NITH CATCHMENT FISHERY TRUST

ANNUAL REPORT

JANUARY TO DECEMBER 2019

PUBLISHED MAY 2020

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Nith Catchment Fishery Trust (NCFT) is a Scottish registered Charity which was formed in late 2009 to conserve and enhance all native freshwater fish and their habitats located within the inland and coastal waters of the River Nith catchment and the jurisdictional area of the Nith District Salmon Fishery Board.

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.

Nith District Salmon Fishery Board
The Holywood Trust
Scottish Charity No. SC009942
BorderLines angling for a better environment
TESCO Bags of Help
& Misses Robinson's Trust

Cover photo: Large Grayling caught by one of our Nith Young Anglers, on DGAA, Carnsalloch

Nith Catchment Fishery Trust is a Registered Scottish Charity. Charity no. SC040908. Company no. SC366067. Registered Office: 37 George Street, Dumfries, DG1 1EB. Registered in Scotland

Chairman's Foreword

As I write this, on 1st May 2020, we all find ourselves in extraordinary circumstances. Thanks to Covid-19 the country is in 'lockdown' and normal life has been suspended. It seems, however, that we may be past the worst of it and, hopefully, we will see a return to normality over the next few months.

The 2019 Nith fishing season was, regrettably, another poor one. Fewer fishers targeted fewer fish so, unsurprisingly, fewer fish were caught. Less fish caught translates into less income which means we face a financial squeeze.

The Nith is by no means alone in being confronted by this challenge. It exists throughout the country and on an international scale impacting many rivers in the northern hemisphere covering the whole range of the Atlantic Salmon.

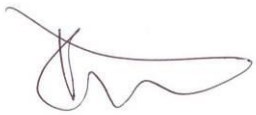
Your Trustees are doing their utmost to ensure that any action we initiate is for the benefit of the salmon and sea trout in our river. We continue to work on enhancing riparian habitat in our nursery areas and headwaters. We also have plans to work with the Atlantic Salmon Trust on a smolt-tracking project to try to discover where some of our fish are being lost on their seaward migration. The Nith is also working with Marine Scotland Science on investigating the level of impact piscivorous birds have on our fish stocks.

In recent years we have had great success with our Fishing for the Future project which works with local schools to educate young people about the habitat of the River Nith and the sport of fishing. This project will restart when schools reopen and will continue to promote greater understanding of both our wonderful countryside and the joys of angling. The average age of fishers on our river has been rising steadily in recent years. We are doing what we can to encourage a new generation.

Fish populations are currently at a low ebb but we remain positive and optimistic on the longer-term prospects for salmon and sea trout in Scotland. Here on the Nith, we will continue to do what we can to reverse the fortunes of the fish in our river. Success will be reflected, in the years ahead, in rising populations of salmonid fish.

It would be remiss of me not mention the sterling work done through the year past by our fisheries management team. I am sure you will join me in thanking them all for their efforts during the year.

These are difficult times. Keep safe, fish when you can and may your lines be tight in 2020.



E.P.K. Weatherall
Chairman

Biologist's Comments

2019 was a very busy year for our Trust. We conducted as many electrofishing surveys as we have ever done. This was primarily due to the quantity of construction projects being carried out in our catchment and the associated aquatic environmental protection. In addition, our Trust has been responsible for conducting the National Electrofishing Project (NEPS) and reporting the results to Marine Scotland Science. This project entailed conducting an additional 28 electrofishing sites chosen by Marine Scotland at random and we conducted detailed electrofishing surveys. This is the second year that we have participated in this project and the results are starting to reveal geographic trends and similarities with other regions across the south of Scotland.

Looking forward, I am delighted that the Nith has been selected to be one of the key west coast rivers to be taking part in the West Coast Tracking project. This project is coordinated by the Atlantic Salmon Trust and will involve us in the trapping of smolts on their seaward migration and fitting them with acoustic tags. Monitoring stations will listen for the tagged fish as they descend the river and seaward up the west coast of Scotland towards the Norwegian Sea. This is fascinating science and we will play an important role in catching the smolts in our, newly acquired, smolt trap.

Having analysed catch return data for 2019, the data shows a slight increase of both salmon and sea trout returning during the 2019 season. This is encouraging, particularly considering the lack of anglers on the river bank. The largest increase is in the number of sea trout. This is encouraging and hopefully will attract more anglers to our river banks.

All of the work discussed above is conducted alongside our "Fishing for the Future" project which has received national acclamation. Many other Scottish rivers look to achieve similar success to our project and it continues to grow from strength to strength.

We face a challenging year ahead with the complication of Covid-19.

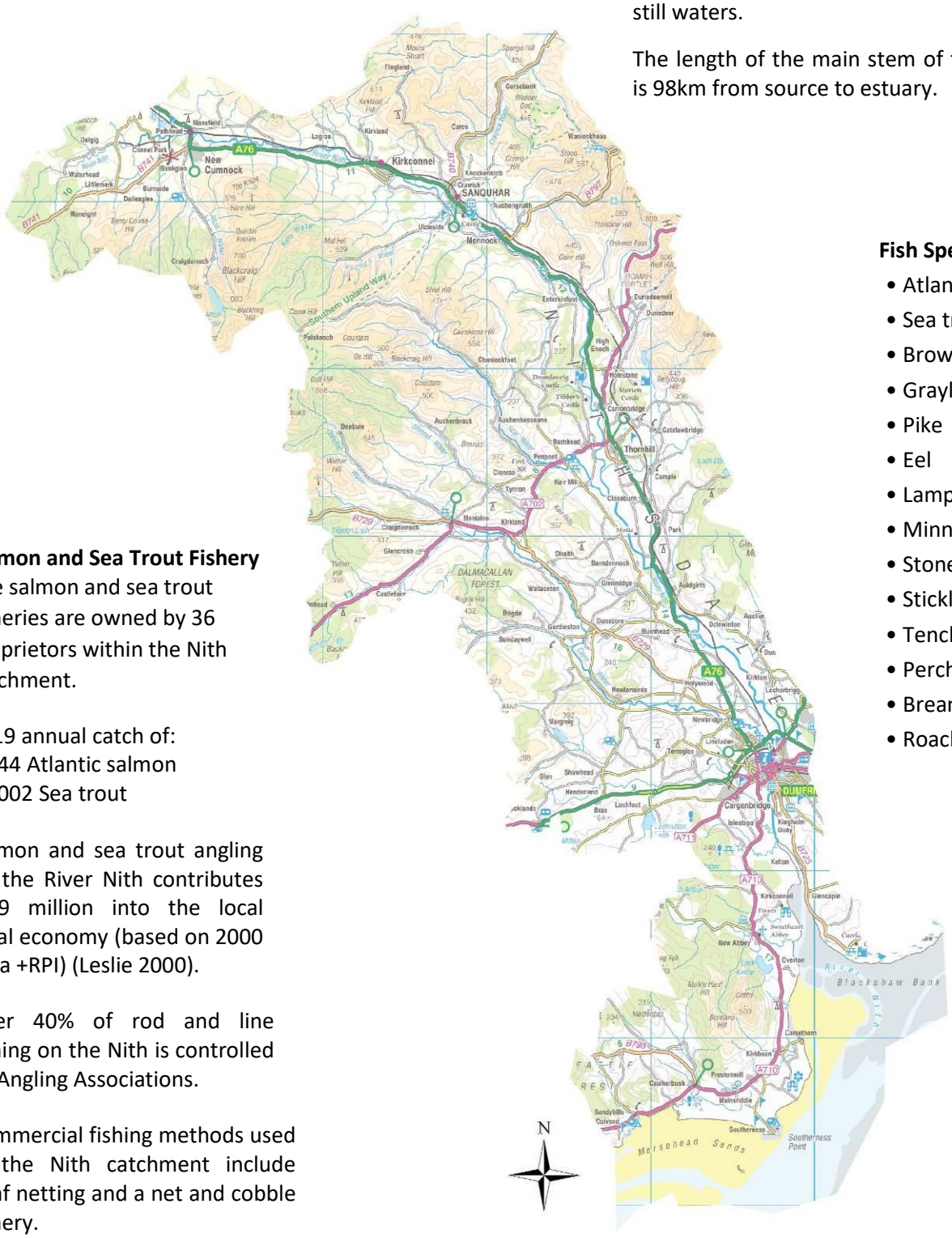
Debbie Parke
Operations Manager/Biologist
Nith Catchment Fishery Trust

