ANNUAL REPORT

COMBINED ANNUAL REPORT OF THE
NITH DISTRICT SALMON FISHERY BOARD
AND THE NITH CATCHMENT FISHERY TRUST

2024

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board@river-nith.com trust@river-nith.com www.river-nith.com

The **Nith District Salmon Fishery Board (NDSFB)** is constituted under the Salmon Fisheries Legislation commencing in the 1860s as subsequently amended and presently stated in the Salmon and Freshwater Fisheries (Consolidation) (Scotland) Act 2003 as amended. The Nith Board is empowered under fisheries legislation to do such Acts as it considers expedient for the protection, enhancement and conservation of stocks of salmon and sea trout and the general protection and enhancement of the fishery itself.

The Nith Board's principal objectives are therefore to preserve, protect and enhance stocks of migratory salmonids in the Nith catchment and to preserve, protect and enhance the fishery. Its principal areas of jurisdiction comprise the principal River System of the River Nith and all its tributaries including parts of the Solway Firth.

The Board financial year runs from 1st December to 30th November in any given year. Triennial elections were held on 26th April 2024.

The Nith Board for the year comprised: -

Chairman	Mr Percy Weatherall (PW)	Cowhill Estate
Lower Proprietors	Mr Robbie Cowan (RCo)/Mrs Anna Austin (AA)	Caerlaverock Estate
	Mr Ivor Hyslop (IH)	Dumfries and Galloway Council
	Mr Tom Brown (TB)	Drumburn Estate
Upper Proprietors	Mr Peter Landale (PL)	Dalswinton Estate
	Mr James Hunter-Paterson (JHP)	Barjarg
	Mr Nick Wright (NW)	Closeburn Castle Fishing
	Ms Anna Fergusson (AF)	Buccleuch Estates Limited
	Mr David Kempsell (DK)	D & G Angling Association
	Mr Richard Gladwin (RG)	Blackwood Estate
	Mr Mike Keggans (MK)	Upper Nithsdale Angling Association
	Mr Matthew Law (ML)	Portrack Estate
Upper Co-optees	Mr Thomas Florey (TF)	Angling Representative
	Mr Raymond Mundle (RM)	Angling Representative
Lower Co-optees	Mr Ronnie Clark (RCl)	Netting Representative

Invitees

In addition to the elected Chairman, lower proprietors and upper proprietors, the Nith Board has invited representatives from the Scottish Environmental Agency (SEPA) and NatureScot however in recent years SEPA and NatureScot no longer have officer time available to fulfil these invitations.

Staff

Mr Roderick Styles – Clerk
Mr Jim Henderson – Fishery Director
Mr David McMichael – Water Bailiff
Miss Shalom Oyenekan – Fishery Biologist (Jan - June)
Miss Morag Maguire – Fishery Biologist (June – Dec)

The Nith Board met on: -

18th January 2024 – Board meeting.
26th April 2024 – Annual Qualified Proprietors Meeting and Triennial Election followed by Board meeting.
6th August 2024 – Annual Public Meeting followed by Board meeting.
25th October 2024 – Board meeting.

Board members attendance at Board meetings

Dates	PW	RCo	AA	IH	PH	TB		PL		NW	AF	DK	RG	TF	RM	JHP	RCl	ML	MK	*% attendance*
18/01/24	✓	✓		✓		✓		✓		✓	✓	✓		✓	✓					*83%*
26/04/24	✓	✓		✓		✓		✓		✓	✓	✓	✓	✓	✓					*83%*
06/08/24	✓		✓	✓		✓		✓				✓		✓	✓	✓		✓	✓	*73%*
25/10/24	✓										✓	✓	✓	✓	✓		✓	✓	✓	*60%*

Minutes from these meetings can be found on the Board website - [NDSFB meeting agendas (river-nith.com)]

Complaints

There were no complaints received during year 1st December 2023 to 30th November 2024.

The **Nith Catchment Fishery Trust (NCFT)** is a Scottish Registered Charity and Company Limited by Guarantee which was formed in 2009 to conserve and enhance all native freshwater fish and their habitats located within the inland and coastal waters of the River Nith catchment within the jurisdiction of the Nith District Salmon Fishery Boad. The Trust works closely with the Nith District Salmon Fishery Board to conserve freshwater fish and their habitats. Part of the Trust's remit is to educate and increase awareness of the aquatic environment.

The aims of the Nith Catchment Fishery Trust 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.

The Trust financial year runs from 1st January to 31st December in any given year.

Trust Directors
Mr Percy Weatherall (PW) – Chairman
Mr Jim Henderson (JH)
Mr Peter Hutchison (PH) - retired 25.04.24
Miss Faye McCormick (FM) – retired 25.04.24
Mr Gordon Kerr (GK)
Mr Kevin Corder (KC)
Miss Freja Grant (FG)
Mr Thomas Florey (TF)
Mr Robert Schiller (RS)
Mr Finlay Thomson (FT) – appointed 25.04.24

Staff
Ms Debbie Parke - Operations Manager/Biologist

The Trust Directors met on: -
17th January 2024 – Trustee meeting (not quorate so cancelled)
25th April 2024 – Annual General Meeting followed by Trustee meeting.
5th August 2024 – Trustee meeting.
24th October 2024 – Trustee meeting.

Trustee attendance:

Dates	PW	JH	PH	FM	GK	KC	FG	TF	DK	RS	FT	*% attendance*
17/01/24	Meeting cancelled											-
25/04/24	✓	✓		✓	✓	✓		✓	✓		✓	*80%*
05/08/24	✓	✓			✓		✓	✓	✓			*67%*
24/10/24	✓	✓			✓	✓	✓	✓	✓			*78%*

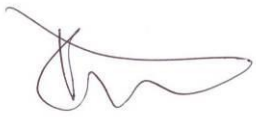
Chairman's Foreword

I was heartened to see such a good attendance at the opening ceremony to welcome in the new salmon fishing season, which was held at the Boatford Beat, Thornhill. Despite the poor catch returns of 2023, optimism remains within our fishing fraternity on the Nith. As the year progressed with the many spates that endured, the word that I heard from the riverbank was positive with many saying that there were a few more fish about this year. These comments were endorsed by our fishery staff and borne out by the increased catches recorded by proprietors. The adage of "one swallow does not make a summer" applies but optimism is certainly in order.

Our staff have been very busy over the proceeding years engaged in habitat enhancement projects. These projects involve fencing off the riverbanks of spawning tributaries to deny access to agricultural stock, then planting the riverbanks with native species of trees. The trees eventually cast shade over the spawning tributaries ensuring that water temperatures remain acceptable for juvenile salmon to survive. The tree roots stabilise the riverbanks and the leaf litter results in a greater number of invertebrates in the river for fish to eat. Our young fish are afforded protection from predation from other species. The planting of native broad-leafed species of trees in upland areas of our catchment must be viewed as a long-term project but one worthy of pursuit. This is an ethos that I follow and the river habitat that future generations inherit from us will still be capable of sustaining salmon and sea trout.

During these times of decreased catches, increased conservation, and fewer anglers on the banks of all rivers, financing fishery management is challenging. Arguably there is a greater requirement to input more investment into the river but challenging in the face of decreased financial returns from fishing. At Fishery Board meetings throughout the year this is often the topic of discussion, and I can assure you all that your Board and Trust do all within their ability to keep costs at an acceptable level whilst still delivering all that we can to protect the salmon and sea trout stocks in our rivers.

Tight lines to all who fish the Nith in 2025



E.P.K. Weatherall
Chairman

Fishery Directors report

The commencement of 2024 salmon fishing season on the River Nith was celebrated by the Board hosting an opening event at the Boatford Beat near Thornhill. We were blessed with dry, bright sunny weather and sunglasses were the order of the day. Attendees were treated to the skirl of the pipes by piper Sandy Dunlop prior to an address by Mr Percy Weatherall, Chairman of the Nith District Salmon Fishery Board, who highlighted some of the management priorities of the Board. Local MSP Colin Smyth offered a toast of whisky to the salmon and tight lines to the anglers for the season ahead. Roderick Styles then took the first cast to the applause of all present. These ceremonies are important in bringing together the river community to mark the start of the new fishing season, all with high hopes and anticipation.

As the year moved on into the mid-summer months it became apparent to us who work in the management of salmon on the river that a good run of salmon was entering the river system. Fish were evident in the lower sections coming in from the sea and building up in the Burgh water. Thankfully, rainfall came and lifted the river allowing these fish to migrate upstream and anglers started to record catches in the upper beats. We are far from the heady days of the late 1980s/ 1990s but the numbers of salmon in the river during 2024 were encouraging. We did have an increased number of salmon recorded on the proprietor catch returns for 2024, here's hoping that this results in more anglers on the river in 2025.

In management terms, during 2024 our team focused on the task of delivering commitments to funders of habitat improvement projects. We received funding from Extreme E to extend the original habitat scheme on the Crawick Water. This increased investment doubled the area of habitat enhancement on this important tributary. We were very fortunate to gain support from Scottish Power Energy Networks (SPEN) to conduct additional habitat works on the Crawick Water. This support from SPEN enables them to fulfil their commitment to ensure their Biodiversity Net Gain BNG targets are achieved in the area where their infrastructure developments are occurring.

