

# NITH CATCHMENT FISHERY TRUST

## ANNUAL REPORT

2010



© Nith Catchment Fishery Trust  
37 George Street  
Dumfries  
DG1 1EB

Scottish Registered Charity number : SC040908  
Company number: SC366067  
[www.river-nith.com](http://www.river-nith.com)  
[trust@river-nith.com](mailto:trust@river-nith.com)

# **Nith Catchment Fishery Trust**

The Nith Catchment Fishery Trust is a company set up in 2009 with charitable status whose aims and objectives are:

- To advance environmental protection and improvement by conserving and enhancing all species of freshwater fish and their environs within the River Nith catchment, for public benefit.
- To advance the education of the general public through raising awareness of aquatic ecosystems including their fauna, flora and economic activity within the River Nith catchment.

## **Mission Statement**

*" We seek to utilise research and apply science to inform, educate and advise those who own, work, manage and enjoy the fisheries and biodiversity of the River Nith Catchment "*

The Directors  
Nith Catchment Fishery Trust

## **Directors**

Mr Thomas C Florey – Chairman  
Mr Alan Bryden  
Mr Ronald Clark  
Mr John Charteris  
Mr Roy Green  
Mr Jim Henderson

## **Staff**

Ms Debbie Parke - Biologist  
Mr John Stainsby - Seasonal Fishery Assistant

## **Members**

Mr & Mrs Andrew Hunter-Arundell  
Mr David Brown and family  
Mr Robert Gladstone  
Mr Ronald Weir  
Mr Robbie Cowan  
Mr David Matthews  
Mr Robert Schiller  
Sir Chips Keswick  
Mr Adam Keswick  
Mr James Gordon Macgregor  
Mr John Kingan  
Mr & Mrs John Celentano  
Mr Brian Lord

## **Corporate Members**

Closeburn Castle Fishings  
Douglas Hall Fisheries  
Dumfries and Galloway Council  
The Grayling Society  
The River Nith Society  
Kier Mining Ltd  
New Cumnock Anglers Association  
Dumfries Burgh Anglers Association  
Nith Estuary Haaf Net Association

**Cover photos** - (clockwise from top left) Debbie Parke and Jim Henderson taking genetic samples for FASMOP project; Debbie Parke putting tubes on the trees planted at Brandleys Habitat Scheme; A Lamprey caught whilst carrying out an electrofishing survey ; Pre-school children investigating a bucket of salmon eggs during a hatchery visit.

All photos within this document are © Nith Catchment Fishery Trust unless stated otherwise.

## Chairman's Foreword

I am delighted to report on a very successful inaugural year for the Nith Catchment Fishery Trust. This past year has seen the Trust progress from its formation through to engaging in the many varied projects that are currently being undertaken. Through our Trust we are participating in a diverse range of general fishery management projects which seek to protect and enhance the biodiversity of the River Nith catchment by educating the general public and providing a better understanding of aquatic ecosystems.



One of the of projects where the Trust's goals are being delivered is the "Nith in the classroom" project where our Biologist runs a series of field trips with school children. These popular excursions utilise the countryside and the biodiversity of the aquatic environment to educate these young people about the significance of fish in our watercourses and lochs. Another project vital to the well-being of our river system is the "Biosecurity Plan" which the Trust is currently undertaking. This plan is intended to highlight likely sources of ingress for non native invasive species which could threaten our indigenous species. Species of concern currently include the American Signal Crayfish (*Pacifastacus leniusculus*) and the Killer Shrimp (*Dikerogammarus villosus*).

From the administration of setting up, to operating on a daily basis and ultimately to delivering the work of the Trust on the ground, the Trust has performed well. These achievements simply would not have been possible without the commitment of my Directors whose enthusiasm has been considerable. In addition, the hard work and devotion to duty of our Biologist has ensured that the Trust has achieved all that it has in such a short time.

In the current economic climate all businesses, including charities, face increasing challenges and I am satisfied that our Trust has secured long term projects to ensure financial security into the future. In this regard there is no room for complacency and we will continue to seek new additional sources of income in the coming years.

I am pleased to report on the close working relationship which has formed between the Trust and the River Board. The Trust supports the work of the Board and a reciprocal arrangement exists. Resources are shared and divided to the task of greatest importance whilst each organisation maintains its own individuality. Ultimately, the river, its stocks of fish and the general aquatic habitat are the benefactors.