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.

2019 annual catch of:
- 744 Atlantic salmon
- 1002 Sea trout

Salmon and sea trout angling on the River Nith contributes £2.9 million into the local rural economy (based on 2000 data +RPI) (Leslie 2000).

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

Commercial fishing methods used in the Nith catchment include haaf netting and a net and cobble fishery.

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.

Overview of Fisheries Management work carried out during 2019 (Board and Trust)

Enforcement

- Bailiff team comprised 3 employed warranted bailiffs and 2 volunteer warranted water bailiffs
- 6 incidents dealt with by enforcement staff – including 1 breach of spring salmon regs, 1 incident of spawning bed disturbance by gold panning 2 incidents of on permit fishing at Buccleuch Estates, 1 incident of obstructing enforcement staff at Crawick, 1 incident on upper Cairn investigated (Sunday fishing)
- Continued Professional Development undertaken training at Penrith
- Assisted with the development of regs for D&G Council
- Policing of the commercial Haaf net fishery tagging regs
- In river patrols permit checks
- Coastal patrols for gill netting incidents

Exploitation

- Catch and release 93% for salmon and grilse and 83% for sea trout by rod and line and 73% for salmon and 31% for sea trout by nets during 2019.
- Collated all Nith catch data
- Assisted D&G Common Good with fisheries management advice
- Altered Nith Angling code to reflect Scottish Government policies
- Conservation promoted through education projects, outreach programs and distribution of conservation codes
- Issued carcass tags to Haaf Netters and administered the tagging scheme on behalf of Scottish Government
- Ran Nith Sea Trout Experience

Engineering and Forestry

- Consulted on multiple engineering projects
- Inspected flood damage on Nith prior to repairs
- 7 electrofishing surveys carried out in connection with engineering works taking place throughout the catchment
- 4 fish rescues throughout the catchment.
- Consulted on the SWS Overhead Powerline, Scottish Water Terregles, SPEN Carron and Scaur Water (pole crossings) and bank repairs at HOW coal mine.
- Reinstated Craigburn at HOW Surface Coal Mine
- Attended all Open Cast Coal Mine TWG's

Fish stocks and monitoring

- 2018 catch data collected and reported on website
- Provided electrofishing data to SFCC
- Surveyed 28 sites as part of National Electrofishing Programme Scotland
- NCFT/NDSFB conducted electrofishing at over 163 sites throughout the catchment
- 10 annual electrofishing sites surveyed

Planning and consultation

- Planning lists checked on a weekly basis and responses made where appropriate to Dumfries and Galloway Council and East Ayrshire Council.

Renewables

- 7 surveys carried out in connection with renewables taking place throughout the catchment.

Habitat

- All habitat schemes checked and water gates repaired
- New section of habitat scheme erected on Crawick Water
- Replanting trees on Crawick and Pennyland habitat schemes
- Repaired fence on Wanlock habitat scheme
- Planted trees on Criagman habitat scheme
- Planted trees on Sheil Burn

Access

- Obstruction tree cut at Denholm's Wood, DGAA water
- Removed tree from Closeburn Castle Water

Water Quality

- Reported issues on the Gallaberry Burn
- Reported slurry at Polshill Farm, A76
- Took 28 water samples in relation to Scottish Government NEPS project
- 45 aquatic invertebrate surveys completed

Marine survival

- Applied for and obtained a seal control license
- Attended 2 AST meetings to discuss West Coast Smolt Tracking Project
- Purchased Smolt trap

Governance

- All Health and Safety at work Policies updated
- Reviews and updated website
- All appropriate licensing requirements in place
- Various meetings attended - see Page 20 for full list of meetings/events
- Staff training carried out
- Fishery Catch Returns compiled

Predation

- Licenses applied for and gained to prevent serious damage to wild stocks of salmon/sea trout by cormorants, goosanders and seals.
- License returns completed
- 22 mink trapped
- Participated in Government Piscivorous bird research project

Biosecurity

- Crayfish refuge traps and Lochfoot Burn monitored for crayfish spread
- All Nith Giant hogweed treated

Hatchery

- 115,580 fry stocked
- Post stocking electrofishing surveys carried out
- Brood stock captured for fry production for 2019/20

Outreach

- Nith Salmon Season Opening Event held at DGAA Carnsalloch
- Nith Salmon Fishing Experience – one day of free salmon fishing on participating beats on the River Nith
- Nith Sea Trout Experience – four days of free fishing to promote sea trout fishing on the River Nith.
- Various shows and fairs attended - See Page 20 for full list of meetings/events attended
- Ran Fishing for the Future programme in schools and groups to over 256 children
- Run 9 Nith Young Anglers Club fishing days and 3 Angling Taster days
- Presentations given to other organisations
- PR via website, social media, TV and newspapers

