FINDHORN ANNUAL REPORT 2020

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FOREWORD

From so many perspectives, 2020 has been a difficult and frustrating year. The inability to carry on with the Missing Salmon Project and the operation of the smolt trap has been a big blow to our research program, just when it was starting to gather momentum. As the report below shows, the Findhorn has remained a Grade 1 river and the catch statistics are reasonably good considering the reduction in fishing effort. The more worrying statistics are the electrofishing results which show salmon of 0+ dropping to Grade 3 and salmon parr remaining at Grade 2. This combined with low grilse catches in 2019 and 2020 does give some concern for the future. We do know that electrofishing data can vary hugely from year to year, so I am hopeful that the results this year will show an improvement. Certainly, the catch and release statistics are good and the river environment is improving year by year.

Work on non-native species has continued where possible and considerable progress has been made, for which I would like to thank everyone involved.

Unfortunately, fishing will again be affected by Covid-19 this spring but the operation of the smolt trap and continuation of the Missing Salmon Project should take place as planned in April. It should also be possible to continue with the juvenile surveys in August and September, weather permitting.

The report below is very informative and I hope you will take the time to read it. I would like to thank Bob, Sean, Alistair and Valerie very much for all their help and hard work during the year.

Anthony Laing

Chair Findhorn Fishery Board

FINDHORN FISHERY BOARD

| Chair | Anthony Laing (Coulmony) | | | | | | |
|------------------------------------|---|--|--|--|--|--|--|
| Board Members | Alasdair Laing (Logie Estate) | | | | | | |
| | Julie Balgonie (Glenferness Estate) | | | | | | |
| | Colin Cawdor (Cawdor Estate) | | | | | | |
| | Andrew Howard (Moray Estates) | | | | | | |
| | Tony Watts (Forres Angling Association)* | | | | | | |
| Co-optees | Mark Laing <i>(FNLFT)</i> Alex Leven David Stewart Howitt | | | | | | |
| Staff | Robert Laughton (FNLFT Director) | | | | | | |
| | Sean Maclean (Superintendent) | | | | | | |
| | Alistair Taylor (Assistant Bailiff) | | | | | | |
| | Valerie Wardlaw (Administrator) | | | | | | |
| Clerk | Anthony Laing | | | | | | |
| * Forres AA will be represented by | Graham Bell or Tony Watts depending on availability. | | | | | | |

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Web Site: http://www.fnlrt.org.uk/river-findhorn/

Management Structure

The Findhorn Fishery Board is a statutory body constituted by the Salmon Fisheries Act of the 19th century and have management responsibility for salmon and sea trout within the Findhorn district.

The Findhorn, Nairn and Lossie Rivers Trust (FNLRT) is an independent charity which promotes sustainable management of river resources and fish populations through research, restoration and education. The Trust works with the Findhorn Board to provide management and scientific advice and administration support.



Operating structure for the Boards and FNLRT.

Staff

The Board were delighted to welcome Alistair Taylor as assistant bailiff in February 2020. James Symonds and Vicky Hilton continue in their roles as Project Officer and Publicity and Volunteer Coordinator for the Scottish Invasive Species Project (SISI) and the Trust also welcomed Mirella Toth as seasonal assistant project officer to the project.

Coronavirus (Covid-19) Pandemic

The emergence of COVID-19 in early 2020 affected all aspects of the Board and Trusts work throughout the year. The Board's followed Government guidelines for the Covid-19 outbreak and applied this to all aspects of work. Safety for staff was the highest priority and a Coronavirus Policy was developed and incorporated into all aspects of work. This was regularly revised and updated in response to the situation as it developed.

The Board's bailiffs were furloughed for a significant part of the spring and early summer. The majority of projects were postponed or start dates were delayed. The Fisheries office was closed in late March with all staff working from home.

