

Findhorn Fishery Board

Annual Report 2019



Salmon leaping on the Divie (photo Mark Laing)

Findhorn Fishery Board

Chair

Alasdair Laing (*Logie Estate*) up to Aug 2019
Anthony Laing (*Coulmony*) from Aug 2019

Board Members

Julie Balgonie (*Glenferness Estate*)
Colin Cawdor (*Cawdor Estate*)
Robert Hoskin (*Lethen Estate*)
Andrew Howard (*Moray Estates*)
Tony Watts (Forres Angling Association)*

Co-optees

Mark Laing (*FNLFT*)
Alex Leven
David Stewart Howitt

Staff

Robert Laughton (*FNLFT Director*)
Sean Maclean (*Superintendent*)
Donald Mackenzie (*Seasonal Bailiff*)
Valerie Wardlaw (*Administrator*)

Clerk

Will Cowie (*R&R Urquhart*)

* Forres AA will be represented by Graham Bell or Tony Watts depending on availability.

Address

Fisheries Office, Logie Steading, Dunphail, Forres, IV36 2QN.
Tel 01309 611220

Emails

Chairman: anthony@shortbreadhouse.com
Director: director@fnlft.org.uk
Administrator: admin@fnlft.org.uk

Web Site: <http://www.fnlft.org.uk/river-findhorn/>

Chairman's Report

As your new chairman, I would like to thank Alasdair Laing for the immense amount of work that he has done for the Board over the past twelve years of his chairmanship. During that time there has been more change than ever before.

The Findhorn Nairn and Lossie Fisheries Trust was set up in 2008 and Bob Laughton joined us as the river's biologist in 2012. There was also the Scottish Government's Fisheries Management Review which was very time-consuming. Alasdair's hard work and excellent contacts in this area stood our Board in very good stead. We owe Alasdair our most sincere gratitude for seeing us through these challenging times.

A lot of exciting work has been carried out on the river and its environs over the past year. The most exciting is the Missing Salmon Project which is being carried out by the Atlantic Salmon Trust. Your Board is proud to have contributed £10,000 to this project and Bob and his team enabled fish from the Findhorn to be included in the study. This is research that should give us a meaningful insight into the death rates of smolts on their migration from the river to the open sea. Bob Laughton has included details of this in his report which follows. This work, combined with in-river juvenile surveys with the use of electro-fishing, means that we are better informed than ever before. The challenge now is to use this information to help us improve salmon stocks which have been showing a steady decline for many years.

The catch statistics, as Bob's report will confirm, show that the grilse catch last year was very disappointing. Continued work on the control of Giant Hogweed and Japanese Knotweed have had excellent results and have greatly improved the habitat on the riverbanks. This, together with continued excellent work on the habitat at Coignafearn, means that the river is in the best condition that it has been in for many years. Let us all hope that reviving the salmon population will follow on from the improvements in the environment and the excellent research work being carried out. I welcome to the Board David Stewart Howitt and Alex Leven who joined the board during the year.

I would like to give special thanks to Valerie Wardlaw, Bob Laughton, Sean Maclean and Donald Mackenzie for their hard work and dedication during the year.

*Anthony Laing
(Chair Findhorn Fishery Board)*

River Findhorn and Fishery District

The River Findhorn has a catchment area of over 1,300km² and a stream network length of about 1,500km, of which the main river comprises 90km. The catchment is split between two Local Authority administrations, which are the Highland and Moray Councils.

The Findhorn Fishery District (Figure 1) includes the River Findhorn and its tributaries plus 35km of coastline in the Moray Firth, from Burghead to the east of the Findhorn estuary to The Bar in the west. The District extends 3 nautical miles out to sea (Figure 1). The Muckle, Mosset, Kinloss and Burgie Burns are also included within the District.

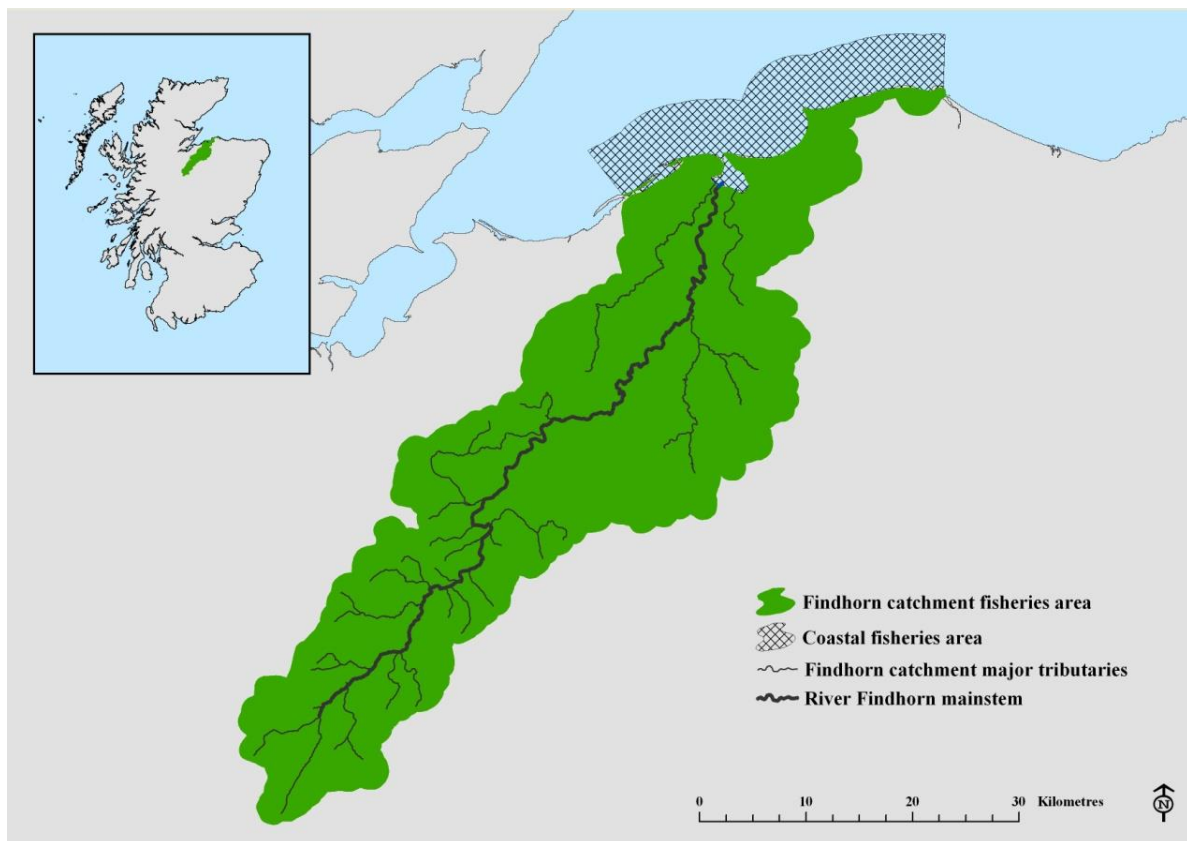


Figure 1: Findhorn catchment and coastal district.

Further information on fisheries management on the Findhorn and Scotland in general is available on the following web sites:

<http://www.fnift.org.uk/river-findhorn/>

<http://www.fnift.org.uk/>

<http://fms.scot/>

River Findhorn Salmon and Sea Trout Catches 2019

Salmon and sea trout catches are summarised in Figures 2 and 3 and Table 1 below and more detailed beat by beat and seasonal information is provided in Appendix 1. Note that the catch for 2018 and 2019 is data submitted to the Findhorn Board while data from 1952 to 2017 is from official returns published by Scottish Government.