2024 was the busiest year that I have experienced to date with renewable energy projects and other construction activities throughout the River Nith catchment. Our Board and Trust staff work on all these developments to ensure that they are conducted to best practise, are compliant with fishery legislation and are "fish friendly." This work dovetails in with conducting smolt trapping, electrofishing and aquatic invertebrate surveys, invasive species control, staff training, fishery enforcement, running the Fishing For the Future project and the Nith Young Anglers project and dealing with all general inquiries from the public and fishery proprietors.

All of the above is delivered in addition to the everyday work of running two fishery management organisations which includes governance of both Board and Trust and the associated administration of the organisations. We are busy to say the least and all achievements are only made possible by the efforts of our staff.

Jim Henderson
Fishery Director

Contents

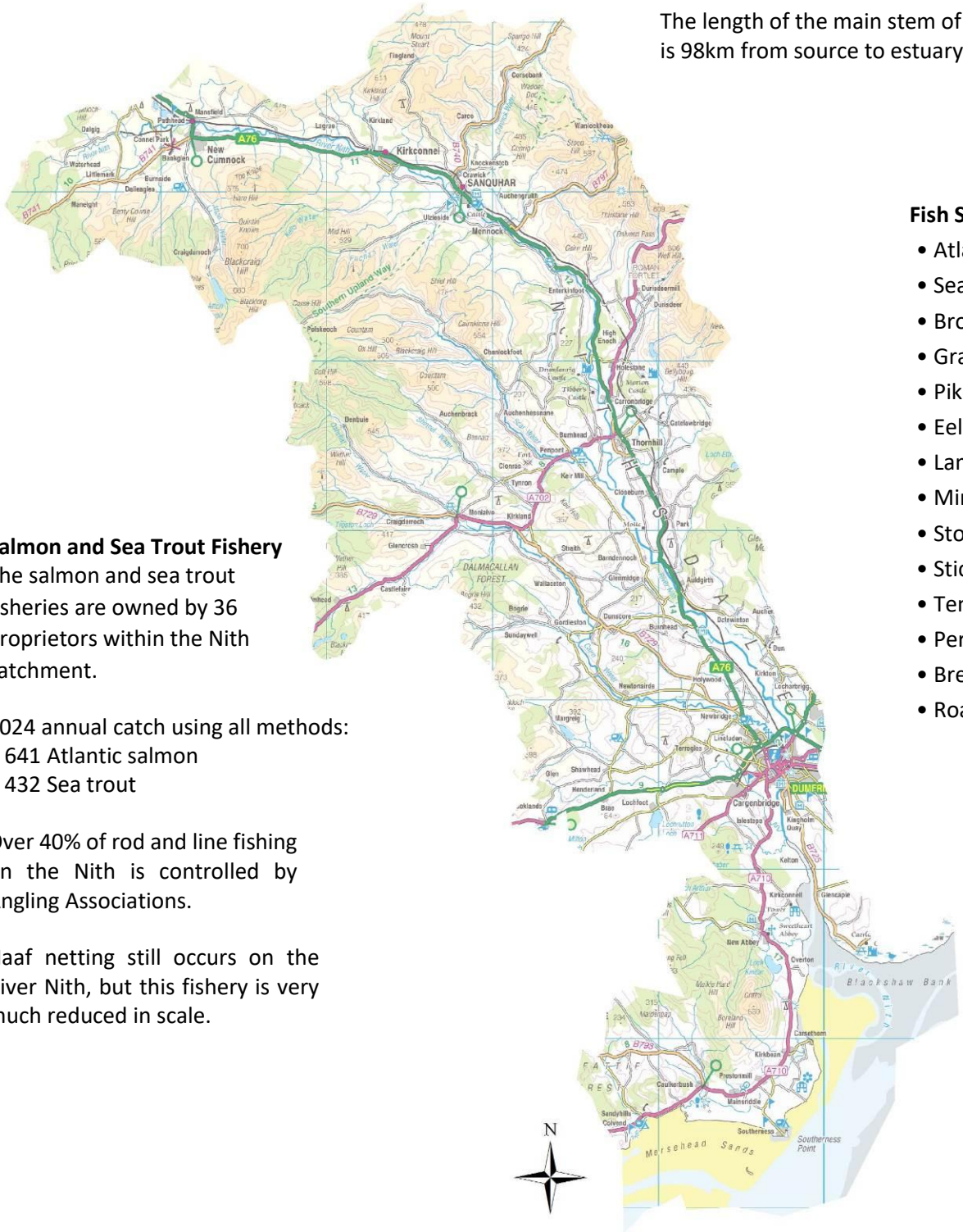
Cover photo: Crawick Water Riparian Woodland project

THE RIVER NITH CATCHMENT

Vital Statistics

The total catchment area is 1596km^2 which includes the main stem River Nith, its tributaries, coastal burns and connected still waters.

The length of the main stem of the River Nith is 98km from source to estuary.



Fish Species Present

- Atlantic salmon
- Sea trout
- Brown trout
- Grayling
- Pike
- Eel
- Lamprey
- Minnow
- Stone loach
- Stickleback
- Tench
- Perch
- Bream
- Roach

Salmon and Sea Trout Fishery

The salmon and sea trout fisheries are owned by 36 proprietors within the Nith catchment.

2024 annual catch using all methods:

- 641 Atlantic salmon
- 432 Sea trout

Over 40% of rod and line fishing on the Nith is controlled by Angling Associations.

Haaf netting still occurs on the River Nith, but this fishery is very much reduced in scale.

Other Fisheries

The Nith also has healthy brown trout and grayling fisheries which are owned by landowners throughout the catchment. There are also a number of still water trout and coarse fisheries within the catchment. Sea fishing is popular at the quay at Glencaple and off the coast.

FISHERIES MANAGEMENT PLAN 2023 - 2028

The Board and Trust have been working on a new Fisheries Management Plan to cover the period 2023 - 2028. The production of this plan is supported by the Scottish Government and forms one of the many fisheries management plans which cover most of Scotland. The plan lists historic actions and management of salmon and sea trout within the Nith catchment. In addition, the plan outlines the current status of our fish stocks and the planned actions which we intend embarking on to protect and enhance those stocks.

Unlike previous plans this plan is web based and designed to adapt to change and will enable us to review the outcomes of our work on an annual basis. The plan can be seen here - Scotland's Fishery Management Plans (arcgis.com).

Proposed Management Actions

Action 1 - Climate Change and Habitat Degradation
The River Nith Fisheries Team are working towards making our rivers more resilient to changes in the climate and to tackle the biodiversity crisis. This includes actions such as planting native trees along the riparian zones of rivers to help shade the water and stabilise banks and restoring natural functions to many of the watercourses within the Nith catchment.

Action 2 - Illegal Exploitation
NDSFB will maintain a qualified team of water bailiffs that enforces Scottish fisheries legislation throughout the Nith catchment to ensure that stocks of Atlantic salmon and sea trout are not illegally exploited. We will continue to react to all incidents of breaches of fisheries legislation.

Action 3 - Scientific research and monitoring
The Board and Trust will continue to conduct monitoring of aquatic species of flora and fauna throughout the Nith catchment and use this as a means of measuring the health of our watercourses. We will participate in national surveys and projects to improve our knowledge and in the furtherance of management of salmon and sea trout.

Action 4 - Water quality and quantity
As part of our monitoring throughout the catchment, we will continue to monitor and extend our ability to detect influences which may impact adversely on aquatic species. This work will be conducted to assist the regulatory body (SEPA) to monitor the watercourses within the Nith catchment.

Action 5 - Invasive Non-native Species
The Board and Trust recognise the importance of preventing the influx of invasive non-native species (INNS) into the catchment and apply the ethos of “prevention is better than cure.” The Board and Trust will offer advice on preventative measures to avoid the spread of non-native species and within our capabilities, treat INNS when possible.

Action 6 - Predation
Wherever salmon are present, either in the marine environment or in the freshwater, predators exist to feed on them. During these times of salmon in crisis it is very important to ensure that any predation is kept to a level which does not put the future existence of salmon in jeopardy. Nith District Salmon Fishery Board apply for licences from the Scottish Government to enable them to take actions against certain species that would otherwise be illegal.

Action 7 - Raising awareness and education
Raising awareness of environmental issues surrounding aquatic environments and techniques used to restore watercourses to a more natural, sustainable state, is an important aspect of the work of the Board and the Trust.

Action 8 - Barriers to fish passage

Access to spawning areas is of paramount importance for salmon and sea trout to complete their life cycle successfully. There are few obstructions to fish passage in the Nith catchment and those that exist are largely natural waterfalls. The Board and Trust is currently working to remove known man-made barriers.

Action 9 - Stocking

The Board recognises the contribution that hatchery produced stock can contribute to fisheries management, in appropriate circumstances. The Board will continue to operate its hatchery facilities to best practice and in accordance with licence conditions.

Action 10 - Disease and Fish Health

Disease can have a severe impact on fish stocks if undiscovered/diagnosed. Nith Catchment Fishery Trust and Board react to any reported incidents of unexplained fish deaths, often reported by anglers. Promotion and use of the reporting apps developed by Fisheries Management Scotland assists in gaining a national awareness of any potential outbreaks.