FINDHORN 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: River 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.fnlrt.org.uk/river-findhorn/ http://www.fnlrt.org.uk/

http://fms.scot/

THE FISHERY

2020 Season

Sunny conditions led to a good turnout at the Stoney Pool for the opening ceremony hosted by Forres Angling Association on the 11th of February. The season was opened George Lilley in the traditional manner by pouring a sizeable dram of Ben Romach whisky into the river and wishing all anglers "Tight lines".



On the opening day of the season, Long term Forres Angling Association member George Lilley we normally catch a few kelts, but opens the 2020 season. (photo Paul Warrener)

this year the season got off to a flying start, visiting angler Peter Green, caught and released a cracking springer of about 18lb (see cover photo courtesy of David King). Pete got his fish on a red, yellow and black Dee Monkey. Forres Association member, Roger Dowling, also caught and released a cracker of about 25lb. With reports of good numbers of springers present in the river the season looked promising. However, with the outbreak and spread of Covid-19 angling was suspended from the end of March until June. The pandemic had a considerable effect on fishing with many beats having to cancelling bookings by visiting anglers and although this provided more opportunities for local anglers fishing effort was undoubtedly reduced along the river.

Salmon and Sea Trout Catches 2020

Salmon and sea trout catches are summarised in Figures 2 and 3, respectively, and more detailed beat by beat information is provided in Appendix 1. Note that the catch for 2018 to 2020 is data submitted to the Findhorn Board while data from 1952 to 2017 is from official returns published by Scottish Government.

Salmon and Grilse



Figure 2: Rod catches for salmon and grilse for the River Findhorn from 1952 to 2020.



Figure 3: Rod catches for sea trout for the River Findhorn from 1952 to 2020.

The salmon and grilse catch for 2020 was 1010 and the sea trout catch was 66, (Figures 2 and 3). Similar to all walks of life the angling season was affected by the outbreak of the coronavirus virus (Covid-19). Lockdown restrictions resulted in no angling during March and April. With restrictions on travel continuing throughout the year a number of estates and their fishing client cancelled angling bookings leading to a considerable drop in fishing effort. Although as restrictions eased during summer there were signs that local anglers were making more visits to the river. Any comparisons of the 2020 catch with previous years data is difficult, however, given that over 1000 salmon and grilse were caught is encouraging and reflects a good run of salmon into the river.

Although there was little fishing in March/April and early May catch and release rates for spring salmon was 100% in keeping with Scottish Government recommendations. Release rates for grilse 85%, overall catch and release rate for salmon and grilse was 89%. Sea trout release rates were 77%.

Further details the catch are available 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. The Board reviewed its conservation policy in August 2020 and will maintain the current conservation code into the 2021 season.

Findhorn Conservation Code Conservation Code 2021

FINDHORN CONSERVATIION CODE

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.

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.

Up to 15th May 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 superintendant (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.

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. 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.

Conservation of Wild Salmon Stocks

The Scottish Government through Marine Science Scotland (MSS) continued to develop conservation limits models for Scottish rivers throughout 2020.

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. <u>ICES</u> and countries reporting to <u>NASCO</u> 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). Rivers are then graded 1 - 3 and local management actions applied as detailed below. More details on the approach and results for Scottish rivers can be found <u>here</u>.

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.

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 Findhorn remains in Grade 1 for 2021

The conservation limits model approach continues to evolve and to further improve the approach a National Electrofishing Survey program for Scotland (NEPS) to assess the juvenile fish stocks in rivers was initiated by Marine Scotland and funded by Scottish Government. 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. The FNLFT completed surveys in 2018 and 2019 for this initiative and a full report on the surveys was published in 2020 by Malcolm *et al* 2020.





Figure 4 indicates that nationally salmon fry densities were lower in 2019 than 2018 across much of the country. Abundances were particularly low in north-east and west. Salmon parr abundances were more stable but declined particularly in the north and west. For the FNL area this pattern was also evident with salmon 0+ dropping from grade 2 to grade 3 and salmon parr remaining at grade 2. For juvenile salmon overall FNL area is Grade 2.