River Nith Opening Day at Dumfries and Galloway Angling Association

Fisheries Management

Conservation Regulations 2019

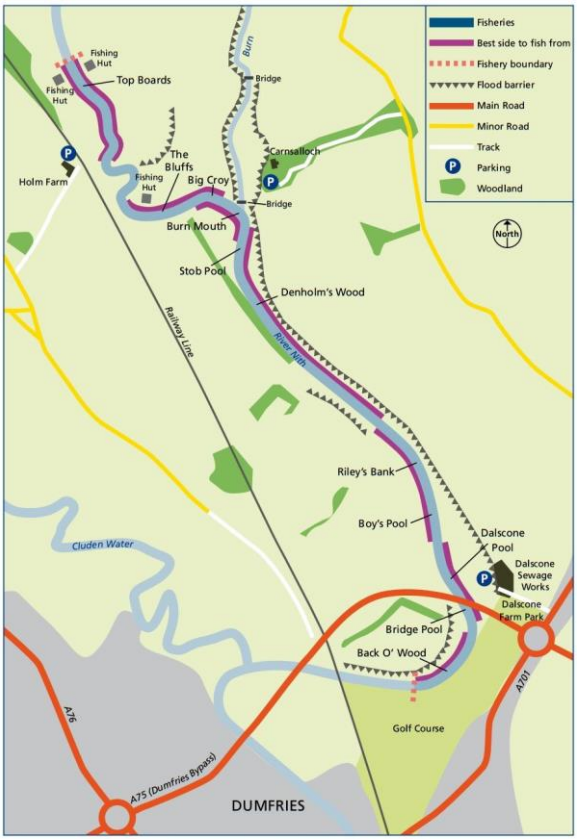
All Scottish salmon rivers are now assigned a Conservation Categorisation grading from 1 to 3. The definition of these Categorisations is provided in the box below. The River Nith was assigned a category 2 status for 2019. Under the Nith Conservation Code, anglers and net fishers were expected to limit their take of salmon to 2 fish per season with an aspiration of achieving a 90% catch and release rate. The angling fraternity exceeded this figure (see chart on pg 9).

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.

Opening of the River Nith 2019 Salmon Fishing Season

The opening event for the 2019 salmon fishing season on the River Nith was held at Carnsalloch by kind invitation of the Dumfries & Galloway Angling Association. A good turnout of anglers, club officers, Fishery Board Members, Trust Directors and political representatives were piped to the river side by piper Sandy Dunlop where the Provost for Dumfries, Tracy Little, offered a toast to the river by pouring in a bottle of malt whisky.

River Nith Opening Ceremony 2019 Carnsalloch



Beat Profile – Dumfries and Galloway Angling Association

The Dumfries and Galloway Angling Association beat at Carnsalloch lends itself to all disciplines of salmon and sea trout fishing. Access is good with designated car parks on the east and west sides of the river. The main car park is located at Carnsalloch on the east side of the river approximately in the middle of the 2.5 mile beat. From the car park, pedestrian access is good both upstream and downstream. Fishing huts and seats are located along the length of the beat.

The beat contains fresh run fish at all water conditions due to its position approximately 3 miles upstream from the tidal limit in Dumfries. The members are friendly and welcoming to visiting anglers. Current fishing permit details can be found on their website www.dgaa.org.uk/nith-beats/dgaa-home.

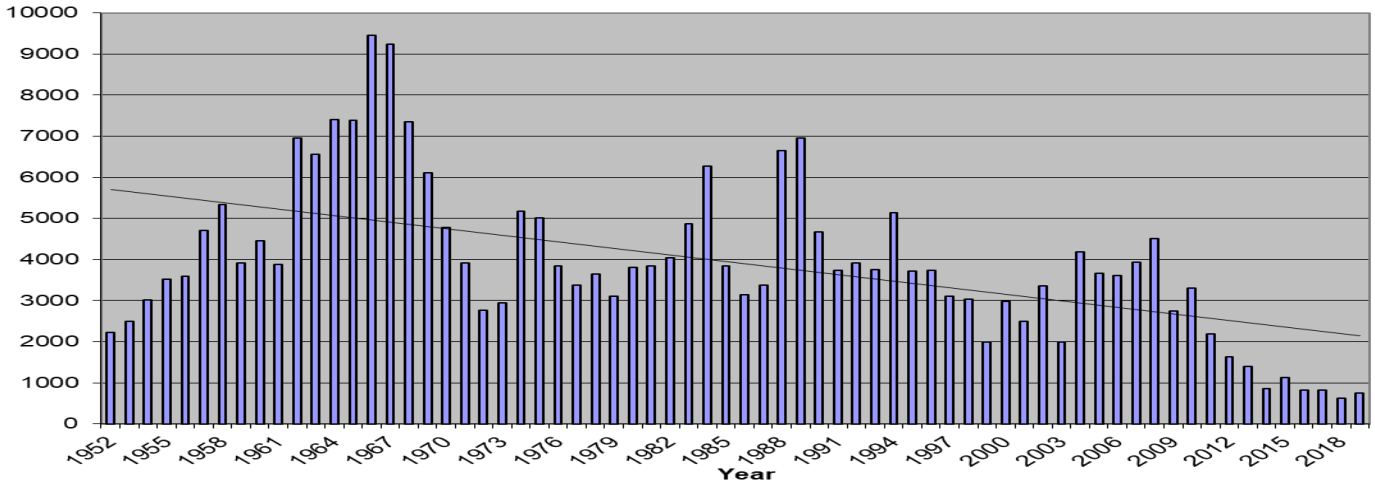
STOCK ASSESSMENT

Salmon and Sea trout catch data for 2019

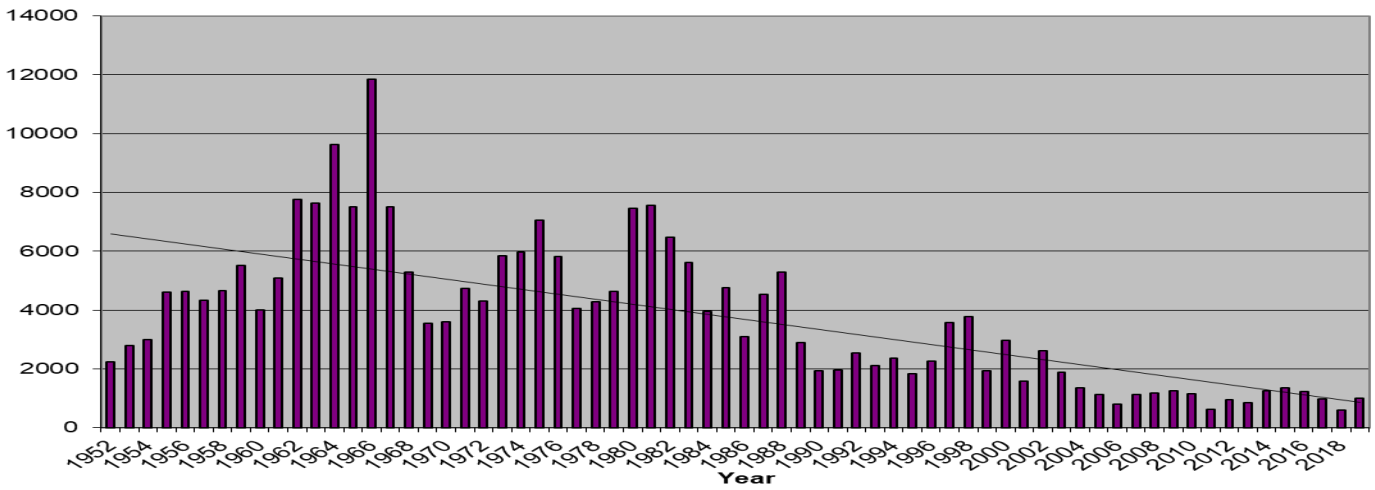
The catch data for salmon and grilse and sea trout showed an increase during 2019 compared to 2018. This was achieved, despite fewer fishers reported on the river over its entire length. Salmon and grilse showed an 18% increase in numbers and sea trout were increased by 70% on those recorded in 2018. These figures suggest that more fish were in the river at the time of the year when fishers were present on the riverbank. Individual anglers reported good catches of both salmon and sea trout. River conditions favoured fish running to the upper sections of river.

