# Annual Report 2017


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***Top Left Cover Photo**:* Visiting angler David Wood with a 16lb salmon at Collie Pool, Delfur, March 2017 (Photo: Mark Melville, Head Ghillie, Delfur Fishings).

***Top Centre Cover Photo:*** Visiting angler Nick Plum with a 41-inch Salmon at Kinermony, August 2017 (Photo: David Smillie, Ghillie, Kinermony Fishings).

***Top Right Cover Photo:*** Visiting angler with a fine salmon at Craigellachie (Photo: Dougie Ross, Head Ghillie, Craigellachie Fishings)

***Bottom Cover Photo**:* The Pouches, Knockando, September 2017. (Photo: Roger Knight)

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# Annual Report 2017

**by**

**Roger Knight**
**Director**

**and**

**Brian Shaw**
**Biologist**

## January 2018

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# Spey Fishery Board

| | |
|---|---|
| **Chairman:** | **B*rian Doran,*** Mandatory for Craigellachie Fishings |
| **Proprietors:** | **William *Mountain***, Delfur Fishings<br>***Oliver Russell***, Mandatory for Ballindalloch Trustees<br>***Angus Gordon Lennox***, Gordon Castle Fishings & Mandatory for the Brae Water Trust<br>***Alan Williams,*** Carron Fishings<br>***Peter Millar***, Orton Estate<br>***Dr. Catherine Wills***, Knockando, Phones and Lower Pitchroy<br>***Toby Metcalfe FRICS***, Mandatory for Crown Estate Commissioners<br>***Peter Graham FRICS,*** Mandatory for Rothes & Aikenway and Laggan Fishings |
| **Co-optees:** | ***Grant Mortimer***, Strathspey Angling Improvement Association<br>**Craig Mackay**, River Spey Anglers Association |
| **Invitees:** | ***Douglas Ross MSP*** (Until May 2017)<br>***Jennifer Heatley***, Scottish Natural Heritage<br>***Graeme Henderson***, Scottish Environment Protection Agency<br>***Alistair Galloway***, Scottish Environment Protection Agency (Since August 2017) |
| **Clerk:** | ***William Cowie***, R. & R. Urquhart |

# Spey Foundation Committee

**(Until May 2017)**

| | |
|---|---|
| **Chairman:** | ***Peter Graham FRICS***, Mandatory for Rothes & Aikenway and Laggan Fishings |
| **Members:** | ***Dr. Catherine Wills***, Knockando, Phones and Lower Pitchroy<br>***Edward Mountain MSP***, Delfur Fishings<br>***Angus Gordon Lennox,*** Gordon Castle Fishings & Mandatory for the Brae Water Trust<br>***Alan Williams***, Carron Fishings<br>***Brian Doran,*** Mandatory for Craigellachie Fishings & SFB Chairman<br>***Dr. Alastair Stephen***, Scottish & Southern Energy<br>***Steve Brand***, Head Ghillie, Ballindalloch Castle<br>***Simon Crozier***, Ghillie,Castle Grant Fishings<br>***Roger Knight***, SFB Director<br>***Brian Shaw***, SFB Biologist<br>***Duncan Ferguson***, SFB Operations Manager |

# Spey Fishery Board Staff

| | |
|---|---|
| **Director:** | **Roger Knight** |
| **Office Administrator:** | **Sally Gross** (Part-Time) |
| **Hatchery Manager:** | **Jimmy Woods** |
| **Operations Manager:** | **Duncan Ferguson** |
| **Head Bailiff:** | **Richard Whyte** |
| **Bailiffs:** | **Jason Hysert** |
| | **Alistair Grant** |
| **Research:** | **Brian Shaw** (Biologist) |
| | **Steve Burns** (Assistant Biologist) |
| | **Jim Reid** (Assistant Biologist - Seasonal) |
| **Spey Catchment Initiative:** | **Elizabeth Henderson** (Project Officer) |
| **Spey Foundation:** | **Sean Robertson** (Assistant Biologist - Seasonal) |