A further series of national surveys was planned for summer 2020 but due to Covid-19 restrictions these were cancelled. Grades for 2021 were developed using 2015-2019 catch data but it is not clear how the modelling approach will cope if Covid-19 outbreak continues to disrupt salmon angling and fish surveys.

RIVER MANAGEMENT

Poaching Control

Poaching or illegal fishing is a wildlife crime and despite the ban on the sale of wild salmonids it still occurs on our rivers. It occurs in a wide range of forms such as illegal netting to fishing without permits. To control and deter poachers the Sean and Alistair, the bailiff team, conduct regular patrols throughout the year, seven days a week, at varying times of day during nights and early mornings, which is the only way to protect these vulnerable salmon and sea trout from being illegally taken. The entire river including the bay and coast is covered. In addition, patrols along the Lossie are undertaken funded by the Lossie Fishery Board. Bailiffing staff have a good range of equipment, including a thermal camera and they also utilise the <u>Trackplot</u> system if patrolling individually. In addition the they also look out for pollution incidents and inspect river works as well as a range of other duties.

Staff were furloughed during the Covid-19 outbreak in March but with good numbers of spring salmon in the river reports of poaching incidents began to filter through in late April. Alistair Taylor returned to regular patrols in May.

A number of the incidents turned out to be local people deciding to have a go at fishing in the good weather and were often unaware that a fishing ticket was required. However, several more sinister incidents were also investigated including gill nets installed on the coast near Burghead, and one of our more hardened poachers observed in action at the Railway Pool. The latter was reported to Police Scotland.

It was clear from the lockdown period that if there is no regular patrol then poaching will increase and so maintaining a well-trained bailiff team is an important deterrent and provides a protection for the valuable salmon and sea trout. Similar patterns were observed on neighbouring rivers.

August proved to a very busy month on the Findhorn, with numerous extra camper vans, campers, and some locals all present along the river. Seven illegal fishers were moved on during the month, 12 calls regarding fires were received, plus calls regarding litter left by campers and a noticeable increase in anti-social behaviour. Although dealing with litter and anti-social behaviour is out with our remit, we provided advice and help to local estates where possible.

The Lossie was a busy place too, 15 patrols were completed, fisher's tickets and catches were checked. Sea Bass was popular off the walls at the harbour at Lossiemouth and Sea trout were also being caught and returned safely. One ongoing investigation of an incident on the Lossie with Police Scotland is underway, which hopefully will come to a positive conclusion.

September was a dry month and angling success in the lower river was low. As a result, catches in the lower river were poor but better upstream. Poaching incidents were lower and similar to earlier in the season mainly consisted of visitors and locals fishing without tickets. Again, advice on where to gain the necessary permits was provided. It was quite encouraging to see more people on the river and taking an interest in angling, hopefully they will purchase permits and continue fishing in the future.

Predator Monitoring and Control

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, generally between 08:00 and 10:00. In Findhorn Bay counts are taken from several fixed points around the Bay. We are very grateful to all the estate staff and keepers who joined the bailiffs to complete the counts. Bed weather and river conditions prevented the early Feb count while Covid-19 restriction prevented the count in May, but counts were completed in March, October and December, although the spate conditions prevailing in December were not ideal.



Left: Male Goosander (photo Gordon Rennie), right Female Merganser (photo Graham Bell)

Figure 5 indicates that goosanders and mergansers were present at all three of the counts. Numbers vary yearly and seasonally but during 2020 the numbers of goosanders remained low (<10) during the March and December counts and they were absent in October. Mergansers were observed in all three counts with numbers ranged from 6 to 18 birds. Both the goosander and merganser counts were lower in 2020 than in 2019.

In previous counts goosander numbers 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 upriver to find breeding sites. After mating, typically around May, the males leave the river and head back off to sea while the females remain to raise their brood. For goosanders this pattern did not emerge this year within the limited count and additional ad hoc data. Why this occurred remains unclear.