We welcome the Trust's first Annual General Meeting, when permanent directors will be elected, full details of the Trust's first 15 months of operation discussed and future strategies planned. We look forward to seeing you there!

A handwritten signature in black ink that reads "T. Florey". The signature is written in a cursive, slightly slanted style.

Thomas C Florey  
Chairman  
Nith Catchment Fishery Trust

# Biologist's Report

Fifteen months on and I feel that the establishment of Nith Catchment Fishery Trust has been a great success and we are well on the way to fulfilling all of the objectives with which we set out. Establishing any new organisation in the fisheries world was always going to be challenging, set in the traditional environments of fishing and wildlife management. The main task for the Trust in its first year was to ensure that we fulfilled our requirements as a Scottish Registered Charity whilst delivering the work of the Trust out in the field within the catchment.



I set out as Biologist with the Trust with a carefully planned programme of projects and events that would enable the Trust to "get their feet under the table" and be recognised. My work plan for the year was bluntly interrupted by the unfortunate occurrence of a pollution incident and it was a case of "all hands to the pumps" with the Trust supporting the River Board in their investigation of events. This episode illustrated to me the potential fragility of the aquatic environment of the River Nith catchment, located as it is within an area of high industrial activity.



With the priority of the pollution incident past, I set out to work on the many exciting projects that the Trust had planned. In addition, and when the work programme permitted, I visited the far corners of the Nith catchment and met many people associated with the varied fisheries of the area, including coastal, still waters, ponds and rivers, in a bid to gain a better understanding of those fisheries.

My interactions with the public at the various events that I have attended have been especially enjoyable and enabled me to further promote the Trust and our objectives. It has been encouraging to see the interest of the general public in the

health and status of the aquatic environment in proximity to where they live. Such interest from non fishers inspires me to believe that the aquatic environment is gaining a higher profile and significance with the general public. This will surely assist the Trust in delivering the many planned projects for 2011 and in the future.

A handwritten signature in blue ink, appearing to read 'Debbie Parke'.

Debbie Parke (BSc Hons)  
Biologist  
Nith Catchment Fishery Trust

## Surveys

Nith Catchment Fishery Trust conducts many fisheries surveys over the course of a year. Surveys are conducted for a variety of reasons but all are intended to answer questions, fill knowledge gaps, advise and ultimately guide management decisions. The Trust has conducted surveys during 2010 to:

- Monitor the potential impacts from industrial processes such as surface coal mining. All mines within the catchment are monitored on an annual basis. The presence of fish in watercourses draining mining sites acts as an environmental measure of the aquatic environment.
- Provide baseline data in order that others may make informed decisions on planning proposals and engineering works, prior to works commencing. Post works monitoring can enable an overall assessment of the effectiveness of mitigation and environmental protection measures.
- Establish a database of fisheries statistics which can be used in the event of a catastrophic loss to guide those who seek to re-establish fish populations post the incident.
- Evaluate the worth of hatchery stocking. Annual surveys are conducted on all watercourses within the Fishery Boards stocking programme.
- Determine the ability of fish to be able to navigate over obstructions encountered on their migration routes.
- Detect the presence of non-native invasive species such as the American Signal Crayfish (*Pacifastacus leniusculus*) and the Killer Shrimp (*Dikerogammarus villosus*).



Over the course of 2010 a total number of 204 individual electrofishing sites have been surveyed throughout the River Nith catchment.

## Pollution Incident

During the summer of 2010 an unfortunate incident occurred at the Glenmuckloch surface coal mine near Kirkconnel which resulted in a sludge type material entering the River Nith. The incident raised concerns with anglers, environmentalists, the general public, fishery owners, managers and the mine owners, ATH Resources. ATH reacted immediately, engaging specialised contractors onto the site. Low flow conditions enabled the sludge to be vacuumed from the bed of the River Nith in a bid to minimise its impact.

The Nith District Salmon Fishery Board (NDSFB) engaged the Trust to assist in the investigation of the incident to assess the impacts on the fish communities known to exist in the river near to the mine. A comprehensive electrofishing survey was conducted and that concluded that, whilst the incident had impacted on fish, those impacts were localised. A full settlement was reached and compensation paid to NDSFB to restore the river to its former state.



In addition, at a recent meeting, Alastair Black, Chief Executive of ATH Resources, presented a cheque for £10,000 to Mr Thomas Florey, Chairman of the Nith Catchment Fishery Trust. These funds are intended to support long term improvements throughout the Nith catchment to enhance generic fishery improvements.