	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
2010	2336 (43%)	970 (0%)	3306	3615	850 (44%)	303 (0%)	1153	1099
2011	1637 (40%)	545 (0%)	2182	3331	515 (46%)	94 (0%)	609	1060
2012	1283 (40%)	352 (0%)	1635	2873	782 (55%)	163 (1%)	945	1025
2013	940 (59%)	465 (0%)	1405	2253	671 (62%)	170 (8%)	841	958
2014	520 (64%)	331 (1%)	851	1876	1119 (87%)	132 (8%)	1251	960
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

Salmon caught by all methods 1952 - 2019



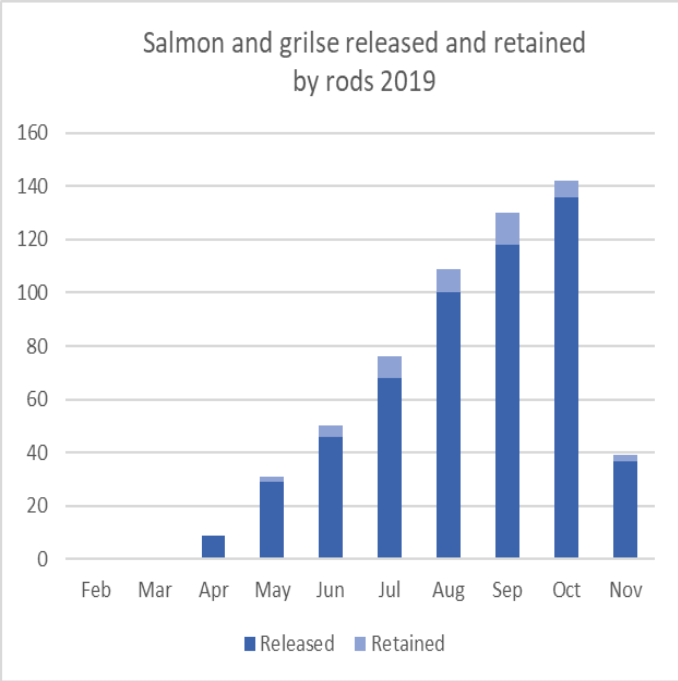
Sea trout caught by all methods 1952 - 2019

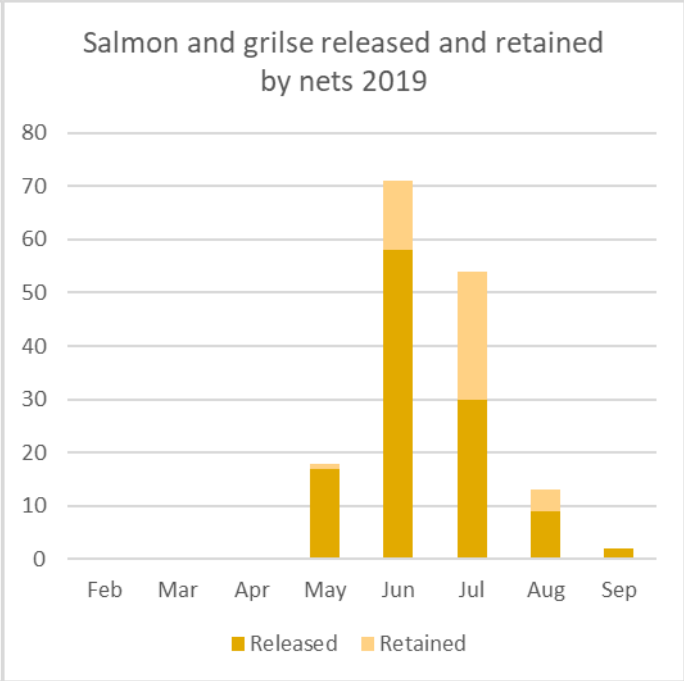


STOCK ASSESSMENT

Salmon and grilse catches in 2019

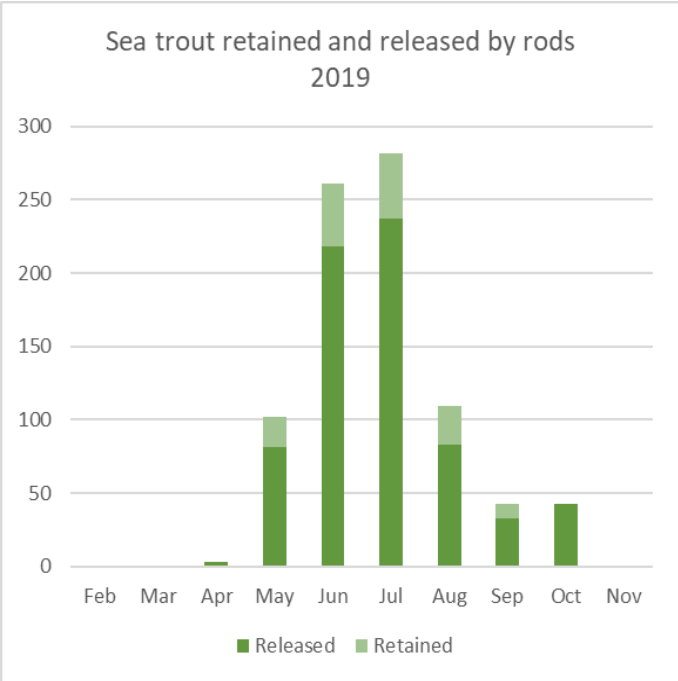
Both the netsmen and rod fishers on the Nith have embraced the conservation initiative of catch and release. This initiative is now in the mindset of all who participate in fishing for migratory salmonids. A figure of 93% of all salmon and grilse caught by rod were released and 73% of all salmon and grilse caught by nets were released. For sea trout, 83% caught by rod were released and the nets released 31%. All of these release rate figures are increased on those of 2018.

