

Findhorn Fishery Board Annual Report 2017



Monitoring Smolts on the River Divie.

Findhorn Fishery Board

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Board Members	Julie Balgonie (<i>Glenferness Estate</i>) Colin Cawdor (<i>Cawdor Estate</i>) Robert Hoskin (<i>Lethen Estate</i>) Andrew Howard (<i>Moray Estates</i>) Anthony Laing (<i>Coulmony Estate</i>) Tony Watts (Forres Angling Association)*
Co-optees	Mark Laing (<i>FNLFT</i>)
Staff	Robert Laughton (<i>FNLFT Director</i>) Sean Maclean (<i>Superintendent</i>) Billy Forrester (<i>Bailiff</i>) Valerie Wardlaw (<i>Administrator</i>)
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Chairman's Report

Welcome to the River Findhorn Annual Report for the 2017 season.

"When there was water we caught fish" – a comment I heard recently – perhaps sums up the season. There was little or no snow in the corries to keep water levels up and temperatures down in the early season. Low water and relatively high air temperatures led to ideal conditions for fungal disease to develop and May, in particular was marred by poor fishing conditions along with dead and dying fish. Few people enjoy sharing a pool with some carcasses and half a dozen moribund fish - the will to persevere is difficult to maintain. Add to that a grilse run which never developed fully and the makings were there for a less than memorable season.

In the report Bob Laughton and Sean Mclean offer some excellent commentary on, and detailed analysis of, of the 2017 season which I hope you find both informative and useful.

I would like to highlight an issue from the reports which is important in the context of today's Findhorn and the trends developing in Scottish fisheries management.

You will find a detailed analysis of the catch figures. 1561 salmon and grilse is not an exciting figure but remember to see it in the context of long term trends – pre the mid-80s it would have been a "good" figure. 148 sea trout is encouraging and maintains the improvement seen in sea trout catches in the past two or three years.

The average age of anglers is rising fast and one product of that is our ability to remember and reminisce about the "good old days" while conveniently forgetting the bad!

I do not suggest complacency but nor does it help to "talk down" our river. We are all aware of the serious challenges facing wild salmon populations but we should also recognise that most of these are beyond our direct control.

There are some signs that these challenges are being recognised but charity starts at home and the first priority for your board must be to prioritise the challenges they can influence so that, as the wider environmental problems begin to be addressed the river itself is in the best condition possible to accommodate the hoped for increase in wild salmon populations.

Alasdair 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.

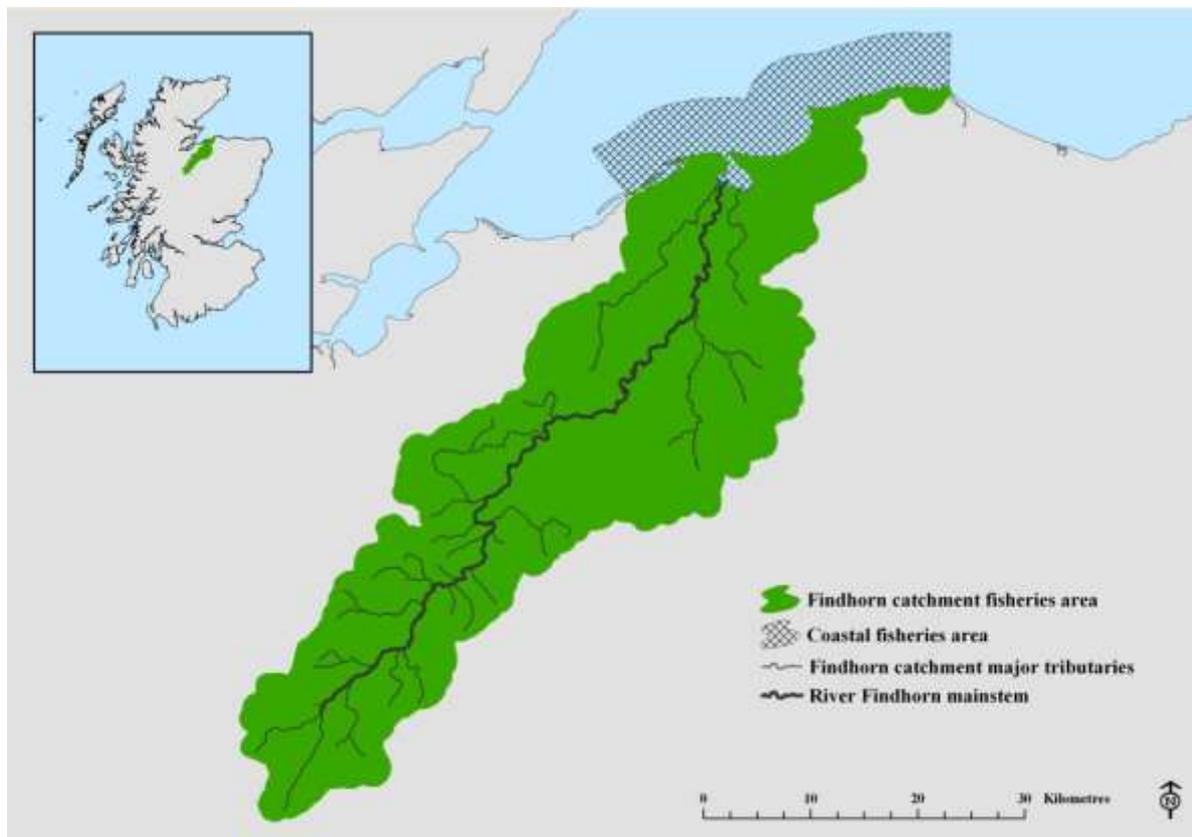


Figure 1: Findhorn catchment and coastal district.

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 2017

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.