Action 11 - Developments

Development such as road, rail, public utilities, forestry, local authority projects, renewable energy projects and their associated infrastructure has the potential to impact negatively on the aquatic environment and the species that reside within. The Board and Trust will work to advise development plans and proposals throughout the catchment which could potentially impact on the water environment.

Action 12 - Lobbying

The Board and Trust recognise the importance of lobbying political support for our fisheries management work and to ensure that the water environment and fisheries issues are held high on the political agenda. Accordingly, political leaders and representatives on a national and local level will be invited to attend appropriate events to maintain an awareness of issues

Electrofishing team sampling the Scaur Water

Conservation Regulations 2024

All Scottish salmon rivers are now assigned a Conservation Categorisation grading from 1 to 3. The definition of these Categorisations is provided in the box below. The River Nith was assigned a category 3 status for 2024 which means that all salmon must be released.

Category (Grade) 1	At least an 80% mean probability of conservation limits (CL) being met in the last 5 years. Exploitation is sustainable and therefore no additional management action is currently required.
Category (Grade) 2	60-80% mean probability of CL being met in the last 5 years. Management action is necessary to reduce exploitation; mandatory catch and release will not be required in the first instance, but this will be reviewed annually. Where a Board does not exist, assistance in plan formulation will be offered to those responsible for local management.
Category (Grade) 3	Less than 60% mean probability of CL being met in the last 5 years. Exploitation is unsustainable and mandatory catch and release (all methods) for 1 year will be required. Management action is necessary to reduce exploitation.

NITH DISTRICT SALMON FISHERY BOARD CONSERVATION POLICY
Conservation Category 3 - No Salmon to be Killed

Statutory Regulations

Fishing seasons

Rod and Line	25th February - 30th November
Net	25th February – 9th September

- No fishing for salmon or sea trout on Sundays by rod and line
- No fishing for salmon or sea trout from 6pm Friday to 6am Monday by net
- No salmon to be killed within the Nith catchment.

It is illegal to:

- Deliberately attempt to foul hook fish or to take fish which have been foul hooked i.e. those not hooked in the mouth.
- Kill kelts, smolts or parr.
- Take unclean or unseasonable fish being baggots, highly coloured, black or red fish and fish about to or in the process of spawning.
- Sell salmon or sea trout which have been caught with rod & line.
- Use natural shrimps or prawns on any part of the river upstream of the Kingholm Gates at the bottom end (tidal area) of the Dumfries Town Fishings.
- Fish for any fish without written permission (or permit) from the beat's owner or his representative.
- Fish with any form of salmon roe.
- Fish with a "fixed line."
- Use gaffs, tailers or knotted mesh nets.

All fish caught must be recorded with the beat proprietor with the exception of:

1. Kelts, i.e. fish that have spawned.
2. During spring only, sexually mature fish that have not yet spawned.

Breach of any of the above could lead to criminal prosecution, seizure of fishing equipment and vehicles.

Nith Voluntary Regulations

The Board notes the existing voluntary catch and release practices for sea trout on many beats throughout the Nith catchment.

The Board recommends that if sea trout are to be taken, the following guidance should be adhered to.

- All sea trout under 10" and over 3 lb must be returned.
- Sea trout retained should be limited to no more than 1 Sea Trout in any day.
- Barbless hooks be used when the intention is to Catch & Release.
- Foul hooked fish i.e. those not hooked in the mouth, must be returned to water.
- Ripe or darkly coloured fish should be returned to the water. If in doubt, RETURN it!
- Fish being returned to the water should not be handled by the tail or gills and should be released as quickly as possible. Remove the hook with forceps and return the fish facing upstream and gently support it until it swims away.
- Fish being retained should be killed as quickly as possible using a priest or appropriate instrument.

General Rules

- Respect boundaries between adjoining beats.
- Anglers must show permits, tackle and catch to Bailiffs, Police Officers or other anglers if requested.
- Anglers under 12 years of age should be accompanied by an adult when fishing.

Methods & Equipment

Do not use sweep nets, ground bait or rod rests.
Do not fish from trees, bridges, etc. or use assistance from anyone in such a position.
The maximum permitted line breaking strain for all types of fishing should be 15lbs.

Spinning and Bait fishing

Bait/spinner must be kept moving through the water at all times.
The maximum permitted hook size for bait fishing will be No 4.

Fly Fishing

Fly hooks or tubes should be properly dressed with a coloured body and a reasonable quantity of hair/fur/feather in proportion to the hook size.
Anglers should not use weights or lead-core lines of any kind when fishing with the fly.
No retrieve, other than slow hand-lining should be made until the cast has been fished out.

General Conduct

Always fish in a sporting manner.
Give consideration to anglers on the opposite bank.
Fish down through pools in rotation, taking at least one full step between casts.
Avoid unnecessary wading or any avoidable disturbance to the water.
Always respect the environment, wildlife, other anglers and members of the public.
Do not park vehicles so that they obstruct gateways or cause a hazard on the roadway.
Remove waste nylon and personal litter from the river banks and parking places.
Follow the Country Code. Always respect farm animals and crops.
Do not light fires or allow dogs to roam free.
Always be conscious of and alert to hazards and look after your own safety and the safety of other anglers.

Report strange goings-on immediately to:
River Enforcement Staff - 07785 743663
Police – 101

Catch and Release Guidelines can be found on the River Nith website www.river-nith.com/conservation-policy

STOCK ASSESSMENT

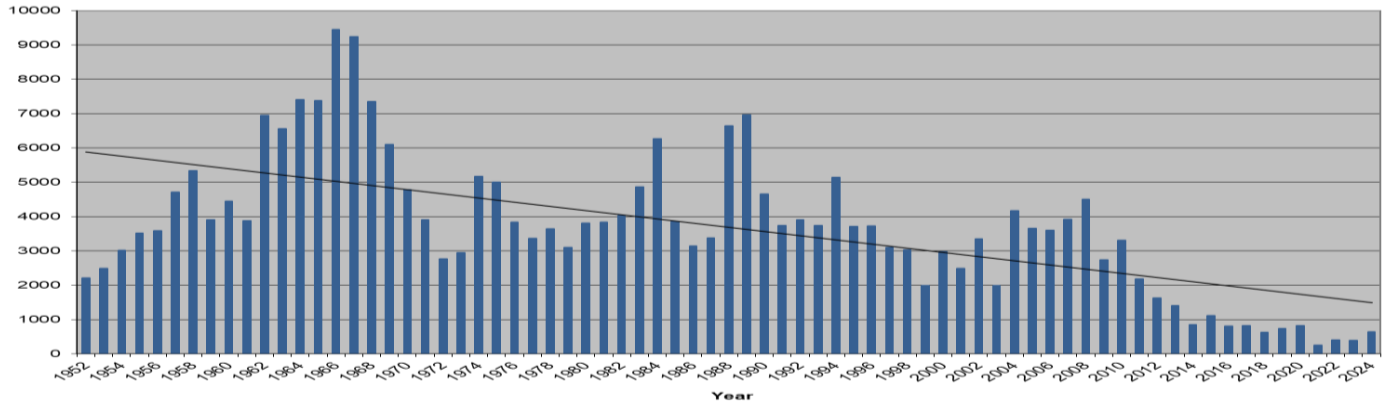
Salmon and Sea trout catch data for 2024

The catch returns made by salmon fishing proprietors on the River Nith showed an 88% increase in the number of salmon caught across the entire river during 2024 with 605 salmon and grilse being recorded. The run of salmon was certainly the best observed for several years. However, the overall number of anglers out on the river was still reduced, despite the improved runs of salmon being reported.

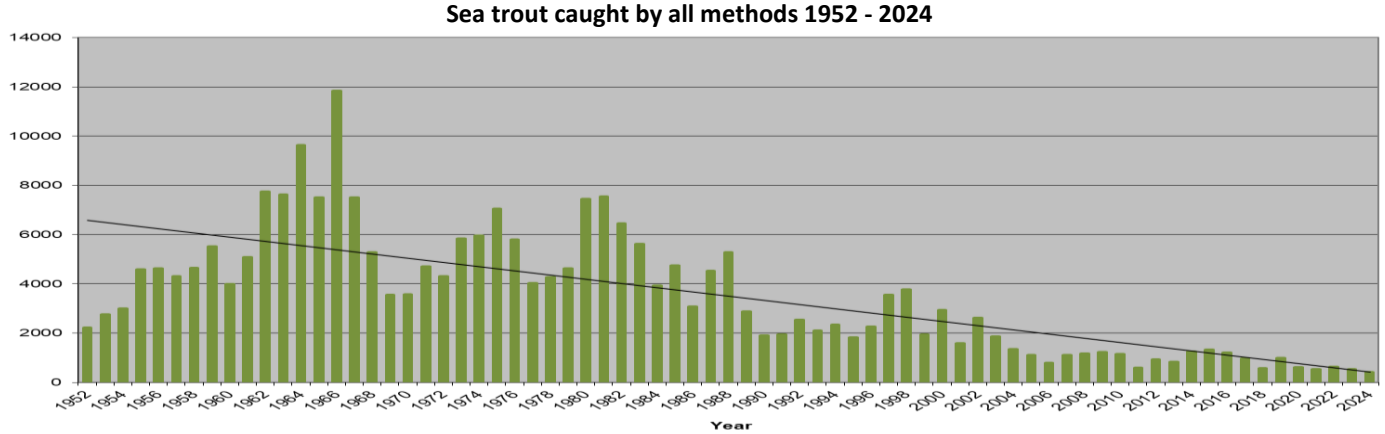
The number of sea trout catches reported during 2024 was down on 2023's catch returns. This shows a continuing downward trend in the number of adult sea trout returning to the Nith. However, without a fish counter to verify the actual numbers of salmon and sea trout returning to the Nith, it is difficult to gain an accurate picture of fish stocks. Angler returns are notoriously unreliable with many anglers not putting in a return or not declaring all the fish caught. Unfortunately, this has the undesirable consequence of keeping the Nith as a Category 3 river as the Scottish Government's categorisation model is based on the reported catch returns.

