£	£	£	£
<b><u>Income</u></b>				
<b>Fund raising (net of direct expenses)</b>				
Country fair	456		150	
Fisherman's supper	1229		1073	
Raffle	1351		1323	
Merchandising	1327		591	
Annual report advertising	1975		1275	
Gift Aid tax reclaim	498		1359	
Duck race	<u>132</u>		<u>174</u>	
		6968		5945
<b>Membership</b>				
Ordinary	2000		1705	
Corporate	1070		1070	
Life	<u>220</u>		<u>880</u>	
		3290		3655
<b>Other income</b>				
Donations	3006		3361	
River Board subscriptions (Doon, Girvan, Ayr & Stinchar)	10500		10000	
Grants received	34925		113331	
Consultancy fees	15784		27747	
Interest received	<u>681</u>		<u>347</u>	
		<u>64896</u>		<u>154786</u>
		75154		164386
<b><u>Expenses</u></b>				
Employment costs	91866		82135	
Trustees' expenses	1000		1200	
Printing, stationery and postage	3801		4144	
Professional fees	1830		1715	
Training fees	811		351	
Telephone	631		1326	
Motor expenses	4563		4298	
Subsistence	806		606	
Subscriptions	2233		2148	
Insurance	3835		3117	
Office rent	3738		3530	
General expenses	1267		1434	
Depreciation	3695		4245	
Biologists' equipment	<u>2267</u>		<u>2491</u>	
		(122343)		(112740)
Net expenses/income		(47189)		51646
Add/Less: movement in restricted funds		16336		(51130)
Other gains and losses on investments		<u>4924</u>		<u>(499)</u>
Net (deficit)/surplus - unrestricted funds		<u>(25929)</u>		<u>17</u>

**AYRSHIRE RIVERS TRUST  
BALANCE SHEET  
AS AT 31 JANUARY 2011**

	<b>As at 31 January 2011</b>		<b>As at 31 January 2010</b>	
	£	£	£	£
<b>Fixed Assets</b>				
Motor vehicles	6151		8201	
Equipment	1914		3023	
Investments	<u>24425</u>		<u>19501</u>	
		32490		30725
<b>Current Assets</b>				
Bank current accounts	1432		1037	
High interest bank accounts	39880		98631	
Debtors	23587		9540	
Stock	<u>479</u>		<u>244</u>	
		65378		109452
<b>Current Liabilities</b>				
Accrued charges	<u>6344</u>		<u>6388</u>	
		<u>6344</u>		<u>(6388)</u>
		<u>91524</u>		<u>133789</u>
<b>Represented by:-</b>				
Restricted Fund		<u>48789</u>		<u>65125</u>
Unrestricted Fund		<u>42735</u>		<u>68664</u>

This information is extracted from the Statement of Financial Activities and the Balance Sheet included in the financial statements. The statutory financial statements have been independently examined and the examiners' report was unqualified. Statutory financial statements can be obtained by writing to the charity at the Donald Hendrie Building, Auchincruive, Ayr, KA6 5HW.

In an effort to reduce costs and our carbon footprint, please let us know if you would like us to email the Annual Report to you in future. You can either write to us or send an email to [info@ayrshireriverstrust.org](mailto:info@ayrshireriverstrust.org) with your details.

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Carrick Angling Club

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Colmonell Angling Club

Kilmarnock Angling Club

Cumnock & District Angling Association

Kilmaurs Angling Club

Dailly Angling Club

Kirkmichael Angling Club

Dalry Garnock Angling Club

Ladykirk Angling Club

Darvel Angling Club

Mauchline & Ballochmyle Angling Club

Dreghorn Angling Club

The Smithston Fishings Club

**And to all our private donors, members and friends for their support**



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