Findhorn Rod and Line: Salmon + Grilse

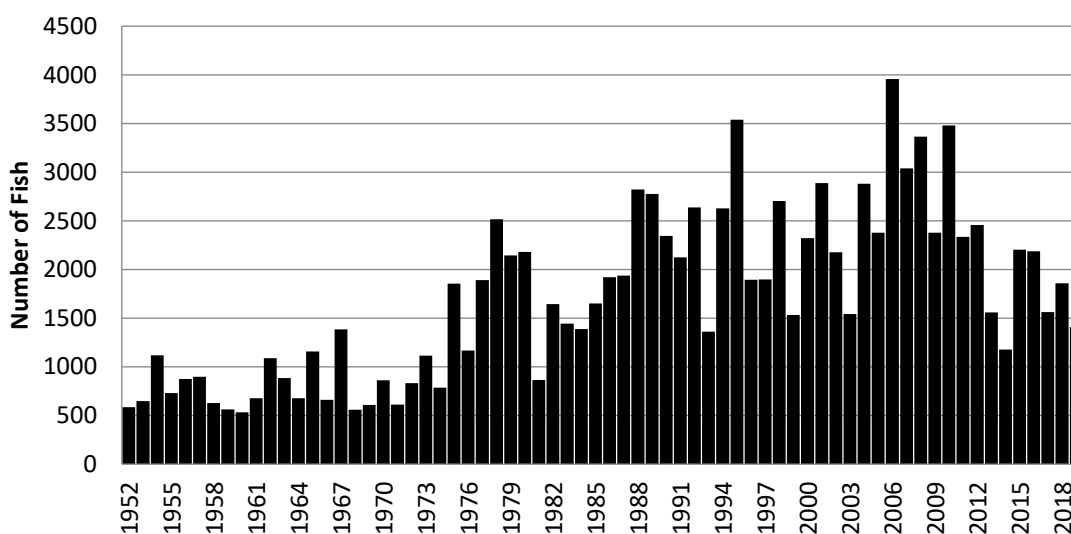


Figure 2: Rod catches for salmon and grilse for the River Findhorn from 1952 to 2019.

Findhorn Rod and Line: Sea Trout

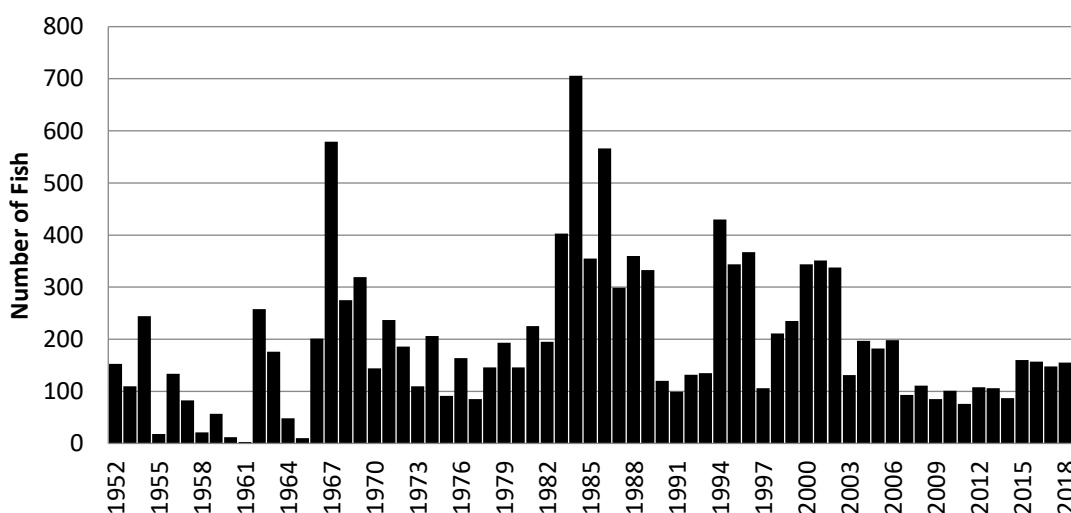


Figure 3: Rod catches for sea trout for the River Findhorn from 1952 to 2019.

The salmon and grilse catch for 2019 was 1406 which was lower than 2018 (Figure 2). The Sea trout catch was 101 (Figure 3) which was also lower than in 2018.

Table 1 provides a summary of the spring salmon, summer salmon, grilse and sea trout caught throughout the 2019 Findhorn fishing season. Catch and release rates for spring salmon was 100% in keeping with Scottish Government recommendations. Release rates for summer salmon were 90% and grilse 74%, overall catch and release rate for salmon and grilse was 87%. Sea trout release rates were 79%.

Further details on the trends in catch and release for each salmon component and sea trout from 2000 to 2019 are shown in Appendix 1. The Board are delighted that anglers have continued to adopt a very positive response to the catch and release recommendations and are contributing to safeguarding stocks for the future.

Table 1: Numbers of spring salmon, summer salmon, grilse and sea trout caught and catch and release rates for the River Findhorn, 2019.

	Caught and Released	Caught and Retained	Total	Release Rate (%)
Spring Salmon	207	0	207	100
Summer Salmon	719	81	800	90
Grilse	297	102	399	74
Sea Trout	80	21	101	79
Notes: 1. Spring salmon = multi-sea-winter salmon caught between 11 th Feb and 30 th April: Summer salmon = multi-sea-winter salmon caught between 1 st May and 30 th Sept: Grilse = one sea-winter salmon generally caught from May to September. 2. Findhorn angling season opens on 11 th Feb and closes on 30 th September each year. 3. Data is based on catch returns to the Findhorn Board.				

Salmon catches vary considerably each year and while 2018 proved to be a difficult one for anglers with the warm dry summer leading to near record low flows. This led to salmon and grilse accumulating in the lower reaches and this may have accounted for the good catches particularly in the lower Findhorn. Although the catch improved on 2017 it was still below the 10year average of 2022 but the improvement was in contrast to the overall [Scottish trend](#) with salmon catches at their lowest level since official records began in 1952.

In contrast 2019 was more complex with another dry spring catches of spring salmon were good, in fact the best catch for over a decade. The wet summer provided better conditions

for fish to move through the river and catches were fairly good through the lower and middle river. However, a dry spell in September limited catches in the upper river. In contrast to the improvement in spring salmon catches of grilse were much lower and summer salmon catches also dropped leading to the lower overall catch of 1406 still below the 10 year average of 2022.

Conserving Wild Salmon

The Scottish Government through Marine Science Scotland (MSS) continued to develop conservation limits models for Scottish rivers throughout 2019.

Assessing the conservation status of salmon is a straightforward idea as essentially it is determining whether or not the number of salmon spawning is above a critical threshold level. However, managing the uncertainties in assessing this leads to some complexity. [ICES](#) and countries reporting to [NASCO](#) have developed pragmatic approaches for applying conservation limits and these have been drawn on to construct the system for Scotland. The approach requires some knowledge of first, actual levels of spawning and second, the minimum acceptable (target) levels of spawning. The target level is also called the “conservation limit”. Actual spawning levels are usually expressed in terms of egg deposition and rely on estimation of numbers of returning adult salmon from counters and catches. The conservation limits approach uses rod catches from the most recent 5 years to using a run reconstruction model. This value is then used to estimate egg deposition which is compared to the estimated egg requirement in order to assess the probability that the stock will equal or exceed its CL in each year (attainment of CL). River are then graded 1 – 3 and local management actions applied as detailed below. More details on the approach and results for Scottish rivers in 2020 can be found [here](#).

Grade 1 At least an 80% mean probability of CL being met in the last 5 years.

Advice provided to the District Salmon Fishery Board indicating that exploitation is sustainable therefore no additional management action is currently required. This recognises the effectiveness of existing non-statutory local management although a Conservation plan for the future must be prepared.

The Rivers Findhorn remains in this category for 2020.

Grade 2 60-80% mean probability of CL being met in the last 5 years.

Management action is necessary to reduce exploitation though mandatory catch and release will not be required in the first instance, but this will be reviewed annually. Production of a conservation plan is required in consultation with Marine Scotland.

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 and production of a conservation plan is required in consultation with Marine Scotland.

The River Lossie remains in this category for 2020.

The conservation limits model approach is still evolving and to further improve the approach a National Electrofishing Survey programme was initiated by Marine Scotland and funded by Scottish Government in 2018 and 2019. For more information on this see the Juvenile Salmon and Trout Stock Assessment section.



Sandy Keilloh releasing a spectacular 40lber at Drynachan in Aug 2018, sadly nothing quite so big in 2019!

Findhorn District Salmon Fishery Board [Conservation Code 2020](#)

RELEASE Anglers must release:

All fish caught up to 14th May inclusive

From 15th May: All fish over 9lbs / 28 inches (4 Kg / 72 cm); all coloured, stale and gravid fish; as many hen fish as possible

If an angler catches a fish that they feel is likely not to survive, then the angler can retain it, but they must report immediately to the estate, the bailiff (Sean McLean 07920 483081) or the FNLFT (Bob Laughton 07887 535986) , who will decide what to do with the fish. This course of action also applies to all fish over 9lbs, which would normally be returned throughout the season under the FDSFB Conservation Code.

