Ayrshire Rivers Trust

8th ANNUAL REPORT

for the year ending 31st January 2008

Hillhouse advert down centre in page

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."

Board of Trustees

Chairman
Peter Kennedy
Doonholm
Ayr
KA6 6BL

Vice Chairman
Jim Stevens
Barns Terrace
Maybole
KA19 7EP

Treasurer
George Steel
Malleny
Alloway Village
KA7 4PY

Robert Dalrymple
Crailoch
Ballantrae
KA26 0LW

Tom Lothian
1 Main Street
Ballantrae
KA26 0NA

Geoff Lockett
Bombo Cottage
Swindridgemuir
Dalry KA24 4HJ

Alex Anderson
25 Poplar Way
Ayr
KA7 3PQ

Robin Wilson
65 Hunter Crescent
Troon
KA10 7AH

Senior biologist	Brian Shaw	brian@ayrshireriverstrust.org
Catchment Officer	Stuart Brabbs	stuart@ayrshireriverstrust.org
Administrator	Janette Galbraith	janette@ayrshireriverstrust.org
Website		www.ayrshireriverstrust.org

Cover photos:

Background: Salmon leaping at Catrine
Inset:
Salmon leaping at the Linn, River Girvan
Dalmellington Primary pupils releasing salmon fry
The water vole, an Ayrshire species under threat
Freshwater pearl mussels

Office address:
Ayrshire Rivers Trust
Donald Hendrie Building
Auchincruive Estate
Ayr KA6 5HW
Tel: 01292 525142
Fax: 0700 6036870

Ayrshire Rivers Trust

Chairman's Introduction

The Trust has completed another busy year, with our biologists taking on a great deal of new project work. Our seventh Annual Report, covering the year to 31st January, 2008 describes our current activities. Pete Minting has done a great job in putting it together, with the help of Brian Shaw and Janette Galbraith.

Now that we have been carrying out electrofishing surveys for over five years, we have presented a review of the data collected (p6-10). This review gives a broad indication of the most healthy and least productive areas of our rivers.

We report on the incredible journey of a 10lb 'sea trout' caught on the River Doon which turned out to be a trout/salmon hybrid, originating from the River Tyne (p11). Perhaps it thought it could take a short cut back to the Tyne!

The ever popular Salmon in the Classroom project expanded to 12 schools, with 14 signed up for spring 2008 (p12-13). We are now at capacity unless we increase our staff levels.

The water vole is under severe pressure in Ayrshire, so it is a 'feather in our cap' to be leading local research into these delightful creatures (p18). We have also started work on another threatened species, the freshwater pearl mussel, which is clinging on to life in the River Doon (p14).

Over the year our fundraising continued but without the usual boost from our Auction Dinner, which was not held in 2007. However the Country Fair at Skeldon (near Dalrymple) was a great success, with ice cream in great demand on a sunny day! The Fair raised over £2,800 but with expenses continuing to rise we are delighted to have sponsorship this year, from the Dawn Group. Stanley Brodie has again kindly provided the venue for the Fair at Skeldon – so we hope to see you there on 1st June 2008! The Fisherman's Supper was an enjoyable occasion for our angling members at the end of the fishing season. Also thanks to Geoff Lockett, who inspired us to combat obesity with a "Sponsored Diet" raising £1,150!

The Income and Expenditure Accounts (p26-27) show a deficit of £3,987 which is a reasonable result, considering the absence of an Auction Dinner (which raised £15,500 in 2006). Income from membership was steady – but we could always do with more members. Although grants received fell by some £19,000 this was more than compensated by income from consultancy fees of around £25,000. Expenses rose by some £4,800, mainly due to increased employment costs. Accounting has become a more complex procedure under new OSCAR charity regulations.

In finishing I would again like to thank all those who have supported us over the past year – the suppliers of grants and consultancy work, donors, members and helpers (see back cover). And of course a big thank you to all our hard working staff – Brian Shaw, Pete Minting and Janette Galbraith.

One of our founding trustees, Phil Haughton, decided to retire during the year. Many thanks to Phil who has been a hard working member of our team and an invaluable "hand on the tiller". His input is missed at meetings but he has kindly agreed to give us a hand now and then. We welcome Tom Lothian from Ballantrae as a Trustee. His background in the police gives us a new dimension.

PETER KENNEDY
Chairman

Biologist's Summary

2008 was another very busy year for the Trust. The Trust's strategy of diversifying our portfolio of projects means a varied and interesting workload for the Trust staff. The invasive weeds survey has attracted a lot of interest and despite many challenges has progressed very well. We now have comprehensive survey data on invasive weeds in the Irvine, Ayr and Girvan catchments and a start was made on the catchment wide control of Giant Hogweed in the River Ayr. The invasives project has enabled the Trust to establish contact with stakeholders from a wide range interests but with one thing in common, the river.

The results from the freshwater pearl mussel surveys were more positive in 2008 with a new population recorded on the River Girvan for the first time and more mussels present in the Doon than originally thought. Our commitment to water vole conservation through the Local Biodiversity Action Plan has progressed slowly. This is not ideal as the status of water voles in Ayrshire continues to deteriorate.

One of the biggest tasks this year was the production of an Ayrshire Fishery Management Plan, which should guide the work of the Trust for the next six years. Regarding fisheries it is encouraging to note that 2008 was an excellent year on the salmon rivers in Ayrshire with the Girvan in particular having its best year since the sixties. Sea trout catches also improved albeit from a very low ebb.

The Trust's team is small and it was a blow when Pete Minting announced that he was moving on the pastures new to further his academic career. Pete was a great colleague for over four years and we wish him well in his studies and research. However, Pete's departure created an opportunity which Stuart Brabbs has ably filled bringing new expertise to the Trust.

It was encouraging to see that the salmon catch returns from the Ayrshire rivers in 2008 were excellent. The catch return from the River Girvan was the second best since official records began in 1952, the recent upturn in salmon catches on the Stinchar continued and the other rivers also had good returns. Sea trout catches are still in the doldrums although there are maybe some early signs of improved catches. Continued integrated management of the entire catchment and fishery is required.

BRIAN SHAW
Senior Biologist

Invasive Weeds Project 2008/09

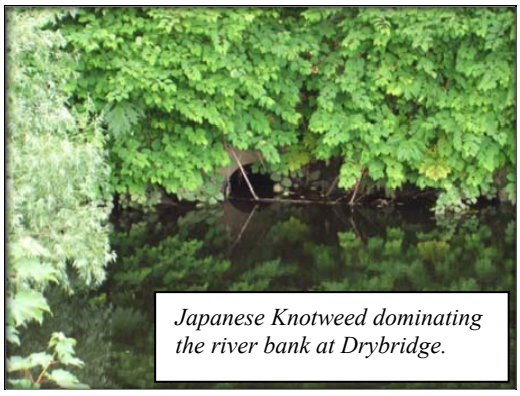
With funding secured from The Esmée Fairbairn Foundation, SAWET, SCORE and SNH, ART commenced surveys recording the occurrence and distribution of invasive weeds on the main Ayrshire watercourses. Due to the scale of the task, in 2008, three rivers and their tributaries were surveyed with the remaining three to follow in 2009. The survey aimed to identify the distribution of three plant species regarded as invasive weeds; Giant Hogweed (GHW), Japanese Knotweed (JK) and Himalayan Balsam (HB). These species are non native introductions that are particularly effective at colonising and dominating riparian margins. Rivers act as transport mechanisms for seed and vegetative material thereby allowing these plants to rapidly spread downstream from their original location.

Typically, these plants were introduced to the UK by Victorian gardeners keen to add unusual specimens to their collections. Of the many species introduced, some soon spread out of control. Out-with their native range, these plants have no natural control mechanisms or predators and consequently have been able to spread unchecked thriving in fertile UK soils. The three species at the centre of ART's survey are particularly problematic and recognised by UK and Scottish Governments as a threat to native biodiversity.

Giant Hogweed is perhaps the single most problematic species. This plant is capable of reaching around 15 feet high and can form a monoculture thereby reducing biodiversity. Additionally, GHW produces a sap that leads to painful and recurring photosensitive dermatitis in humans on contact. The sap can also cause permanent or temporary blindness if it contacts the eyes. The tall growing hollow stems are topped with large umbrella like creamy flowers capable of producing up to 50,000 seeds per plant.

Giant Hogweed on the Water of Coyle

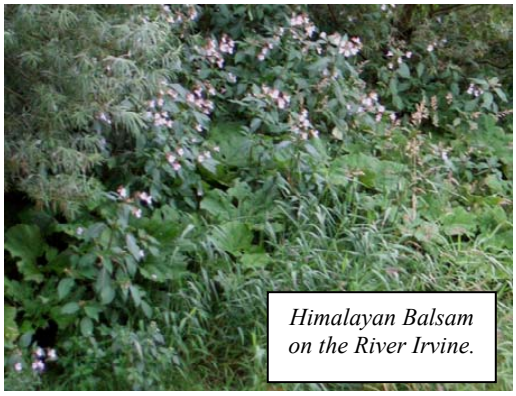
Japanese knotweed is a well known invasive species that has received much adverse publicity lately. It is able to penetrate foundations and break tarmacadam and consequently, has serious implications for land values and development. Building regulations now require developers to eradicate this species prior to proceeding with groundworks. Additionally, this plant also out-competes native flora leading to a reduction in biodiversity. During winter, stems die back leaving bare soils exposed and vulnerable to erosion. In a river system this contributes to diffuse pollution and siltation of spawning gravels with the associated reduction in productivity. JK reproduces vegetatively, as it does not form seed in the UK.



Japanese Knotweed dominating the river bank at Drybridge.

Himalayan balsam is an invasive annual plant which flowers from mid June to late summer with flowers varying in colour from purple to pale pink. Seed pods form on the plant that 'explode' with a 'crack' during late summer, spreading the seeds in a radius of up to 7 metres. It too leaves riparian soils exposed during winter, again contributing to erosion and diffuse pollution.