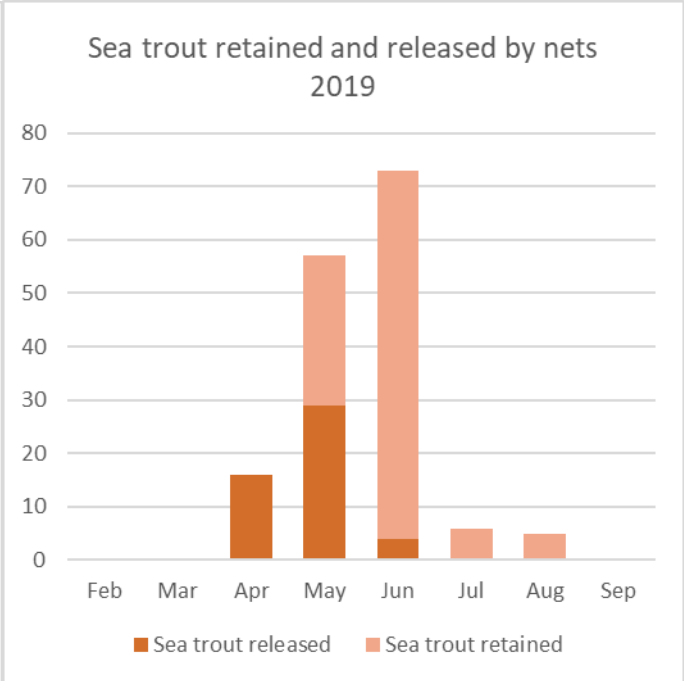




Sea trout catches in 2019

The charts below show the number of sea trout retained or released on a monthly basis by both rod and line and by haaf nets in the lower river. The main peak of sea trout being caught by anglers occurred in June and July and, as is usual, the main sea trout run occurred in May and June for the haaf nets fishing at the bottom of the river.





STOCK ASSESSMENT

National Electrofishing Programme Scotland (NEPS)

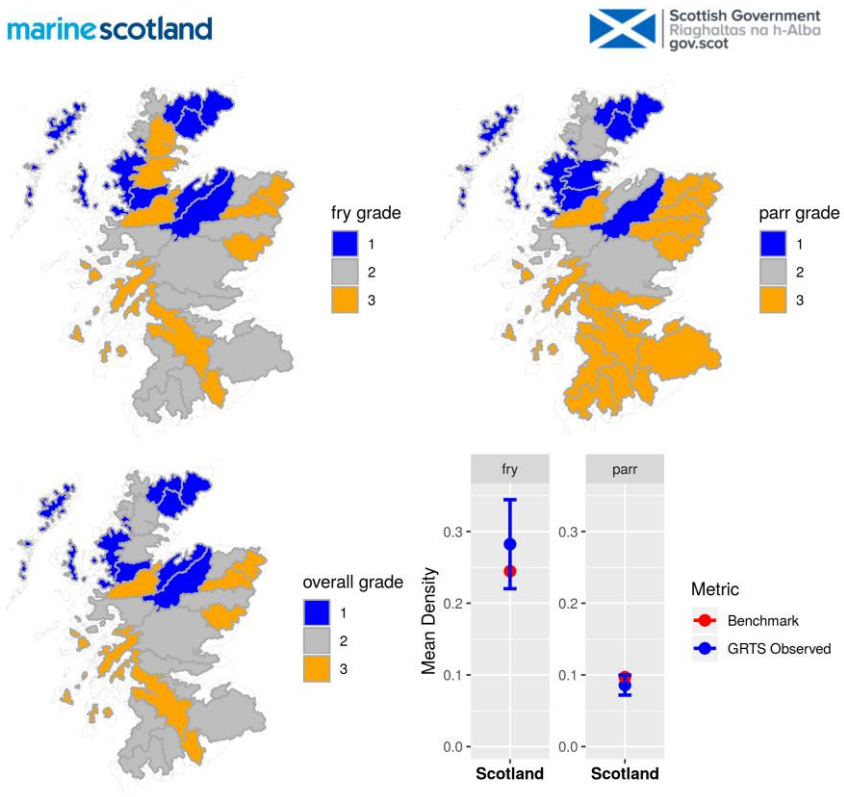
The National Electrofishing Programme Scotland (NEPS) is a national programme of electrofishing organised by Marine Scotland and funded by Marine Scotland, SEPA and SNH to gain a clearer picture of juvenile salmon population levels throughout Scotland. The data on the ground was collected by local Fishery Boards and Trusts using a strict protocol. The programme started in 2018 when 30 electrofishing sites per catchment were selected, at random, and assigned to Trust and Board areas throughout Scotland. Twenty-eight sites were assigned to the Nith catchment – five of which are surveyed on an annual basis, four of which are surveyed once every three years and the remaining four are surveyed once every nine years. This provides both temporal and spatial data to gain an overall idea of juvenile production through the catchment. The results for the surveys undertaken in 2018 have been compiled and made public through a Shiny app produced by Marine Scotland. Full details of the project and the results can be accessed at https://www2.gov.scot/Topics/marine/Salmon-Trout-Coarse/Freshwater/Monitoring/ElectrofishingProgramme. In 2019, 28 sites in the Nith were surveyed and the data submitted to Marine Scotland. As of writing this report, the 2019 results are not yet available.

The data collected from the Nith in 2018 was compared against benchmarks that had been modelled using historic electrofishing results and habitat characteristics of the watercourses. It should be noted that these benchmarks are for long stretches of watercourse and do not necessarily reflect the true nature of the watercourse at the exact point of surveying. For example, you can have a watercourse that is a productive salmon spawning river but the site selected for surveying is located on a stretch that has poor instream salmonid habitat or is above the natural limits for salmon.

It was found that the observed fry densities in the Nith were within confidence limits however the observed densities of parr were below the benchmark. These low parr densities were noted in the majority of the areas in the south of Scotland and the possibility that emigration of 1-year-old parr as smolts had occurred before the electrofishing season.

The results from the 2019 season will be available in 2020 and will add to our understanding of juvenile salmonid populations.

At the time of surveying, scale and genetic samples were also taken along with water samples to be analysed at a later date.



Grade

By comparing regional or national estimates of mean salmon density obtained from GRTS sampling with benchmark estimates, each region is given a grading (1 - 3) for fry and parr separately. A region with a grading of 1 is coloured blue, a grading of 2 as grey and 3 as orange.

Grades were obtained for each lifestage using the following rules:

* Category 1: The estimate of mean observed density exceeds the benchmark
* Category 2: The benchmark is within the confidence limits of mean observed density
* Category 3: The upper 95% confidence limit of the mean observed density is below the benchmark

Next, the grades for the two life stages are combined to provide a single (overall) grade for the juvenile assessment method using the following rule-based system:

parr \ fry	1	2	3
1	1	1	2
2	1	2	2
3	2	2	3

Results from NEPS surveys 2018

STOCK ASSESSMENT

Juvenile salmonid surveys 2019

Every summer, between May and September, the Nith Board and Trust conduct electrofishing surveys throughout the entire Nith catchment to assess the status of juvenile salmonid populations. This is an important aspect of the Trust's work. On average, over 150 sites are surveyed each year. Some of these sites are repeated on a regular basis whilst other provide us with new information on watercourses that have never previously been surveyed. The resulting data can provide us with an insight into the productivity of the River Nith and identifies any areas where there may be issues such as pollution, lack of habitat or barriers impacting on the number of salmonids.