	Salmon and Grilse				Sea trout and Herling			
Year	Rods (C&R%)	Nets (C&R%)	Total	5 year average	Rods (C&R%)	Nets (C&R%)	Total	5 year average
2015	702 (63%)	417 (0.5%)	1119	1438	1063 (80%)	283 (4%)	1346	998
2016	655 (100%)	163 (100%)	818	1166	866 (78%)	348 (40%)	1214	1119
2017	695 (89%)	133 (70%)	828	1004	768 (83%)	214 (12%)	982	1127
2018	520 (91%)	110 (54%)	630	849	479 (78%)	111 (26%)	590	1077
2019	586 (93%)	158 (73%)	744	828	845 (83%)	157 (31%)	1002	1027
2020	764 (100%)	63 (100%)	827	769	557 (81%)	68 (40%)	625	883
2021	181 (100%)	71 (100%)	252	656	418 (89%)	125 (36%)	543	748
2022	365 (100%)	49 (100%)	414	573	523 (92%)	112 (27%)	635	679
2023	331 (100%)	58 (100%)	389	525	457 (85%)	95 (24%)	552	671
2024	605 (100%)	36 (100%)	641	505	397 (93%)	35 (34%)	432	557

Salmon caught by all methods 1952 - 2024



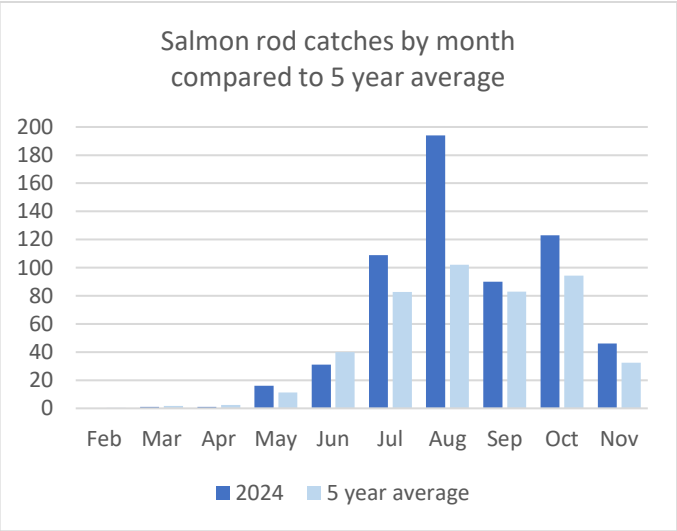
Sea trout caught by all methods 1952 - 2024

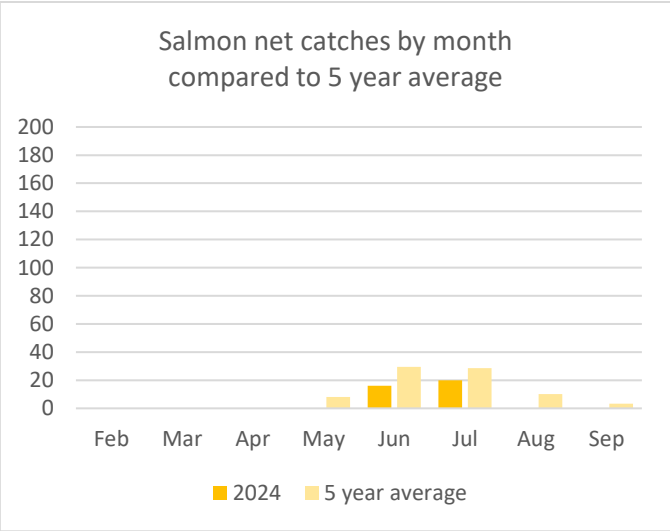


STOCK ASSESSMENT

Salmon and grilse catches in 2024

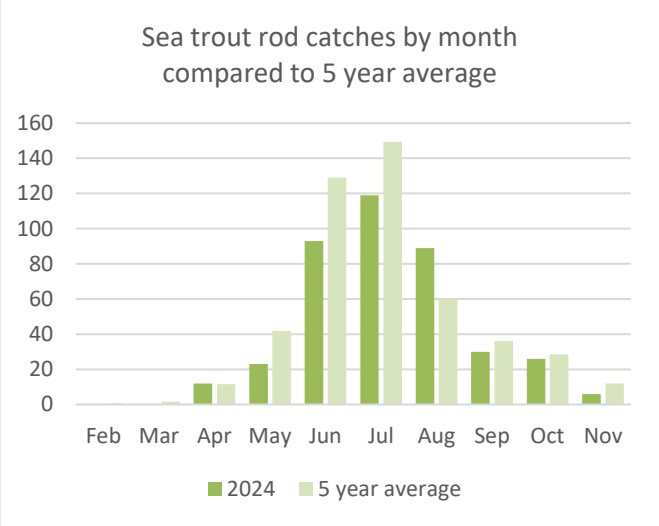
The River Nith was a category 3 river in 2024 which dictated that it was 100% catch and release for salmon and grilse. The highest numbers of salmon were caught in August with 194 salmon and grilse being caught by rod and line. This is nearly twice the 5-year average. There was in increase in the number of salmon caught in October compared to recent years. Below average number of salmon were caught by the haaf nets. This can perhaps be explained by the many spate episodes which were experience during 2024.

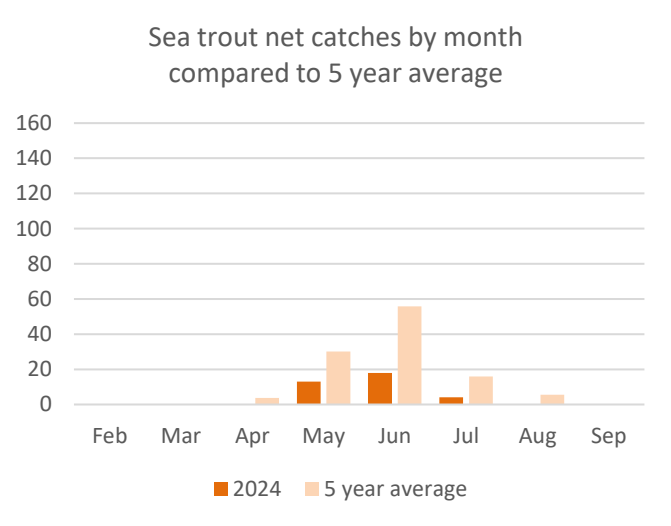




Sea trout catches in 2024

Sea trout catches by rod and line in 2024 followed the 5-year trend with the peak months for sea trout being June, July and August. Rod catches in August were above the 5-year average but overall, the number of sea trout caught were reduced and fell below the 5-year average.





First spring salmon of 2024 caught by Nicholas McCrossan on DGAA

ACTION 1 – CLIMATE CHANGE AND HABITAT RESTORATION

Why is riparian habitat so important to Atlantic salmon?

Atlantic salmon are now classified as "Endangered" after a decline in their global populations over the last couple of decades. Climate change is making weather patterns more unpredictable with increased frequency and severity of droughts and flood episodes. This puts Atlantic salmon under increasing pressure whilst they are in the freshwater environment.

Nith Fisheries staff have noted that water temperatures are increasing, with temperatures of 20-23°C frequently being recorded during the summer months. Water temperatures over 23°C result in juvenile Atlantic salmon becoming stressed, which lowers their immune system and increases mortality rates. Unfortunately, many of our riverbanks are no longer tree lined and this is contributing to the issue. The establishment of riparian woodlands along our riverbanks is a priority to assist in the long-term survival of Atlantic salmon and trout in the Nith catchment.

Riparian woodlands are crucial to Atlantic salmon as they help with the following:

Water Quality: Riparian vegetation, such as trees and shrubs, helps filter pollutants and sediments from runoff before they enter the water. This maintains the clean, cold, and oxygen-rich water that salmon need to thrive.

Shade and Temperature Regulation: Trees and plants along the banks provide shade, which regulates water temperature. Atlantic salmon are particularly sensitive to temperature changes; cooler waters are essential for their development and survival.

Food Sources: Riparian habitats contribute to the aquatic food web by providing organic material like leaves and insects that fall into the water. These become food for the aquatic invertebrates that salmon eat, creating a healthy ecosystem.

Shelter and Protection: Overhanging vegetation, submerged roots, and woody debris provide salmon with shelter from predators and strong currents, as well as resting areas during their migrations.