Mergansers counts were largely similar to previous years and any ad hoc data submitted tended to reflect additional merganser sightings. In September Findhorn Bay was full of sprats and sand-eels, thousands were reported by local anglers and also witnessed by Alister and Sean during patrols. A mackerel was also caught at the mouth of the Findhorn bay which hasn't happened for many years apparently. An increase in cormorants and sawbills, which may have been taking advantage of the small fish in the bay, was also observed.

Figure 6 shows cormorant counts for 2020 and were very similar to previous years. A few cormorants are present in March and December (1-2) but similar to 2019 a large number were present in the lower reiver during October (=19). 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 upriver and have been observed as far upstream as Dulsie Bridge. They usually disappear from the river by late spring.



Figure 5: Goosander and merganser count data from Findhorn Bay and river during 2020, no count was completed during February or May.



Figure 6: Cormorant count data from Findhorn Bay and river during 2020, no counts were completed during February and May.

Based on these counts and those 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 (Spey Fishery Board). This was successful, allowing birds to be controlled from 1st October 2020 to 31st May 2021. The licence included 2 goosanders, 5 mergansers and 2 cormorants for the Findhorn 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 in 2021.

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

Seal Control



Seals at the mouth of the Findhorn. (Photo P Warrener)

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 Marksmen 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, Nature Scotland, all of the District Salmon Fishery Boards from the River Deveron around the Moray Firth to the River Helmsdale. Overall, it provides seal management for 16 rivers throughout the Moray Firth region.

Roger Knight (SFB) was successful in gaining a further license for the period 1st February 2020 until 31st January 2021 for the Moray Firth rivers. Monitoring of the seal population at Findhorn Bay continued and seal numbers were very variable this year. Control of any seals entering the river was maintained within the seal licence.

The Animals and Wildlife (Penalties, Protections and Powers) (Scotland) Bill by was passed by the Scottish Parliament on 17 June 2020. This includes amendments to section 110 of the Marine (Scotland) Act 2010 removing the ability of Scottish Ministers to grant licences for the purpose of preventing serious damage to fisheries and fish farms from predators such as seals. The Bill allows salmon produced in Scottish fish farms to be compatible with US Marine Mammal Protection Act and so exports to the US to be maintained. Licensing arrangements for wild fisheries are under-review.

Mink Control



Mink raft installed on the Mosset Burn.

James Symonds (SISI) continues to maintain the mink monitoring raft and trap network across the Nairn, Findhorn, Lossie, Spey and along the coast. Despite restrictions due to Covid-19 a further 14 mink have been caught and dispatched during 2020 with the majority still being caught along the coast. Any sightings of a mink or mink tracks can be reported to James on 07493 272898, j.symonds@speyfisheryboard.com

Catchment Developments and River Works

An essential part of the Trust and baliffs duties is to review, comment and inspect river works to ensure that fish poplutions and habitat are not being blocked or damaged. This year was quieter than most probably due to Covid-19.

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 which proceeded in 2020 and we await the findings.

Ourack and Carn Duhie Wind Farms: Both wind farms are developing their plans and we continue contact with the developers and provide comments on rivers and fisheries issues.

• A96 Dual Carriageway Development

Proposals for upgrading the A96 to dual carriageway between Inverness and Aberdeen are advancing with plans being developed for the section between Hardmuir and Fochabers. This section includes river crossing of the three major rivers Findhorn, Lossie and Spey as well as numerous smaller tributaries. In total 22 crossing are planned and nine are within the Findhorn catchment. The Spey Foundation and the FNLFT were commissioned to survey these crossing points for riparian habitat and fish populations during 2020. The surveys were completed and a full report on the data was submitted to the developers as part of the Environmental Impact Assessment (EIA). The data will be used to guide the design of the river crossings and protect fish and riparian habitat.



Electrofishing underway on the Findhorn as part of the A96 dual carriageway development. (photo Sean Maclean)

Tomatin Railway Viaduct Repairs



Installing the portadam around the right bank pillar of the Tomatin railway viaduct, June 2020.