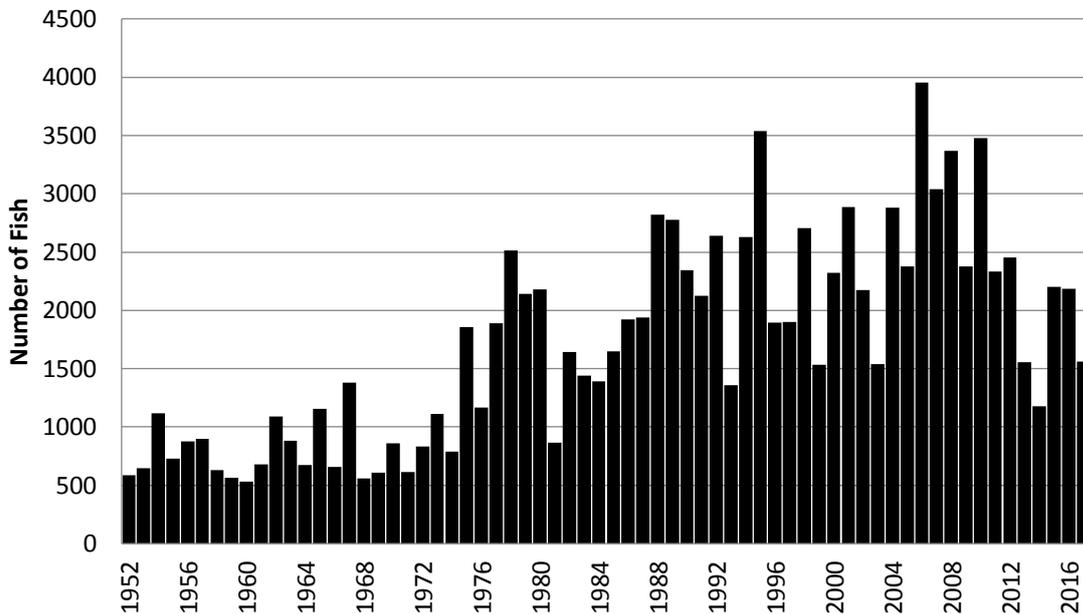


Figure 2: Rod catches for salmon and grilse for the River Findhorn from 1952 to 2017.

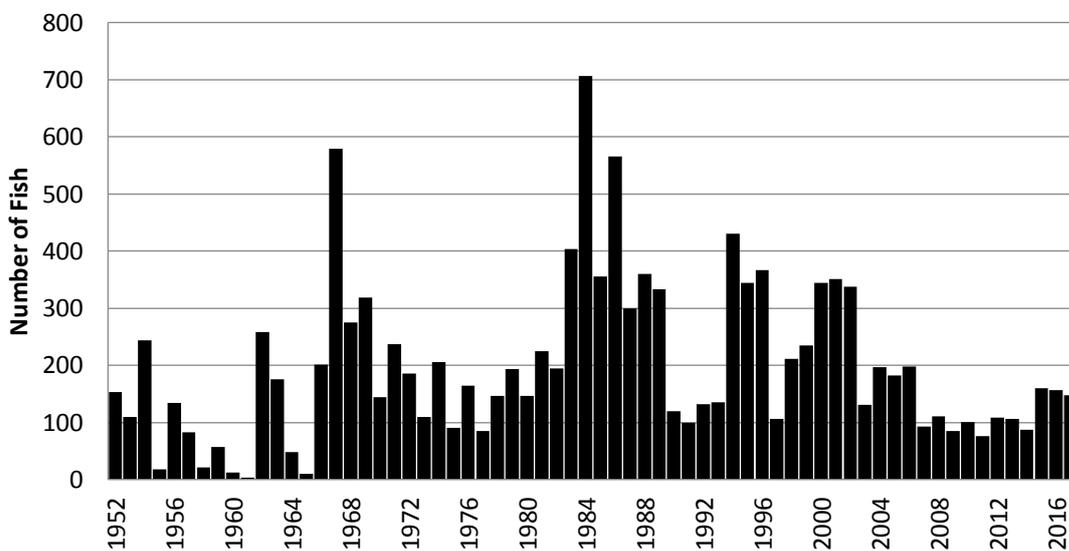


Figure 3: Rod catches for sea trout for the River Findhorn from 1952 to 2017.

The salmon and grilse catch for 2017 was 1561 which was lower than 2016 and 2015 (Figure 2). Sea trout catches (Figure 3) were similar to 2016 with the catch in 2017 amounting to 148.

Table 1 provides a summary of the spring salmon, summer salmon, grilse and sea trout caught throughout the 2017 Findhorn fishing season. Catch and release rates for spring salmon was 100% in keeping with Scottish Government recommendations. Release rates for summer salmon increased to 90.0% and grilse also increased to 80.7%, Overall catch and release rate for salmon and grilse was also up slightly to 87.4%. Sea trout release rates dropped considerably to 65.5% compared with 92.0% recorded in 2016, however, it is not clear why there was such a decline.

Further details on the trends in catch and release for each salmon component and sea trout from 2000 to 2017 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, 2017.

	Caught and Released	Caught and Retained	Total	Release Rate (%)
Spring Salmon	122	0	122	100
Summer Salmon	792	88	880	90.0
Grilse	451	108	559	80.7
Sea Trout	97	51	148	65.5
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.				

Salmon catches vary considerably each year but over a longer time period certain trends become evident. The grilse catch on the Findhorn since 2010 has been declining and this trend has also been noted in other Scottish rivers such as the [Spey](#).

Trends in the Findhorn's angling catch are illustrated further in Figure 4. This figure looks at the proportion of the rod catch which is made up from spring salmon, summer salmon and grilse. The average catch for each of these component stocks is calculated for each decade and then the percentage proportion of the catch is plotted.

From Figure 4 it is clear that the rod catch has changed over the last 65 years. In the 1950s the catch was dominated by spring salmon with grilse contributing to only a small part of the rod catch. However, by 2000-09 this had changed considerably with spring salmon declining sharply over the six decades and grilse rising to become the major part of the fishery. Catches of summer salmon have remained largely similar

although a decline was observed in 2000-09. In the most recent decade 2010-17, grilse numbers have begun to decline and generally when that happens salmon catches start to rise. The summer salmon catch has improved but so far no noticeable rise in spring salmon.