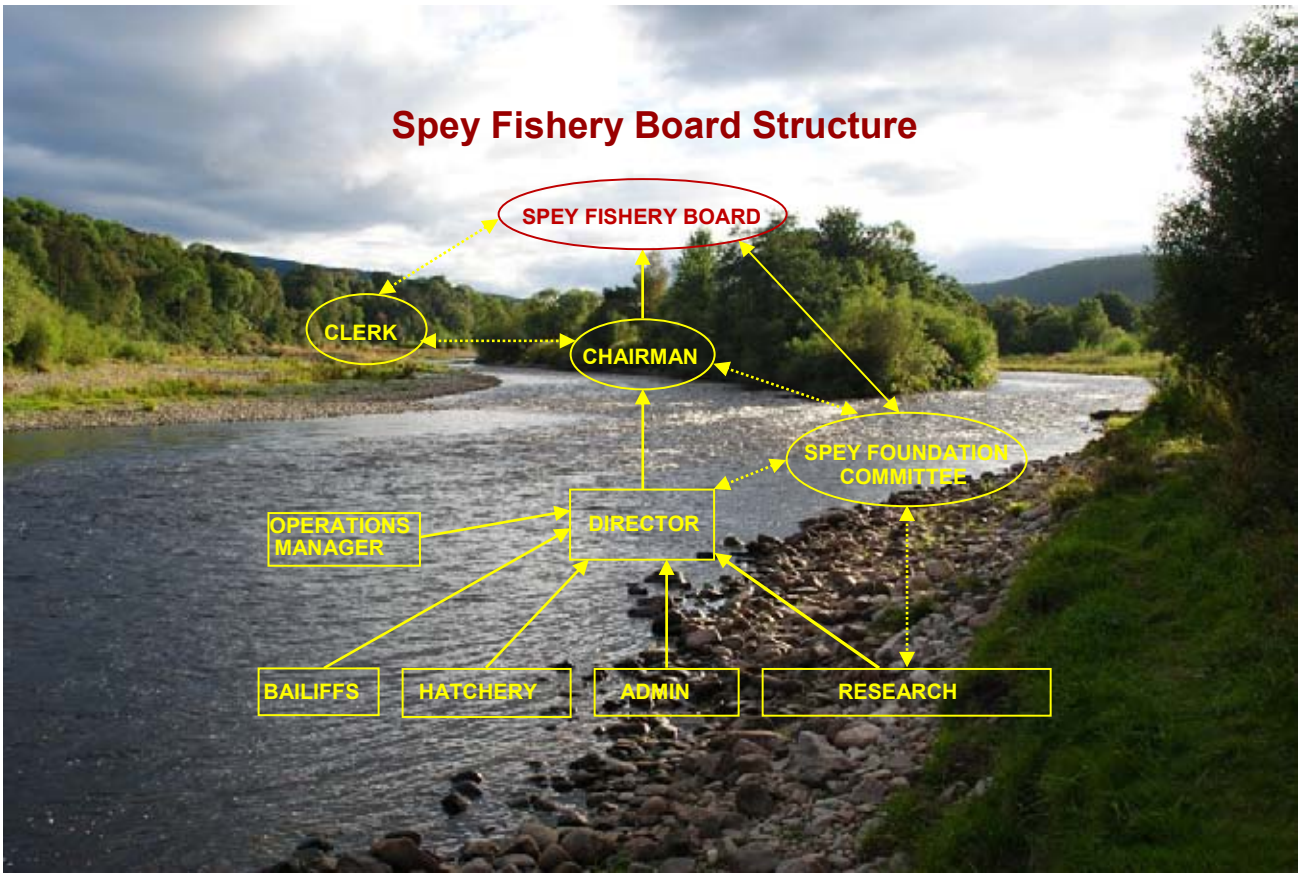


***Figure 1**: The Spey Fishery Board Structure*

## Chairman's Foreward 2017

In my report last year, I described the 2016 season as being like the Curate's egg, good in parts. 2017 proved to be very similar.

The Spring produced good numbers of fish of a good size and in excellent condition. Unfortunately, like 2016, the second half of the season was a disappointment.

The Spey's declared catch of Salmon and Grilse for the season amounted to 5,292 fish, 2,341 lower than the 2016 season. Nevertheless, this total is almost 1,000 fish more than many had been predicting and is above the 2014 all-time low of 4,463. Sea Trout catches, however, improved with 2,293 for the season, an increase of 975 fish over 2016.