Spawning Grounds: Riparian zones support the health of the gravel beds where salmon lay their eggs. The roots of riparian vegetation stabilize stream banks and reduce erosion, preventing fine sediments from smothering salmon eggs.

Flood Regulation: These habitats act as natural sponges during high-water events, slowing down floodwaters and preventing sudden changes in flow that could wash away salmon eggs or disrupt their habitats.

We are committed to creating new riparian woodlands in a bid to provide a resilient habitat for our salmon to survive and hopefully, thrive in and to generally improve aquatic ecosystems in the Nith catchment. However, the creation of riparian woodlands can be very expensive due to the long, thin nature of the schemes and the risk of damage from flooding. Over the last couple of years, we have attracted funding from private organisations that would like to contribute to improving biodiversity and leave a legacy for future generations.

ACTION 1 – CLIMATE CHANGE AND HABITAT RESTORATION

Habitat woodland Creation on the Crawick Water

The Crawick Water has historically been one of the best salmon spawning tributaries in the Nith catchment due to ease of access, excellent spawning and nursery substrates. The lower Crawick Water is heavily treelined by ancient deciduous woodlands. However, these woodlands grow sparser as you go up the river, until there are no trees in the upper part of the tributary. Ash die-back disease has also taken a toll. In the past, small habitat schemes have been undertaken on this tributary, as and when funds have been available. However, in the last two years, funding has been gained to enable large scale habitat creation to be undertaken. The following schemes, funded by Extreme E, has meant that a total of 5.2 hectares of riparian woodland has been created along a 2km section of the Crawick Water, with over 20,000 native broadleaf trees being planted.

Extreme E Legacy Projects at Corsebank and Spango

Extreme E (XE) is an electric rally car racing series, and they raced in the Nith catchment during 2024 for the second year running. Whilst racing in the Nith catchment in the former opencast coal mine at Glenmuckloch in 2023, the management of Extreme E selected the Nith Board and Trust to deliver an environmental project for their legacy program. The legacy program is intended to raise the profile of environmental issues in the countries where the global, off-road racing series, has chosen to race. During 2024, Nith fisheries managers decided to extend the riparian habitat scheme on the Crawick Water that had commenced during 2023 with XE's support. The 2024 extension of the Crawick riparian scheme has resulted in the entire length of the Crawick Water being fenced off from agricultural stock and planted with deciduous hardwood species of trees.

It is worth reiterating the value of investing in riparian habitat works throughout river catchments. In fishery terms, improving riparian habitat provides shade thus cooling increasingly hotter tributaries. Tree roots stabilise riverbanks and provide safety for parr aged fish. Trees also promote aquatic invertebrate populations by providing leaf litter detritus in the watercourse. Terrestrial invertebrates fall from the trees, also providing food for fish. Beyond the specific fishery improvements riparian habitat schemes deliver, there are general biodiversity benefits. Riparian buffer strips perform a natural filtration system for any potential polluting substances entering the watercourse.

In addition to providing support to Nith fisheries management XE, with their global media audience estimated to be more than 50 million viewers, helps to raise the global awareness of the plight of Atlantic salmon, the IUCN now classify Atlantic salmon as endangered in Britain. The Nith has built a close, long-term working relationship with the team from XE and hope to collaborate with them on future environmental projects.

You can view a video showing all the work done as part of Extreme E's Hydro Legacy project on the River Nith. Follow this links to view it on YouTube - https://youtu.be/3hxmlTQ4XeE?si=SxyBtU2HAkhU9-C3

Left to right: Drivers from Extreme E taking part in an electrofishing demonstration on the Spango Habitat Scheme; Kevin Hansen, driver for Veloce, planting trees with pupils from Kelloholm Primary school.

ACTION 2 - ILLEGAL EXPLOITATION

Enforcement

Our staff are qualified fishery enforcement officers with a knowledge of the law relating to salmon and sea trout. Whilst the term enforcement initially conjures up thoughts of combating the stereotypical *"poacher,"* thankfully the occurrence of this criminal activity is not as prevalent in the Nith catchment today. With their knowledge of the law our staff can advise construction industry on how they can conduct their work and still be compliant with the current legislation.

Open cut on the Polmath Burn

Our enforcement team advise on riverbank repairs, pipe installation, road construction, bridge repairs and culvert installation to name some examples. That advise can include the appropriate time of the year to conduct the work thus avoiding adverse impacts on fish. Advice on the method to be employed during the works and any suggested improvements that can be made to assist the populations of salmon and sea trout are offered. Whilst we are operating in an enforcement role, we strive to work with industry to achieve the very best for the Nith catchment and its stocks of fish, which ever species they are.

ACTION 3 - SCIENTIFIC RESEARCH AND MONITORING

Environmental DNA and what it can tell us about the Nith

Scientific advances provide us with a mechanism for determining which species are present within a given watercourse. We are using Environmental DNA (eDNA) testing which detects particles of skin, mucus, hair or bodily fluids shed by all living organisms. By using this technology, we can save time in physically surveying and detect the presence of living organisms in many more waterbodies. Whilst this technology can accurately determine the presence or absence of species it cannot predict population densities and accordingly, does not replace physical, traditional survey techniques.

Taking an eDNA sample

eDNA is extremely useful in determining the presence of rare species such as water vole and the presence of non-native invasive species such as American Signal Crayfish and Pink salmon. We are using this scientific technique to engage secondary school and university students in environmental projects, which in turn feeds into their education.

ACTION 3 - SCIENTIFIC RESEARCH AND MONITORING

Juvenile salmonid surveys 2024

Electrofishing surveys are a vital part of the work conducted annually in the Nith catchment. The window to conduct electrofishing is small, June to September inclusive, so fisheries staff must prioritise survey work during this period. Surveying is conducted for many reasons such as fish population monitoring, collecting baseline fisheries data prior to construction works being conducted in the vicinity, investigating how far salmonids can penetrate into the catchment, identifying any barriers to migration and assessing the impact of land management practices or pollution events. Water temperature data, conductivity and pH are recorded along with available instream and riparian habitat during electrofishing surveys. Staff also monitor for pollution and take a photographic record of conditions at time of survey.

During 2024, 251 sites were surveyed to monitor population densities of juvenile salmonids throughout the catchment. Some of the sites are repeated on a regular basis whilst others provide us with new information on watercourses that have never previously been surveyed. Overall, this provides us with a temporal and spatial overview of the health of the catchment.

Eleven sites have been selected throughout the catchment to function as sentinel sites. These sites are surveyed annually. The data gained allows long term trends in spawning success to be identified. In 2024, the average densities of salmon fry across the eleven sites surveyed was 52 fry per 100m2 which is a same as last year. This is classified as “Excellent.” There have been some minor fluctuations on a site-by-site basis, but generally salmon spawning success was similar to 2023. This was also the case for salmon parr. There was an increase in the average number of trout fry found during 2024 and trout parr have decrease slightly.

Electrofishing results for the eleven sentinel sites in 2024

Watercourse	Site code	Location description	Easting	Northing	Sampling date	Salmon fry (/100m²)	Salmon parr (/100m²)	Trout fry (/100m²)	Trout parr (/100m²)	Other species present
River Nith	Nith001	Downstream of Nith Lodge, New Cumnock	253724	609315	22/07/24	24.48*	2.88	36.16	0.00	SL
River Nith	Nith008	Upstream of Boig Road Bridge, New Cumnock	259460	613834	17/09/24	14.87*	4.9	12.26	2.45	SL
River Nith	Nith027	Upstream of Guildhall Bridge, Kirkconnel	271989	612346	16/07/24	34.37	7.76	6.65	0.00	SL, M
Afton Water	Aftn001	Upstream of Blackcraig Bridge	263164	608033	16/06/24	179.81*	33.68*	8.48*	2.10	-
Craig Burn	Aftn0062	In line with corner of garden fence at Craig Cottage	263575	606408	22/07/24	0.00	5.37	11.71*	8.06	-
Cairn Water	Carn025	Downstream of suspension bridge at Snade Mill	284623	587197	15/07/24	66.09*	0.00	0.00	0.00	SL
Craigdarroch Water	Cgdr015	Upstream from bridge at Sawmill Cottage	275584	590811	15/07/24	5.45*	1.08	27.37*	1.08	SL
Crawick Water	Craw001	Downstream of Spango Bridge	282234	617748	16/07/24	136.80*	2.47	7.59*	0.00	-
Mennock Water	Menn001	Upstream from confluence with Glenim Burn	283779	609801	16/07/24	72.49	0.00	80.33	0.00	-
Scaur Water	Scar001	Downstream of Bridge at Glenwhargen	275911	602987	18/09/24	11.19	2.77	5.78	0.93	-
Cample Water	Camp0001	Downstream of bridge at Kirkbog Farm	287165	594055	05/09/24	31.67*	0.00	3.57	0.71	SL, M

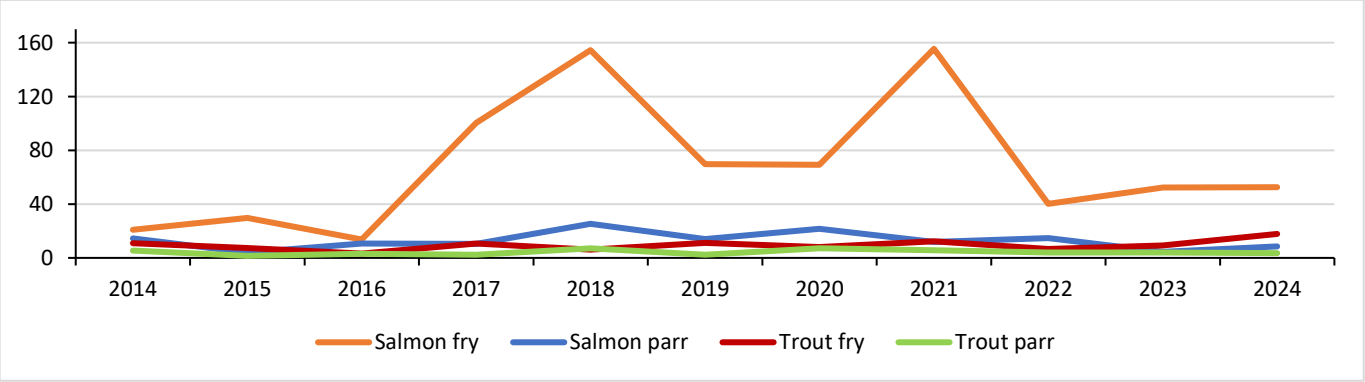
* Calculated using Zippin’s estimate of density. All other densities are minimum densities.