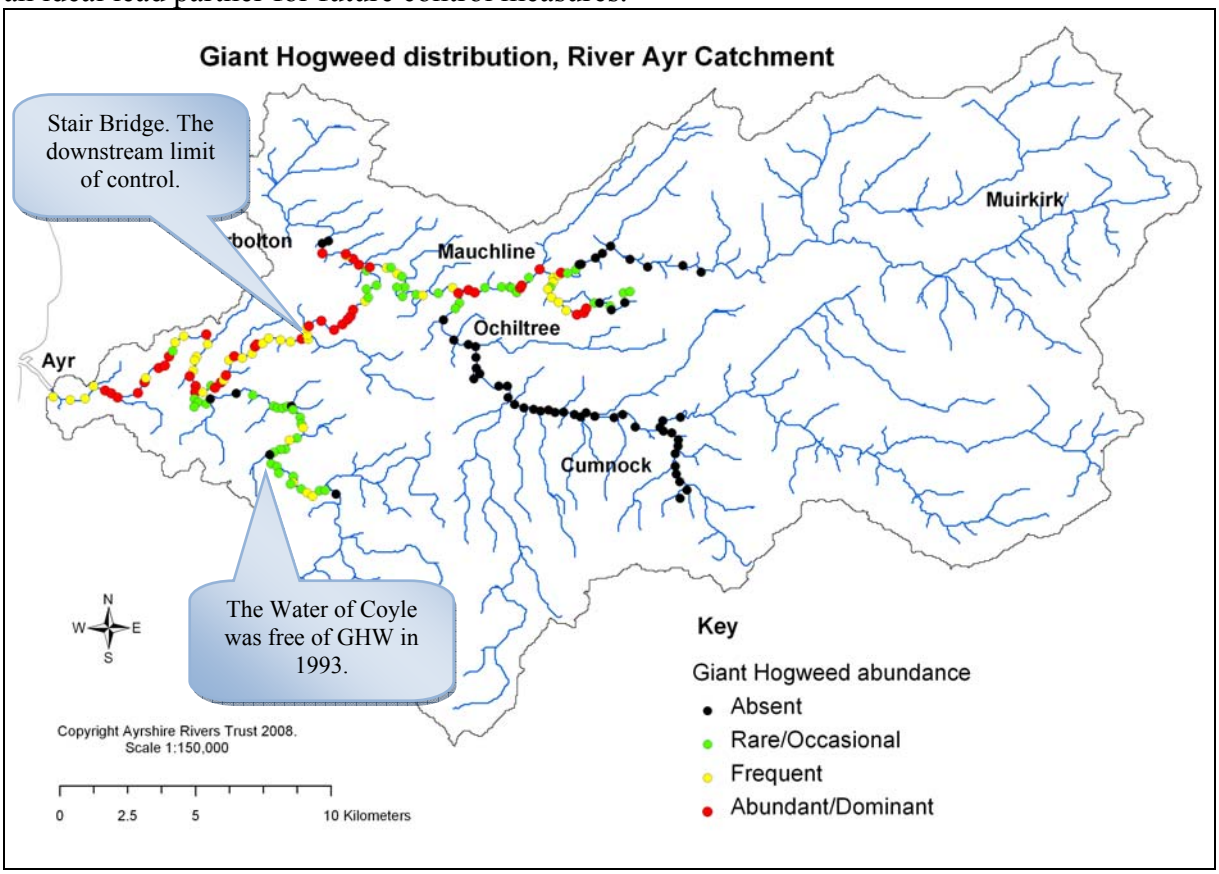
Giant Knotweed on the Lower River Ayr.

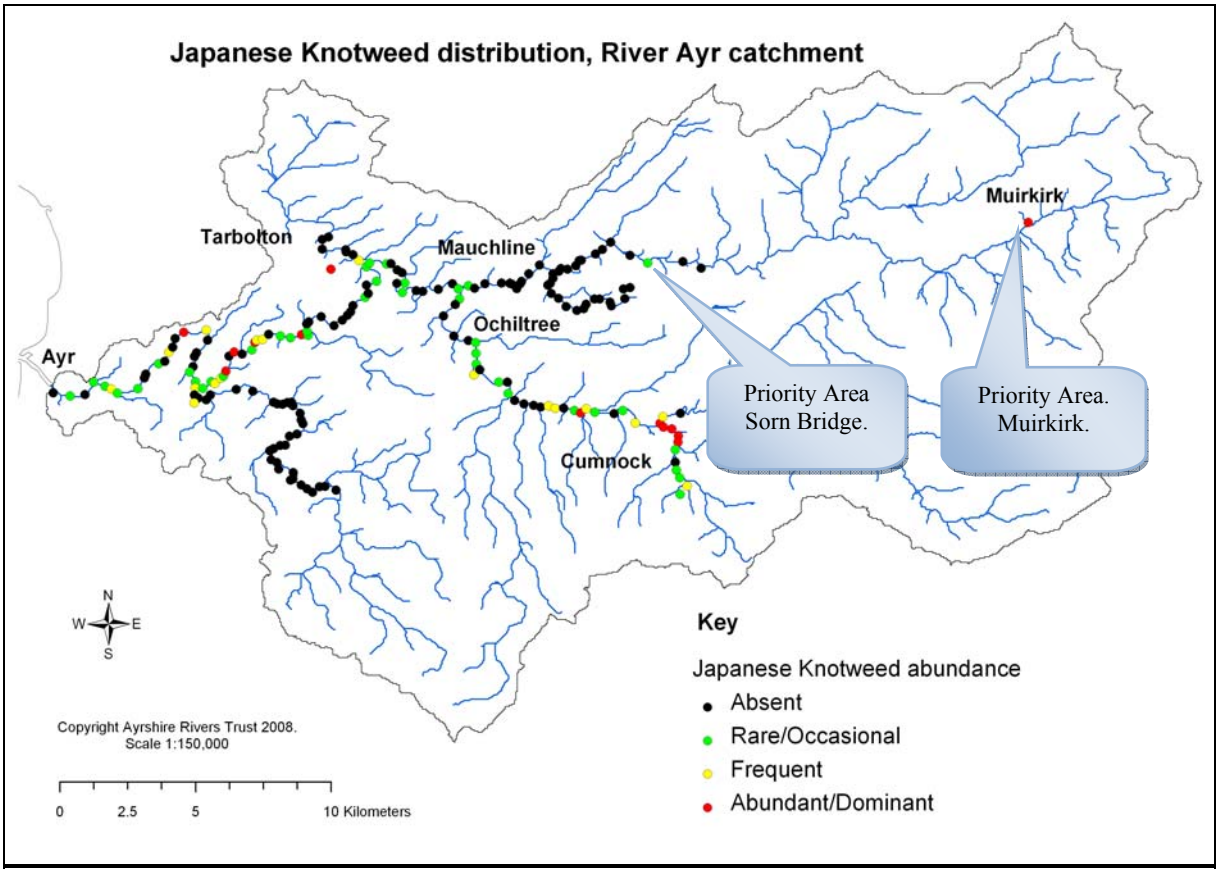


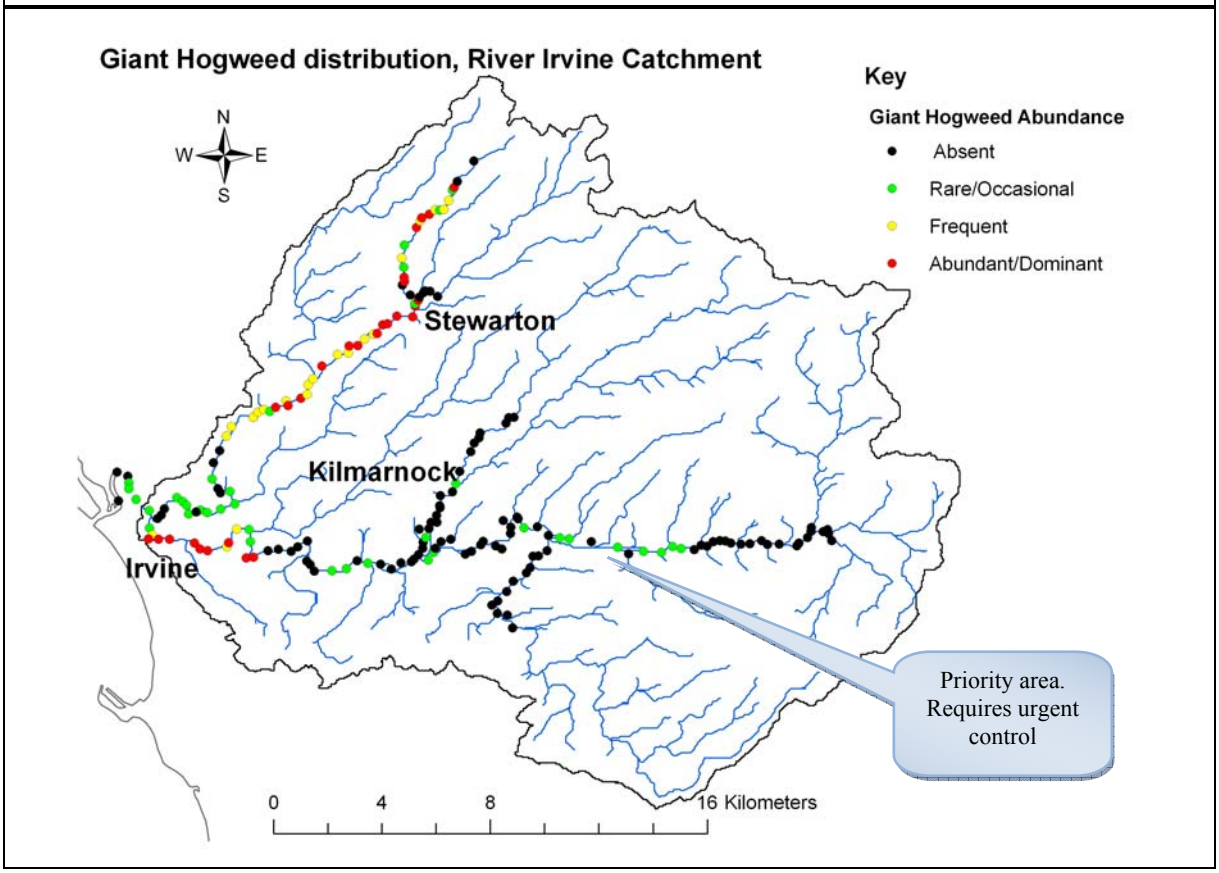
Himalayan Balsam on the River Irvine.