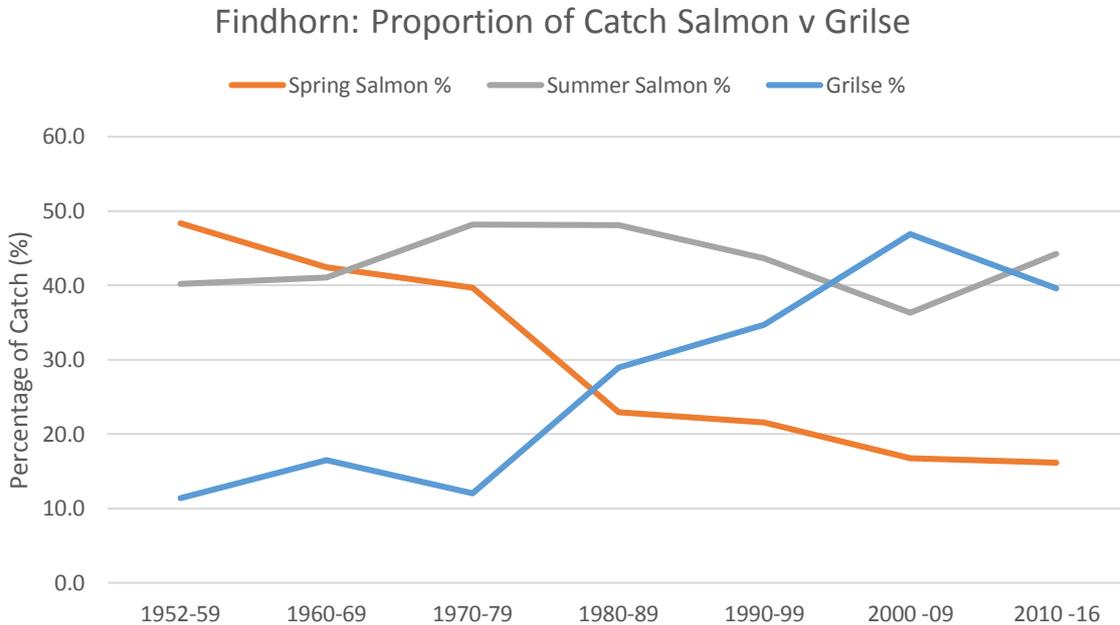


Figure 4: Trends in the salmon and grilse rod catches within the River Findhorn from 1952 to 2017.

Fish Disease Outbreak - May 2017

A period of low flows and high air and river temperatures prevailed in May 2018 and this led to many adult salmon being trapped in pools and unable to continue their upstream migration. This in turn leads to the fish becoming stressed and this means they are more susceptible to fungal infections, particularly, if they have any scale loss or physical damage.

Reports of infected salmon and salmon swimming in a disorientated manner began to filter in during early May. Findhorn bailiffs, Sean Maclean and Billy Forrester and Trust director Bob Laughton visited as many beats as possible and recorded any dead and/or infected fish. Anglers were also asked to report their observations while the water remained low and warm. Although difficult to put an exact figure on the adult salmon lost, over 100 salmon were reported during May. Of these 25 were examined more closely with length, weight, and scale data collected. Each fish was also photographed and then a general examination of the external and internal infections was carried out. Five salmon were also examined by Marine Scotland Salmon fish disease inspectors. In general the infections were fungal and likely to be *Saprolegnia*, which is a naturally occurring bacteria within the river. Three salmon also had red vent infections and two also showed signs of lesions on the head which may indicate UDN. None of the salmon showed any signs of being previously caught or handled by anglers and only one showed damage from predation.



Adult salmon in the Findhorn showing fungal infections, 18th May 2018 (photo R. Laughton).

There was no signs of any internal damage. The salmon analysed in more detail by MSS did not show anything unusual and it seems likely that the outbreak of the infections was related to the low flows and high water temperatures. Perhaps the most interesting information from the 25 salmon sampled was that 23 were female, confirming that the majority of early running fish in the Findhorn are females. There is little that can be done to prevent natural infections

like this. However, it is disappointing to report a significant loss of female salmon and therefore egg deposition to the catchment.



Adult salmon retrieved from the Findhorn at Glenferness showing fungal infections on the nose, fins and body, 19th May 2017. (photo Alex Leven)

The problem was not limited to the Findhorn, with several other rivers experiencing fish losses including the Spey and the North Esk.

Guidelines on how to deal with diseased fish are available [here](#). Any angler finding a diseased or poorly fish should contact the Fisheries Trust Office (01309 611220) or Director (07887535986) or the Findhorn bailiff (07920483081).

Pink Salmon

Although pink salmon were caught in neighbouring rivers, such as the Ness, Nairn, Lossie and Spey and in many other rivers around Scotland, no pink salmon were reported from the Findhorn during 2017.

Findhorn District Salmon Fishery Board [Conservation Code 2018](#)

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.

Scottish Government Wild Fisheries Reform

The Scottish Government published its response to the Wild Fisheries Review on the 15th May 2015 which went out to public consultation in early 2015. The shift in title to Wild Fisheries Reform, rather than Review, indicated the Government's ambitious intention to progress to implementation to overhaul the existing fishery management structure in Scotland.

However, in February 2017 Environment Secretary, Roseanna Cunningham (MSP), announced a considerably reduced plan for Fisheries Reform in Scotland meaning that the considerable amount of work carried out by Fisheries Management Scotland supported by numerous Scottish Fishery Boards and Trusts to develop a new Fisheries Management Organisation structure had been in vain. Although there will still be a revised Fisheries Bill presented to Parliament in the future, the ambitious reforms to management of our valuable fisheries has been side-lined for the moment. Members of the Findhorn Board and The FNLFT contributed regularly to the process and Alasdair Laing chaired the ASFB throughout the reform discussions. It is very disappointing to report on this change in heart from Scottish Government but the Board and Trust will continue to work toward improving Fishery management both locally and nationally.

Details of the Rosanna Cunninghams statement can be found [here](#) and further information can also be found on the Fisheries Management Scotland web site, <http://fms.scot/wild-fisheries-reform/>.

Conserving Wild Salmon

The Scottish Government through Marine Science Scotland (MSS) continued to develop conservation limits models for Scottish rivers throughout 2017.

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 methods used are detailed in the technical document, <http://www.gov.scot/Resource/0049/00491330.pdf>.

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. During 2017 a number of improvements to the model have been included, for example improving estimates of wetted area utilised by salmon. Each river was then regraded in late 2017.

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 and Nairn remain in this category for 2018.

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 2018.

The respective Boards and angling associations on each of the three rivers have been updated. The conservation limits model approach is still evolving and Marine Science Scotland (MSS) and Trust biologists have also established a series of working groups to further develop and improve the approach.

River Superintendents Report

The season started off on a decent note with the first fish coming only days after the opening day, the catches were steady till the month of May. The water dropped to summer levels and the water temperature rose to 22 degrees, this was unfortunate for the Spring fish as many caught the disease *Saprolegnia*, an infection that can eventually kill the fish. The weather continued to be very warm until the first week in June, thankfully we had a large spate which cleared the water of all the deceased fish as well as freshening things up. Summer grilse were present in June and August but they were not stopping long and were difficult to catch. September was a disappointing month, the grilse faded away quickly and back end fish were very scarce indeed. Last year's catch figures for 2016 were 2207 combined, this year's are 1561 salmon and grilse combined, which is 646 fish down on last year. Biggest salmon 2017 was 21lbs, while the largest sea-trout for 2017 was 6lbs

Poaching Control

Poaching activity was down on last season, this was controlled efficiently with maximum patrols, the use of our wildlife cameras and excellent communications with keepers and fishers. I had a handful of call outs of which I attended and moved some unlicensed fishers on.