Work on the left bank pillar of the Tomatin railway viaduct was completed in Autumn 2019 and works to repair the right bank pillar foundation were undertaken in June 2020. The works were similar to 2019 and entailed the installation of a portadam around the pillar on the right 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.

Alistair Taylor, Edward Usbourne and Bob Laughton met with the engineering team from AMCO-GIFFEN on 4th June to discuss set-up arrangements, fish rescue and fish passage. Works started shortly after and progressed well building on the experiences gained in 2019. Siltation controls were improved by

the use of a large geotextile bags which filter the pumped water before it re-entered the river. A fish rescue was conducted on the 11th of June, with approximately 50 fish, mostly salmon and eels transferred from the dammed area to an area upstream.

An excellent working relationship with Jamie Tervet (site supervisor AMCO-GIFFEN) was maintained with regular regular visits to the site to ensure no disruption or blockages to fish passage were created. Contact with local estates was also greatly improved this year. The works were completed in June and the contractors are to be commended for completing an excellent job.



Fraser Laughton (FNLFT) and Alistair Taylor (FFB) conducting the fish rescue at the Tomatin Viaduct, June 2020.

Bantrack Bridge

Substantial repairs were undertaken to Bantrack Bridge over the Divie by contractors Geo-structural Ltd on behalf of Moray Council. The work was scheduled for October and there was concern that this could affect spawing fish in the Divie. Comments were made on the proposals to ensure mitigation measures were installed and the works were completed successfully despite some particularly wet weather. Sean and Ali maintained close contact with the site engineers throughout the works.

However, a few other riverworks were observed which had progressed without consultation to the Board. These included small repairs to the rail bridge over the Muckle Burn and bank repairs near Broom of Moy Bridge also on the Muckle. The latter works were a cause for concern

Repair works underway at Bantrack Bridge, Oct 2020. (photo Sean Maclean)

since they were carried out in November which is within the spawning time for salmon and trout. A CAR licence was issued for the works by SEPA but they had been delayed due to Covid-19 restrictions preventing the work earlier in the year. The farmer, contractor and SEPA were made aware that the works could affect spawning and that the Board should be contacted in advance of works in the future.

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

All developers undertaking riverworks, should contact their local planning authority, SEPA, NatureScot and the Fishery Board for advice and guidance.

To provide protection for salmon, sea trout and other fish the preferred operational period for works is June to September.

Pollution Incidents

During June, Alistair was informed of a pollution incident at fish ladder on the Mosset Burn. Members of the public reported foul-smelling liquid entering the fish pass through a pipe and a number of dead fish were present. Bob and Alistair attended the site and reported the incident to SEPA and collected 7 dead trout of various sizes. Scottish Water attended rapidly and inspected the drains and discovered the source was a house sewage drain had been connected to the storm drain rather than the sewage treatment network. The problem has been resolved.



Alistair Taylor inspecting the Mosset drain pollution incident June 2020.

Two other pollution incidents were reported to SEPA, one on the Kinloss Burn and one on the Muckle Burn both involving septic tanks which are not operating effectively and we continue to keep an eye on the sewage outfall pipe from Mundole.

Pollution incidents should bere reported to SEPA through the Pollution Hotline below

SEPA Pollution Hotline 0800 80 70 60

Smolt Monitoring

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 2019, 100 salmon smolts and one sea trout smolt were tagged on the Findhorn, of these, 53 reached

the downstream receivers at the estuary mouth, and 40 smolts reached the array offshore from Spey Bay, giving a survival rate of 53% and 40% respectively. The 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

The Missing Salmon Project was set to continue in 2020 Figure 5: Salmon smolt migration in the Moray with Trust staff completing fish tagging training in



Firth 2019.

January/February. However, due to Covid-19 restrictions it was also postponed until 2021.

Adult Salmon and Trout Scale Collection

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 a good collection has built up. 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. With Covid-19 affected the fishery and the potential for transferal of the virus through handling packets etc, scale sampling was suspended in 2020. However, 2 salmon scale samples were submitted and added to the collection.