These surveys are conducted by fully trained staff using a mixture of single run semi-quantitative and three run fully-quantitative survey protocols developed by the Scottish Fisheries Coordination Centre. The densities of fry and parr are then classified using the SFCC national classification scheme. This classification scheme categorises the data according to five categories derived using data from over 1600 Scottish sites. Below are the results from 10 sites that are surveyed on an annual basis. These results show that salmon fry densities have dropped from approximately 150 fry per 100m^2 to 70 fry per 100m. This decrease is due to the increased water levels experienced in 2019 compared to the summer drought that occurred in 2018. The average densities of salmon fry present still fall within the "Excellent" classification and parr densities are classified as "Good". Most sites surveyed are considered to contain prime habitat for salmon. The Dalwhat Water and Mennock Water are predominantly sea trout tributaries. The data below is consistent with that. The low densities of salmon and complete lack of trout in the Nith at the site at Auldgirth New Bridge is due to a shift in gravels reducing available habitat at that site.

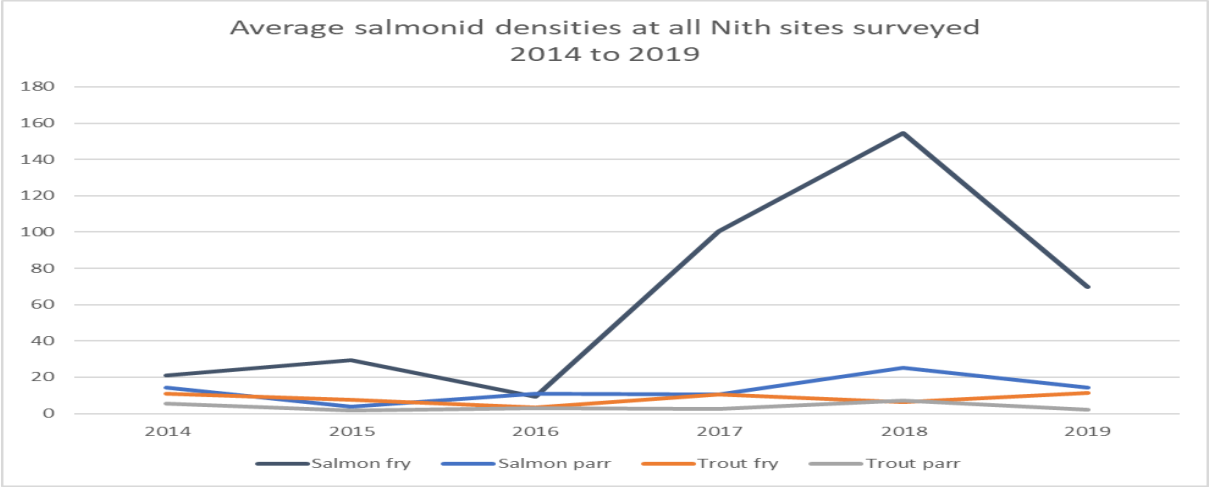
Electrofishing results for the Ten Annual sites in 2019

Watercourse	Site code	Location	Salmon fry (/100m^2)	Salmon parr (/100m^2)	Trout fry (/100m^2)	Trout parr (/100m^2)	Other species
Nith	1	Downstream of Nith Lodge, New Cumnock	47.38	38.29	7.41	6.26	SL
Nith	2	Downstream of Boig Road Bridge, New Cumnock	2.50	9.23	1.25	2.50	SL, M
Nith	3	Upstream of Guildhall Bridge, Kirkconnel	106.12	10.17	16.50	0.00	SL
Nith	4	At Auldgirth New Bridge	4.44	6.67	0.00	0.00	SL, E
Afton	5	Upstream of Blackcraig Bridge	109.41	30.04	3.85	7.69	-
Crawick Water	6	Downstream of Spango Bridge	55.94	22.92	3.20	0.00	-
Mennock Water	7	Upstream of confluence with Glenim Burn	69.08	4.14	42.04	3.21	-
Scaur Water	8	Downstream or Bridge at Glenwhargen	36.90	19.32	6.08	0.00	-
Cample Water	9	Downstream of bridge at Kirkbog Farm	265.52	0.00	0.00	0.00	SL, M
Dalwhat Water	10	Upstream of Bailwood Plantation	0.68	0.00	31.08	5.41	-
		Average of all sites:	***69.80***	***14.08***	***11.14***	***2.31***	

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 100m^2

absent	very poor	poor	moderate	good	excellent



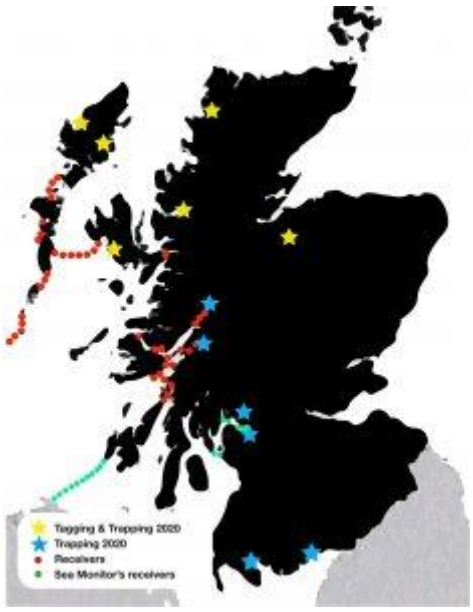
STOCK ASSESSMENT

Photos: (clockwise from top left) Brown trout from Upper Nith; Salmon parr; brown trout; fish rescue in the Crawick Water; recording data; bucket of fish from the Scaur Water; processing fish for NEPS site on Castlefairn Water; 4 age classes of salmonids

STOCK ASSESSMENT

West Coast Smolt Tracking Project

A smolt tracking project was conducted during 2019 on the east coast of Scotland. This project, The Moray Firth Smolt Tracking Project, tracked the migration of smolts out of selected east coast salmon rivers and their seaward journey in the marine environment. The project results from this research are beginning to filter through and reveal where smolts are being lost during their migration down river.



West Coast Tracking Project

Phase 2 of this important research project is intended for the West Coast of Scotland. This project entitled "The West Coast Smolt Tracking Project" plans to capture smolts in the spring of 2020. Due to the Covid-19 pandemic, the West Coast Tracking Project will be postponed for one year.

The Nith is one of seven west coast rivers which are going to trap 800 smolts cumulatively, in-river, and these will be fitted with acoustic tags. The tagged smolts will be released at their capture site and their progress from this location down river will be monitored on electronic listening devices. Once the migrating smolts have left the river environment their progress up the west coast of Scotland will be monitored by an array of listening devices which are deployed at strategic locations from the Solway to the top of Scotland.

Further details of these tracking projects and the results from Moray Firth Smolt Tracking Project can be found at www.atlanticsalmontrust.org.