Key to other species: E – Eel, M – Minnow, SL - Stone Loach, L – Lamprey, SB – Stickleback, G – Grayling, F – Flounder, P – Pike.

Key to classification of salmonids per 100m²

absent	very poor	poor	moderate	good	excellent

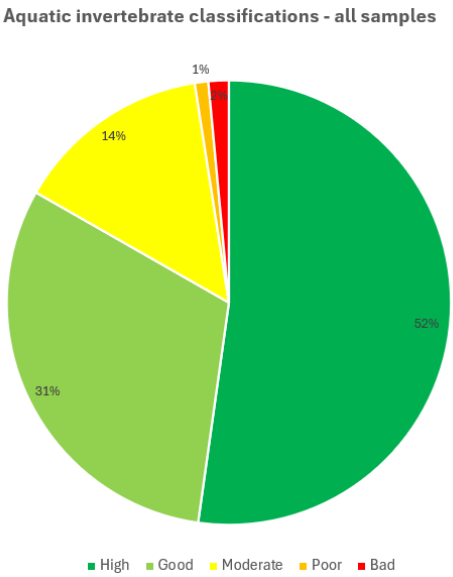
Average salmonid densities at all sentinel sites surveyed 2014 to 2024



ACTION 3 - SCIENTIFIC RESEARCH AND MONITORING

Surveying for aquatic invertebrates

Aquatic invertebrate surveys are essential for assessing water quality and environmental impacts alongside traditional fish surveys. These surveys provide a more immediate measure of water quality, whereas fish offer long-term indicators of environmental change. In 2024, fisheries staff collected 203 aquatic invertebrate samples from various locations in the Nith catchment. The sampling process involves a quick three-minute kick sample, which is preserved and later analysed in the lab to identify to family level using a microscope. This information is then analysed using the River Invertebrate Classification Tool (RICT) which assigns a classification by comparing those aquatic invertebrates found to those predicted to be present. This technique allows classifications to be assigned in line with those used in the Water Framework Directive.



The results from all the samples taken showed that 83% of the samples had a "Good" to "High" classification, 14% were "Moderate," and 3% were "Poor or Bad," with the lower classifications linked to poor instream habitat in tributaries.

In addition to these 203 samples, invertebrate samples were taken from 11 annual sentinel sites for comparison, showing healthy invertebrate populations and “Good” to “High” ecological status at most sites. There were some fluctuations in classification due to seasonality with some “Moderate” classifications being assigned. For this reason, we conduct sampling twice a year to determine a more accurate picture of water quality.

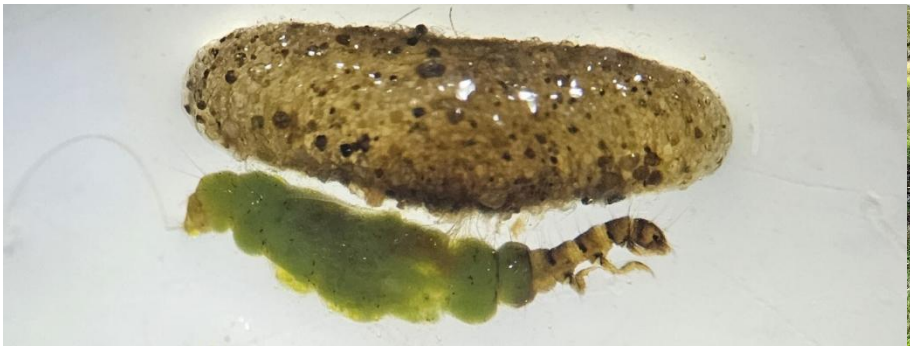
Aquatic invertebrate results for eleven annual sentinel sites

		Spring Sampling				Summer Sampling			
Watercourse	**Site code**	**Sampling date**	**WHPT ASPT Abund. ***	**NTAXA**	**WFD Classification**	**Sampling date**	**WHPT ASPT Abund. ***	**NTAXA**	**WFD Classification**
Nith at Nith Lodge	Nith001	17/04/24	7.91	15	H	22/07/24	7.13	20	H
Nith at Boig Road	Nith008	23/04/24	6.38	20	G	17/09/24	5.39	16	M
Nith at Guildhall	Nith027	23/04/24	7.75	21	H	16/07/24	6.97	20	H
Afton at Blackcraig	Aftn0001	19/03/24	7.83	15	H	17/06/24	7.25	8	M
Craig Burn, Afton	Aftn0062	19/03/24	8.01	14	H	15/07/24	7.18	16	H
Cairn at Wallaceton	Carn025	07/05/24	7.06	19	G	15/07/24	7.78	18	H
Craigdarroch Water	Cgdr015	07/05/24	7.67	14	G	22/07/24	6.91	14	G
Crawick at Spango	Craw0001	13/03/24	6.89	13	G	16/07/24	7.12	17	H
Mennock at Glenim	Menn0001	13/03/24	8.13	12	M	16/07/24	8.03	20	H
Scaur at Glenwhargen	Scar0001	10/05/24	6.69	14	G	18/09/24	6.73	14	G
Cample at Kirkbog	Camp0001	17/05/24	7.68	22	H	05/09/24	7.25	20	H

*** WHPT ASPT abund – abundance-related WHPT Average Score Per Taxa**

WFD Five Stage Classification System

High Ecological Status	No or minimal change from natural condition
Good Ecological Status	Slight change from natural condition
Moderate Ecological Status	Moderate change from natural condition
Poor Ecological Status	Major change from natural condition
Bad Ecological Status	Severe change from natural condition



Caddisfly larvae from the Hydroptilidae family

Kick sampling for aquatic invertebrates

ACTION 4 - WATER QUALITY

Pollution incidents

Whilst undertaking their everyday tasks, fisheries staff are always alert to potential sources of pollution which could impact on the water quality within the Nith catchment. The most common causes of pollution within the Nith catchment are from:

- the discharge of raw sewage during periods of heavy rain when outdated Scottish Water sewage systems are unable to cope.
- runoff from silage effluent where storage facilities are inundated with surface water.
- the application of slurry at inappropriate times i.e. prior to heavy rainfall.
- raw sewage entering watercourses from malfunctioning private septic tanks.
- forestry extraction resulting in sediment loaded run off.
- insufficient water management infrastructure during construction activities.

Any incidents that are detected are reported to SEPA and we would encourage any members of the public to report these incidents directly to **SEPA's Pollution Hotline - 0800 807 060.**

During 2024, the NDSFB reported five incidents of pollution to SEPA.

When things go wrong

The perception of the profession of fishery management by some can often be misunderstood. Visions of walking the riverbanks wearing a tweed jacket and green wellingtons is often far from reality. On the River Nith we are often clad in bright yellow/fluorescent orange personal protective clothing and hard hats, working in conjunction with the construction industry on projects close to our river. Whilst all construction projects have environmental protection built into their design, incidents do occur. The Nith District Salmon Fishery Board is consulted about fishery aspects of construction projects and the Board and Trust staff perform fish rescues to remove fish from an area of danger however, unforeseen, unpredicted and unplanned circumstances can result causing far reaching environmental issues down catchment.

Bridge collapse on wind farm

Uncontrolled silt from earthworks

Peatland forestry works

The above are three examples of works which took place in the Nith catchment recently. Three different types of projects, all had comprehensive environmental protection planning, all impacted more than ten kilometres downstream. This is the reason for why our fishery staff remain onsite to supervise potentially challenging operations.

Water quality surveying

Water quality surveys are conducted as part of every electrofishing survey or invertebrate survey. Readings are taken in real time for water temperature, pH and conductivity before the rest of the surveys are conducted. This allows us to monitor changes in water quality throughout the catchment and over the years. Water quality monitoring also allows us to investigate factors that affect survival of fish and eggs or investigate any effects from incidents or works being conducted upstream from survey sites. In addition to the water quality analysis being conducted in the field, the team has been regularly taking and storing water samples from select sites for further in-depth analysis on how water quality changes throughout the year.