I had some problems up in the Moy beats with the travelling community, these were suppressed with the help of the police and regular visits to that area. The coastal waters were also well protected with regular foot patrols and free sea patrols thanks to Miro (Moray Firth Inshore Rescue Organisation). Throughout the year I patrolled the River Lossie, no arrests this year but poaching is still very much active on this river. I did find out that the male that was arrested in August 2016 on the Lossie did serve time at Her Majesty's Pleasure, this indicates that the courts do take poaching seriously. In the month of October I conducted several patrols, I checked permits and observed many pools for long periods of time but didn't see anything untoward. These patrols did stretch myself and time was thin on the ground to cover both rivers and coasts. This year for the first time, I experienced animal rights personnel down at the Findhorn Bay, they tried to cause as much trouble as possible as I tried to carry out my work, they were swiftly put in place with the help of Business estate manager Andrew Wardley, I explained who I was and what I was doing, During this verbal confrontation I

informed the activists that they were being recorded, this soon put a stop to the proceedings and they moved on, I reported this incident to Police Scotland who have advised that it may be sensible to wear a body camera when I'm on my own. We are looking into the purchase of body cameras for 2018.

Training Course

I attended two IFM courses this year up at Contin, dealing with different poaching scenarios and the other course was on fish disease identification and sampling. I also attended the annual IFM bailiff's conference in Dumbarton during March.

INNs Control

American mink were scarce this year in our catchment, but we still have a small number of



Mink are still present in the Findhorn district.

them on the coast and several sightings were reported from Burghead and Cummington this year. Traps were installed and one, a juvenile, was caught at Cummington. A further mink was observed on the Mosset Burn, upstream from Dallas Dhu Distillery during August but sadly it evaded capture. Should you spot a mink please contact: FNLFT office 01309 611220, email director@fnlft.org.uk or Sean McLean 07920483081.

Grey Seals continued to feast on Findhorn salmon this year as in the past, I have continued to carry out the duties that come with the licence and have reported all my findings to Roger Knight (Spey Fishery Board) who co-ordinated the Moray Firth Seal Management program.

The number of sawbills we are able to take increased this year on our licence, this was due to the increase in birds the year before and the continuation of bird count data and reported sightings, all this data is very important to continue receiving the licence.

Thank you to all estates and volunteers who assisted with the bird counts this year.

Schools Go To Fish

Earlier in the year, the bailiffs and some local volunteers went to two schools in our area. Logie and Pilmuir Primary, we taught them how to use a fly rod and also how to use spinning rods, this was part of the Schools Go To Fish project organised by FNLFT. On two different days, we took the children up to Kellas fishery to try out their new skills, all the children caught a trout to their amazement and all thoroughly enjoyed themselves. Thanks must go to Eddie Gormanley and Kellas Estate for all their help during the two days at the fishery. I would also like to thank Donald MacBain and Steve Pannel from Forres Anangling Association for giving up their time in giving casting lessons at the schools and helping out at Kellas.



Pupils from Pilmuir learning to cast with help from bailiff Sean Maclean.



Pupils from Logie Primary School proudly show off their catch after a successful day at Kellas Trout Fishery.

Sean Mclean River Superintendent, 07920483081

Findhorn, Nairn and Lossie Fisheries Trust Report

The Findhorn, Nairn and Lossie Fisheries Trust 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. The plans were developed using funding from Scottish Government and the Rivers and Fisheries Trusts Scotland (RAFTS) and copies can be downloaded from <http://www.fnift.org.uk/projects/>.

The Trust reviews the FMPs each year. Based on this review, progress made in the most recent year, and emerging issues, the Trust chooses projects to focus on in the next year. The Trust's first FMPs were written in 2010; thus much of the work to be done involves finding out more about the status of the rivers and the salmon, sea trout and other native fish populations.

This reports details activities carried out on the River Findhorn during 2016 and where this relates to the fisheries management plan is shown in brackets. Further details of the work of the Trust on the Nairn and Lossie can be found on www.fnift.org.uk.

Juvenile Salmon and Trout Stock Assessment (FMP3.1)

An electrofishing surveys of the Divie, Dorback and associated burns were planned for Autumn 2017 to help determine smolt output estimates and compare these with the actual catches of smolts from the rotary smolt trap. However, summer and autumn 2017 proved to be wet and flow rates in most of the Divie and Dorback remained too high to safely conduct electro-fishing and by mid-September it was clear that the survey could not be completed.

However, despite the high flows two wind farm monitoring programmes were completed with respect to the Tom nan Clach wind farm and the proposed Ourack wind farm and the findings have been reported to the developers (Table 2).

<i>Wind Farm Monitoring Surveys 2017</i>		
	<i>Depletion Sites</i>	<i>Timed EF Sites</i>
<i>Ourack WF</i>	<i>2</i>	<i>5</i>
<i>Tom nan Clach WF</i>	<i>8</i>	<i>3</i>

Table 2: Electrofishing sites completed within wind farm developments in the Findhorn catchment during 2017.

Smolt Output – River Divie Trial (FMP3.2)

To examine smolt output we have secured the use of a 4ft rotary screw trap from the [Atlantic Salmon Trust](#) for spring 2017. The trap was installed in the lower Divie on 24th March 2017 and operated until 22nd May 2017. In contrast to the autumn which was wet the spring proved to be one of the driest on record leading to extremely low flows. The 4ft smolt trap will work in fairly low flows but during spring 2017 the flow rates were often too low to turn the drum and so the trap was only operational for 26 days during its 59 day installation period. This was frustrating, however, bailiffs Sean Maclean and Billy Forrester kept a very close watch on the weather and flow rates and as soon as water flows were suitable the trap was returned to operation. In total 658 salmon smolts were captured, 99 salmon parr and 163 trout. No other species were captured.

The majority of the salmon smolts were caught on the 26th April, n=325, when a rise in water levels after heavy rain stimulated a smolt run. The remaining smolts were all captured in the next few days when water levels remained high enough to turn the drum. A similar pattern was observed on the smolt trap in the River Nairn and it seems likely that the majority of the smolts left the Dorback/Divie during the elevated flows in late April.