Invasive Non-Native Plant Control

Despite Covid-19 restrictions the control of non-native plants continued along the river during 2020 supported through the <u>Scottish Invasive Species Initiative</u> (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 June onwards. This year demonstrated the need to keep re-checking areas. Although GH is largely reduced to a few individual plants a pocket of 20+ plants was spotted at the upper end of the Scum Pool. Many of the plants were in flower and would gone on to produce a significant seed load if left untreated.

Contractors, Steve Turner (Conservation Services Moray) and Angus Dixon (Groves Forestry) continued treatment around Dalvey, Altyre, Mundole and the lower Mosset Burn. We are also grateful for the continuing support from Jenny Davidson (Mundole Farm), Dalvey estate and Moray Estates. After six years of treatment, we are beginning to see significant progress. However, we were unable to commission local white water rafting specialists "<u>Ace Adventure</u>" or "<u>Blokes on Ropes</u>" to tackle the more difficult areas to access.



Giant Hogweed in flower upstream from the Scum Pool, 8th July 2020.

Apart from the difficult sections within the gorge all the GH from Coulmony to the A96 Bridge was tackled maintaining our good progress. During 2020 we continued our advance downstream to include the riverbank between the A96 and the Mackenzie and Cruickshank Garden Centre. "<u>Wild Things</u>", continued to treat Giant hogweed around the Waterford recycling centre and lower right bank of the Findhorn.

During 2020 the Mosset Burn was again treated from Rafford and Altyre all the way to the confluence with Findhorn Bay.



Giant Hogweed control at the Old Mill Caravan Park from 2019 to 2020.

With considerable help from local farmer, George Elder, we have now completed two years treatment of GH on the Muckle down to Bishopmill Bridge and hope to advance further in the coming years. The series of photos above illustrates the process of dealing with heavily infested areas on the Muckle Burn. This area in the photos is upstream from the Old Mill caravan park with top photo showing the site after initial treatment in April/May 2019, The second photo from the top is in late May and shows a very good eradication of the plant. However, retuning in June 2020 (third photo from the top) indicates that re-growth is equal to the density of plants prior to treatment. This effect is common since the removal of the large plants has allowed the numerous seeds in the ground to germinate and prosper. Further spraying was completed in late June (lower photo) and the GH was declining again. In high density areas three to four years of spraying are required to begin to reverse the growth of the hogweed and reduce the seed load in the ground. Spraying when the plant is around knee height is also preferrable.

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 areas 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 follow up treatment in 2020 the JK has nearly been eradicated for this location.

We are very grateful to the funders, to all the estate owners and staff for their continued support throughout 2020.



Japanese knotweed treatment at Lower Altyre Hut: Left -initial stem injection underway in Sept 2018; middle – October 2019, left – October 2020, a much-improved vi ew with the majority of JK removed.

Education and Publicity

Schools Go To Fish

Pilmuir, Strathdearn (Tomatin), Alves, Mosstowie and Dallas Primary Schools were due to participate in the Schools go to Fish project in 2020. All five schools completed their classroom presentations on the ecology of the rivers and the fish populations. However, Covid-19 again disrupted the project. All the schools were closed from March until summer and after summer access was limited and field trips, such as the fishing day, suspended indefinitely. While this has been frustrating, we have maintained contact with each school and are looking into alternative ways of delivering the project online. My thanks to our funders, Fishmongers Ltd, Heldon Community Council, Strathdearn Community Fund and SISI for their patience and understanding.

Trust Auction

The **Findhorn Nairn Lossie Auction** raised over £10,600 to support the conservation and educational work of the FNLFT. A huge thank you goes to our generous donors who offered lots for the auction, and all our supporters who promoted and bid on the auction lots.

Management Plan

A new management plan for the Findhorn and Lossie has been prepared. The encompasses six key priorities, Climate Crisis, River Habitat and Land Use, Biosecurity and Invasive Non-Native Species, Fish and Fisheries, Marine and Inshore Environment, Education and Awareness. The Plan has completed consultation and will be published in early 2021.