ACTION 5 – INVASIVE NON-NATIVE SPECIES

Biosecurity

Avoidance rather than treatment is the goal when dealing with biosecurity. In all aspects of their work our fishery staff always include the risk to the Nith catchment of the introduction of invasive non-native species (INNS). An example of this is that when giving presentations to angling groups, the risk posed to the Nith catchment of using fishing tackle that has been used in other water catchments, and is still wet, is highlighted as a risk. All fishing tackle should be thoroughly dried or disinfected to avoid and cross contamination between different water bodies or river catchments. In the construction industry, when building developments that straddle more than one catchment, the importance of cleaning all construction equipment before it leaves site or enters a new site is emphasised. We aim to inform in order that unintentional introduction of INNS is avoided at all costs.

American Signal Crayfish

Since American signal crayfish were initially found in the Lochfoot area in 2016, they have been identified in the lower Dumfries town section of the River Nith. In a bid to establish if they are present in any other areas of the catchment, the Nith Catchment Fishery Trust utilised the new technology of Environmental DNA (eDNA). Samples were taken in various parts of the catchment and sent away to be analysed. The results came back as negative so we can be confident that crayfish have not yet spread into the Lower Cairn Water or further upstream the mainstem Nith. This technique will continue to be used to monitor populations of American Signal Crayfish in the system.

Signal crayfish cannot be eradicated once they have been introduced into a watercourse, so prevention is the only way to stop their spread. Any sightings of crayfish should be reported to the Nith Fishery Trust. Please remember that it is illegal to trap or be in procession of crayfish and it is illegal to release them back into the wild if caught. If they are inadvertently caught, they must be killed immediately at site of capture.

ACTION 6 – PREDATION

With Atlantic salmon gaining the unenviable conservation status as endangered by the International Union for Conservation of Nature (IUCN), it has never been more important to ensure that those fish that are under our management are protected from impacts that may further reduce their populations. This brings into focus the impacts of predation on our stocks of fish. Predation is a natural occurrence and one which both species, predator and prey, have evolved to coexist with. Problems arise when the balance between predator and prey is unbalanced in favour of the predator. When this occurs, undue pressure is placed on the prey species and serious impacts can occur.

We can keep specific predator numbers under control through the Scottish Governments licencing system. The Board applies for a licence to scare or, in extreme cases, exterminate specific individuals that are placing undue pressure on salmon stocks. This is a necessary action to enable effective protection of salmon stocks at specific times of the year and at vulnerable life cycle stages.

ACTION 7 – RAISING AWARENESS AND EDUCATION

Fishing for the Future project

The Nith Catchment Fishery Trust continued its work for the Fishing for the Future Project in 2024, with a total of 17 education sessions delivered to 183 young people between the ages of 6 and 18.

As part of the Clean, Cool Waters school education programme, pupils took part in three sessions, with session one covering the lifecycle of the salmon and learning about aquatic invertebrates. During the second session students learned about native trees and their benefits and were provided with their own trees to look after. All the sessions focused on the importance of clean, cool water to the health of our rivers. In the final session primary school students were taken on a field trip where they had the opportunity to put into practice all they had learnt and assess the health of a local watercourse. They did this by surveying the river for fish and aquatic invertebrates before deciding if the river was healthy. Students then planted the trees they had been given in Session 2, along the banks of the river to help protect the river in the future. The Trust delivered these sessions to six different primary schools in 2024. The schools involved included Troqueer Primary, New Abbey Primary, Kirkbean Primary, Moniaive Primary, Dunscore Primary and Sanquhar Primary School.

Sanquhar Academy and Wallace Hall Academy Environmental Studies students took part in an environmental sampling and tree planting session, where the students learned how to conduct eDNA sampling and how electrofishing and invertebrate sampling is used to evaluate the health of a waterbody. Higher learning continued with Students from the University of Glasgow and the University of the West Coast of Scotland participated in a river sampling and habitat restoration session where they learned about green engineering techniques for stabilising riverbanks.

As one of the aims of the Fishing for the Future project is to introduce young people to angling, two Angling Taster Day session were delivered to families eager to try angling in 2024. The sessions introduced participants to different fishing methods as many families attending had no previous fishing experience. This gave everyone the best chance to catch a fish with participants expressing interest in trying angling again or joining a club.

The Nith Young Anglers club welcomed some new members in 2024, with young people and their families attending six sessions throughout the season. In 2024 the Nith young Anglers got the opportunity to fish for trout, salmon and pike, as well as participating in some coarse fishing.

The Fishing for the Future project is funded by The Holywood Trust and the Misses Robinsons Charitable Trust and we would like to thank them for their continued support without which this project would not be possible. We would also like to thank Dumfries and Galloway Angling Association and Drumlanrig Estate for providing season tickets for our Nith Young Anglers.

River invertebrates at Kirkbean Primary

Troqueer Primary conducting a river survey

Sanquhar Academy students taking eDNA samples

Trout Angling Taster Day

ACTION 7 – RAISING AWARENESS AND EDUCATION

The Nith Fisheries staff attended and ran a number of events throughout 2024 to raise awareness of the aquatic environment and demonstrate the work of the Trust. Below is a summary of some of the events, meetings, conferences and training courses attended by staff and volunteers during 2024:

River Opening Ceremony at Boatford

Nith Catchment Tour at XE site

FMS River Catchment Restoration workshop

Colvend Gala Day

Events held/attended

River Opening Ceremony at Boatford
Galloway Country Fair
Holywood Trust Spring Gathering
Wallace Hall Biology Day
Colvend Family Gala
BBQ at Drumlanrig Castle
Catchment Tour for Board members/Trustees
Extreme E Hydro Race weekend
Muller Dairy Farming Coop
XE Legacy Day for Drivers/Partners
XE Legacy Day for University Students

Meetings and conferences attended

NDSFB Board meetings x4
NDSFB Qualified Proprietors Meeting
NDSFB Annual Public Meeting
NDSFB Triennial Elections
NCFT Directors meetings x4
NCFT Annual General Meeting
FMS Members meeting
FMS AGM
SFCC Biologist's meeting
FMS conference
Fishery Management Planning workshop
River restoration landowners' meetings
FMS River restoration workshop
Water quality meeting with Glasgow Uni
IFM Annual Conference
SOSE Nature Capital Innovation meeting
Biosphere Nith Restoration workshop

Training completed

Outdoor First Aid Course
SFCC Team Leader course
Forest to Bog training day
BNG workshop
FMS Fish Health workshop
FMS River Catchment Restoration workshop

Education sessions

Secondary school education sessions x 3
Primary school education sessions x 15
Nith Young Anglers fishing days x 6
Fishing Taster Days x 2

A full tent at Galloway Country Fair

Nith Catchment Tour at North Kyle Wind Farm

Scientific advisers for Extreme E

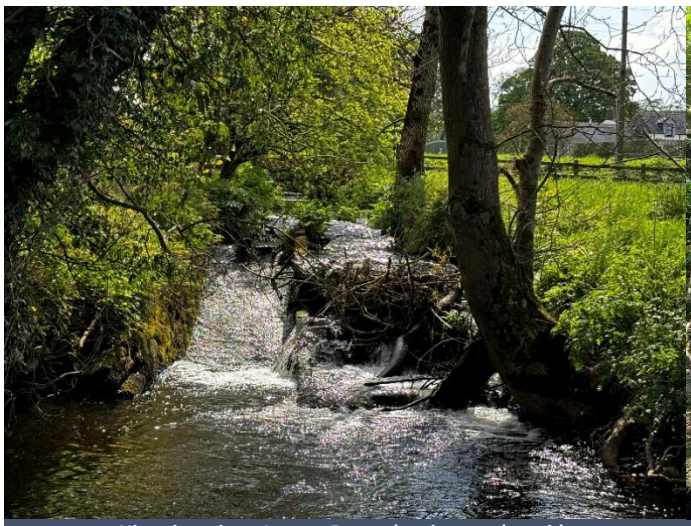
Primary schools planting riparian trees

ACTION 8 – BARRIERS TO FISH PASSAGE

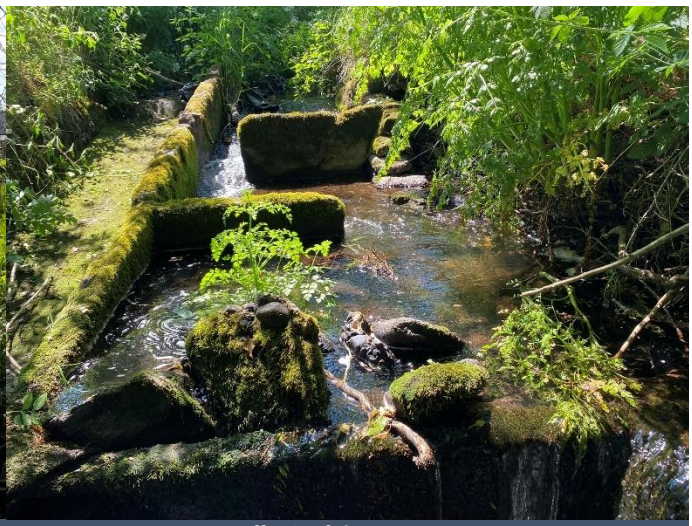
Breaking down barriers

One of the most successful management interventions that any fishery manager can embark upon is to ensure that migratory salmonids are afforded unrestricted access to all parts of their natal river catchment. Barriers to migration come in a variety of guises from natural waterfalls to manmade constructions and channel modifications which can inhibit the ability of salmonids to reach their spawning grounds and thus restrict their spawning potential. NDSFB has removed many obstructions to fish migration since the 1990s. Whilst it would be inappropriate to extend the penetration of migratory salmonids into areas of a river catchment that they could not naturally access, such as above natural falls, manmade structures can be modified to ease the passage of salmonids. Two such structures are currently being considered by NDSFB, one is located on the Lochingerroch Burn and the other on the Laggan Burn.