## Categorisation of Rivers



The Nith District Salmon Fishery Board has built up an extensive database of electrofishing data which has been gained throughout the Nith catchment over many years. In order for this information to be easily accessible, the Trust is in the process of analysing the Board's historic data and creating a simplified categorisation system, similar to that used by the Water Framework Directive. The categorisation of the data into a green/amber/red system will benefit managers and enable the identification of areas within the catchment that could be improved by the creation of habitat schemes, stocking programmes and other restoration works. For example, a strategy for management within the Nith catchment

could be to initially focus attention on all "lower" categorised tributaries in a bid to alter their status.

## Catch and Release



One of the many initiatives that the Trust uses to promote the conservation of fish stocks is the practice of "Catch and Release". Fishers are becoming more receptive to the idea of catching a fish and then returning it to the river to allow it to continue on its migration and eventually to spawn. At public events and hatchery visits, the contribution that "Catch and Release" can make to the productivity of the river is highlighted and the Trust encourages fishers to participate with the Nith District Salmon Fishery Board's "Return and Reward" scheme. This scheme rewards any fisher that returns a sea trout or spring salmon with

a prize of a specially designed baseball cap/sweater. More information regarding this scheme is available at [www.river-nith.com](http://www.river-nith.com).

## Still Water Census

The NCFT is conducting a freshwater census of all the still waters within the Trust's jurisdiction. This project has received grant funding from the Scottish Government, administered through the Rivers and Fishery Trusts of Scotland organisation. The project is intended to record all species of freshwater fish residing in the many ponds, lochs and reservoirs within the Nith catchment and will stand as a useful record for future fishery management. In addition, this information may be useful in measuring the goals of the European Water Framework Directive



when assessing the status of water bodies.



The Trust gathers information from anglers and land owners in addition to conducting physical surveys by means of seine netting and electrofishing. The process of gaining information on all still waters is time consuming and this project will remain "live" as new lochs/ponds are discovered and information comes to light. If you would like to contribute to this project please email information to [trust@river-nith.com](mailto:trust@river-nith.com)

## Biosecurity

Biosecurity is becoming an increasingly important subject to fishery managers throughout the UK. Invasive Non-Native Species are one of the largest threats posed to biodiversity within the UK and the Nith catchment is no exception. The Nith Catchment Fishery Trust is compiling a comprehensive Biosecurity Plan that identifies all potential and current biosecurity threats to the Nith catchment. This Plan will outline procedures and policies to prevent the entry/introduction of Invasive Non-native Species (INNS), disease and parasites to the catchment, their further spread within the catchment and procedures that can be implemented in a concerted manner to ensure the most effective and efficient use of the resources available to control and eradicate them. The plan would also identify ways in which we can raise the awareness of the threat that INNS pose within the catchment and work with neighbouring catchments to prevent the translocation of INNS between catchments.

### Crayfish Monitoring



American Signal Crayfish (ASC) are a non-native invasive species which are known to be present in some of the neighbouring catchments of the Nith. The potential threat posed by the entry/introduction of American Signal Crayfish into the Nith catchment is of particular concern to the Nith Catchment Fishery Trust. Although there have been no known sightings or recorded catches of ASC in the Nith catchment it is in the interests of all concerned to monitor for the presence of this species so that future management plans can be drawn up relating to their control. The presence of ASC would be detrimental to the health of the Nith catchment as they cause bank instability from the act of burrowing, increasing erosion of the river banks and sediment input to the river. They are also known to predate on fish eggs and fry and compete for space

with juvenile salmon and trout. Sites are selected down catchment of any areas considered high risk and surveyed to enable a catchment wide monitoring program to be put in place. Some of these sites are located in areas of the Nith catchment where vectors such as angling and water sports increase the risk of ASC being introduced accidentally. Crayfish are known to be present half a mile away from the edge of the catchment.

### Killer Shrimp

In 2010 a new threat to our freshwaters was found in a lake in Cambridgeshire - the Killer Shrimp! This shrimp is originally from south-west Europe and is not native to the UK. It is larger than, and predate on our native freshwater shrimp, *Gammarus gammarus*. It does not take long for the Killer Shrimp to become the primary dominant species and seriously disrupt the ecological balance of our native aquatic environments. The Killer Shrimp is spread in ballast water, on people's clothing and equipment i.e. angling equipment, boats, canoes, etc.