Regular newsletters and updates on the activities of the Board and the Trust can be found on <u>www.fnlft.org.uk</u> and <u>Facebook.</u>

Acknowledgements

The Board and Trust are extremely grateful for the continuing support of the proprietors and anglers throughout 2020. We are also grateful for the support from the following organisations, Fisheries Management Scotland, Marine Scotland, Scottish Fisheries Co-ordination Centre, Nature Scotland, and Scottish Environmental Protection Agency.

Thanks also to Fraser Laughton for assisting with electro-fishing surveys, to James Symonds (SISI), Vicky Hilton (SISI), Mirella Toth, Angus Dixon, Steve Turner Jenny Davidson, Wild Things 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.

Finally, a huge thanks to all the proprietors, anglers and organisations who generously donated to the Trust Auction.







LOTTERY FUNDED

APPENDIX 1: CATCH DATA FOR EACH ESTATE/BEAT 2020.

| Findhorn 2020 | SALMON RETAINED | SALMON RELEASED | RELEASED | GRILSE RETAINED | GRILSE RELEASED | RELEASED | OVERALL PERCENT RELEASED | S TROUT RETAINED | S TROUT RELEASED | RELEASED |
|--------------------------------------|--------------------|--------------------|----------|--------------------|--------------------|----------|--------------------------------|---------------------|---------------------|----------|
| Coignafearn | | | | | | | | | | |
| Daltomich | | | | | | | | | | |
| Glenmazeran | | | | | 2 | 100% | 100% | | | |
| Dalmigavie | | | | | 3 | 100% | 100% | | | |
| East Clune | | 9 | 100% | | 5 | 100% | 100% | | | |
| Glen Kirk | | 8 | 100% | | 5 | 100% | 100% | | | |
| Strathdearn (Banchor) | | 5 | 100% | 3 | 5 | 63% | 77% | | | |
| Dalmigarry (Morlie & Corrievorrie)Da | | 4 | 100% | | | | 100% | | | |
| Glen Kyllachy | | | | | 2 | 100% | 100% | | | |
| Findhorn Bridge(Old Clune) | | 5 | 100% | 3 | 5 | 63% | 77% | | | |
| Kyllachy | | 4 | 100% | 1 | 3 | 75% | 88% | | | |
| Corrybrough | | | | | | | | | | |
| Tomatin | 2 | 15 | 88% | 1 | 8 | 89% | 88% | | | |
| Balnespick | | 2 | 100% | | | | 100% | | | |
| Moy (Upper) | | | | | | | | | | |
| Moy (Pollochaig) | | | | | | | | | | |
| Drynachan | 9 | 91 | 91% | 14 | 73 | 84% | 88% | | 7 | 100% |
| Banchor | | 7 | 100% | | 8 | 100% | 100% | | | |
| Lethen | 2 | 73 | 97% | 10 | 89 | 90% | 93% | | 2 | 100% |
| Glenferness | 5 | 50 | 91% | 16 | 67 | 81% | 85% | 1 | 2 | 67% |
| Coulmony | | 8 | 100% | 3 | 2 | 40% | 77% | | 1 | 100% |
| Logie | | 15 | 100% | 1 | 22 | 96% | 97% | | | |
| Dunphail | | 4 | 100% | 1 | 2 | 67% | 86% | 1 | 1 | 50% |
| Moray Estates | 3 | 51 | 94% | 11 | 58 | 84% | 89% | | 5 | 100% |
| Altyre Estate | | 17 | 100% | 3 | 35 | 92% | 95% | | 4 | 100% |
| Forres AA | 5 | 35 | 88% | 23 | 97 | 81% | 83% | 13 | 29 | 69% |
| TOTAL | 26 | 403 | 94% | 90 | 491 | 85% | 89% | 15 | 51 | 77% |
| | | | | | | | | | | |
| Salmon & Grilse 1010 | | | | | Sea Trout 66 | | | | | |