RELEASE RATE: Anglers are asked to achieve a minimum of:

75% of all salmon/grilse and sea trout caught **from the 15th May**

KEEP RATE: Guidance only as Release Rate above should take priority:

A maximum of 1 salmon (under 9lbs) or 2 grilse (fish under 4lbs) per rod per 6 days

METHOD

Before 1st May fly fishing is encouraged, most beats are fly only all season. From 1st May it is mandatory. Pinched or barbless hooks are recommended and avoid using triple hooks.

Catch and Release – 6 Simple Steps:



1. Use the strongest practical nylon cast to aid quick landing of fish. Long playing leads to the build-up of harmful metabolites such as lactic acid which kills fish even after they appear to swim away unscathed.

2. Use single or double hooks but avoid using triple hooks. Pinch the barbs by carefully crimping them with slim-jawed pliers. This is better than using barbless hooks.

3. Try and plan your release strategy as you are playing the fish - think where the best area would be

to net or beach, unhook & release your fish. Avoid sandy beaches and silty bays, and where there are extensive areas where the water depth is shallower than the depth of the fish.

4. Take great care in handling fish. It helps if there are two of you so try and fish in pairs. Do **not** pick the fish up by the tail and carry it to the bank for unhooking purposes. If possible use a wide-mouthed small knot-less mesh net to minimise handling and remove the hook and release the fish while still in the water. Wet the hands first or use surgical gloves and wet them as well, avoid the gill area, do not squeeze the stomach and take care not to rub off scales. Turning the fish upside down will often prevent it from struggling. Use your knees or the river bank to keep the frame of the net level and just above the water surface.

5. Use long-nosed artery forceps or slim-jawed pliers for removing hooks.

6. Try to minimise out of water and handling times. Return the fish as quickly as possible. Some photographers keep fish out of the water far too long, considerably reducing their chances of recovery. Support it until it has recovered enough to swim away.

River Superintendent's Report

I was delighted to welcome back Donnie Mackenzie as assistant bailiff for the 2019 season. The season opened on Monday the 11th of February 2019, with sunny conditions, there was a good turnout at the Stoney pool. Early season saw a mixture of weather, with water temperatures even reaching 15 degrees, in February - very unseasonal!

The first salmon of the season went to Ian Neal at Altyre Estate and the second landed was later in the month at the Broom Pool on the Forres Association. Spring catches continued well through March and April particularly on the Darnaway and Altyre beats. Water levels dropped through April with prevailing dry conditions and spring catches improved on the Association. However, springers were also reported from further upstream from Lethen and Drynachan showing they had distributed through the river.

As we enter the month of May, the temperatures were on the low side, 6/7 degrees during the day, water levels dropped and became cooler. However, by the middle of May, air and water temperatures increased and we were now receiving reports of fish fatalities on beats from Lethen down to the Association waters. This was concerning but not new to us. With the help of Forres AA banksman, Ian Kelly, scale samples and other data was collected from some of the salmon



Collecting scales samples from diseased salmon at the Meg Pool, Findhorn, May 2019

We had some good rises in water levels at the end of May which helped to freshen the river and reduce the build-up of fish in the pools. No more diseased salmon were reported after these rises.

After a decent spring run, decent numbers of salmon continued to run the river, although not in the same numbers and grilse began to appear in June. However, numbers of grilse remained low and sea trout also appeared scarce.

The first of August had a big rise in water, this water was very milky and fishing halted for a day or two. This water came from a burn near Tomatin, the Strathnoon Burn (Allt Lathach) this changed the colour of the water with tons of sand and silt coming from a natural bank erosion.

Although a few big salmon at 22lb & 25lb were caught and released on the Association water the catches of summer salmon and grilse remained low during August and September.

Poaching Incidents

Patrols were carried out throughout the year, seven days a week, they were conducted at all times of day, nights and early mornings, this was the only way to protect these vulnerable fish from being taken. We cover the entire river, the bay and coast as well as include patrols along the Lossie, funded by the Lossie Fishery Board. We also have a good range of equipment to assist our patrols including a thermal camera and utilise spotcheck if patrolling individually.

We deterred a lot of poaching in this way but there were still a wide range of incidents to deal with ranging from illegal netting to fishing without permits. We also look out for pollution incidents and inspect river works. A selection of incidents is described below.

Even before the season started, I received a call regarding fishing activity in the Findhorn Bay, two male youths were spinning off the north pier in late January out with the fishing season. When approached by a local angling club member they gave lots of verbal abuse when questioned, so the member called 101 and me to report the incident. Police and I attended the youths and informed them on the rules and regulations regarding angling.



Monofilament net retrieved east of Findhorn Bay during March 2019.

On Thursday the 14th March, assistant bailiff, Donnie Mackenzie received some information regarding the possible use of a monofilament net on Burghead Bay, we checked every low tide twice daily until Tuesday afternoon of the 19th at 14.15 hrs. We spotted this net about 1.5 miles east from Findhorn Bay, this was quite far up the bay from Burghead and to find it in that location was very unusual as most nets tend to be much closer to Burghead. No fish or signs of scales were in the net when we pulled it from the beach, so we were confident it had not been in position long.



In Late June, I conducted a late Saturday night patrol with a PC from Police Scotland Highland division. This was organised by the highland wildlife officer, Dan Sutherland. This was a great opportunity for a joint patrol with the local police, we covered the Forres Association in great detail and covered a lot of subjects while going round the river. The PC was amazed how much land and tributaries we cover.

We also checked a few unauthorised parked cars at the Skater area with PNC checks. This is a great tool and I hope in the future we can get the use of these back. We also came across some fisherman and public on our travels, they

were all surprised to see a PC with me. I hope to do some more joint patrols in the future with police Scotland.

Although numbers of salmon in the lower river were low during July, this did not deter poaching activities. On Sunday 14th, I received a message at 20.30hrs regarding two men spinning the Broom Pool. Two Russian men were camping close by and fishing the river, when I turned up, the two men were sitting outside their tent, I didn't see them fishing so I confiscated their equipment and told them it would be returned in the morning. I gave them a warning of what would have happened if I did witness them fishing, they left the next morning with their fishing rods returned to them.

A more unusual incident was reported from Lossiemouth when I received information indicating that three men from a local Indian restaurant were netting the coast at Lossiemouth. The net was a round one that is thrown by one person and they were operating in the evening and also taking undersized fish. We conducted six patrols at the reported location but so far the individuals have not been caught. Police Scotland were also informed.

I received a phone call from a Forres AA member in the afternoon of Wednesday 17th, he found two rods hidden in the bushes on the Broom of Moy side of the Broom beat, they were all taped up with black tape so the rods were difficult to see.



Rods and tackle from Broom bank, River Findhorn, July 2019.

On the way back from a Cawdor patrol via Nairn, I spotted a man and young boy tackling up with rods, they were in a local car park near the river Nairn, I contacted the Nairn bailiff, Ali Skinner, and advised him to check this out as it didn't look right. Ali Skinner contacted me an hour later to thank me, the two in question were fishing without a permit.

On Sunday the 4th of August at 13:00hrs, we observed a white transit van with one adult male and one teenager walking along the road back to the vehicle with spinning rod's. When asked they told me they were fishing for trout but on inspection the gear they had consisted of spoons and Toby's, only suitable targeting salmon. As we didn't actually see them fishing and they didn't have any fish, we could only confiscate their fishing equipment until the next day, as we anticipated they would go straight back and commit an offence once we had gone. We reported the incident to Police Scotland with details of address and van registration. The vehicles registration was checked and showed no MOT leading to a fixed penalty and some points added to his driving licence. They have not come back for their fishing equipment! However, the incident illustrates the importance of working closely with Police Scotland.

We have had a few reports regarding a couple of small boats working out of Burghead and Hopeman and the information received has suggested that they might be up to illegal netting, keeping undersized fish and shellfish. We introduced ourselves to the boat operators and asked plenty questions and also outlined the legislation regarding salmon and sea trout. I also reported my concerns to Marine Scotland who were very grateful and will investigate further themselves.