### Be Plant Wise



The Trust is taking part in the government led scheme "Be Plant Wise". The aim of this project is to increase the awareness of non-native invasive aquatic plants amongst pond owners. Invasive species of aquatic plants can have significant detrimental effects on local biodiversity and cause imbalances in the native ecosystem if allowed to enter watercourses. Examples of these are: Water Fern (*Azolla filiculoides*) and New Zealand Pigmyweed (*Crassula helmsii*) both of which are sold in garden centres.

## Habitat Enhancement



Enhancing the habitat that fish utilise is widely recognised as one of the most successful management interventions that can promote fish stocks and improve the biodiversity of our watercourses in general. NCFT has taken over the habitat enhancement project formally undertaken by the River Board. The two major projects the Trust has worked on during 2010 have both been specifically intended to benefit sea trout stocks.

Burns in the Sanquhar area have been fenced off and planted with broadleaf species of trees. The Loch Burn, which is a tributary of the Mennock Water, is

important as a nursery habitat and the Crawick Water has long been recognised as the premier sea trout spawning tributary in the Nith system.

These works are long term investments in improving these nursery habitats for sea trout and will result in general biodiversity benefits to the riparian corridor. As an example, the improvement works on the Loch Burn at Brandleys were conducted in consultation with the RSPB, who acknowledged the benefits of these habitat works for Black Grouse conservation.

### Brandleys Habitat Scheme

Following completion of habitat and electro-fishing surveys by Nith DSFB staff, the Loch Burn was identified as one which would benefit from a targeted riparian restoration project as it is accessible to migratory salmonids, in particular sea trout. The riparian habitat was impoverished, with very little draped cover being afforded from the over grazed banks. Electrofishing surveys of the area have shown good densities of fry but poor densities of parr. In total a 7 hectare corridor of riparian zone was fenced off in 2010 and planted with a variety of broadleaf species including birch, alder, gean, rowan, hawthorn, willow and hazel.



### Crawick Habitat Scheme

In 2010 the Nith Catchment Fishery Trust was approached by a farmer who was interested in improving the biodiversity on his farm. His farm neighbours an existing habitat scheme and he was aware that we were keen to see the banks of the Crawick restored and producing more fish. He enquired if we would be interested in assisting in putting in a habitat scheme as an extension to the existing one. The Nith Catchment Fishery Trust was enthusiastic to take up this offer and participate in this joint funded scheme, which will produce value for money for both parties and make an otherwise unaffordable fishery benefit possible.



## Getting the Message Across



D&G Wildlife Festival



Community fair at DG One



Haaf netters visit hatchery

2010 has been a busy year for the NCFT, ensuring that the Trust's aims and objectives have been conveyed to the public at many events. Opportunities to inform and promote the work of the Trust this year have included:

- Angling Club meetings x 3
- Fishing for Knowledge x 3
- School visits x 10
- Hatchery visits x 10
- Environmental Fairs x 3
- Radio Interviews x 2
- Presentations at Seminars and Conferences x 2

These events provide the public with an opportunity to ask questions of the Trust employees, often in the field with hands-on practical demonstrations. The experience and knowledge of interested groups range from nursery school groups to professional wildlife managers and everything in between. It is clear that there is an insatiable thirst for knowledge and information about the River Nith and the biodiversity found within the catchment.



Sanquhar Academy and SSE



Fisheries Awareness Seminar



Allanton Wildlife Festival

The Fishery Trust is always available to give illustrated presentations on its works and the many projects that are undertaken within the River Nith catchment. Organised groups are encouraged to visit the hatchery by appointment. Please contact Debbie Parke on 01387 740 043 or at [trust@river-nith.com](mailto:trust@river-nith.com).

# Research

It is vital that the Trust uses only the most up-to-date information to advise the management of fisheries within the Nith catchment and for that reason it is involved in a number of research projects that are being carried out nationally. These include the two projects detailed below.

## The Celtic Sea Trout Project

In 2010 the Trust assisted in gathering samples and data for The Celtic Sea Trout Project (CSTP). The CSTP was formed in response to concerns regarding the decline in sea trout that has been seen in parts of the UK adjoining the Irish Sea, over the last decade. The aims of the CSTP are:

- To understand and describe sea trout stocks in the Irish Sea and thereby to enhance sea trout fisheries and strengthen their contributions to quality of life, to rural economies and to national biodiversity.
- To explore the use of sea trout life history variation as a tool to detect and understand the effects of climate change.