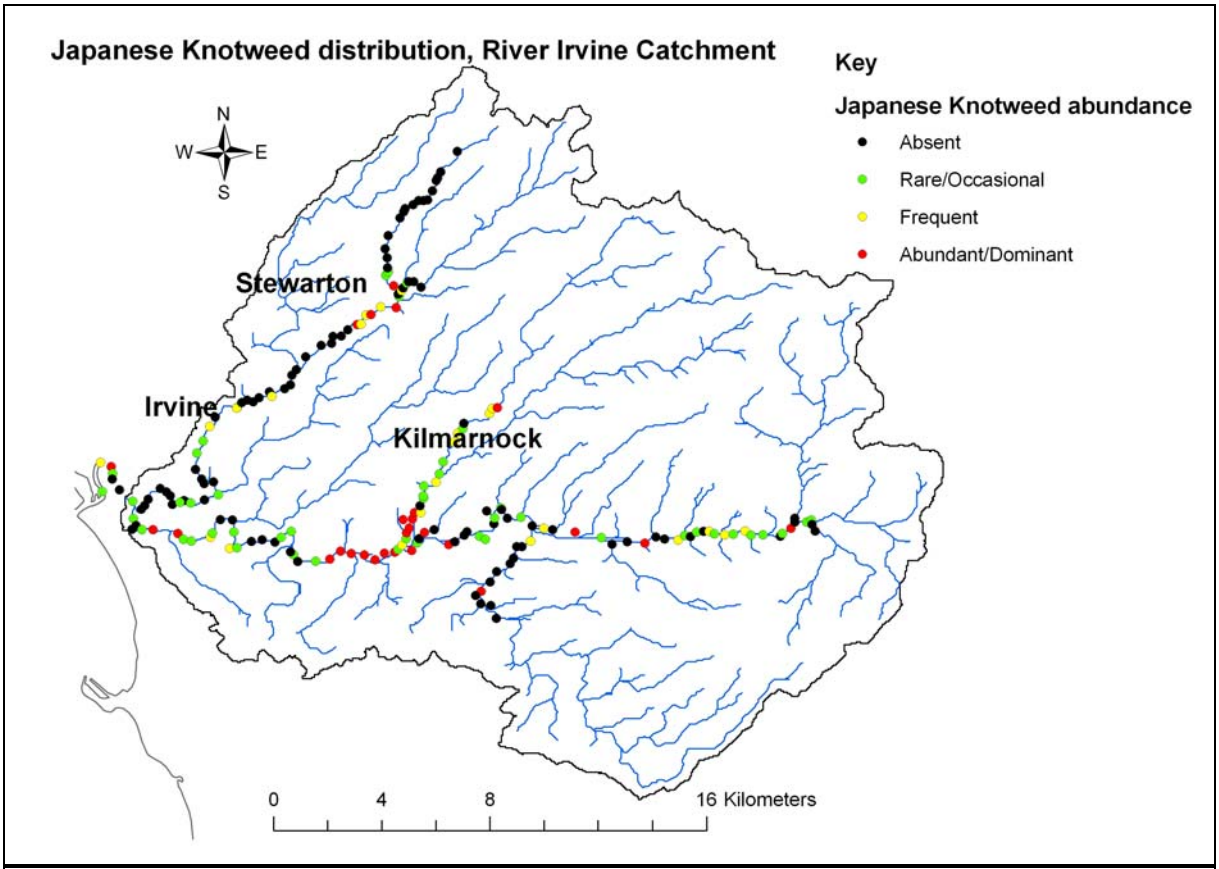
2008 Survey results

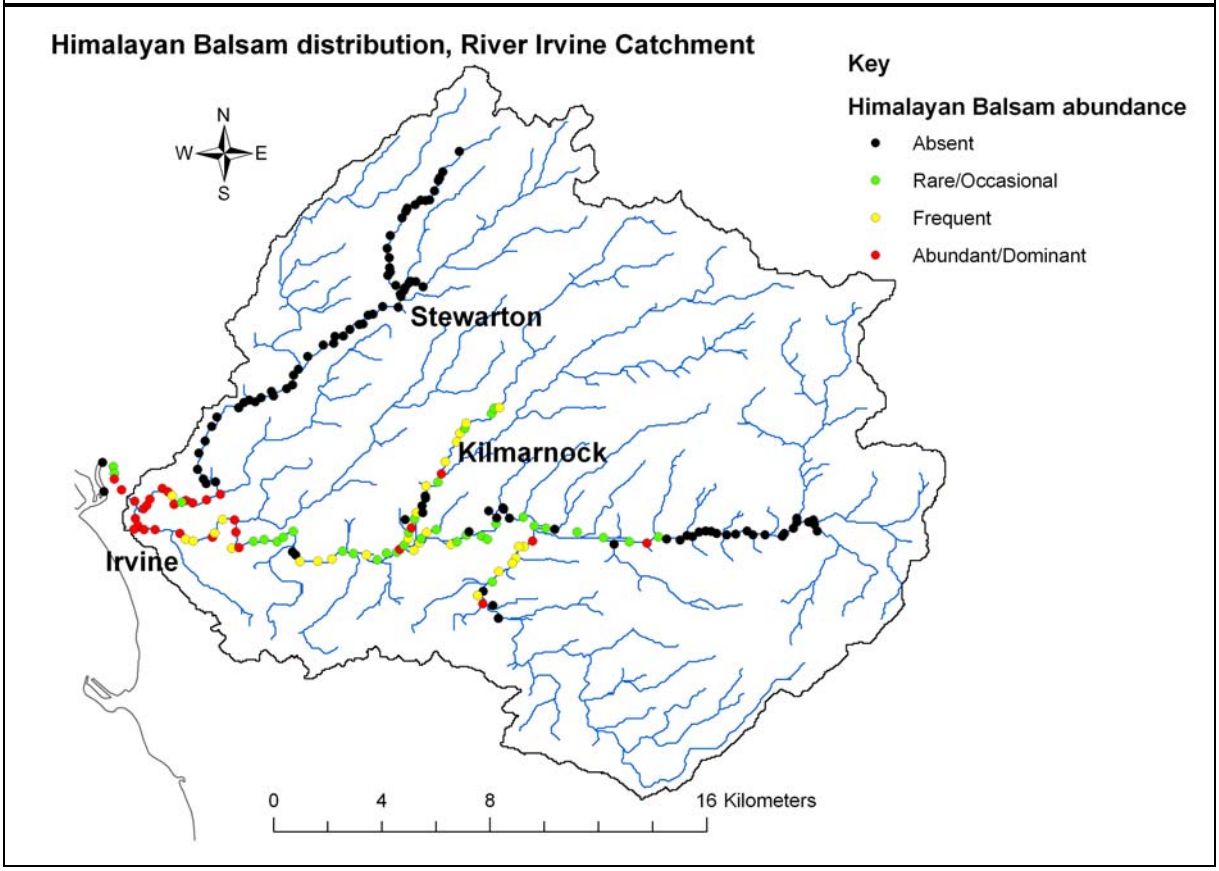
ART surveyed the Rivers Ayr, Irvine and Girvan and their tributaries during 2008. The three target species were recorded using the DAFOR scale to enable comparisons to be made between catchments and other areas. Working from their estuary, rivers were surveyed in an upstream direction until at least 1 km of invasive weed free banking was recorded. The results were then plotted on GIS generated maps to illustrate the distribution of each species and are presented below. During November 08, ART held an Invasive Weeds Seminar for 40 stakeholders and interested parties. Survey results and the need for strategic control were discussed with ART accepted as an ideal lead partner for future control measures.

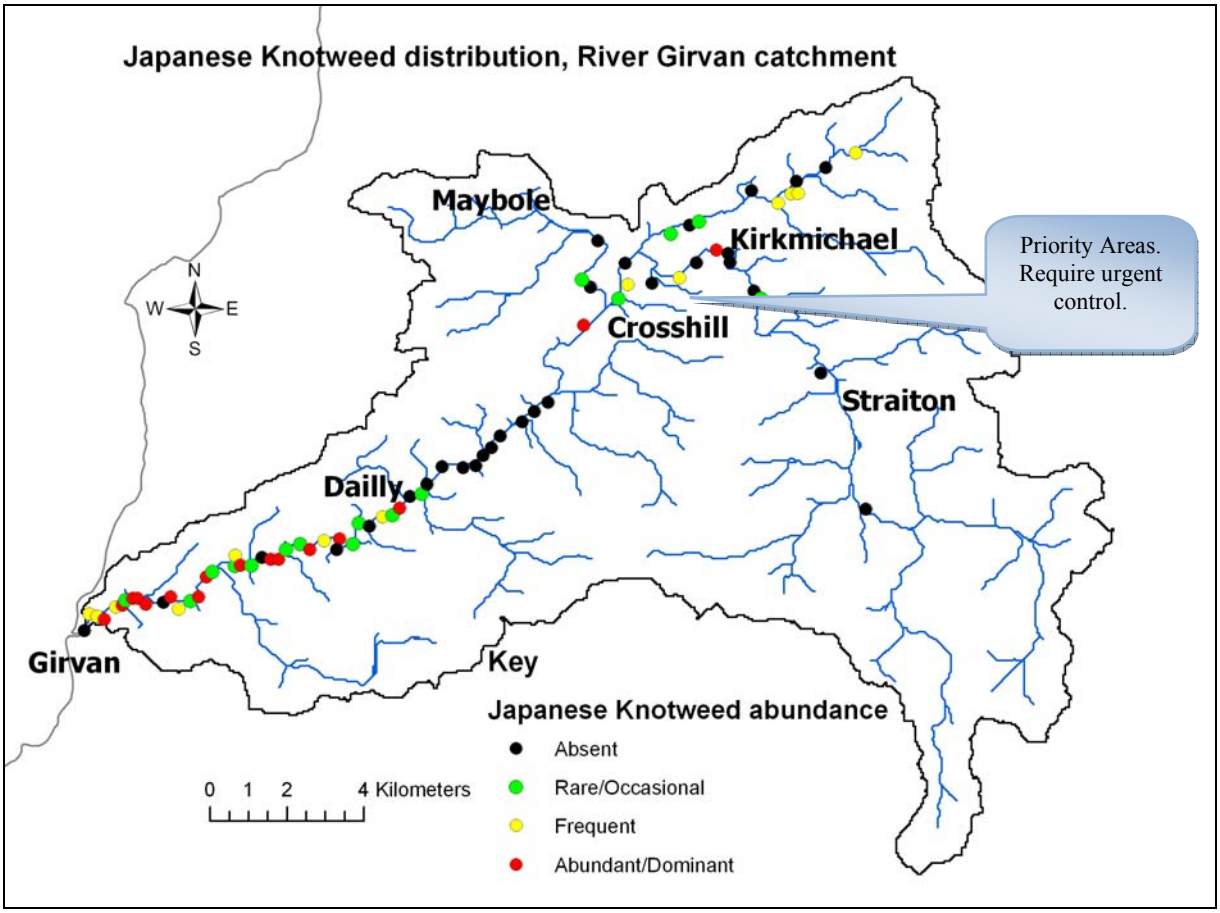



Japanese Knotweed distribution, River Ayr catchment
Tarbolton
Mauchline
Ochiltree
Ayr
Cumnock
Muirkirk
Priority Area Sorn Bridge.
Priority Area. Muirkirk.
N
W
E
S
Key
Japanese Knotweed abundance
Absent
Rare/Occasional
Frequent
Abundant/Dominant
Copyright Ayrshire Rivers Trust 2008.
Scale 1:150,000
0
2.5
5
10 Kilometers