Spey anglers continue to impress with their very responsible approach to conservation which is so critical as we go through this period of declining catches. Fishers returned 96% of all Salmon and Grilse caught and 82% of all Sea Trout. This is a significant success for the Spey and a great credit to our Ghillies, anglers and proprietors. As a result, our conservation policy remains unchanged for the 2018 season.

The gradual improvement in Spring catches seen over the last two years together with the lack of Summer and Autumn Grilse in the same period suggests that a change in run timing may be taking place. This phenomenon is well documented historically and has been commented on recently by several noted biologists. It is too complex an issue for this report or, indeed, this author! Brian Shaw, our Biologist, has described it in detail in his report later in this document.

I reported last year on the Scottish Government's plans to reform Fisheries Management in line with proposals set out in the Wild Fisheries Review. We were expecting that District Salmon Fishery Boards, which had served rivers so well for 150 years, would be abolished and replaced by Fisheries Management Organisations (FMO). Rivers were to be grouped together into Fishery Management Areas (FMA).

I am delighted to report that in February 2017, the Scottish Government did a "U-turn" and decided to leave the existing river management structure in place. This was exactly what we had been arguing for but it took enormous effort on the part of our staff, in particular, our Director, Roger Knight and our Biologist, Brian Shaw. I am very grateful for their enthusiasm and commitment. I am also grateful to Peter Graham, Chairman of the Spey Foundation, for his contribution to our responses to the many consultations we had to deal with and I should also acknowledge the support given by my colleagues on the Board.

2017 also saw the establishment of a new representative organisation, Fisheries Management Scotland (FMS). This is now formed and the new Board is settling in well under the Chairmanship of Alistair Jack, Chairman of the Annan Board and recently elected Conservative MP for Dumfries and Galloway. The Board has a varied representing the best interests of anglers, proprietors and others who depend on our rivers and I have been appointed to the Board representing the Spey. FMS has already developed excellent relationships with Ministers, Civil Servants and others within the Scottish Government involved with our sector and is now seen as an important influence on several important areas including Aquaculture, an issue of great concern to many.

Other, more local issues that we have been dealing with throughout 2017 include a fungal infection which appeared during a period of low water

in April and May. This worried many anglers and proprietors who were concerned that the fungus was UDN. Scientists from Marine Scotland Science, visited the river and took samples which confirmed that the fungus was not UDN but Saprolegnia, a fresh water fungus endemic to the Spey and many other rivers. Brian Shaw deals with this later in this report.

In July, we had some unusual visitors turn up on several beats on the Spey. These were identified as Pink Salmon, *Onchorynchus gorbuscha,* a native of the Pacific and probably from populations established in some Northern Russian rivers.

These fish were originally stocked by Stalin to provide a food source for the Russian people. Over time they migrated South to some Norwegian rivers and now seem to have made their way to Scotland. Little is known of these fish on this side of the Atlantic so a great deal of work was done, very quickly, by various agencies to assess the risk of these non-native fish colonising our rivers. They have a very different life cycle to the Atlantic Salmon in that they go to sea as soon as they have absorbed their yolk sac and swum up from the gravel. Their spawning time is also different, from June to September. They are a completely different genus to the Atlantic Salmon so there is no chance of interbreeding. Again, Brian Shaw provides more information on these visitors, including a risk assessment, in his own report.

The WFR process allowed us to look carefully and critically at the way the Board manages the business of running the river.

We have had a Board comprising of proprietors, mandatories, co-opted experts and invitees for many years now. All executive authority rests with this Board. The Board is funded by the proprietors through an assessment system, established in 2003 to replace sporting rates.

We also have the Spey Foundation, a charitable organisation, which is charged with providing evidence based scientific advice to the Board. The Foundation also carries out third party contracts for outside organisations such as wind farms or distilleries where their operations could have a detrimental effect on the river and its population of Salmon and Sea Trout. The Foundation's charitable status allows it to receive donations from third parties and this is how it funds its work. The Foundation has no executive authority and can only make recommendations to the Board. The Board can decide to accept or reject these recommendations.