These are just some of the incidents that have occurred throughout this year on the river.

Predator Monitoring and Control

Monitoring of the seal population at Findhorn Bay continued and seal numbers remain high. I attended meetings with the Moray Firth Seal Management group and continued to maintain seal control for any seals entering the river within the seal licence.

There have been a few reports of American mink along the coast and in the lower Findhorn area during the year. I operated traps on the Muckle Burn for a few weeks after a local sighting but no capture. Any sightings should be reported to James Symonds the Invasive Non-native Species Officer, on 01340 810841 or Mob 07493272898.

I organised four bird counts throughout the year with the help of Bob Laughton (FNLFT) and gamekeepers from various estates and volunteers from the Forres AA. This data is analysed by Bob Laughton (FNLFT) and submitted to support a Moray Firth sawbill licence application co-ordinated by Roger Knight (Spey Fishery Board). We have our new SNH Sawbill licence for 2019-20.

We will continue with the bird counts and would appreciate any sightings to be reported to Bob Laughton via the Logie office or to myself.

Smolt Trapping



Building the smolt trap with help from AST staff and volunteers at Red Craig, River Findhorn, April 2019.

Within the second week of April, river levels were dropping, and this gave us a chance to install the smolt trap for the up and coming smolt tagging project (The Missing Salmon Project) run by the Atlantic Salmon Trust. We put the trap together on the 8th of April with help from AST staff and volunteers and the anchored in position at Red Craigs on the Findhorn. Bob, myself and Donnie and several volunteers visited the trap each day to count the smolts present and select any that are suitable for tagging. When we had the appropriate size of smolt, we contacted the AST to come along and insert the tags. Matthew Newton (AST) and his team were very efficient at this difficult task, they are very quick and precise. We had 100 of our smolts tagged successfully by early May.

Donnie and I also assisted AST with the installation and collection of acoustic receivers in the Findhorn and these will collect the data as the smolts migrate out to sea.

I would like to thank all who assisted the bailiffs this year, with bird counts and giving information on possible poaching activities, all this assistance is very much appreciated and very important.

Sadly, Donnie has decided not to return for a third season in 2020 so I would like to thank him for his help and dedication to the task during 2018 and 2019. Donnie was always

available to assist me through the season, he was very reliable, assertive, and always conducted himself in a very professional and positive manner.

Sean McLean, River Superintendent, Mobile: 07920483081

Findhorn, Nairn and Lossie Fisheries Trust Report

The Findhorn, Nairn and Lossie Fisheries Trust (FNLFT) promote sustainable management of river resources and fish populations through research, restoration and education. To achieve this, the Trust works closely with the District Salmon Fishery Board for each river, and other relevant organisations. A charity and company limited by guarantee, the Trust relies on grants, donations and fundraising to implement projects.

A key element of the Trust's work is in implementing the Fishery Management Plans (FMP) for each river. These describe the current state of each river and fishery, describe current issues and identify and prioritise actions needed to improve the rivers and fisheries and copies can be downloaded from <http://www.fnlftrg.org.uk/projects/>. The FMPs were written in 2010 with an anticipated duration to 2015. However, due to the Fisheries Reform process the Plans remained in place until the outcome of that process was clear. The reform process did not progress and after consultation in late 2018 both the Lossie and Findhorn Board opted not to amalgamate. So initial work on overhauling the FMPs began in 2019 and will be completed in 2020.

This report details activities carried out on the River Findhorn during 2019 and where this relates to the existing fisheries management plan it is shown in brackets. Further details of the work of the Trust can be found on www.fnlftrg.org.uk.

Juvenile Salmon and Trout Stock Assessment (FMP3.1)

In 2018 the Scottish Government introduced the National Electrofishing Programme for Scotland ([NEPS](#)) to assess the juvenile fish stocks in rivers. Using randomly selected sampling sites and appropriate statistical analysis, it is possible to estimate the number of fish in a particular section of a river, or by upscaling, the total production of fish in a river or region. This information can be used to compliment angler catch data to assess whether sufficient adult fish are returning to each river system to indicate a healthy population of

salmonids. This in turn dictates whether conservation measures, such as catch and release, are required to protect and improve the fish stocks. The FNLFT surveyed 13 sites on the Findhorn and Lossie and 8 on the Nairn in 2018. Marine Scotland Science (MSS) have analysed and a report is available [click here](#).

The Findhorn, Nairn & Lossie juvenile fish data were combined to give a regional density of salmon fry and parr that would classify all three rivers in the Findhorn, Nairn and Lossie Trust area as Grade 1 under the Conservation of Salmon (Scotland) Regulations. Within that the Findhorn was classed as Grade 1.

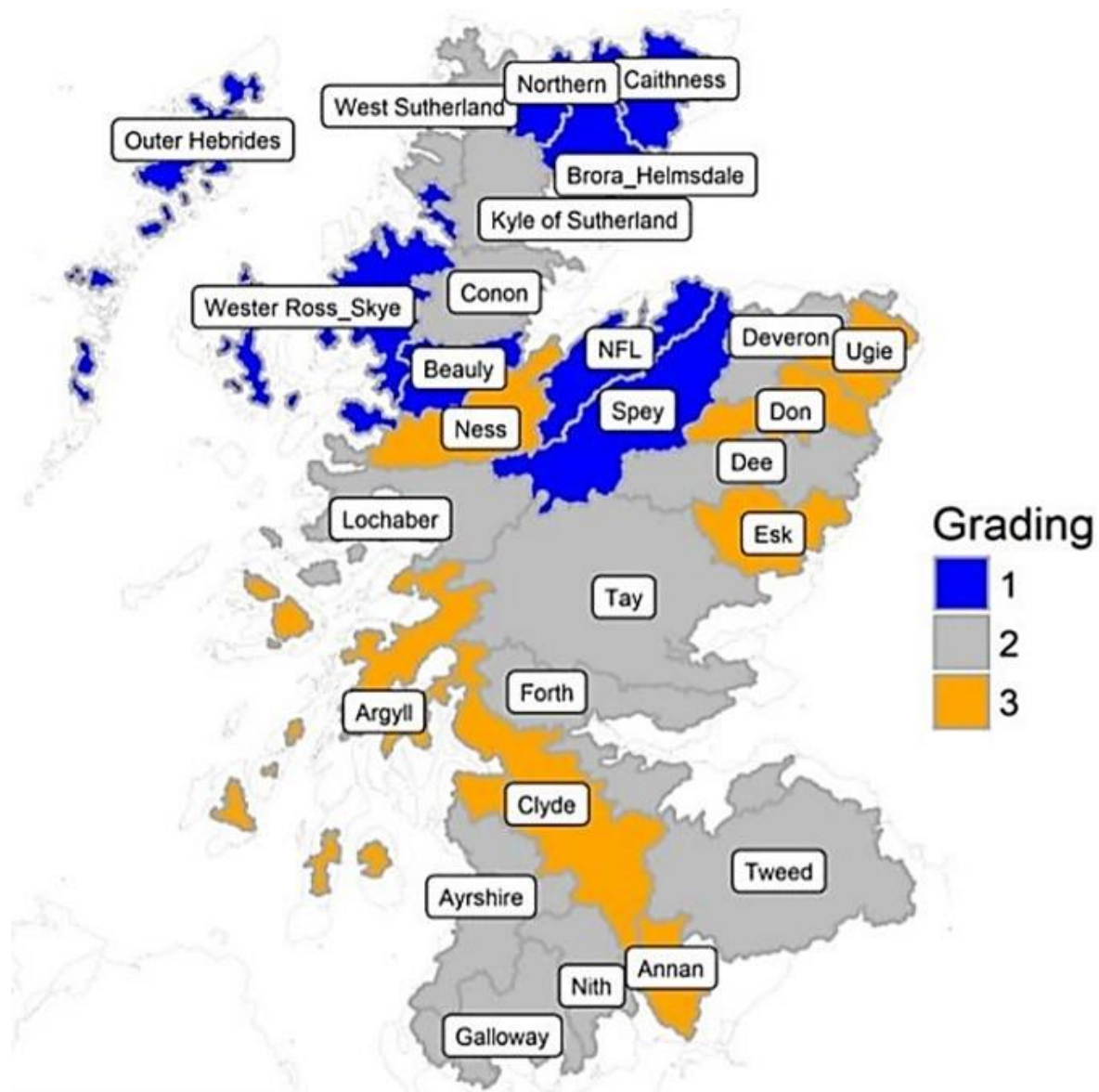


Figure 4: Grades for overall juvenile salmon density developed from the 2018 NEPS data. (Source Malcolm et al 2019)

The NEPS surveys continued in 2019 and FNLFT completed electrofishing surveys at 9 sites on the Findhorn (Table 2) and 15 on the Lossie, while the Nairn DSFB completed 6 sites. The results from the 2019 surveys are due to be published by Marine Scotland later 2020 but initial indications are that the results were similar to 2018 with healthy stocks of juvenile salmon present.