Giant Hogweed distribution, River Irvine Catchment
Key
Giant Hogweed Abundance
Absent
Rare/Occasional
Frequent
Abundant/Dominant
N
W
E
S
Stewarton
Kilmarnock
Irvine
Priority area. Requires urgent control
0
4
8
16 Kilometers


Japanese Knotweed distribution, River Irvine Catchment
Key
Japanese Knotweed abundance
Absent
Rare/Occasional
Frequent
Abundant/Dominant
N
W
E
S
Stewarton
Irvine
Kilmarnock
0
4
8
16 Kilometers


Himalayan Balsam distribution, River Irvine Catchment
Key
Himalayan Balsam abundance
Absent
Rare/Occasional
Frequent
Abundant/Dominant
N
W
E
S
Stewarton
Kilmarnock
Irvine
0
4
8
16 Kilometers



Giant Hogweed Control

Funding secured for the invasive weeds surveys included a proportion for GHW control on the upper River Ayr. A control programme was designed to run initially for a two year period following which the success will be assessed and the feasibility of further control determined.

The control area extends from Stair Bridge to the upstream limit of the weed near Catrine. Landowner permission was gained, a contractor engaged and the appropriate licence obtained from SEPA. Early indications are that this first phase of spraying has reduced the number of flowering plants considerably. The second phase of spraying commenced during April 2009 after which, the overall result and success will be assessed.

Following analysis of the project, it is anticipated that further funding will be sought to allow the control programme to continue throughout the catchment. Controlling GHW on this scale for a sustained period would offer the realistic possibility of eradicating the plant within a period of around 10- 15 years.

Every effort was made to accurately record the distribution of invasive weeds during the surveys. Due to the constant spread of these species ART have added an interactive facility to their web site which will allow the public to report any unrecorded occurrences.

Electrofishing results 2008

Electrofishing is one of the Trusts core activities and over the years we have gathered survey data from all the major rivers and larger tributaries in Ayrshire. Three main types of electrofishing techniques are used: a) presence or absence, b) quantitative electrofishing, either semi or fully quantitative, and c) timed electrofishing.

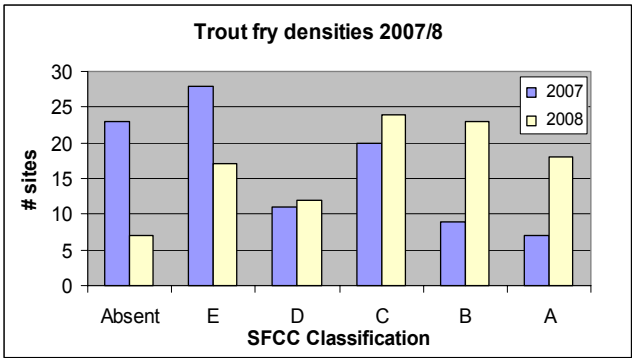
We do very little "presence or absence" electrofishing. Its main application is when we take groups of school children to the river during the Salmon in the Classroom project. Here we are not particularly interested in calculating densities or numbers of fish, rather we just want to capture a sample of what is present as a demonstration for the school pupils.

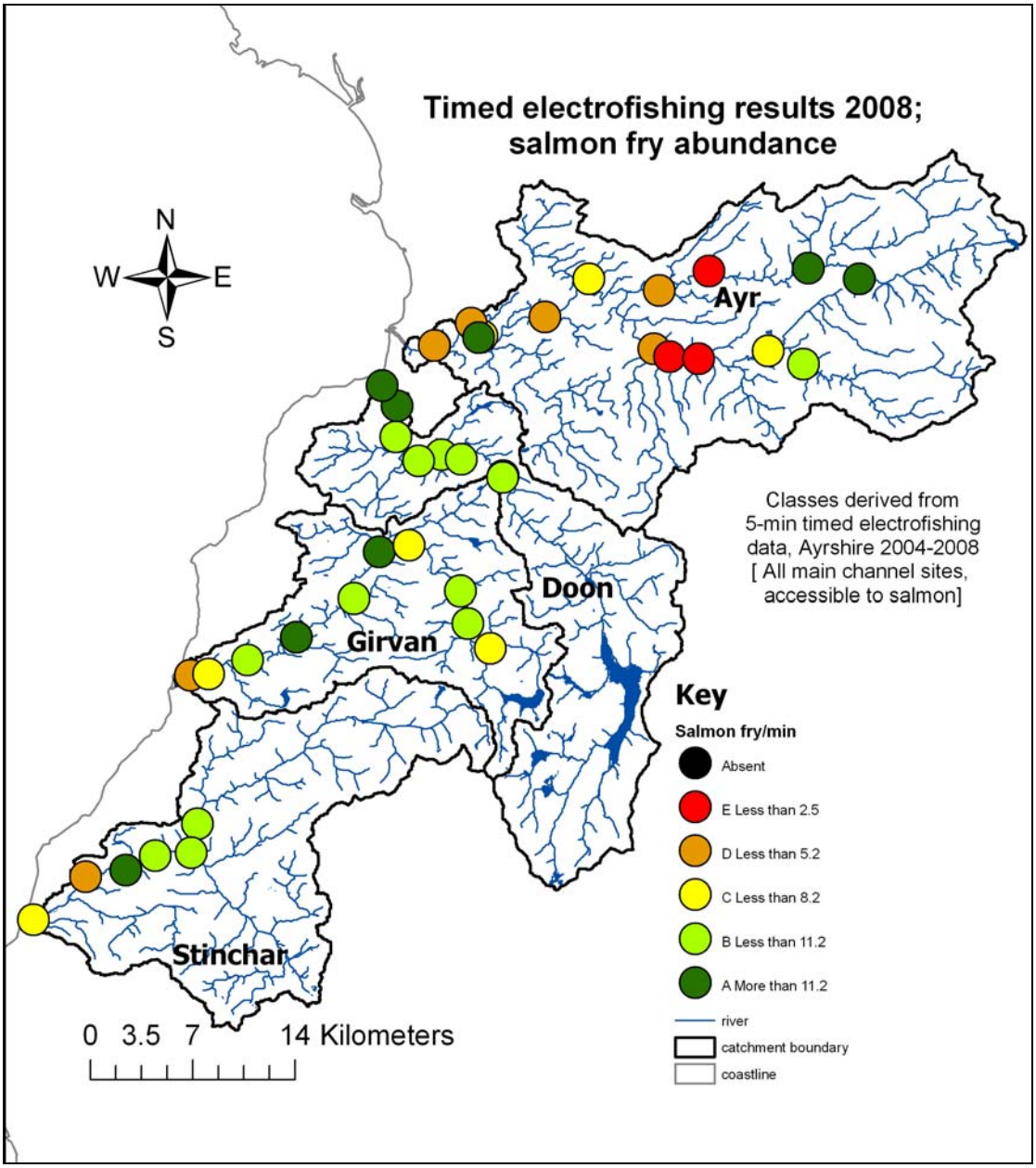
Quantitative electrofishing is normally used in smaller tributaries, typically less than 10m wide, where the entire area can be surveyed. This allows the density of fish captured to be to be calculated (expressed as fish numbers/100m^2), and compared with SFCC classification scheme. Most of the quantitative electrofishing carried out by the Trust involves a single run over the selected area, so called "semi-quantitative" surveying. This technique allows a reasonable number of sites to be surveyed each day and provides a good indication of the overall productivity of the area. For monitoring work in relation to a development, e.g. windfarm or coal mine fully quantitative, or three run, surveys are completed. The decline in fish numbers captured over the three runs allows an estimate of absolute fish densities to be calculated.

Fully quantitative electrofishing site set up with stop nets top and bottom.

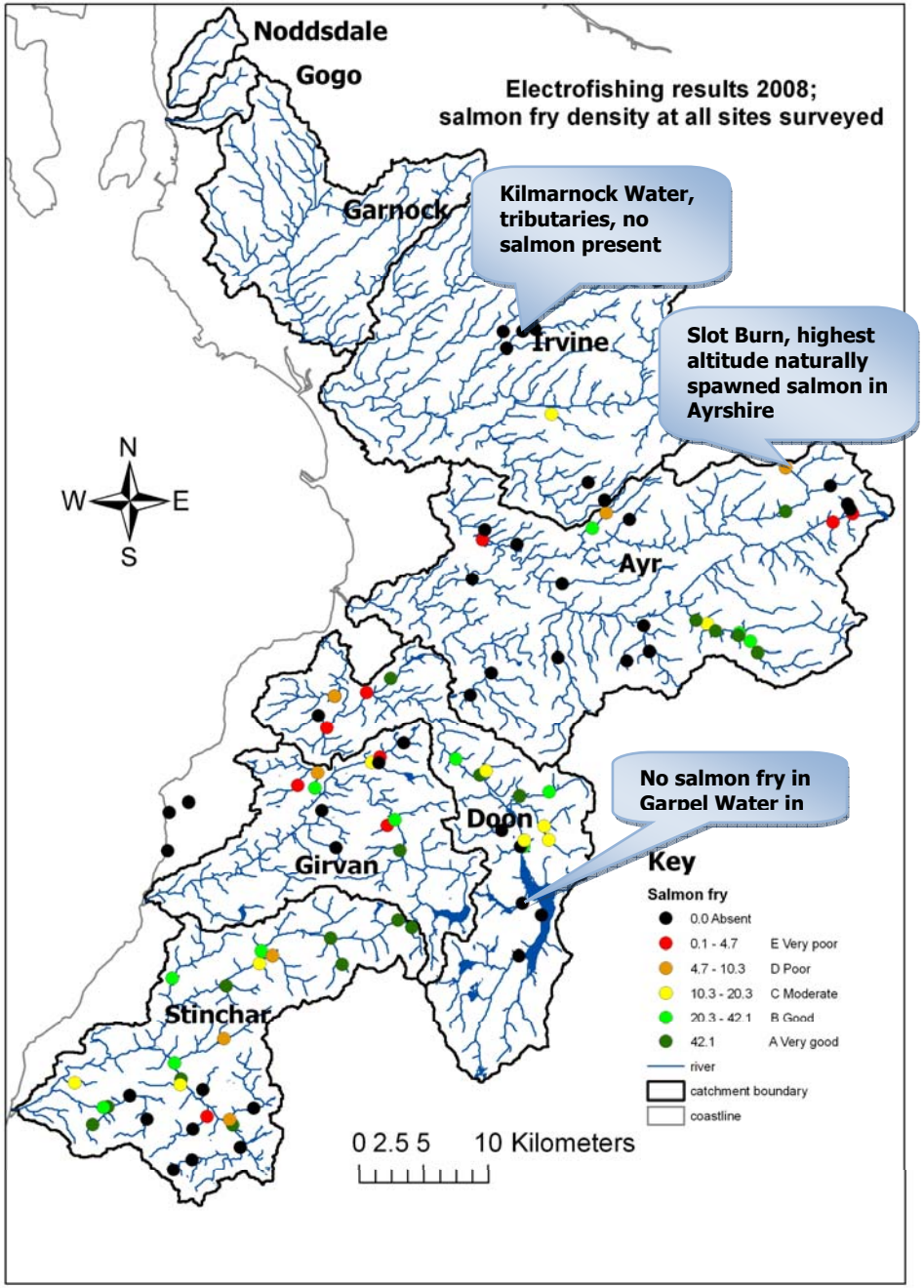
Timed electrofishing is carried out in shallow fast flowing areas of the main river channel or larger tributaries and is primarily intended to assess the abundance of salmon fry. The results from this type of electrofishing as expressed as fish number/minute. Some of the sites are what we term "core sites" and are surveyed on a routine basis. We also try to investigate a number of new sites each year, often in the smaller tributaries where some surprisingly good results can be found.