All of the staff are employed by the Board and the Foundation contracts these staff to carry out its work.

It has been decided that our current arrangements could be improved by making the Foundation Committee a subcommittee of the Board, strengthening the scientific effort by co-opting outside expert members. This has the added advantage of providing our own biologist with support and also peer review of his work. This new committee will provide scientific guidance and submit recommendations to the main Board, who will then debate them and decide on the most appropriate course of action. This proposal will also streamline our administration and reduce costs.

The Board debated and approved this important change to the management structure at its meeting in November.

It only remains for me to thank all members of staff for their support and hard work during a particularly busy and often challenging year.

I wish you all tight lines for the 2018 season.

**Brian Doran**
**Chairman**

# Part 1

# Statutory Remit of the Spey Fishery Board

## 1.1 Constitution

The Spey District Salmon Fishery Board (SFB) was established under the 1860s Salmon Fisheries legislation as subsequently amended and stated in the Salmon Act 1986 and the Salmon Conservation (Scotland) Act 2001. This legislation was later streamlined into the Salmon and Freshwater Fisheries (Consolidation) (Scotland) Act 2003, which has subsequently and recently been amended by the Aquaculture and Fisheries (Scotland) Act 2013. The SFB is empowered under the legislation to take such acts as it considers expedient for the protection, enhancement and conservation of Atlantic Salmon and Sea Trout stocks and their fisheries (Table 1). The SFB is responsible for the Spey Fishery District (Figure 2), which includes 52 rod fisheries within the mainstem of the Spey and its tributaries. The District covers 107 miles of Mainstem River, approximately 560 miles of main tributaries and 20 miles of coastline in the Moray Firth, from Lossiemouth to the west of the Spey estuary to Cowhythe Head in the east. The District extends 3 nautical miles out to sea.

The SFB has put in place measures to ensure it is in full compliance with the latest legislation.

Furthermore, since November 2013 and in addition to its annual public meetings, the Board has conducted the major part of all of its quarterly meetings in Open Session to enable members of the public to attend.

## 1.2 Complaints Procedure

Section 24 of the Aquaculture and Fisheries (Scotland) Act 2013 amended the 2003 Act to place a number of new duties on DSFBs relating to openness and accountability. The new section 46D requires a DSFB to: *'maintain, and keep under review, proper arrangements for dealing with complaints made to the board about the way in which the board have carried out, or propose to carry out, their functions under this Act or any other enactment'*

The SFB has published its complaints procedure on its website. Full details can be found at: http://www.speyfisheryboard.com/spey-fishery-board-complaints-procedure/

One complaint was received by the SFB during 2017, to which it responded by written correspondence.

**Table 1. Statutory Responsibilities of the Spey Fishery Board**

1. Provide fisheries protection;
2. Set Salmon rod fishery season (11th February – 30th September);
3. Set Sea Trout rod fishery season (11th February – 30th September);
4. Police weekly rod fishery close times (midnight Saturday – midnight Sunday);
5. Police the purchase and sale of illegally-caught or unseasonable fish;
6. Ensure fish passage over obstructions to migration;
7. Protect juvenile fish and spawning redds;
8. Regulate the movement and/or introduction of adults, juveniles and ova.