Table 2: Location of electrofishing sites within the River Findhorn completed as part of the National Electro-Fishing survey 2019.

Easting	Northing	Site Code	River	Location	EF Date
265439	810054	Nairn_Findhorn_Lossie2906	Cro Clach	Upper reaches	09/08/2019
264109	811377	Nairn_Findhorn_Lossie2890	Eskin	Upstream from Pool/Boulder	09/08/2019
269391	816729	Nairn_Findhorn_Lossie2881	Allt Calder	In Gorge	30/08/2019
279379	837250	Nairn_Findhorn_Lossie2909	Moy: Allt na Beinne	Upstream from bothy	29/08/2019
274913	825338	Nairn_Findhorn_Lossie2882	Kyllachie	200m down from construction road bridge	28/08/2019
300904	838320	Nairn_Findhorn_Lossie2934	Dorback: Allt na Ceardaich	Downstream from Dava way bridge	16/08/2019
278964	832540	Nairn_Findhorn_Lossie2937	Funtack	Near Dalmagarry	28/08/2019
302838	846087	Nairn_Findhorn_Lossie2902	Divie	Bantrack	28/08/2019
302092	846525	Nairn_Findhorn_Lossie3034	Divie	Viaduct	28/08/2019



Access to site FNL_2906 on the Cro Clach in Coignafearn required a steep trek. This is close to the upper limit for salmon in the Findhorn so it was encouraging to find excellent numbers of salmon parr at this remote site.

Smolt Output – (FMP3.2)

In the spring of 2019 the Moray Firth "[Missing Salmon Project](#)", the largest acoustic telemetry project in Europe, was initiated. Led by the Atlantic Salmon Trust, the project aims to record smolt movements down through rivers and identify their migration routes out at sea. In addition, the project hopes to pinpoint the threats to smolts during their migration.

In 2019, 850 migrating smolts were captured and tagged with tiny acoustic transmitters in seven river systems, (Deveron, Spey, Findhorn, Ness, Conon, Oykel and Shin), and over 340 acoustic receivers were deployed from the headwaters of the rivers out into the open sea within the Moray Firth. In the River Findhorn 100 salmon smolts were tagged along with one sea trout smolt.

Over 15million smolt detections were recorded by the acoustic receivers across the study area and initial analyses of this huge mass of data indicate salmon journeys through freshwater habitats during migration is riskier than expected. For the Findhorn 100 salmon smolts, 53 reached the downstream receivers at the estuary mouth, and 40 smolts reached the array offshore from Spey Bay, a survival rate of 53% and 40% respectively. Results were similar for the other Moray Firth rivers, with an average of 49% of the smolts reaching the sea from freshwater. After leaving the river the majority of salmon smolts headed east to the North Sea, while sea trout smolts opted to migrate within the Moray Firth. A full report on the Findhorn smolts can be download [here](#).

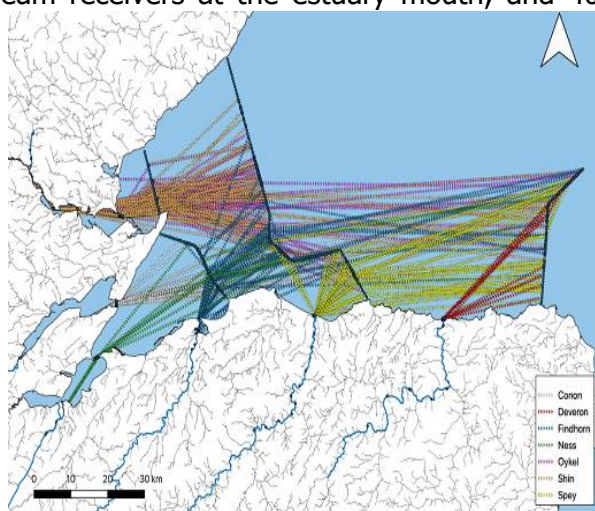


Figure 5: Salmon smolt migration in the Moray Firth 2019.

The Missing Salmon Project will continue in 2020, Trust staff will be trained in smolt tagging techniques and a further 100 smolts will be tagged allowing more detailed information on their in-river movements and losses to be gathered. The AST hope the

project will result in practical management solutions to reverse the decline in salmon numbers in our rivers.

Adult Salmon and Trout Scale Collection (FMP2.1)

Basic data from salmon and trout catches is an important component to managing a river. Catch data is routinely collected for the Findhorn but data from scales, weight, sex ratio, fishing effort etc. is often absent. Scales in particular provide an important insight into the age structure of the fish population. In time this can also provide an insight in changes in run time and growth within the river and/or the sea perhaps reflecting changes in ocean or climate conditions.

Scale collection started in 2013 and continued in 2019. However, with more emphasis being placed on releasing salmon and sea trout quickly and carefully we are not encouraging anglers to collect scales from released fish anymore. Scales can be taken from any retained salmon or sea trout or any diseased or any dead fish/kelts found along the river. Thus, numbers of scales samples have dropped in 2019 with a further 11 salmon scale samples and 3 sea trout scale samples submitted (Table 3). We are again very grateful to all those anglers who took the time to collect them.

Findhorn Location	Number of Salmon Scale Samples	Number of Sea Trout Scale Samples
Forres AA	1	0
Altyre	2	0
Darnaway	2	0
Lethen	6	0
Muckle Burn	0	3
Total	11	3

Table 3: Findhorn salmon and sea trout scale samples 2019.

Invasive Non-Native Plant Control (FMP4.2)

Control of non-native plants continued along the river during 2019 supported through the [Scottish Invasive Species Initiative](#) (SISI). Once again our approach was to work from the uppermost area of infestation downstream and concentrated on repeating treatment in the areas tackled in previous years.

Coulmony/Daltulich Bridge is the upper most limit for Giant Hogweed and treatments commenced there from April onwards. Downstream from there the Findhorn enters a spectacular gorge section and similar to 2018, local white water rafting specialists "[Ace Adventure](#)" were contracted to assist with treating giant hogweed and Japanese knotweed in this section. The cliffs at Broadreeds, Darnaway, were again tackled by "[Blokes on Ropes](#)".



Giant hogweed infestations at Mundole in July 2015 prior to treatment. (photo ROAVR)



Giant hogweed infestations at Mundole in July 2019 after four years of treatment. (photo Mark Laing)

Contractors, Steve Turner (Conservation Services Moray) and Angus Dixon (Groves Forestry) continued treatment around Dalvey, Altyre and Mundole and we are also grateful for the continuing support from Jenny Davidson (Mundole Farm), Dalvey estate and Moray Estates. After four years of treatment we are beginning to see significant progress. Forres AA banksman Ian Kelly also worked tirelessly throughout the season to maintain paths and control of hogweed and knotweed throughout the Forres AA beat.

All giant hogweed from Daltulich to the A96 Bridge was tackled maintaining our good progress. During 2019 we continued our advance downstream to include the river bank between the A96 and the Mackenzie and Cruickshank Garden Centre, and we also combined with "[Wild Things](#)", to treat Giant hogweed around the Waterford recycling centre.

Local volunteers from Forres and the surrounding area continued to meet on Monday nights to tackle the giant hogweed along the Mosset and Rafford Burns. During 2019 the Mosset Burn was again treated from Rafford and Altyre all the way to the confluence with Findhorn Bay.

We also returned to treat Giant Hogweed on the Muckle Burn at the Caravan Park near Brodie and advance down to Bishopmill Bridge with help from local farmer, George Elder. Treatments of isolated out crops of Giant Hogweed were also carried out within Forres notably at the Matrix Garage and on the disused land beside Mosset Park.