The aim of this installation was to determine if a trap could be operated in the Divie and provide a long term site for estimating smolt output. In a year where a more normal flow regime prevailed the trap would operate well, the site offered a good channel where the majority of the flow was directed to the trap and therefore maximizing the chance of capturing smolts. There was numerous trees offering good anchor points and a shallow area behind the trap provided some opportunity for sheltering the trap during higher flows. Although during a sudden rise in flows the trap could be lost. General access to the site for installing and removing the trap was awkward and also daily access for monitoring the smolts was tricky. Nonetheless the site offers potential for establishing a smolt monitoring programme.

We are very grateful to the Atlantic Salmon Trusts for the use of the trap, to Mark Laing for access to the Divie, to Paul Clapperton, Neil MacDonald (Dunphail Estate) and Alastair Skinner (Nairn Bailiff) for their assistance with trap installation and retrieval, and to Steve Pannell, Ian Macintosh and Jimmy Wilson for their help in measuring the smolts.



Rotary screw trap in place on the River Divie during spring 2017.

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 2017 with a further 64 salmon scale samples submitted from the Findhorn (Table 3) along with 1 brown trout scale samples from Tomatin. We are again very grateful to all those anglers who took the time to collect them. All the scales have been pressed and readings will be completed in Jan/Feb 2018 with the help of Iain Maclaren and other experts at Marine Science Scotland, a report will be available on the web site shortly and circulated to anglers.

Findhorn Location	Number of Scale Samples
Forres AA	23
Darnaway	15
Lethen	12
Cawdor	12
Upper Findhorn	2
Total	64

Table 3: Findhorn salmon scale samples 2017.

Invasive Non-Native Plant Control (FMP4.2)

The Board continued to support the control of non-native plants along the river during 2016 providing both funds and staff time. This also enabled FNLFT to secure additional funding from, EB Scotland to continue the battle against Giant Hogweed and Japanese Knotweed.

Control concentrated on repeating spraying the areas tackled in previous years as well as tackling the upper limits of the Giant Hogweed infestations near Daltulich Bridge. However, a few isolated giant hogweed plants were again found further upstream within Coulmony estate. These plants were treated by FNLFT and Coulmony staff but it illustrates the need to be vigilant and so the area will be monitored in future years.

From Daltulich the Findhorn enters a spectacular gorge section and although this is a relatively inhospitable habitat for giant hogweed some plants are present and similar to 2016, the local white water rafting specialists "[Ace Adventure](#)" were contracted for three trips through the gorge to treat giant hogweed and Japanese knotweed.

Funding from EB Scotland also allowed specialist contractors, Steve Turner (Conservation Services Moray) and Angus Dixon (Groves Forestry) to be employed. This allowed the continuation of treatment to the more dense infestations around Dalvey, Altyre and Mundole. Findhorn bailiffs, Sean Maclean and Billy Forester and volunteer Scott Galbraith (UHI) also assisted with treatments at Mundole Farm and around the Stoney Pool with the tremendous support from Jenny Davidson (Mundole Farm) and Dalvey estate. Staff from Moray Estates also tackled the Giant Hogweed within Darnaway. Forres AA river watcher Steve Pannel also worked tirelessly throughout the season to maintain paths and control of hogweed and knotweed throughout the Forres AA beat and funding assisted in supplying him with protective equipment and Round-up.

As a result all giant hogweed from Daltulich to the A96 Bridge was tackled and treated and so good progress is being made.

We continued to work with "[Wild Things](#)", a local environment education group based in Findhorn and combined efforts to treat Giant hogweed downstream from the A96 particularly around the Waterford recycling centre.

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

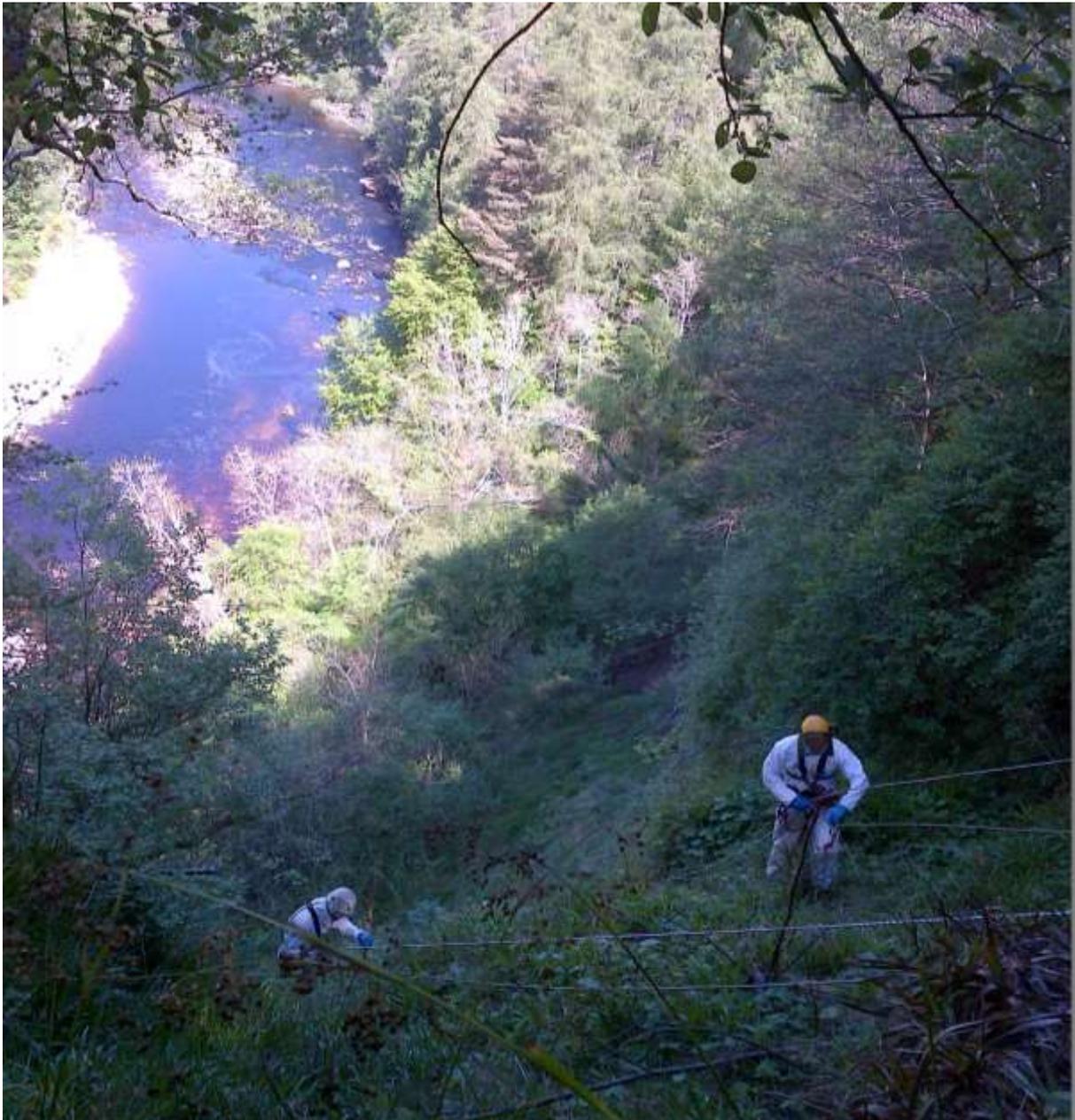
Treatments of isolated outcrops of Giant Hogweed were also carried out within Forres notably at the Matrix Garage and on the disused land beside Mosset Park.