There are major unanswered questions in the understanding of sea trout, namely:

- where do they go at sea and how are their stocks structured and interlinked?
- what is their marine ecology (feeding, growth, survival and life history variation)?
- what environmental and other pressures are they exposed to?
- how do their life histories (and thus fishery quality) respond to environmental variation?



So we need answers to the questions outlined above.

The samples that the Trust are providing will be analysed by scientists at Bangor University in Wales and any data gained will be fed back to the Nith catchment so that future management strategies can be agreed that will benefit sea trout stocks in the coming decades. Part of this outcome will be provided by genetic analysis.

## Focusing Atlantic Salmon Management on Populations Project (FASMOP)

In order that a greater understanding of Atlantic salmon genetics could be gained, a partnership between Rivers and Fisheries Trusts of Scotland (RAFTS), Marine Scotland and individual Salmon Fishery Boards and Fisheries Trusts was formed to collect and genetically analyse tissue samples taken from salmon throughout Scotland. The aims of the FASMOP project are to:

- Establish the number and spatial boundaries of breeding populations of salmon within any Scottish river system using micro-satellite genetic markers
- Establish the ancestral relationships and functional biological differences between wild salmon stock components across Scottish rivers
- Use information and insights gained to improve local management practice and increase the focus of salmon management on local breeding populations, as these are the fundamental biological units underpinning recruitment in river stocks

To this end the Nith catchment Fishery Trust has been assisting in the provision of samples from over 33 locations throughout the River Nith and its tributaries. It is hoped that once these samples have been analysed, the results will provide a picture of distinct genetic populations of salmon within the Nith and will enable management strategies to be developed that will ensure that the genetic integrity of Atlantic salmon populations within the Nith is maintained.

The following projects

Crayfish Monitoring  
Crawick Habitat Scheme  
Brandley Habitat Scheme  
Categorisation of Rivers  
Biosecurity Plan  
Be Plant Wise  
Still Water Census  
Nith in the Classroom