While spraying with round-up remains central to our control of non-native plants we have also developed and assisted with a range of other techniques, long pole saws have been purchased and cutting the hogweed as it flowers before forming seeds has been very effective.



Japanese knotweed treatment at Lower Altyre Hut: Left -initial stem injection underway in Sept 2018; Right – October 2019 a much-improved view with 95% of JK removed.

For Japanese knotweed we have continued treatment and significant areas were tackled along the Findhorn from Daltulich down to Mundole. Good progress has been made with many of the “clumps” of knotweed dying back rapidly after treatment. We are using a combination of techniques with stem inject proving very effective but for some area foliar spraying is still the better option. Treatments are carried out later in the year typically from late August through to early October. A good example of the Japanese knotweed treatment is shown below at Altyre Hut, where initial stem injection was carried out in Sept 2018 and after a few follow ups treatments the JK has nearly been eradicated for this location. However, some further follow-up visits will be conducted in 2020.



The dense infestations of Japanese Knotweed and Giant Hogweed present downstream from the A96 will take considerable effort and resources to tackle. (photo Mark Laing)

So although good progress has been made upstream from the A96 there is still significant infestation between the A96 and Findhorn Bay. A drone survey of the area was conducted in July 2019 by FNLFT Chair, Mark Laing, and it was clear that considerable effort will be required to tackle this area.

We are very grateful to the funders, to all the estate owners and staff and volunteers for their continued support throughout 2019 which has allowed good progress to be made.

Pink Salmon

Pink salmon appeared in Scottish rivers in 2017 in large numbers with numerous reports of them also successfully spawning thus expectations were high for a further large run in 2019.



Male Pink or Humpback salmon found at the Gordons Pool, Findhorn August 2019.

A few Scottish rivers reported pink salmon but overall they failed to materialise in any great number. However, one dead pink was retrieved from the Gordons pool, lower Findhorn and there were also reports of spawning pinks in the Stoney Pool area during early August.

Predator Management (FMP4.1)

Avian Predator Control

Sawbill ducks (goosanders, mergansers) and cormorants can affect juvenile and smolt stocks. Typically five counts are carried out through the year, in Jan/Feb, Mar/Apr, May, Oct, Nov/Dec. and are organised by Sean Maclean. Counts are generally carried out walking each beat or section of the river simultaneously, typically between 08:00 and 10:00. In Findhorn Bay counts are taken from several fixed points around the Bay. I am very grateful to all the estate staff and keepers who joined the bailiffs to complete the counts. Bad weather can affect the length of river covered and in 2019 this played a part with the February count limited to the Bay and Forres Association and the May count cancelled.

Figure 6 indicates that goosanders and mergansers are generally present throughout the year. Numbers generally vary seasonally but during 2019 the numbers of goosanders remained low and relatively stable during the four counts, numbers ranged from 9 to 15 birds. Goosander counts during 2019 were lower than for 2018 where counts ranged from 7 to 27.

In previous counts goosander's counts are generally higher in winter and through to spring. The pattern reflects the behaviour of the birds with larger numbers migrating into the Bay during late autumn and winter then beginning to pair up in the spring and move up river to

find breeding sites. After mating, typically in around May, the males leave the river and head back off to sea while the females remain to raise their brood. Although we don't regularly count during June to September, *ad hoc* observations generally indicate that female birds with chicks are also present on the river during the summer. Numbers begin to build up in Autumn again as males return and chicks reach adult size, although it takes around two years for a bird to reach breeding size and full adult plumage.

Figure 7 provides the merganser counts for 2019. Counts were similar to goosander in Feb and March but were much higher October and December. This is similar to the 2018 data with merganser counts generally higher than goosanders. The majority of mergansers are observed in the Bay although during October the majority were recorded on the river. The lifecycle for mergansers is similar to that of goosanders although they tend to remain more along coast and lower reaches of the river.

Figure 7 shows cormorant counts for 2019 which were similar to previous years. They tend to be present in the Bay during the winter, perhaps to seek shelter from stormier sea conditions and take advantage of easier feeding opportunities on post spawning kelts! However, they do make their way up river and have been observed as far upstream as Dulsie Bridge. They usually disappear from the river by late spring.

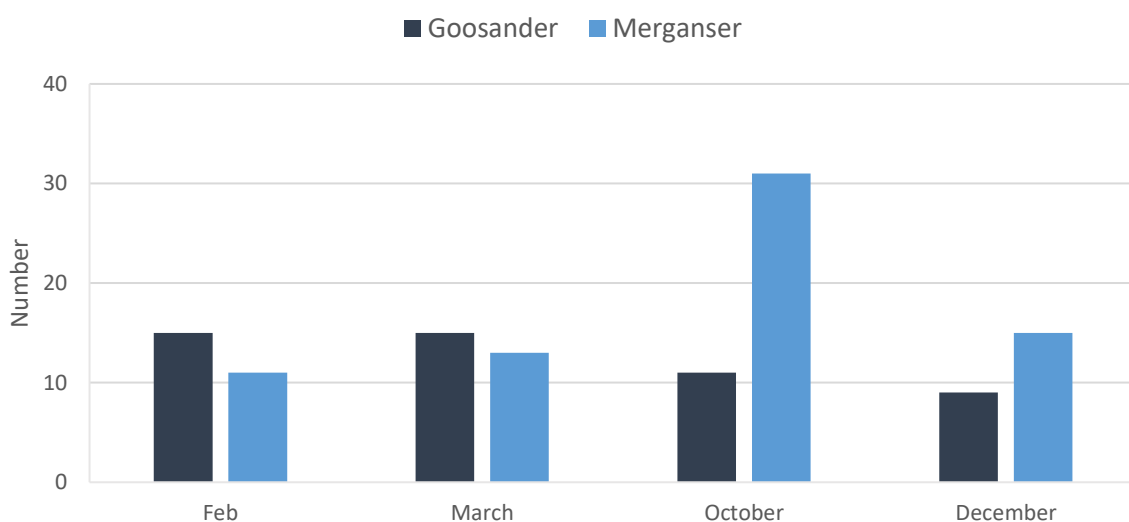


Figure 6: Goosander and merganser count data from Findhorn Bay and River during 2019.

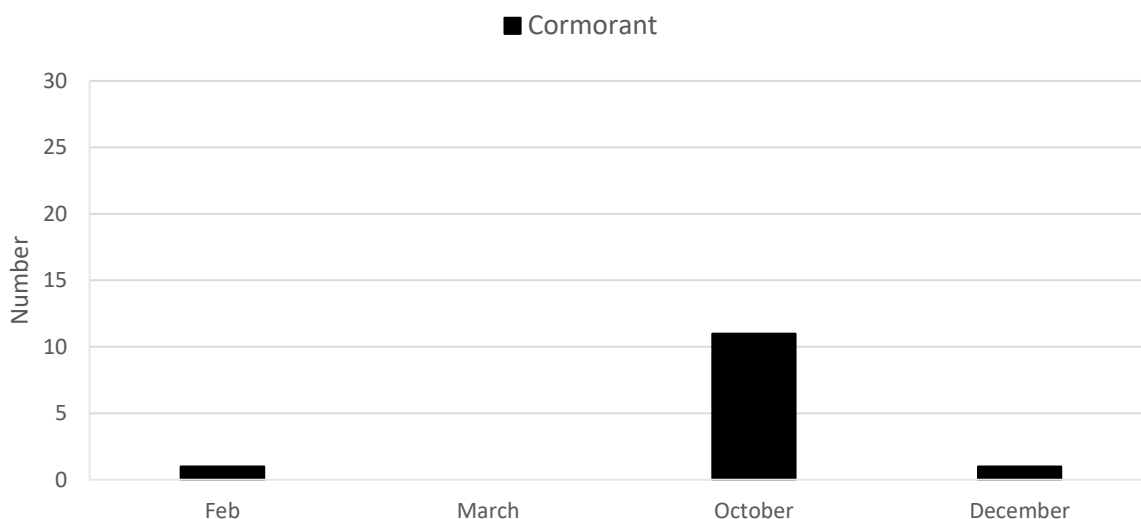


Figure 7: Cormorant count data from Findhorn Bay and river during 2019.