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, with Wild Things we also tried digging up the roots in February/March and again this also proved effective, this approach is also used on part of the Mosset Burn. For Japanese knotweed we have largely moved to stem injection and although a little awkward this has also proved more effective than spraying and uses less round-up. We continue to look at alternative approaches for the future. The dense infestations will take many further years of control before they are reduced to a manageable level.



Giant hogweed on the cliffs near the Broadreeds pool present a difficult access and control problem.

One particularly troublesome area is the cliffs at the Broadreeds Pool within the Lower Home Beat, Darnaway. Giant Hogweed has become well established on the cliff in recent years and is inputting a significant amount of seeds to the river. The cliff is about 80 to 100m high and difficult to access. However, this year through funding from EB Scotland, we were able to employ specialist contractors "Blokes on Ropes" to tackle the cliffs at the Broadreeds pool. Although challenging and physically demanding the approach proved a success. Three visits to the cliff were completed and through a combination of spraying and cutting no giant hogweed plants flowered to produce seeds this season. A great start but work will need to continue for several years to fully clear the cliff.



Blokes on Ropes: Alex and Rick descend to tackle the giant hogweed on the Broadreeds cliff, May 2017.

We are very grateful to the funders, to all the estate owners and staff and volunteers for their continued support throughout 2017 which has allowed good progress to be made.

To achieve further control of INNs plants were delighted to receive news that the Scottish Invasive Species Initiative (SISI) received approval from the Heritage Lottery Fund in November 2017. The £1.59M project which includes 10 fisheries trusts and is supported by Scottish Natural Heritage will allow us to considerably advance the control of Giant Hogweed, Japanese Knotweed and Himalayan Balsam across the Findhorn, Nairn and Lossie. It also includes mink control along with a wide range of activities to promoted INNs control.

Predator Management (FMP4.1)

Sawbill ducks (goosanders, mergansers) and cormorants can affect juvenile and smolt stocks. Regular counts were completed throughout 2017 (Figures 5 to 7) from Findhorn Bay upstream to Cawdor. Counts were 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.

Figure 5 indicates that goosanders are generally present in the Bay and on the river throughout the year. Numbers vary seasonal, with higher numbers present 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 and 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 from October 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. Goosander counts during 2017 were generally lower than in 2016 in both the Bay and along the river. Ad hoc observation indicated goosanders were also present on the tributaries particularly on the Divie and Ourack Burn.

Figure 6 provides the counts for mergansers during 2017. The lifecycle for mergansers is similar to that of goosanders although they tend to remain more along coast and lower reaches of the river. Merganser numbers have tended to be lower than goosanders in most years but this year we observed the opposite with merganser counts being higher than goosanders in both the Bay and the River throughout the year. The 2017 counts of mergansers were also higher than all other years where counts have been completed (2014 to 2016). Ad hoc observations also reported some high numbers particularly in Findhorn Bay during October. It is not clear why this pattern was evident and what has led to the increase in merganser numbers.

Figure 7 shows cormorant counts for 2017 and 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! They do make their way up river and have been observed as far upstream as Dulce Bridge. They usually disappear from the river by late spring.

The counts in 2017 were much lower than in 2016 and no cormorants were observed on the river during the formal counts or ad hoc observations.

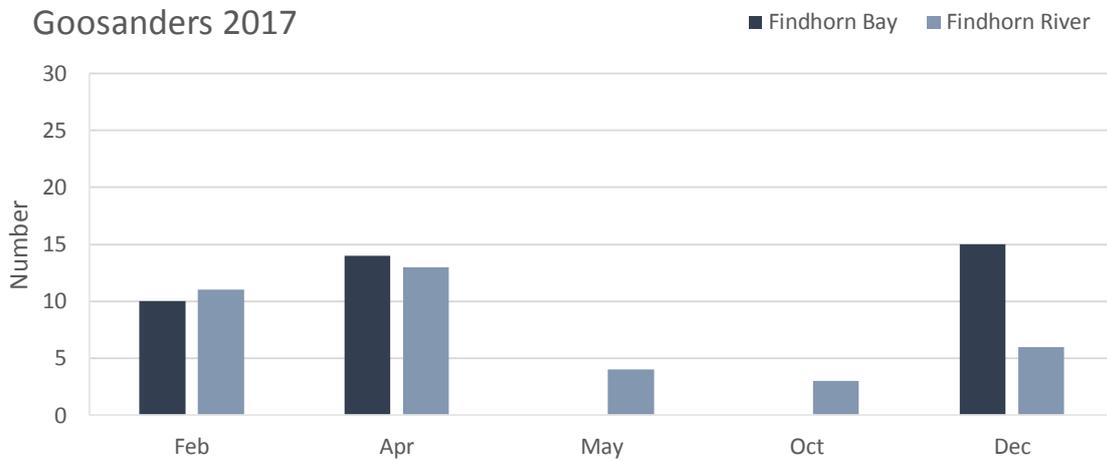


Figure 5: Goosander count data from Findhorn Bay and river during 2017.