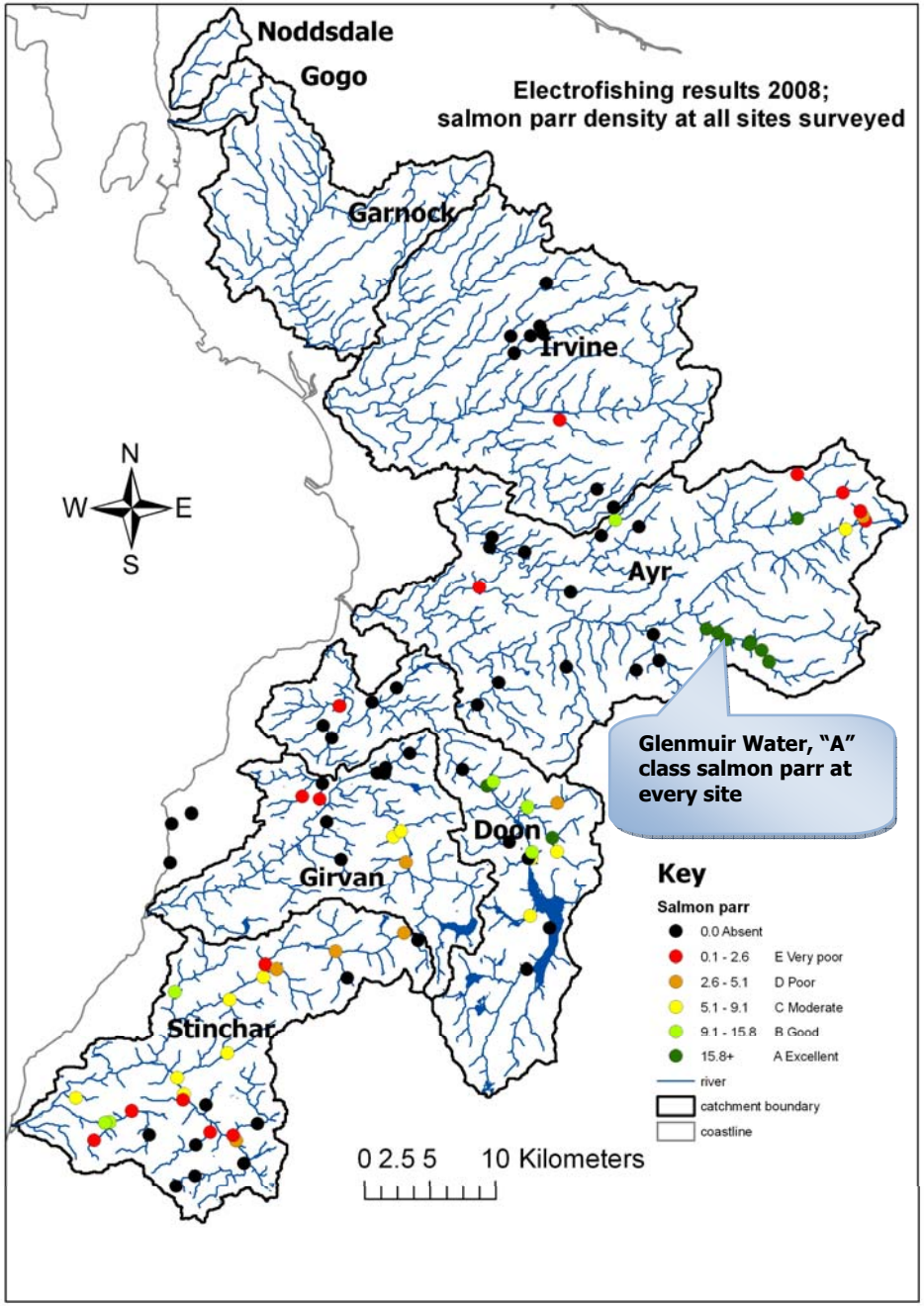
The results from the electrofishing sites in 2008 are shown in the maps below. The results were mixed of course; it is not only good sites that we monitor, but one noticeable feature was the good trout fry densities found in many sites in 2008 where 41% of the sites had trout fry densities in the A (excellent) or B (Good) classes. This was the opposite of 2007 when low trout fry densities were recorded at many sites. Other results of interest are highlighted in the density maps below.