Based on these count data and counts from neighbouring rivers a joint licence application for control of these birds within the Moray Firth rivers during the smolt run was submitted by Roger Knight from the River Spey. This was successful allowing birds to be controlled from 1st October 2018 to 31st May 2019. This included 5 goosanders, 5 mergansers and 2 cormorant for the Findhorn, Nairn and Lossie and control is underway. Scaring tactics are also used by firing blank cartridges and the installation of rope bangers at selected locations to disturb the birds through the smolt run. Counts and scaring tactics will continue throughout 2020.

Any additional sightings of these birds on the river from anglers is also welcomed, please send any data to Bob Laughton at director@fnlft.org.uk or by text to 07887 535986, providing date, location and number/type of birds.

Seal Control

We continue to be part of the Moray Firth Seal Management Plan, which has been co-ordinated by Roger Knight (Spey Fishery Board). The plan has been in operation since 2013 and licences Boards (and previously salmon netting stations) around the Moray Firth to control Common/Harbour and Grey seals which have entered the rivers to predate directly on salmon and sea trout. It was first implemented in 2005, with the aim of protecting salmon and sea trout stocks, whilst also maintaining the conservation status of the Dornoch Firth Special Protection Area (SPA) for common seals. The scheme introduced the novel approach of managing seals and Salmon over a large geographical area, the training of Nominated

Marksman to an agreed standard and the accurate reporting of all seals shot. The Moray Firth Seal Management Plan includes the Scottish Government's Marine Scotland, the Sea Mammal Research Unit (SMRU) from St Andrew's University, Scottish Natural Heritage, all of the District Salmon Fishery Boards from the River Deveron around the Moray Firth to the River Helmsdale, and a limited number of salmon net fisheries which have been active in the region. Overall, it provides seal management for 16 rivers throughout the Moray Firth region.

Roger Knight (SFB) submitted a Licence Application for the period 1st February 2019 until 31st January 2020. This application was successful, and a licence was issued which permitted the shooting of 18 Grey Seals and 0 Common Seals. This remains a significant reduction from the 45 Grey Seals and 6 Common Seals which had been licensed to be shot throughout the Plan area in previous years. The reason we are currently unable to control Common/Harbour seals is that their numbers throughout the Moray Firth have significantly declined in recent years. As a result, the Potential Biological Removal (PBR) figure has been set at only four. The PBR determines the number of animals which may be removed without causing a detrimental impact on the population status and has to include all anthropogenic takes, including accidental mortality by shipping and boats. Marine Scotland have previously told us that they are therefore unwilling to grant us any licence to control Common/Harbour seals, but would re-consider our case if supplementary information, particularly in the form of high-resolution photographs, could be submitted. Hence the reason for conducting aerial surveys although further work on identifying individual seals within the river is also required.

Mink Control

James Symonds (SISI) has expanded the mink monitoring raft and trap network considerably during 2019 particularly within the Lower Findhorn, Muckle Burn, Mosset and along the coast. Over 20 mink have been caught and dispatched this year, with the majority still being caught along the coast. Three more unusual captures were also recorded, two polecats and a ferret!

Any sightings of a mink or mink tracks can be reported to James on 07493272898, j.symonds@speyfisheryboard.com

Catchment Developments (FMP1.3)

Wind Farms

Clashgour: Clashgour Holdings Limited has applied to Scottish ministers for construct and operate a new wind farm consisting of up to 48 turbines to the south of Forres, the

development impinges on the upper reaches of the River Divie and the Lossie. Comments on the potential effects of the development on water courses and fish populations were submitted on behalf of both Fishery Boards. The Clashgour development along with Rothes III wind farm development have both been subject to a public enquiry. This will proceed in early 2020.

Road Developments

The dualling of the A96 is gathering pace, with the preferred route now identified for the Hardmuir to Fochabers section. The Trust has continued to liaise with the developers on plans, particularly bridge crossings and other factors affecting burns in the area. The Trust has also been commissioned, along with the Spey Foundation, to conduct habitat and electrofishing surveys as part of the developer's environmental impact assessment.

Tomatin Railway Viaduct Repairs



Installing the portadam around the north bank pillar of the Tomatin railway viaduct, Sept 2019.

Extensive river works proposed by Network Rail to protect foundations of viaduct pillars were received in early summer 2019, comments and concerns on the design and disruption were raised by SEPA and the Trust. Further revisions of the proposal were received in August with the new proposals and design more acceptable to SEPA hydrologists and the Board/Trust. This delayed works until mid-September. Works entailed the installation of a portadam around the north pillar on the left bank, pumping water out of the dammed area to create a dry operating area, removing existing bed material to repair the pillar foundations and install rock protection. The pillar on the left bank was tackled during September 2019 while the right bank pillar will be addressed in 2020. Sean, Donnie and I met with the engineering team from AMCO-GIFFEN on 5th September to discuss set-up arrangements, fish rescue and fish passage concerns. Edward Usbourne also attended to discuss fishing concerns. Initial site works started on 9th September although high flows did hamper progress, indeed the site proved a challenging one for the contractors, installation of the portadam progressed well but getting a good seal on the rough boulder substrate was very difficult. This led to drainage difficulties but eventually a "dry" work site was achieved. The Trust completed a fish rescue within the

dam area and transfer into the main stem on the 19th September. Siltation controls were also in place throughout the construction although occasional periods of silt release and colouration of the water were evident these were addressed quickly by the constructors.

Sean and Donnie developed an excellent working relationship with Jamie Tervet (site supervisor AMCO-GIFFEN) and maintained regular visits to the site to ensure no disruption or blockages to fish passage were created. The works were completed in early October and the contractors are to be commended for completing an excellent job in very difficult conditions. A few issues arose through the process however, with concerns raised by proprietors upstream regarding the timing of the works and its potential effect on salmon runs and angling. Despite



Rock protection in place at Tomatin Railway Viaduct. (photo Sean Maclean)

the high water throughout the season angling catch in the upper reaches was poor during September, which is normally a good month. Whether the works contributed to this is difficult to determine but at no point in the construction was there any blockage to fish passage. It also became evident that upper proprietors had not been fully informed regarding the works. Although Network rail had informed the proprietors adjacent to the bridge this could be significantly improved. The initial consultations with the Board could have also been better. As plans develop for the right bank pillar, I will be pressing Network rail to improve this aspect of the process in 2020.

Mosset Burn Survey



Mosset Burn in Forres.

Concerns were raised about the current condition of the Mosset Burn by local residents, farmers and volunteer groups during 2017. After an initial meeting of stakeholders the Trust secured funding and commissioned Tommy McDermott (Trex Ecology), who completed a walk over survey of lower Mosset in July and submitted his report in September. The

report is excellent and very comprehensive. The Forres Community Council who supported the study have completed comments and the report was circulated to stakeholders for comment before the end of November. The burn is complex with a number of large habitat issues to be addressed, such as flooding control, embankments, siltation, sediment transport, land drainage and blockages to fish passage. [Click here](#) for the report which offers insights and potential approaches to these issues.

A variety of other catchment developments such as forestry plans, river crossings, river bank repairs have also been commented on and advice provided.

Education and Publicity (FMP7.1)

Schools Go To Fish



Pupils from Kinloss, Pilmuir and Andersons enjoy Schools Go To Fish at Kellas Trout Fishery.

Andersons, Pilmuir and Kinloss Primary Schools completed their "Schools Go To Fish" trip to the Kellas Trout Fishery during June. The pupils were assisted by anglers from the Forres Angling Association and all were successful in landing a trout!

Pupils also enjoyed a bugs and beastie hunt on a nearby burn and river walk to look at habitat and INNs plant control using pigs!

My thanks to Tony Watts, Steve Pannell, Donnie McBean (all from Forres AA), Donnie Mackenzie (Findhorn Fishery Board) and Hugh Carter (UHI) for helping with the trip. Also

many thanks to Eddie Gormanley and Kellas Estate for hosting the event. This project was funded by Tesco Bags of Help.

The Trust has produced regular newsletters and updates on activities can also be found on our web site www.fnlft.org.uk and [Facebook](#)

Acknowledgements

I am particularly grateful to Valerie Wardlaw, Mark Laing and the steering committee for all their encouragement and help during the past year.