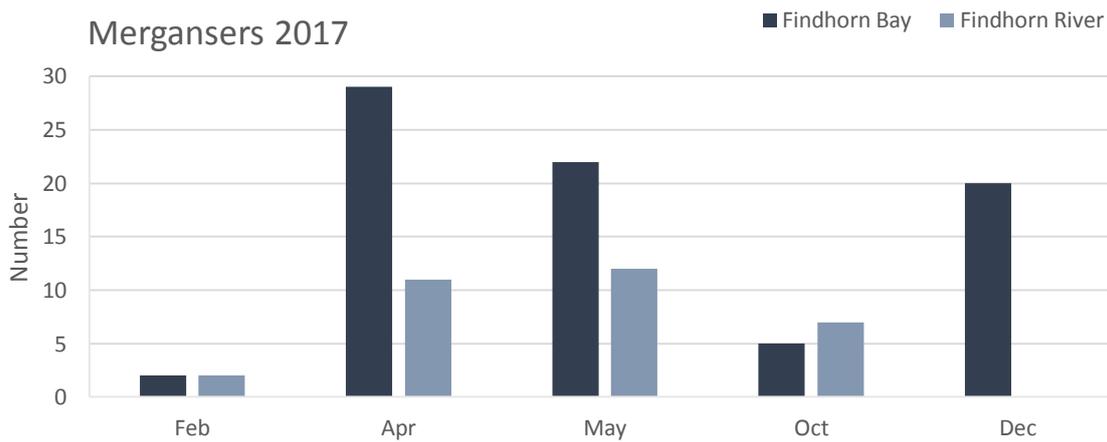


Figure 6: Merganser count data from Findhorn bay and river during 2017.

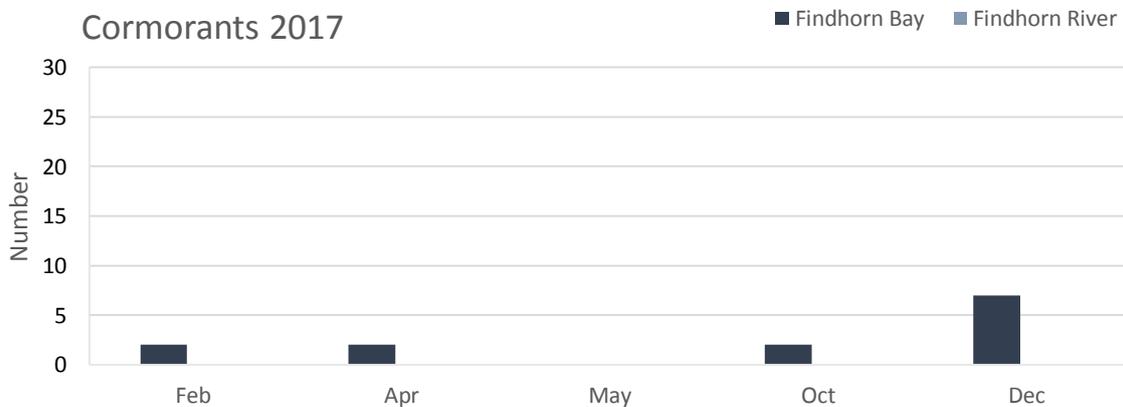


Figure 7: Cormorant count data from bay and river during 2017.

Based on these count data and counts from neighbouring rivers a joint licence application for control of these birds within the Moray Firth river's during the smolt run was submitted by Roger Knight from the River Spey. This was successful allowing birds to be controlled from 1st October 2017 to 31st May 2018. This included 4 goosanders, 7 mergansers and 1 cormorant for the Findhorn, Nairn and Lossie and control is underway. Scaring tactics are also used by firing blank cartridges and also the installation of rope bangers at selected locations to disturb the birds through the smolt run. Counts and scaring tactics will continue throughout 2017.

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 07887535986, providing date, location and number/type of birds.

Catchment Developments (FMP1.3)

Wind Farms

Construction of the access roads to the Tom nan Clach wind farm began in late 2016. The roads and the wind farm impinge on the Tomlachlan, Leonach and Rhilean Burns all of which have substantial waterfalls preventing salmon and sea trout access. However, all three burns have resident trout populations and it is particularly important to protect and ensure these fragile sub-populations are protected. The Trust has liaised closely with the developers and advised on river crossings to ensure fish passage is not affected. A monitoring plan has also been established with the first surveys completed in September 2016 with further surveys completed in September 2017. Results indicated that the resident trout populations were in good density and distribution, very similar to the survey data collected prior to the development. So apparent no effects of the wind farm construction were evident on the populations.

The Trust continues to monitor for any other wind farm developments including Ourack, Clashgour and Cairn Duhie and provide appropriate comments and advice.

Road and Rail Developments

Dualling of the A9 continues to gather pace and the next section to be constructed is likely to be in the Moy – Tomatin length. The Trust has continued to liaise with the developers on plans, particularly bridge crossings and other factors affecting burns in the area. Data on fish populations has also been provided.

The dualling of A96 is also gathering pace with plans now developed for the section from Inverness to Nairn-Hardmuir. The next section from Hardmuir to Fochabers is in early design stage with no preferred route identified at the moment. The Trust has attend initial public meetings and will continue to monitor the development and provide appropriate advice and comments.

The Trust have also liaised closely with BAM who are constructing the new railway crossing and station in Forres which includes a new bridge over the Mosset Burn. The bridge was successfully installed in October 2017 with no effects on fish access to the Mosset, indeed two spawning redds were observed upstream shortly after installation.

Publicity (FMP7.1)

The Trust has produced regular newsletters and updates on activities can also be found on our web site www.fnlft.org.uk and now on 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), Billy Forrester (FDSFB), Ali Skinner (NDSFB), Fraser Laughton, Scott Galbraith (UHI), Craig Galbraith (UHI) and Ruth Wilkes for their assistance in electro-fishing and with other projects.

I am extremely grateful to Ian Suttie, Ian Macintosh, James Bromham, Pat Carroll, 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.

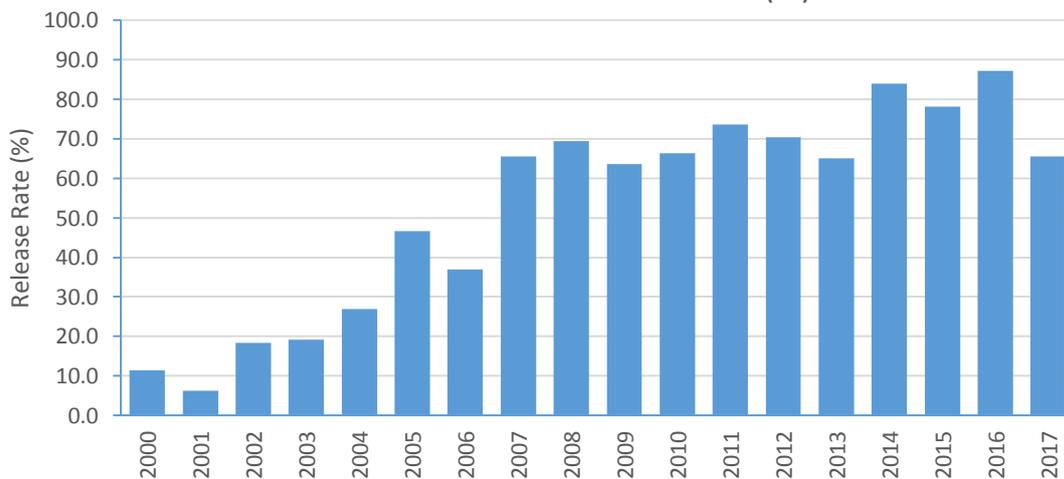
Thanks also to all the proprietors and anglers who have generously donated to the Trust.