It is intended that using the skills and equipment utilised on the West Coast project, that we will be able to conduct further research of our own stocks within the River Nith catchment in future years. For example, it is anticipated that we will conduct "mark recapture" research on specific parts of the catchment and tributaries to enable us to extrapolate the potential smolt production from a given area. This is important when attempting to assess the potential ultimate return of adult fish. Smolt population data is a useful tool in assessing limiting factors such as habitat and effectiveness of management input and other environmental factors.

Atlantic salmon smolt

HABITAT AND WATER QUALITY

Looking after the riparian habitat is an important aspect of management for salmonid species. There are several benefits to be gained from this initiative which are not always fully appreciated.

Water quality
Habitat enhancement often involves fencing off the strip of land adjacent to the watercourse. In turn vegetation is permitted to grow unchecked by the absence of agricultural stock. The riparian strip forms a buffer, filtering out nutrients and other potentially detrimental influxes to the watercourse.

Bank Stabilisation
Fenced off corridors at the sides of our nursery streams can assist in stabilising, often vulnerable riparian fringes. Grasses, shrubs and trees allowed to thrive, form root structures which bind the soils in the riverside banks and build resilience to floods. Roots and draped vegetation form useful fish habitats.

Temperature Control
Climate change is no longer a theory, it is a reality and it is happening now. Our temperature is rising and this can ultimately be to the detriment of some of our spawning/nursery areas. Those areas are often located high in river catchments where cover for fish is scarce and water depth is minimal in summer months. These watercourses can experience water temperatures that dictate that fish simply cannot survive. Habitat growth at the sides of these watercourses can cast shade over the water and reduce temperatures, thus building resilience into those tributaries as salmonid nursery areas.

These examples are just some of the many fishery benefits that can be gained from habitat improvements. During 2019 we have extended our existing habitat scheme on the Crawick Water. We have conducted extensive work on a tributary of the Nith at House of Water surface coal mine and monitored the Dalgig and Greenburn Burn on Greenburn surface coal mine. These mines are in the process of closing and restoring the land so this is an important time for us to input into the restoration of the riparian zones, ensuring that they provide vital habitat for fish and wildlife in future years.

The Coal Burn is an important sea trout spawning burn located in the hills above Sanquhar and was fenced and planted with native trees in 2009. On a visit back to the burn in 2019 it could be seen that the scheme had been very successful and electrofishing proved the burn to be holding higher numbers of juvenile trout than previously.

Coal Burn in 2009 – over grazing

Coal Burn December 2009 – fenced and planted with native trees

Coal Burn 2019 – habitat evaluation

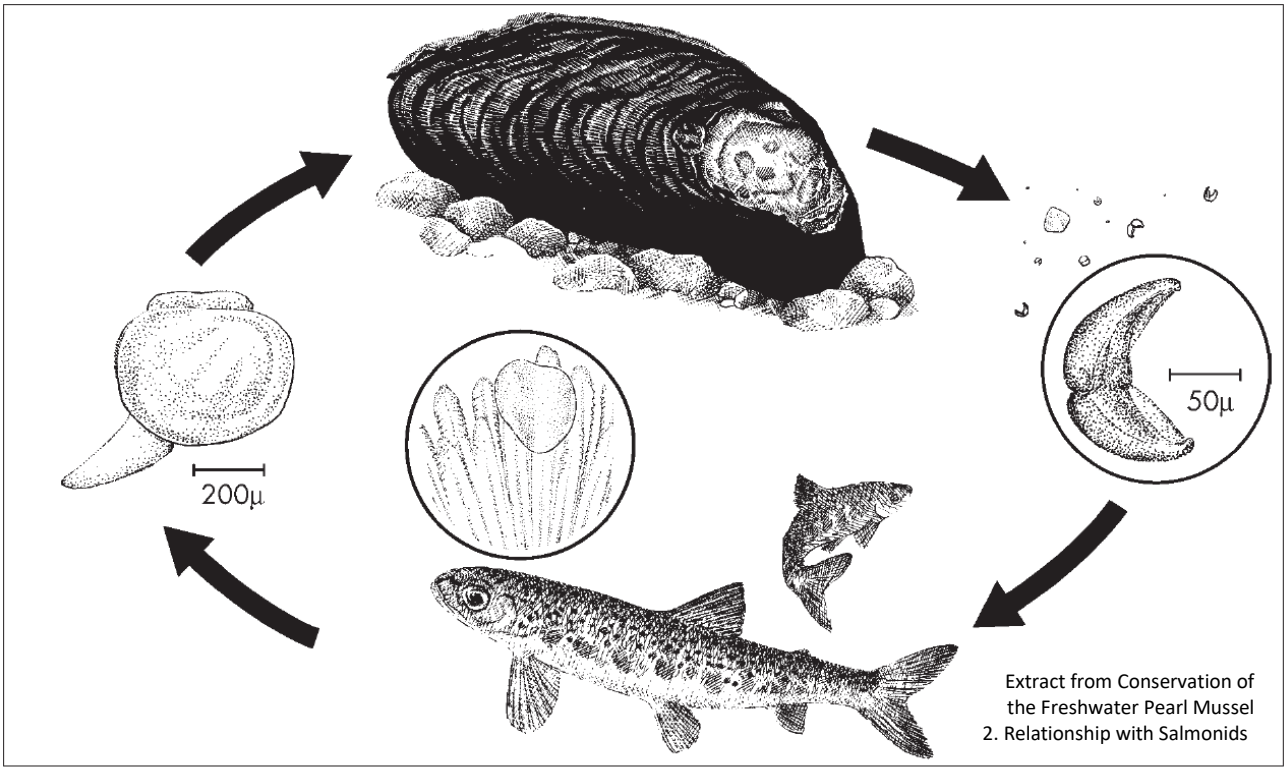
HABITAT AND WATER QUALITY

Freshwater Pearl Mussel Training Course

During 2019, we undertook training to be able to conduct surveys to look for freshwater pearl mussels. This is a protected species and a very good indicator of environment and aquatic status. These are ancient creatures which are known to exist at locations throughout Scotland and we thought it important that we know exactly what we are looking for and/or the potential presence of these species whilst we are working in the water environment.

The reproductive cycle of Fresh Water Pearl Mussels includes a stage, whereby, the gills of salmonid fish are utilised as a transport system to assist in their dispersal throughout the watercourse. Without salmonid species of fish, Fresh Water Pearl Mussels simply would not survive.

NCFT and NDSFB now conduct regular surveys for Fresh Water Pearl Mussels as part of their routine work. Members of staff conducting these surveyed are licenced to do so by Scottish Natural Heritage.