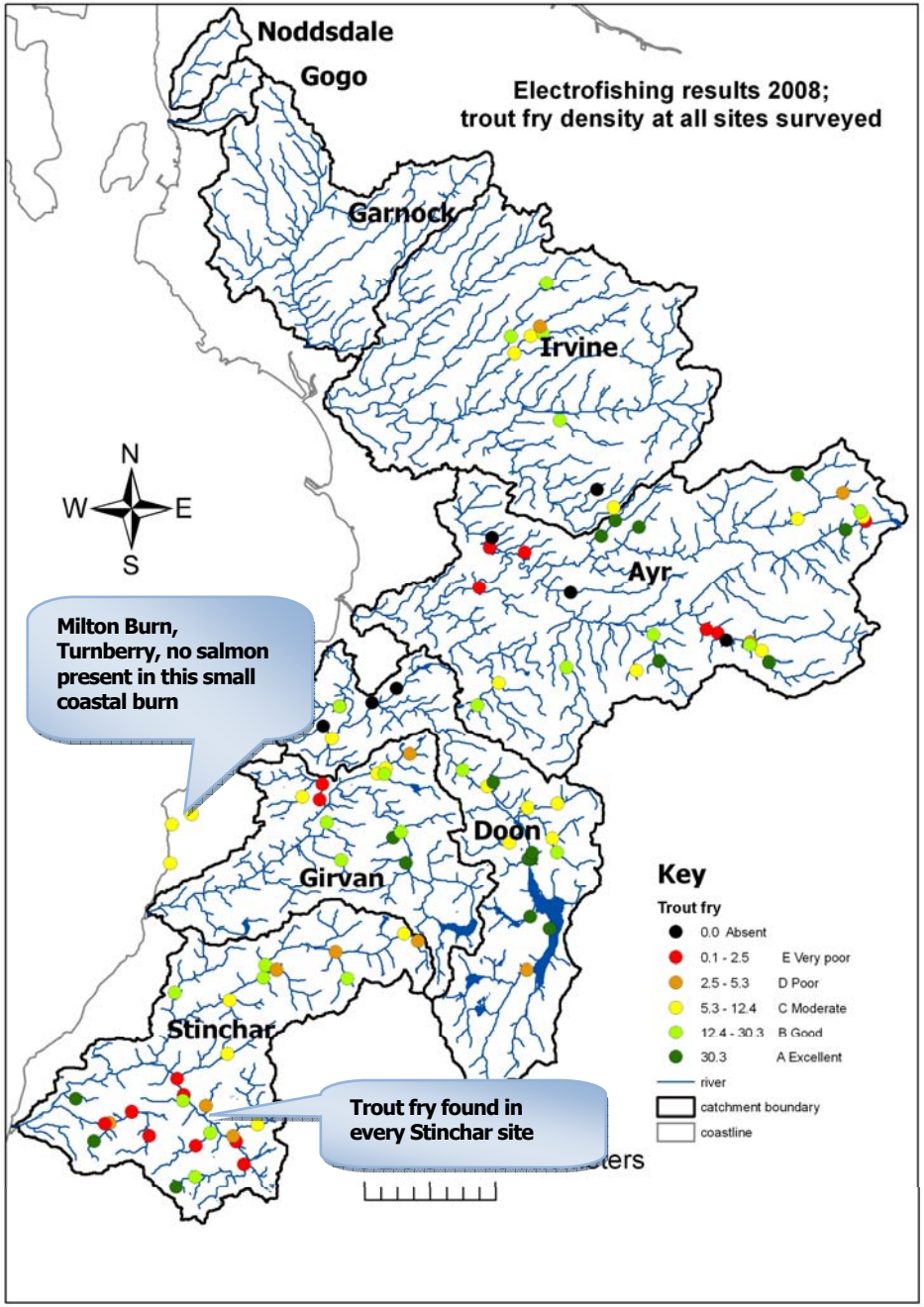


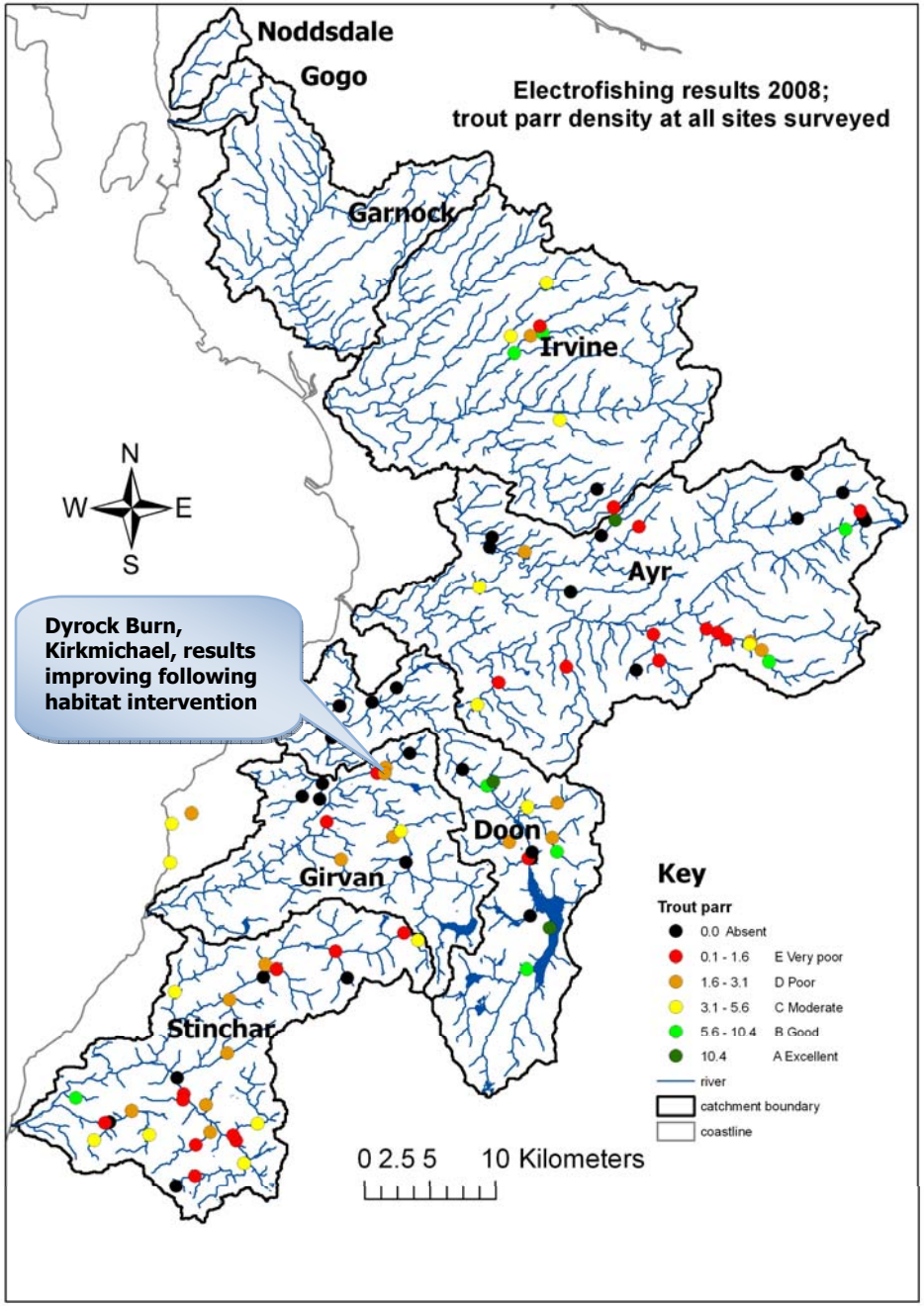


The results are based on a quintile split of timed survey results in Ayrshire over the last five years. It can be seen that in 2008 there were a lot of results towards the upper end of the classification scheme with over 55% of the results in the A or B categories. The Doon results were particularly good with all the sites in the A or B categories. The River Ayr results continue to be mixed although one new site in the lower reaches was in the top classification. Ayrshire Rivers Trust completed salmon redd counts in several areas of the lower Ayr over the winter and have followed that up with a study to investigate oxygen levels within the spawning gravels. One site in the Lugar Water, upstream of Ochiltree has consistently had low numbers of salmon fry but redd counts at the site showed the presence of several salmon spawning sites. Gravel oxygen sampling points have been established at this site and electrofishing monitoring will continue. Establishing the root causes of low salmon fry numbers is essential to enable remedial management to be established.


Noddsdale
Gogo
Electrofishing results 2008;
salmon fry density at all sites surveyed
Garnock
Kilmarnock Water, tributaries, no salmon present
Irvine
Slot Burn, highest altitude naturally spawned salmon in Ayrshire
N
W
E
S
Ayr
Doon
No salmon fry in Garpel Water in
Girvan
Key
Salmon fry
0.0 Absent
0.1 - 4.7 E Very poor
4.7 - 10.3 D Poor
10.3 - 20.3 C Moderate
20.3 - 42.1 B Good
42.1 A Very good
river
catchment boundary
coastline
Stinchar
0 2.5 5 10 Kilometers


Noddsdale
Gogo
Electrofishing results 2008;
salmon parr density at all sites surveyed
Garnock
Irvine
N
W
E
S
Ayr
Glenmuir Water, "A" class salmon parr at every site
Doon
Girvan
Key
Salmon parr
0.0 Absent
0.1 - 2.6 E Very poor
2.6 - 5.1 D Poor
5.1 - 9.1 C Moderate
9.1 - 15.8 B Good
15.8+ A Excellent
river
catchment boundary
coastline
Stinchar
0 2.5 5 10 Kilometers


Noddsdale
Gogo
Electrofishing results 2008;
trout fry density at all sites surveyed
Garnock
Irvine
Ayr
N
W
E
S
Milton Burn, Turnberry, no salmon present in this small coastal burn
Doon
Girvan
Stinchar
Trout fry found in every Stinchar site
Key
Trout fry
0.0 Absent
0.1 - 2.5 E Very poor
2.5 - 5.3 D Poor
5.3 - 12.4 C Moderate
12.4 - 30.3 B Good
30.3 A Excellent
river
catchment boundary
coastline


Noddsdale
Gogo
Electrofishing results 2008;
trout parr density at all sites surveyed
Garnock
Irvine
Ayr
N
W
E
S
Dyrock Burn, Kirkmichael, results improving following habitat intervention
Doon
Girvan
Stinchar
Key
Trout parr
0.0 Absent
0.1 - 1.6 E Very poor
1.6 - 3.1 D Poor
3.1 - 5.6 C Moderate
5.6 - 10.4 B Good
10.4 A Excellent
river
catchment boundary
coastline
0 2.5 5 10 Kilometers

Sea Lampreys

In June 08, ART biologists were lucky enough to be alerted to Sea Lampreys spawning in the lower River Doon. These amazing fish are becoming increasingly rare in Scotland with some areas being designated Special Areas of Conservation where they are known to occur regularly. The main threats to the species are pollution and habitat degradation.

Sea Lampreys spawning in the River Doon.

We were able to watch three fish of up to approximately 75cm in length constructing a spawning redd amongst the gravel and stones, which we captured on video. A hyperlink to this will soon be added to our web site. Sea Lampreys have been recorded on all Ayrshire rivers in the past but are rarely observed any more.

There are two smaller species of lamprey in the UK, brook and river lampreys. Both species are similar in appearance with adult river lamprey reaching approximately 30cm compared to the smaller brook lamprey at 15cm. River lampreys are migratory whereas brook lamprey are not. In Ayrshire, the smaller brook lamprey is common and can be seen in the spring when they commence their communal spawning in shallow gravel beds. Out-with this spawning activity, brook lampreys are silt dwellers and consequently rarely observed. Anyone finding Lampreys are encouraged to contact the Trust with details of the sighting.

Eel conservation

During 2008 the Scottish Government produced an eel management plan. Elver numbers arriving at our coast are considered to be at historic low levels and given that they are very slow maturing, typically spawning once only at 9-20 years of age but occasionally much older, there is considerable concern for the species. The ART electrofishing team often find eels during electrofishing with the Stinchar catchment in particular supporting high densities. Despite their reputation for slithering overland to bypass waterfalls, man-made dams can often limit the distribution of eels. None have been recorded by the ART biologists upstream of Loch Doon dam. As part of the Scottish eel management plan legislation has been produced making it an offence to kill eels except under licence. Details of the legislation and advice on what to do if you catch an eel can be found on the governments website at http://www.scotland.gov.uk/Topics/Fisheries/Salmon-Trout-Coarse/eels .

Freshwater pearl mussels in Ayrshire

Following on from the initial survey work on freshwater pearl mussels in the River Doon in 2007 the Trust completed a more in depth survey in 2008. The results of the 2008 survey were slightly more positive than those reported in 2007. More mussels were found in the Doon although they were all large, old individuals with no evidence of recent recruitment of juveniles. This is a worrying sign for the population and unless the lack of recruitment is reversed is likely to result in the extinction of the Doon mussel population in the near future.

The reasons for the apparent lack of reproduction by the Doon mussels are not understood although water quality is borderline. Water quality at the start of the River Doon, the Loch Doon dam outlet, is typical of upland streams draining the granite hills of the Galloway Forest Park. It would be considered oligotrophic, i.e. naturally nutrient poor, and it is acidic, particularly during the winter months. On its journey to the sea the Doon crosses the Southern Upland fault and the underlying geology changes dramatically with sedimentary rocks and limestone coal measures resulting in a rapid change in water chemistry. The Doon is also affected by many inputs such as the effluent from sewage treatment works, fish farm discharge, mine water, and diffuse pollution run-off from villages, roads, forestry and agriculture. All of these factors, natural and man made have an effect on water quality and by the time the Doon reaches the sea it is relatively fertile, has an alkaline ph and high silt loading during spate conditions.

Historically pearl mussels in the Doon were fished for the pearls which they occasionally produce. Pearl mussels now have full legal protection and although fishing may have been a significant factor in their decline in the past it is not thought to be so at present. However, a continuing threat is posed by instream works. The 2008 high profile court case involving a proprietor undertaking licenced bank protection works in the lower river providing an example of the sort of damage that still goes occurs.

During survey work several dying pearl mussels, with gaping shells and tissue damage from scavenging invertebrates were found. This is alarming as it is unusual to come across animals in such a condition. In 2009 we hope to secure funding to repeat surveys of some of the sites where mussels were found in order to assess whether the remaining population is stable or not. A reversal of the increasing levels of enrichment and siltation in the river will be required if the future of the Doon mussel population is to secured.