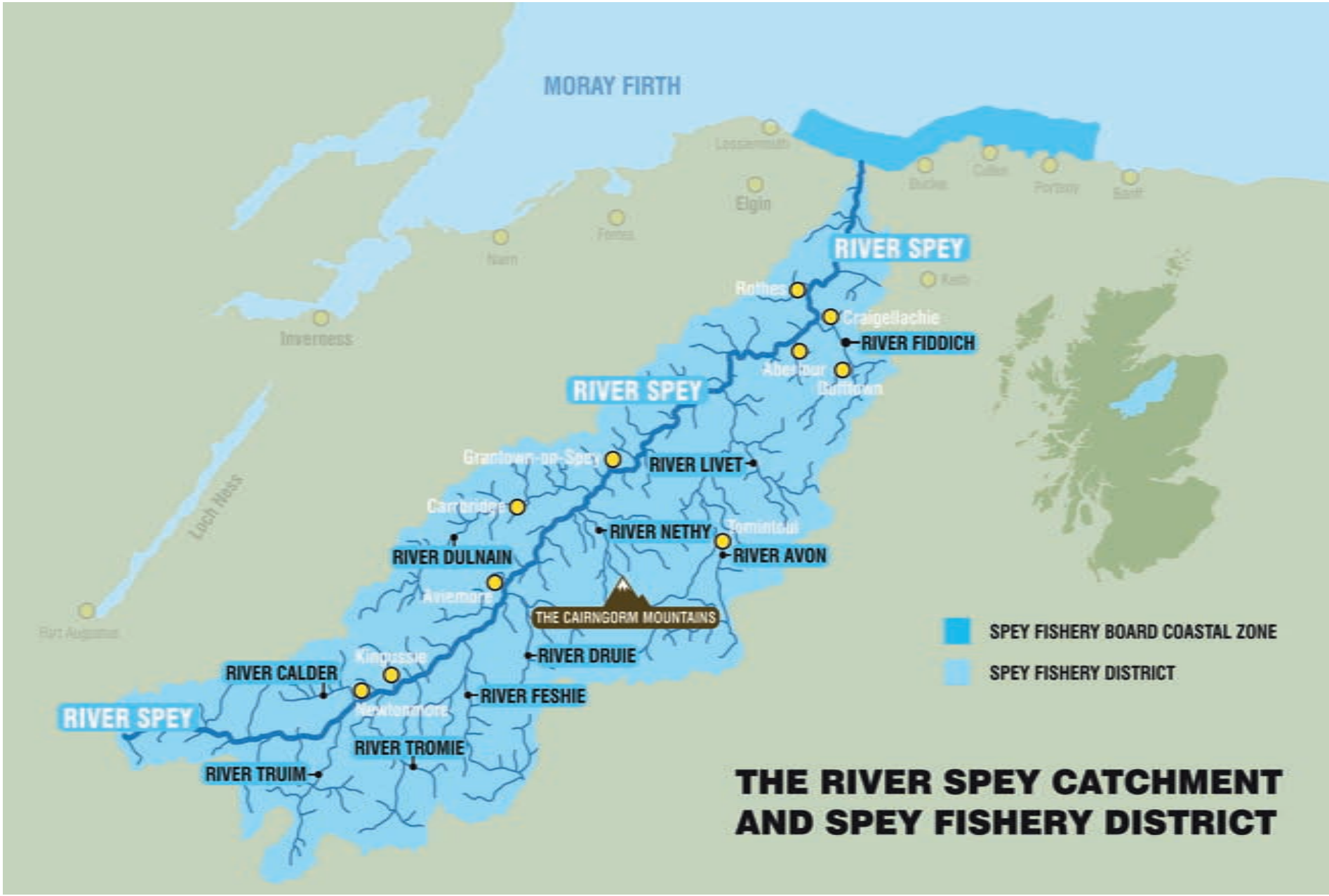


**Figure 2:** *The River Spey Catchment and Spey Fishery District.*

## 1.3 Wild Fisheries Review

We have previously reported that the Scottish Government had announced in January 2014 that a review of Wild Fisheries Management would be undertaken, led by Andrew Thin (former Chairman, Scottish Natural Heritage). This had followed the Aquaculture and Fisheries Act 2013 and remains a Scottish National Party manifesto commitment, to ensure that Freshwater Fisheries Management structures are fit for purpose for the 21st century. The Review Team presented their report, containing 53 recommendations, to Ministers in October 2014.

Since then, Wild Fisheries Review developed into Wild Fisheries Reform, as the Scottish Government moved towards implementation of the Review's recommendations. In so doing, the Scottish Government has aspired to establish the following:

i. A small central team (possibly called the National Wild Fisheries Unit) within Marine Scotland. This should be responsible for strategic direction, effective regulation and national co-ordination.

ii. Local delivery by a network of Fishery Management Organisations, which would be neither Boards nor Trusts, but likely to be a hybrid or merger of the two. These should operate to an agreed "all species" fishery management plan. A model constitution has also been recommended to be developed to ensure that these organisations are fit for purpose via "Approved Body Status", potentially operating as Community Interest Companies.

iii. A National Strategy was also being developed, focusing on: science, research & monitoring; enforcement; angling promotion; training & Continuous Professional Development. A number of sub-committees were also established by the Scottish Government to develop these.

iv. The categorisation of Rivers according to the status of their Conservation Limits. This should apply to both rods and nets and is covered in more detail in section 1.5.