Extract from Conservation of the Freshwater Pearl Mussel
2. Relationship with Salmonids

Sarah Wroot

Photos: (clockwise from top left) Debbie surveying, Freshwater Pear Mussel, Lifecycle of Freshwater Pearl Mussel

EDUCATION

Fishing for the Future project

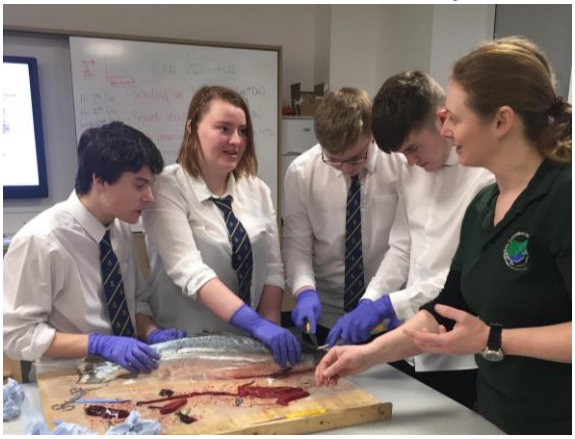
The Fishing for the Future project has been on the go in one form or another for over a decade, initially run by the Nith District Salmon Fishery Board. Over the years the project has evolved. It now incorporates three separate initiatives, all aimed at encouraging young people to engage with the aquatic environment and introduces them to fishing. These three initiatives include: - a series of 6 school sessions to various schools within the Nith catchment, angling taster days and the Nith Young Anglers Club. Through this year's Fishing for the Future sessions, we have provided over 249 young people with the opportunity to experience the wonder, joy and benefits of being outside whilst learning about fish and fishing and exploring our beautiful rivers and coasts.

School sessions

In 2019, we ran educational sessions in the following schools/classes: Wallace Hall Primary 6, Lincluden Primary 3/4, Dunscore Primary's 4-7, St. Michael's Primary 4, St. Joseph's College Rural Skills class, St. Joseph's Advanced Higher Biology students, Sanquhar Academy S3 class, Sanquhar Academy Higher Biology students, Duncow Primary 3/4 and Dumfries High's Advanced Higher Geography students. These sessions were tailored to fit with the ages and experience of the pupils.

Session 1 – Wild Salmon hatchery visit

Session 2 – Life in Freshwater



Session 3 – Fish dissection (for older groups)

Session 4 – River survey

Session 5 – Day out Fishing and Cooking Fish

Session 6 – Explore the Shore

EDUCATION

Angling Taster Days

To provide the next step in developing any interest in angling, sparked during the school sessions, we ran three Angling Taster Days at Blackwood Pond near Auldgirth during the summer of 2019. These sessions last about 4 hours and include learning about all aspects of fishing, associated equipment and how to use it. Participants then put their new found skills into practice in the afternoon fishing for rainbow trout on Blackwood Pond. Once a fish is caught the child is offered the choice of returning the fish or to dispatch it and take it home to eat. Those that choose to dispatch their fish are then shown how to prepare the fish so it is ready for them to take it home and turn into a tasty meal.

These days have been very successful with over 61 people taking part of which 38 where children. Some were children that had taken part in the school sessions and wanted to learn more and include their families. Angling taster days have proven to be so popular that we will be continuing them in the future.









Welfare Unit

Providing toilet and hand washing facilities for so many people has always been a bit of a challenge for us, especially when the you are dealing with children, outside in water. We applied for and were successful in obtaining funding from South West Scotland Environmental Action Trust (SWEAT) to purchase a welfare unit that could be used for all our events and sessions. This unit will not just provide vital toilet/hand washing facilities but is somewhere that lessons can take place and equipment can be stored. This is a huge benefit to the work we do and will be very useful.

EDUCATION

Nith Young Anglers Club

This is the third year that the Nith Young Anglers Club has been running and we have a strong group of regular attendees who are honing their skills. Every year we take on a small intake of new beginners and encourage the older children to mentor one of the beginners. Each session takes place at a different location and targets a different species of fish. This year we have fished for salmon, sea trout, rainbow trout, coarse fish, grayling and pike. Professional angling instructors from Borderlines, a not-for-profit organisation, provides the youngsters with first class angling instruction and takes them to the next level of fishing.

This year we started a certification scheme for the young anglers to work through and develop their skills further. As the Young Anglers progress through the sessions and obtain key skills they can aim to achieve Bronze, Silver, Gold and Platinum certificates. The Platinum level encourages them to develop their coaching skills and impart their knowledge to those just starting out. We have 22 children signed up for the Nith Young Anglers Club and plenty more people waiting to join up for the next year of fishing days.

Rainbow trout fishing at Buccleuch

The Fishing for the Future project is funded by the Nith District Salmon Fishery Board, the Holywood Trust, the Misses Robinsons Trust and is supported by local fisheries who donate fishing. In 2019, the following fisheries donated fishing: Blackwood Estate, Dumfries and Galloway Angling Association, Dalswinton Estate, Buccleuch Estate, Mr Kennedy-Moffat (Loch Urr) and Dunscore Worms Coarse Fishery.

EDUCATION AND OUTREACH

Below is a summary of some of the events, meetings, conferences and training courses attended by Trust staff and volunteers during 2019:

Events attended
River Nith Fishing Season Opening
Galloway Country Fair
Nith Sea Trout Experience
Nith Salmon Fishing Experience
St. Joseph's College STEM Ambassadors
St. Michael's Primary STEM Day
Holywood Trust Christmas gathering

Meetings and conferences attended
NCFT Directors meetings x4
NCFT Annual General Meeting
Fisheries Local Action Group meetings
NDSFB Board meetings x4
NDSFB Qualified Proprietors Meeting
NDSFB Annual Public Meeting
FMS AGM
Holywood Trust meeting
AST Smolt Tracking pre-project

Training completed
Freshwater Pearl Mussel surveying
Barrier Assessment Refresher

Education sessions
School field trips and sessions x 47
Advanced Higher Biology survey x 3
Advanced Higher Geography survey x 1
Nith Young Anglers Days x 8
Angling Taster Days x 3

Nith Fisheries Tent at Galloway Country Fair 2019

Testimonials

"Thank you very much for all the excellent lessons and trips over the years. It is by far the best project I have ever done with pupils and there is clear evidence it has had a lasting affect. It has undoubtedly been the highlight of Primary 4 for each class that has completed the project." Mr Creag Carson, Primary 4 Teacher at St. Michael's Primary, Dumfries – participating since 2016

"Just to say a big thank you for a wonderful interesting and interactive day. I got a text from [the participants] mother last night saying he had shed a tear about how proud he was landing his first ever fish so I guess that is the measure of a successful day. Thanks to both you (for your very interesting dissection of a rainbow trout) and organising event and to all the other guys. Would single Jim out for his assistance in making his day" Allan Spears, Befriender – July Taster Day

"I think the nith young anglers group is a fab thing for young ones. My son is 14 and looks forward to every session not only because he loves fishing but it has given him the chance to try for different types of fish and other methods apart from what he is used to. It gets them out into the fresh air and gives them a chance to build confidence in the sport as well as increase their knowledge of fishing and safety while fishing but also to meet new friends. Getting youngsters into fishing can only be a good thing as for some it gives them a chance to try something they maybe would never have thought of trying. All in all a fab group run by fab people ☆☆☆☆" Natalie Graham, parent, Nith Young Anglers