have received funding from

marinescotland



RAFTS

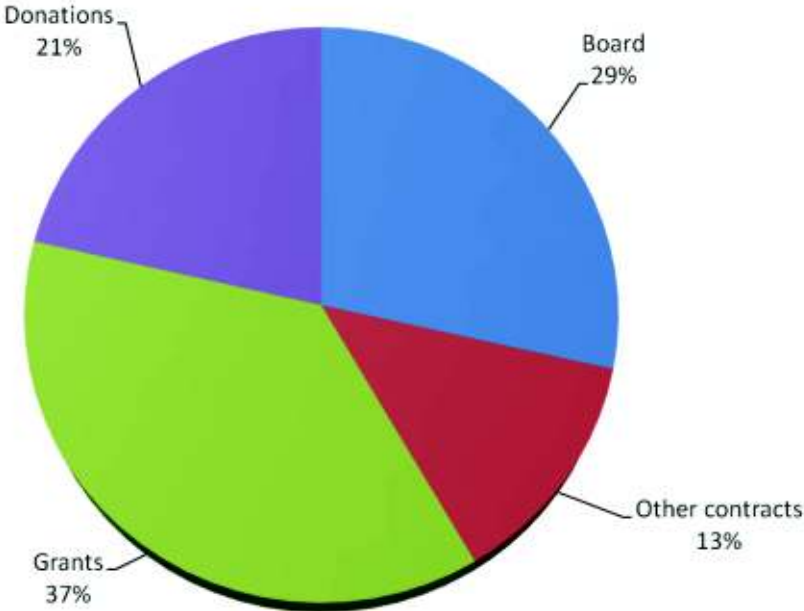


Whitley Animal  
Protection Fund

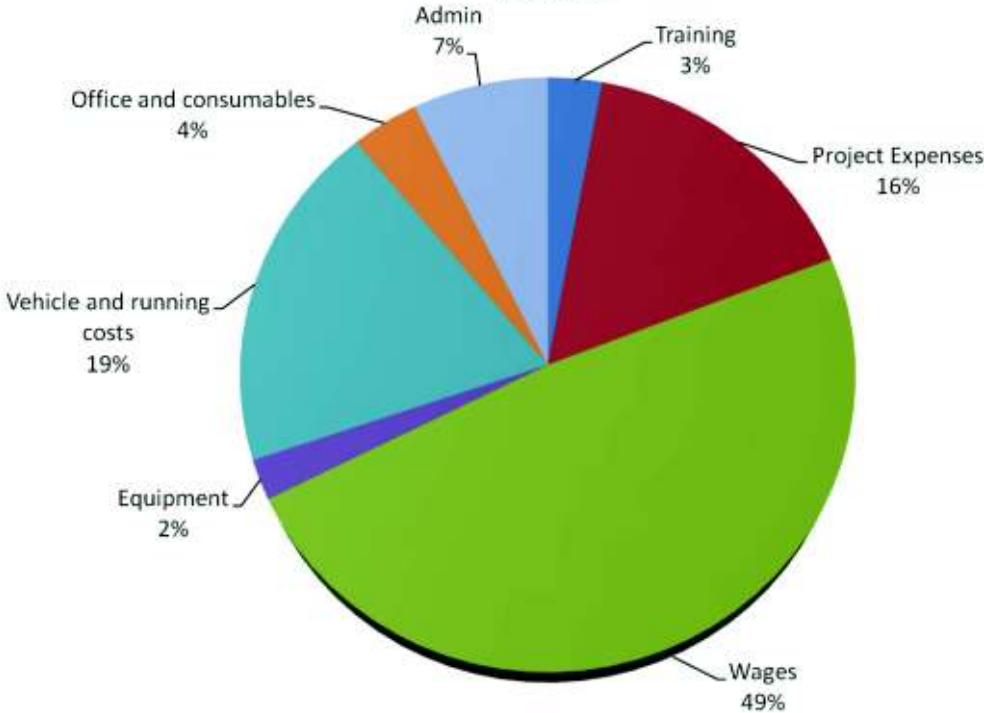


# Nith Catchment Fishery Trust 2010 Accounts

## Income £85,000



## Expenditure £68,000



Expenditure Notes: These accounts are over a 15 month period.

- Vehicle and running costs - includes total purchase cost of the Trust van
- Equipment - includes cost of desktop computer and photographic equipment
- Wages - includes Biologist's and Seasonal Fishery Assistant's salaries



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37 George Street  
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Tel: 01387 740 043  
Email: [trust@river-nith.com](mailto:trust@river-nith.com)  
Website: [www.river-nith.com](http://www.river-nith.com)

## Individual/Family Membership Application Form

Membership of the Nith Catchment Fishery Trust is open to any individual/family that wishes to support the aims and activities of the Trust.

**Title** \_\_\_\_\_

**First name** \_\_\_\_\_

**Last name \*** \_\_\_\_\_

**Address** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Postcode** \_\_\_\_\_

**Phone number** \_\_\_\_\_

**Mobile number** \_\_\_\_\_

**Email address** \_\_\_\_\_

**Names of other Family members**

1) \_\_\_\_\_

2) \_\_\_\_\_

3) \_\_\_\_\_

4) \_\_\_\_\_

I agree to support the aims and activities of the Nith Catchment Fishery Trust. I have read and understand the Memorandum of Association and the Articles of Association of the Nith Catchment Fishery Trust. These documents are available online at [www.river-nith.com](http://www.river-nith.com) and go to "How to be involved".

**Applicant's Signature \***

**Date**

\_\_\_\_\_

\_\_\_\_\_

Please send the completed form to:

Nith Catchment Fishery Trust

37 George Street

Dumfries

DG1 1EB

or email to [trust@river-nith.com](mailto:trust@river-nith.com)

\* Please note that only the primary individual applying for a family membership (named at the top of the form) will be able to vote at a Trust AGM.

# Win a Day Away Electrofishing with the Trust

The Trust competition is open to applicants of all ages and will be run on an annual basis. The winner will be invited to join the Trust staff for a day of electrofishing surveying within the Nith catchment during the summer of 2011. Correct entries will be entered into a prize draw and the winner will be chosen at random on 30th May 2011.

Simply answer the following 4 questions and send the answers with your contact details to: [trust@river-nith.com](mailto:trust@river-nith.com), or post to NCFT, 37 George Street, Dumfries, DG1 1EB

1) What species is this fish?



2) What is this invertebrate?



3) Where in the Nith catchment was this picture taken?



4) How many bridges (including foot bridges) cross the mainstem River Nith from source to mouth?



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