As mentioned in last years annual report we had received a report of possible pearl mussel shells from the River Girvan. Subsequent surveys found several live freshwater pearl mussels in the river. This was an exciting find as the population was previously unrecorded. In the middle and lower reaches of the River Girvan there is a robust population of another type of freshwater mussel, the Duck Mussel (*Anodonta anatine).* This is thought to the first record of both pearl and duck mussels occurring in the same Scottish river. We hope to investigate the distribution is the pearl mussels in the River Girvan in more detail in 2009.

As the Doon and Girvan pearl mussel populations are relatively isolated in a Scottish context some fluid samples were collected from live mussels from the Doon for analysis as part of a Scottish project. Further samples will be taken in 2009 from both rivers, if sufficient live mussels can be found.

It should be noted that a licence is required to handle or disturb pearl mussels. We would like to thank Scottish Natural Heritage and the Doon District Salmon Fishery Board for the financial support which made the survey possible.

Water Voles and the LBAP

Water Vole photo courtesy Anke Huber. ©

As lead partner in the Local Biodiversity Action Plan (LBAP) for water voles, Ayrshire Rivers trust has been developing a project designed to halt the decline of water voles in Ayrshire. The situation in Ayrshire is typical across the UK. Once a common sight on most Ayrshire burns and rivers, the Water Vole has now disappeared from most of its natural range with only a few remnant populations surviving in remote upland sites. Sadly, without intervention the species is likely to continue declining until they become locally extinct. This is occurring across the range of the UK water vole population and consequently the species is now classed as Britain's most endangered mammal.

During the course of the last year, we have built up a detailed record of surviving colonies in Ayrshire. Fortunately we are usually consultees for Environmental Impact Assessment for wind farm and opencast mining developments and with the aid of these documents and other references we have been able to map the known distribution of the species. This pooled information will form an invaluable resource during the development of the conservation project.

The sharp end of the problem. Mink are highly effective and opportunistic predators. Photo courtesy Mary Frances. ©

The project aims to tackle the main factors affecting the species; damage and loss of habitat and predation by non native species. This two pronged approach has been implemented elsewhere in Scotland with great success which provided a model on which we based our strategy.

Raising awareness of the endangered and protected status of water voles and their habitat should reduce the risk of accidental (and possibly deliberate) damage to known colonies. Measures such as riparian fencing prevents

poaching and trampling of burrows while also offering the added benefit of reducing diffuse pollution in these streams.

Mink are non native predators and have been identified as perhaps the largest single threat to water voles. Well known for their aggressive predatory behaviour amongst small mammals, amphibians and birds, mink are particularly destructive to water voles. Water voles naturally suffer high winter mortality but with their breeding season occurring later than that of mink, they are highly susceptible to predation. Mink produce litters of up to eight kits in early spring and water voles are easy prey. One adult mink can destroy an entire water vole colony in a short space of time. These two threats largely account for the lack of water voles in lowland Ayrshire.
Upland areas where water voles remain are largely impoverished moorland wetlands and burns inaccessible to migratory fish. The more arduous climate, lower natural productivity and isolation of these areas is perhaps why mink are uncommon and water voles remain. Protecting these remote habitats and colonies should be a priority until mink can be controlled and habitat restored effectively in lowland areas.

Although we have well defined goals and a detailed strategy in place, due the current economic climate we have been unable to secure adequate funding to allow the project to commence but we remain hopeful that this barrier can be overcome in the near future.

Kerr & Smith advert

Educational work

Salmon in the classroom

The popular salmon in the classroom project expended again in 2008 when 14 Ayrshire schools took part in 2008, the largest number of schools to take part since the project began in 2003. Funds for the project have been secured from a number of sources, including the Big Lottery Fund Fairshare Trust, Scottish Natural Heritage, the William Grant & Sons Fund, Spirit Aerosystems and local councils.

The project begins with a presentation to the class on the ecology of the local rivers, including threats to wildlife such as pollution, habitat loss and over-fishing. The salmon life cycle is then covered in detail including breeding behaviour and migration. The pupils then have an interlude when they play with the brilliant "snakes and ladders" style salmon life cycle game which was designed for the Salmon and Trout Association. The game is intended to be fun but also to provide information on the fascinating life cycle of the salmon. Finally the first day ends with advice on how to look after salmon eggs in an aquarium in the classroom.

The aquaria are fitted with thermostatic coolers, to cope with high classroom temperatures and keep the water at the same temperature as the river. The coolers ensure a high survival rate and allow the children to see the development of the fish for longer before they are released. Pupils keep a daily record of the progress of the salmon and complete artwork on river wildlife. Salmon eggs are supplied by local hatcheries (approved by District Salmon Fishery Boards) using only native salmon.

Once all the eggs have hatched the pupils help release the fish back into their native river in late March and visit the river again in June for an electrofishing demonstration. Pupils learn to identify different fish species and how to assess water quality by sampling river invertebrates. The project is designed to encourage an interest in wildlife and teach children about the importance of protecting their local environment.

An innovation in 2008 was the introduction of an award for the best artwork related to the project. Many schools produced excellent artwork and three schools Kelburn (Largs), Sacred Heart (Girvan) and Kincaidston Primary (Ayr) were awarded with a painted wooden replica salmon made by Stuart Brabbs. A selection of photos from the project are shown below.

Kelburn Primary pupils with artwork

Loudoun Montgomery (Irvine) pupils learning to identify fish species

Kirkmichael Primary beside the Dyrock Burn – just how big was that eel?

ART's Brian Shaw sampling the River Irvin with St Sophia's Primary, Galston

Dailly Primary, with bug-life sample ir tray to assess water quality

Minishant Primary at the Culroy Burn, n the last day of the project

Trust staff members also helped Dalmellington Primary, with a river clean-up at the Muck Water on the River Doon. A large collection of litter was gathered during a fun event.

Invertebrate workshop

In early March the Trust organised an invertebrate identification workshop which was held at Dailly. The workshop was hosted by Craig Macadam, Scotland's foremost expert on freshwater invertebrates. After presentations on the major groups of freshwaters invertebrates by Craig and a summary of the Trust's invertebrate work a small group of hardy souls went out on a field trip to sample invertebrates in the nearby River Girvan, the Lindsayston Burn and Dalquharran Burn. Dailly proved to be an excellent location as the three sites provided a range of samples. The Dalquharran Burn suffers from an old deep mine discharge and the group were able to sample both upstream and downstream of the discharge and to see for themselves the impact of the discharge on both the invertebrate population and water chemistry.

Collecting a kick sample downstream of Dalquharran Mine discharge

What's that one called?

The invertebrate workshop was funded by the Fairshare Trust and South Ayrshire Council as part of the Water of Girvan Enhancement Project.

New fish pass Burn Anne, River Irvine

After almost two years of works East Ayrshire Council completed the Galston Flood Prevention Scheme in 2008. The Burn Anne now has a highly artificial channel through Galston but on a more positive note the scheme included the provision of a fish pass to replace a long concrete slope at the confluence with the Irvine and the removal of a small weir.

During December the Trust received calls regarding the number of salmon seen spawning in the burn for the first time. It is estimated that as many as 100 salmon had spawned in the Burn Anne. This is very encouraging and as the habitat within the works area matures it is expected that the burn will support an excellent density of juvenile fish.

There are two bridge aprons upstream hindering fish passage that require modification. It is hoped that these problems will be addressed soon as the habitat upstream is excellent.

New fish pass in the lower Burn Anne

Salmon redds in the urbanised Burn Anne

Ayrshire Fishery Management Plan

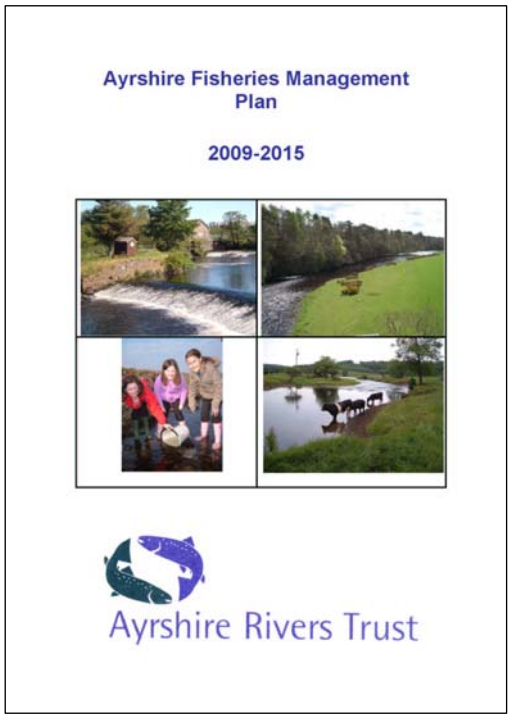
During 2008 Ayrshire Rivers Trust published its Ayrshire Fishery Management Plan. This is funded by a Scottish Government grant awarded to trusts and fishery boards across Scotland. Considering the importance of freshwater angling as an economic and recreational resource to the nation it may seem a little surprising that this is the first time that comprehensive fishery management plans have been produced for many areas or catchments in Scotland.

The production of these plans was overseen by RAFTS and they are a fundamental part of the continued support from the Scottish Government to the trust network.

The Trusts all species remit was reflected in the plan, although given the importance of salmon and trout angling in Ayrshire, there is an inevitable emphasis on game angling in rivers. The gaps in the Trusts knowledge regarding other species and the stillwater fishery resource were highlighted in the plan.

The plan includes a catchment description chapter followed by a summary of the Trusts data and knowledge on fish populations. Factors limiting fishery production are detailed. In an area such as Ayrshire these are many and diverse. Poor water quality, degraded habitat and man-made obstructions are the major negative influences limiting fish populations but other factors such as water abstraction, predators and human exploitation were also considered. An assessment of present management structures and activities was followed by a comprehensive section on proposed management actions.

Following a consultation period the final plan was published on the Ayrshire Rivers Trust website in Jan 2009 http://www.ayrshireriverstrust.org/index.php?page=fishery-management-plan. The production of the plan was a major piece of work for the Trust but it should guide the work of the Trust over the next six years. However, the production of the plan is only the starting point. Its success will depend on the delivery of the many actions or projects identified. The Trust has well established working relationships with organisations such as the District Salmon Fishery Boards, angling clubs, local authorities and agencies such as SNH and SEPA. Partnership working was highlighted throughout the plan and the Trust will have to continue to develop and strengthen these relationships and others in order to secure the resources and assistance that will be required.



Ayrshire Rivers Trust Events 2008 and 2009

Annual Country Fair, Sunday 1st June 2008

(Courtesy of Mr Stanley Brodie QC)

Once again our Annual Country Fair was held at Skeldon Estate near Dalrymple, and this year, for the first time, we were sponsored by the Dawn Group.