Appendix 1: River Findhorn Catch Data

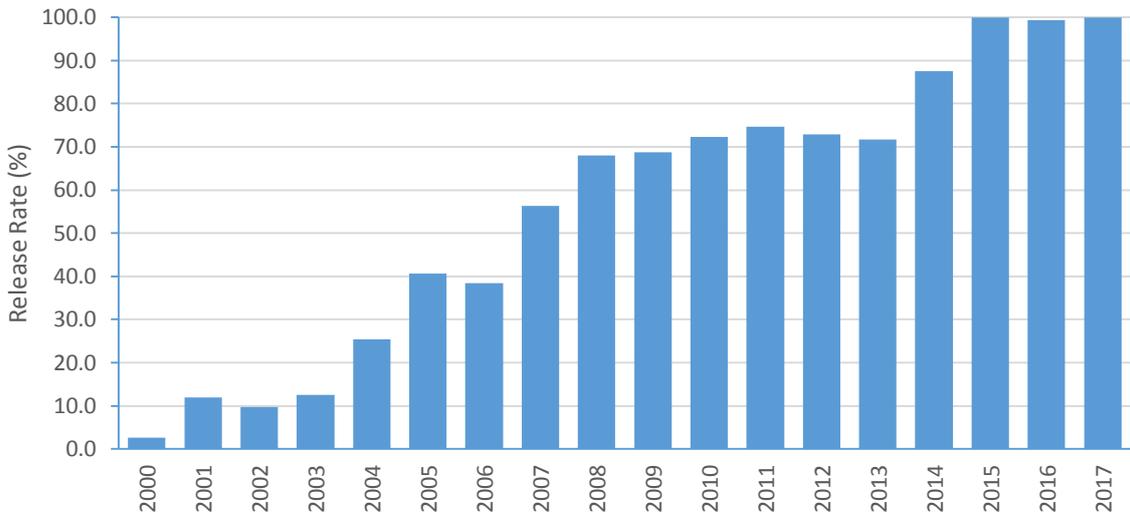
River Findhorn – Catch data for each beats 2017.

Findhorn 2017	SALMON RETAINED	SALMON RELEASED	RELEASE %	GRILSE RETAINED	GRILSE RELEASED	RELEASE %	SALMON+GRILSE RELEASE %	S TROUT RETAINED	S TROUT RELEASED	RELEASE %
Coignafearn		3	100%	1		0%	75%			
Daltomich		4	100%				100%			
Glenmazeran		34	100%				100%			
Dalmigavie	1	24	96%		11	100%	97%			
East Clune	2	16	89%	2	15	88%	89%			
Glen Kirk	1	8	89%	2	9	82%	85%			
Strathdearn	1	20	95%	2	3	60%	88%		2	100%
Dalmigarry		11	100%	2	17	89%	93%			
Glen Kyllachy	1	3	75%	1	1	50%	67%		2	100%
Findhorn Bridge	1	9	90%				90%			
Kyllachy		10	100%		3	100%	100%		4	100%
Corrybrough		9	100%				100%			
Tomatin	7	43	86%		32	100%	91%		2	100%
Balnespick	10	16	62%	6	4	40%	56%		1	100%
Moy (Upper)	1	34	97%	1	2	67%	95%			
Moy (Pollochaig)										
Drynachan	9	121	93%	12	62	84%	90%		4	100%
Banchor	2	12	86%	3	3	50%	75%	1		0%
Lethen	2	110	98%	7	62	90%	95%		4	100%
Glenferness	9	74	89%	13	54	81%	85%		5	100%
Coulmony		10	100%	1	6	86%	94%	1	1	50%
Logie		26	100%	4	6	60%	89%		2	100%
Dunphail	1	7	88%				88%			
Moray Estates	12	143	92%	11	43	80%	89%	1	7	88%
Altyre Estate		58	100%		25	100%	100%		9	100%
Forres AA	28	109	80%	40	93	70%	75%	48	54	53%
TOTAL	88	914	91%	108	451	81%	87%	51	97	66%
Salmon & Grilse	1561						Sea Trout	148		

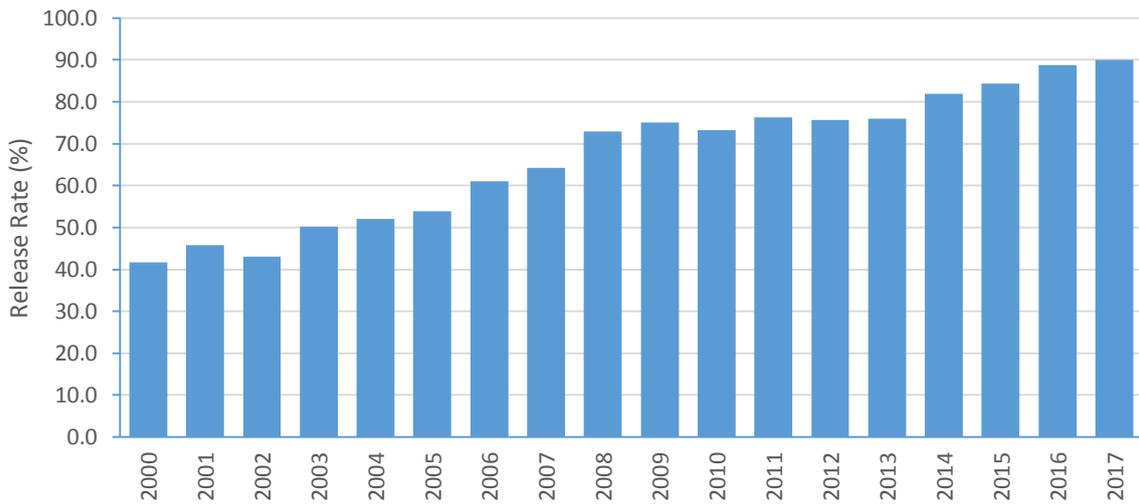
Findhorn: Sea Trout Release Rate (%)



Findhorn: Spring Salmon Release Rate (%)



Findhorn: Summer Salmon Release Rate (%)



Findhorn: Grilse Release Rate(%)