It is important to try and break down man-made barriers to salmonid migration where possible but even more important to ensure that new construction projects are conducted in a fish friendly manner to ensure that no new barriers are created. Accordingly, NDSFB contribute to construction designs and method statements throughout the catchment to ensure that no additional obstacles are created inadvertently.

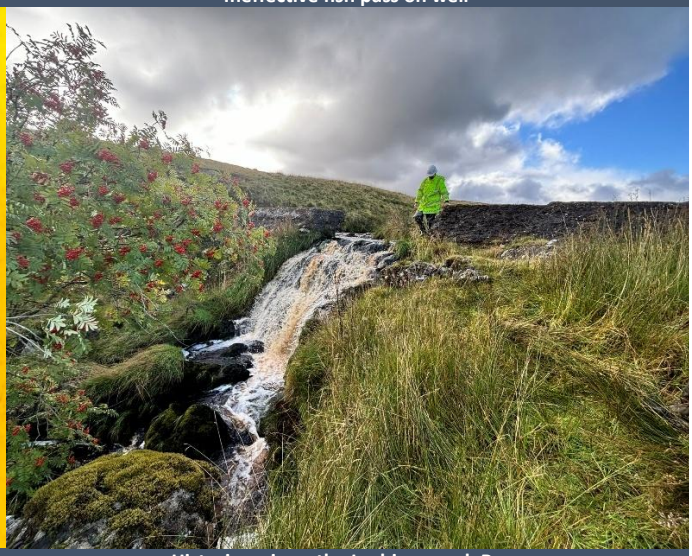


Historic weir on Laggan Burn – barrier to salmonids



Ineffective fish pass on weir

Bucket of salmon, trout and pike found below the Laggan weir



Historic weir on the Lochingerroch Burn

ACTION 9 - STOCKING

Euchan Salmon Restoration Project

Following a number of years of extensive electrofishing surveys in the Euchan Water and observations of fish attempting to ascend the falls at Euchanfoot, it became apparent that fish require a specific state of water conditions to enable them to negotiate their passage of this natural obstruction. Many salmon do not make it over the obstruction and in a bid to ensure that all available habitat is utilised by salmon upstream of the falls, NDSFB has gained the appropriate licence to plant some unfed fry into the suitable substrate in the upper Euchan.

The Euchan project is targeted, limited and planned to extend for a period of five years. The project will be supported on an annual basis by extensive electrofishing to ensure that the unfed fry that have been liberated into the upper Euchan are surviving.

Clockwise from top left: Broodstock being captured for the hatchery, fertilised eggs in hatchery, Eyed eggs and alevins starting to hatch, bucket of unfry ready to be stocked, view up the Euchan Glen.

ACTION 10 – DISEASE AND FISH HEALTH

Saprolegnia project

Saprolegnia parasitica is a parasitic cold-water mould that can infect the skin of salmon and trout. The infection can often be seen as wool like patches of white to light brown growths on the skin. Although recovery can occur in minor infections, lethargy and death can occur in heavily infected individuals. Throughout 2024 the Nith DSFB assisted in research undertaken by the University of Aberdeen into *Saprolegnia* outbreaks and risk. The study aims to collate data from rivers across Scotland in order to identify risk factors and determine the optimal conditions for creating outbreaks. The Study is also investigating what causes some river systems to be affected by the disease more than others. Twice a month the team collected water samples and sent them off for further treatment and analysis. Sampling began in January 2024 and was carried through to March 2025, providing data throughout different seasons and conditions. This research has never been more important than now, with the presence of a new more virulent strain of saprolegnia being discovered in certain rivers across Scotland.

This research will be valuable in assessing the future spread and threat of the disease. With increasing environmental challenges to salmon, it is important to understand and keep up to date with the latest CHECK, CLEAN, DRY, guidance, to prevent transfer of saprolegnia and other diseases between river systems and catchments. For more information or to keep up to date with the latest guidance visit the Fisheries Management Scotland Check Clean Dry – Fisheries Management Scotland.

Water sample collected for Saprolegnia detection

Salmon with aggressive saprolegnia infection

Fish Health Workshop

Helen Feenan, Aquaculture Interactions Manager for FMS organised a Fish Health Workshop for Board and Trust staff to update their knowledge on fish health. The workshop was held at SRUC's Rural and Veterinary Innovation Centre in Inverness and was hosted by Fish Veterinary Society, FMS and Crown Estate Scotland. Wild fish suffer similar diseases to farmed fish, but the extent of the diseases that affect wild fish and their severity is not clearly understood as it is harder to detect and sample diseased wild fish. The aim of the workshop was to cover different fish diseases that fishery managers are likely to encounter and demonstrate sampling techniques that could be used to help identify diseases infecting wild fish. It is vital for fishery staff to be able to identify the symptoms of the more common diseases that wild salmon can be infected with and know how to take the appropriate samples so that potential issues relating to fish health can be identified and management strategies for dealing with outbreaks can be put in place quickly.

Diseased fish can be reported to FMS by following the link below or by scanning the QR code.
https://fms.scot/fish-health-and-disease

ACTION 11 – DEVELOPMENTS AND WORKING WITH INDUSTRY

The Nith District Salmon Fishery Board (NDSFB) is consulted in relation to an array of major construction projects that take place throughout the catchment. Some projects such as renewable energy infrastructure have to traverse our catchment, and any rivers along the route, to effect the connection from the source of the electricity to the nearest electricity substation for onward conveyance through the national grid. The Board's input is sought in relation to preserving fish known to be present in the immediate vicinity of such river crossings and accordingly, our fishery staff will provide comments to construction method statements to mitigate against any impacts on fish or their habitats. Having provided comments, the Board's staff oversee specific aspects of the construction works and perform fish rescues where mitigation alone cannot ensure the safety of fish.

North Kyle Wind Farm culvert installation

During the summer of 2024, the North Kyle wind farm construction project was making steady progress with its turbine foundations and road infrastructure. The road layout design for the site involved traversing the Beoch Lane Burn, a known salmon spawning tributary. The construction team from Jones Bros, employed to build the wind farm consulted the Board for mitigation advice on protection of the aquatic environment. This took the form of providing a fish rescue of the working area then providing specialist advice on over pumping of the watercourse to enable a large culvert to be placed in the channel. It is essential that culverts are seated correctly to enable salmonid species of fish to migrate freely, thus avoiding an impassable obstruction. Finally, advice on riparian habitat and restoration of the site is provided and the Nith catchment retains a productive spawning tributary.

Over pumping the Beoch Lane to dry the work area

The finished culvert with otter passes

Services offered to construction projects.

The Nith District Salmon Fishery Board and Nith Catchment Fishery Trust provided a range of services to contractors and industry to assist in protecting the aquatic environment. These include:

- Fisheries surveys
- Fish habitat surveys
- Aquatic invertebrate surveys
- Freshwater Pearl Mussel surveys
- Otter and water vole surveys
- eDNA surveys
- Riparian planting schemes
- Development of Fisheries/Water Management Plans
- Advice and consultancy on mitigation in the water environment
- Production of aquatic survey reports
- Water quality analysis

ACTION 11 – DEVELOPMENTS AND WORKING WITH INDUSTRY

Enoch Wind Farm grid connection

Scottish Power Energy Networks (SPEN) had to connect the Enoch Wind Farm to the national grid and by necessity the route for the underground cable traversed the mainstem of the River Nith at Nith Lodge, high in the catchment. The method planned to effect the crossing was by "open cutting." This method entails damming the river, over pumping the water, digging a trench, laying the cable, back filling the trench, then reinstating the river course and banks. Prior to any construction activity commencing the Nith Board had been consulted about the construction method statements and inputted fisheries mitigation measures to be employed to ensure the safety of the fish and their habitats. During these construction procedures it is not NDSFB's responsibility to manage the construction project; they merely perform an overseeing role to ensure the safety of the fish. However, due to the importance of the site, during the Nith Lodge crossing, NDSFB took control of the construction project and managed an effective safe crossing of the river. By doing so the environment of the River Nith was afforded best protection and the site reinstated soonest.

Right to left from top left: Over pumping of the proposed crossing site; a dry riverbed; channel being dug across the River Nith; cables being laid under the riverbed; reinstatement of the Nith; sample of fish rescued from the site.

Supporters of the Nith

The Board and Trust would like to express thanks to the following organisations and individuals for their support for the work that was conducted during 2024.

and to Blackwood Estate, Misses Robinson's Charitable Trust, C & K Harvey and all the people that donated fishing tackle to be passed onto new up-coming anglers.