New attractions included a Mini Zoo whose inhabitants such as a milk snake and rats had adults and children alike both terrified and fascinated simultaneously, and in the afternoon we had a Duck Race "Doon the Doon" which couldn't have been more appropriate as the weather by that time was only fit for the ducks! The Trust biologists Brian Shaw and Pete Minting also conducted electrofishing demos on the Doon which yielded fish such as salmon, trout and an especially large eel.

We also welcomed back former World Fly Casting Champion Jim Tomlinson who demonstrated his legendary skills, Skyhigh Falconry and their wonderful birds of prey, Ayr and District Beekeepers Society, and Kilwinning Archers who had last appeared at the Fair in 2006. The tea tent, supervised by Aleta Shaw and Henry Lee and their fantastic helpers, provided an especially welcome retreat. A special thanks is extended to Mr Henry Simpson of the River Doon Trout Co. for the donation of trout to the "Guess the Weight" competition.

Fisherman's Supper Friday 7th November 2008

A change of venue to the Racecourse proved a popular choice, and after a delicious dinner we were entertained by our guest speaker the prolific author Mr Harry Morris, otherwise known as "Harry the Polis". He regaled us with many stories of his twenty plus years with Strathclyde's finest, some of which might even be true!

The other 'top table' guests were Mr Ian McGregor our resident Master of Ceremonies with an honours degree in humour, Mr Jim Stevens (Vice Chairman of the Trust), and our Head Biologist Mr Brian Shaw who updated the rapt audience on the past years activities with a few funnies thrown in for good measure too. A Bruce & Walker Norway Speycaster Rod (courtesy of Bruce & Walker) was won in the raffle by a delighted Mr Bob Nairn. Other raffle prizes were donated by the following: Ultimate Angler Girvan, Glasgow Angling Centre, Spirit Aerosystems, Gamesport of Ayr, Carrick Angling Club, Alderneuk Fishery Terreagles, K2-UK, Mr Peter Ross, Doon Engineering Ayr, Mr David Slider, Mr Ian McGregor, Mr Carlos Van Heddegem, Mr Alex Anderson and Mr Phil Haughton – many thanks to all!

A delighted Bob Nairn with top raffle prize; a 12' B&W Norway Speycaster rod

A small, but select, auction was also held with lots such as a days fishing on the River Dee in Aberdeenshire and the River Tay raising extremely welcome funds for the Trust. Auction lots were donated by the following:- Mr George Mainland, Lord Richard Wellesley, The Smithston Fishings Club and Mr Jim Tritton - many thanks to all !

Christmas Raffle 2008

Thanks to all who bought tickets for and donated prizes to our Annual Christmas Raffle, and especially to Daiwa who donated a 10ft Lochmor Trout Rod as the main prize. It was won by Mrs Mhairi Gibson.

Other raffle prizes were donated by the following:- K Imrie Tree Care, Ultimate Angler Girvan, Glasgow Angling Centre, Skyhigh Falconry, Spirit Aerosystems, Burns Fishery Tarbolton, Alderneuk Fishery Terreagles, Carrick Angling Club, K2- UK, Burns Country Smokehouse, Kilmarnock Angling Club, Ardneil Garage Troon, Mr Stuart Crooks, Mr David Slider, Mr Oli Anderson, Mr John Scott MSP, Mr George Steel and Mr Robert Dalrymple

Tackle in the Attic

Have you any unwanted or unused "Tackle in the Attic"? The Trust is appealing for any donations of fishing tackle which are surplus to requirements for us to sell to raise funds for the running of the Trust. We are looking for good quality, intact items, particularly old reels, and urge you to raid the attic, garage or garden hut when you have a spare moment. All items will be sold at Auction. Examples of two reels donated to the Trust, and which raised over £600 are shown below.

Aerial centrepin reel donated by Dr R. Lewis

Hardy Perfect reel donated by Jin Stevens

Items can be handed into our office Monday to Friday from 9am until 5pm, or we can arrange to have them collected at your home. If a donor expresses a wish to know how much the item achieves then they will be kept informed. Please contact us if you have any donations – details are also on our website www.ayrshireriverstrust.org

The 2009 Fishermans Supper is to be held at Ayr Rugby Club, Alloway, on Friday 6th November

Speakers this year are Crawford Little, the well renowned author and journalist, and Robbie Duncan, a popular local after dinner speaker – book early to avoid disappointment!

If you would like to book tickets for this years Fishermans Supper please contact Janette Galbraith on 01292 525142 or email janette@ayrshireriverstrust.org

Membership

Members receive many benefits including free newsletters, Annual Reports and invites to special events run by the Trust. Membership cards can also be used to obtain discounts at local angling stores.
For those interested in joining the Trust, a membership form can be downloaded from the website at: www.ayrshireriverstrust.org or telephone Janette Galbraith on: 01292 525142.

Water of Girvan Enhancement Project

The ART Girvan Habitat Survey 2003 identified that the Dyrock Burn was suffering from excessive grazing and trampling due to farm livestock access. Following successful funding application and negotiations with landowners ART were able to erect several kms of fencing in 2007. The transformation was remarkable. The photos below show the same view immediately after fencing (left) and 18months later (right). In the later photo the autumn spates and frosts had flattened the vegetation cover which had been extremely lush several months earlier.

ART biologists have a monitoring site at the lower end of the field pictured which had been surveyed annually since 2004. The results of the electrofishing results for the site are shown below (No fish/100m^2).

Site GDY2	Salmon fry	Salmon parr	Trout fry	Trout parr
2004	0.0	1.2	2.4	2.4
2005	2.8	0.0	12.6	0.0
2006	0.0	2.0	6.0	0.0
2007	2.4	0.0	1.2	1.2
2008	18.5	0.0	9.3	1.3

The latest results are very encouraging with significant numbers of salmon fry found for the first time. Monitoring will continue at the site for a further three years. A nymph of *Ephemera danica* (Angler's Mayfly) was also found at the site, a first for ART biologists in Ayrshire.

Thanks to the project funders: Scottish Community Foundation (Fair Share Trust) and South Ayrshire Council (Rural Affairs Committee)

Ayrshire Osprey Project

The recolonisation of Scotland by Ospreys over the last fifty years has been a great conservation success but Ayrshire remains one of the few rural regions in Scotland without nesting Ospreys. The reasons for this are not clear as there would appear to be adequate fishing areas. Peter Minting, whilst working as a Trust biologist, noticed a young Osprey in the Galloway hills which was presumed to be migrating for winter. ART were aware of other reported sighting during spring 2008 and decided to apply for funding to erect artificial nesting platforms in the hope of eventually attracting a breeding pair to Ayrshire. With suitable funding in place from SNH, seven platforms were constructed in likely but strategically safe locations during winter 2008.

The Trust was subsequently contacted by the Scottish Ornithologist Club and coordinated monitoring of Osprey activity agreed including round the clock surveillance operation to protect the birds and their eggs if required. At the time of this report (May 09), there have been no recorded sightings in the region.

AYRSHIRE RIVERS TRUST
INCOME AND EXPENDITURE
FOR THE YEAR ENDED 31 JANUARY 2009

	Year to 31 January 2009		Year to 31 January 2008	
	£	£	£	£
Income				
Fund raising (net of direct expenses)				
Country fair	4207		2802	
Fisherman's supper	901		71	
Raffle	1371		1946	
Merchandising	61		(30)	
Annual report advertising	1285		1500	
Sponsored diet	-		1157	
Barbecue	-		90	
Gift Aid tax reclaim	607		1249	
SITC Ruler sponsorship	1890		-	
		10322		8785
Membership				
Ordinary	1340		1440	
Corporate	1070		980	
Life	440		440	
		2850		2860
Other income				
Donations	5415		3645	
River Board subscriptions (Doon, Girvan, Ayr & Stinchar)	9600		8600	
Grants received	61178		15951	
Consultancy fees	30714		47209	
Interest received	2109		1545	
		109016		76950
		122188		88595
Expenses				
Employment costs	70501		61735	
Trustees' expenses	1200		1500	
Printing, stationery and postage	2986		4094	
Professional fees	1578		1680	
Training fees	275		464	
Telephone	2082		1626	
Motor expenses	5078		5495	
Subsistence	872		802	
Subscriptions	2081		2571	
Insurance	2943		3021	
Office rent	2442		2618	
Loan interest	11		100	
General expenses	422		661	
Depreciation	3040		4053	
Biologists' equipment	4499		2162	
		100010		92582
Net income/expenses		22178		(3987)
Less: carried forward as restricted funds		(13995)		-
Net surplus/(deficit) - unrestricted funds		8183		(3987)

AYRSHIRE RIVERS TRUST
BALANCE SHEET
AS AT 31 JANUARY 2009

	As at 31 January 2009		As at 31 January 2008	
	£	£	£	£
Fixed Assets				
Motor vehicle	4582		6109	
Equipment	4535		6047	
		9117		12156
Current Assets				
Bank current accounts	5550		3250	
High interest bank accounts	71009		42634	
Debtors	2497		7736	
Stock	287		436	
		79343		54056
Current Liabilities				
Bank term loan for motor vehicle	-		483	
Accrued charges	5818		5265	
		5818		5748
		82642		60464
Represented by:-				
Restricted fund brought forward	-		-	
Net income for year	13995		-	
		13995		-
Brought forward	50824		55251	
Net income/expenses	8183		(3987)	
Transfer to Life Membership Fund	(440)		(440)	
		58567		50824
Life Membership Fund				
Brought forward	9640		9200	
Movement in year	440		440	
Carried forward		10080		9640
		82642		60464

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.

Thanks to...

Whitley Animal Protection Trust

South & North Ayrshire Councils
Straid Farms Ltd

Ayr, Doon, Girvan and Stinchar District Salmon Fishery Boards
River Irvine Angling Improvement Association

Barnshean Fishing Club
Barr Angling Club
Carrick Angling Club
Colmonell Angling Club
Cumnock & District Angling Assoc.
Dailly Angling Club
Dalry Garnock Angling Club
Darvel Angling Club
Galston Angling Club
Hurlford & Crookedholm Angling Club
Irvine & District Angling Club
Kilbirnie Angling Club
Kilmarnock Angling Club
Kirkmichael Angling Club
Ladykirk Angling Club
Largs & District Angling Club
Mauchline & Ballochmyle Angling Club
Smithston Fishings

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

www.ayrshireriverstrust.org

Scottish registered charity No: 030426