The FNLFT are extremely grateful for the continuing support of the Findhorn DSFB, Forres AA, Logie Estate, FMS, MSS Freshwater Lab, SFCC, SNH and SEPA.

Thanks also to Sean Maclean (FDSFB), Donnie Mackenzie (FDSFB), Scott Galbraith, Craig Galbraith, Mirella Toth, Nancy Davies and Colm Wickham for their assistance in electro-fishing and other projects.

I am extremely grateful to James Symonds (SISI), Vicky Hilton (SISI), Ian MacIennan, Ian Macintosh, James Bromham, Alastair Walker, Angus Dixon, Steve Pannell, Steve Turner and team, Jenny Davidson, Wild Things, Ace Adventure and many others for their considerable help with the treatment of Giant Hogweed and Japanese knotweed. Thanks also to all the volunteers who look after mink rafts and traps.

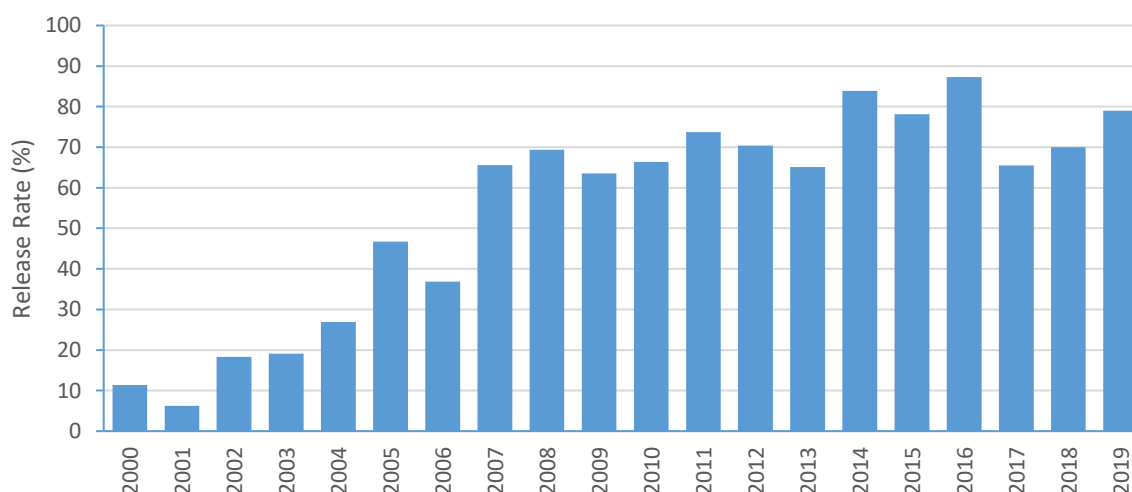
Thanks also to all the proprietors and anglers who have generously donated to the Trust.

Appendix 1: River Findhorn Catch Data

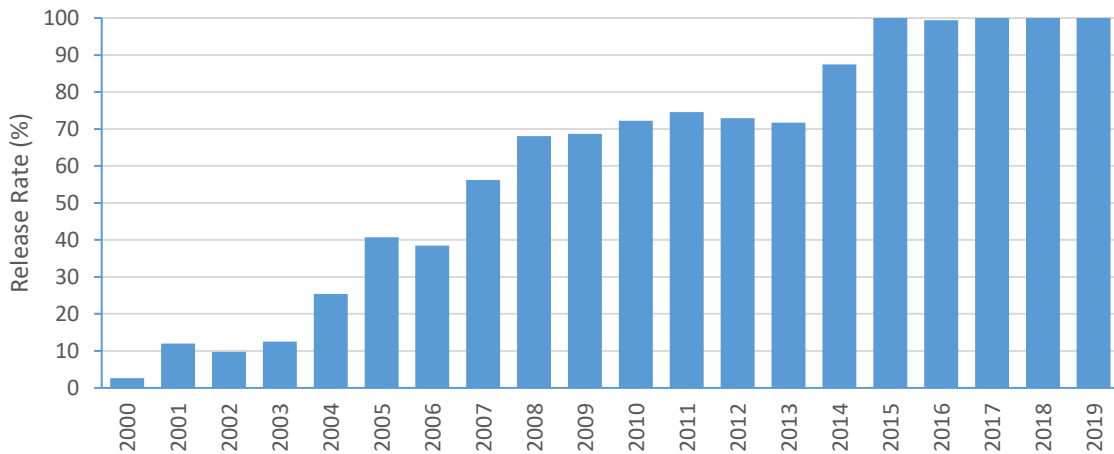
River Findhorn – Catch data for each beats 2019.

Findhorn 2019	SALMON RETAINED	SALMON RELEASED	RELEASE %	GRILSE RETAINED	GRILSE RELEASED	RELEASE %	SALMON+GRILSE RELEASE %	S TROUT RETAINED	S TROUT RELEASED	RELEASE %
Coignafearn										
Daltomich	1	1	50%				50%			
Glenmazeran		1	100%		1		100%	1	1	50%
Dalmigavie		4	100%	1	2	67%	86%			
East Clune	1	11	92%		3	100%	93%			
Glen Kirk		9	100%		3	100%	100%		1	100%
Strathdearn		13	100%		2	100%	100%	2		0%
Dalmigarry		6	100%				100%			
Glen Kyllachy										
Findhorn Bridge		6	100%		1	100%	100%		2	100%
Kyllachy		19	100%				100%		1	100%
Corrybrough										
Tomatin	2	25	93%		3	100%	93%		4	100%
Balnespick	9	9	50%	5		0%	39%		1	100%
Moy (Upper)		22	100%				100%			
Moy (Pollochaig)		31	100%		1	100%	100%	1	1	50%
Drynachan	23	220	91%	6	22	79%	89%	1	6	86%
Banchor	5	18	78%		2	100%	80%	2	2	50%
Lethen	5	141	97%	3	34	92%	96%	1	3	75%
Glenferness	11	106	91%	7	43	86%	89%	1	5	83%
Coulmony		2	100%	1	1	50%	75%			
Logie		28	100%	2	13	87%	95%		3	100%
Dunphail				2	2	50%	50%	2		0%
Moray Estates	10	130	83%	19	46	71%	77%	3	14	82%
Altyre Estate		49	100%	1	24	96%	99%		7	100%
Forres AA	14	75	99%	55	94	63%	94%	7	29	81%
TOTAL	81	926	92%	102	297	74%	87%	21	80	79%
Salmon & Grilse	1406						Sea Trout		101	

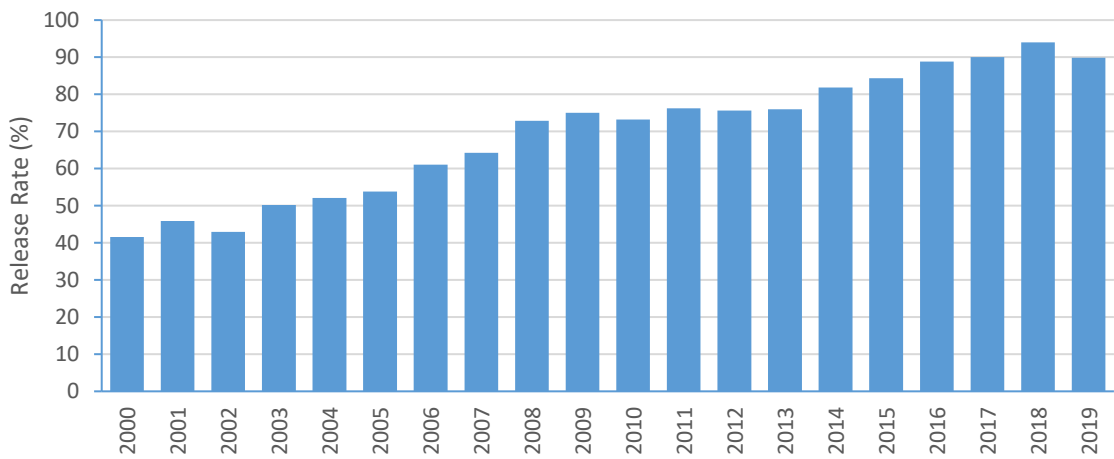
Findhorn: Sea Trout Release Rate (%)



Findhorn: Spring Salmon Release Rate (%)



Findhorn: Summer Salmon Release Rate (%)



Findhorn: Grilse Release Rate(%)