## 1.4 Wild Fisheries Reform: Progress During 2017

In early February 2017, the Scottish Government's Cabinet agreed a new approach to WFR, following the consultation process which had taken place over the previous three years. It announced it had decided to focus on protecting the rights of anglers. The Government's statement made clear that rod licences and a new wild fisheries levy would no longer be taken forward; nor would the criminalisation of freshwater fishing without permission. More substantially, the Scottish Government had also decided it would no longer pursue the overhaul of the structure and remit of District Salmon Fishery Boards; it would focus instead on a Wild Fisheries Bill which would encourage, empower and support the voluntary mergers of Boards and the development of fishery management plans to trial any such changes with Boards.

Since then there has been some progress in the development of fishery management plans, which may become a legal requirement for District Salmon Fishery Boards in the future. There has also been some consideration of additional enforcement issues. Nonetheless, the prospect of widescale and significant reform of the fishery management system as we know it and which has operated for so long has been abated.

## 1.5 Conservation Limits and the Categorisation of Rivers According to Conservation Status

2017 was the second season in which the Scottish Government Conservation Regulations applied. These regulations categorised rivers according to how well they complied with modelled egg deposition targets (conservation limits). For 2018 a total of 171 rivers have been assigned into one of three categories:

- Category 1: Districts which had exceeded the conservation limit in four of the previous five years (80%+ compliance).
- Category 2: Districts which had achieved the conservation limit in three of the previous five years (60 to 80% compliance).
- Category 3: Districts where it had been assessed that the conservation limit had been achieved in fewer than three of the previous five years (less than 60% compliance).

The Government consulted on the draft regulations for 2018 in September 2017 and at the time of writing, the final assessment had still to be published. The Spey has been classed as a Category 1 river since the inception of the process and for the 2018 season it has again been assessed as a Category 1 river, with 88.99% compliance, one of only 21 rivers in the top category.

The categorisation is based on a model which uses rod catches from the previous five years to derive egg deposition based on factors such as river flow, catch and release, exploitation rates, fecundity and the wetted area, including lochs. This is clearly a difficult task to do on a national basis but most other Atlantic salmon nations had already developed similar systems. The Spey Fishery Board had, since its establishment in 1868, managed the stocks of salmon in the Spey, largely without any direct government intervention and always based on detailed local understanding of the issues. Local management on the Spey has been advanced on the basis of three pillars: science, politics and common sense. In reality, the introduction of conservation limits by the Government has formalised management policies on the Spey. Previous in-house estimates of stock abundance, which were based on locally derived exploitation rates and wetted area figures, although using lower egg deposition targets, had arrived at similar conclusions.

The current conservation regulations are centred on catch and release, but much of the hard work had already been achieved on the Spey, as on most rivers, through “hearts and minds”, with 96% of all salmon caught in 2017 being released by anglers. There are no further realistic or significant gains to be achieved in this area. The Spey Fishery Board would like to see the government conservation regulations process develop to include the multitude of other issues where meaningful impacts can be made e.g. abstraction, predation, fish passage, land use, development pressure, invasives, inshore environment etc. These are the issues with which the fishery board and its partner organisations grapple on a daily basis, but where powers are limited.

Rod catches and stocks are not as abundant as in the relatively recent past (*current five year average is less than half the peak recorded in the late 1970s*) and for the 2019 conservation limits assessment, the relatively good 2012 catch will drop out of the model calculations, to be replaced by the much lower 2017 catch. This will also apply across much of Scotland, with significant implications for the conservation regulations process. Focussing solely on angler exploitation, which is the basis for the current categorisation of rivers according to their conservation status, is going to be an entirely inadequate response.

## 1.6 Fisheries Management Scotland

We have previously reported that the onset of Wild Fisheries Reform (WFR) had prompted the Association of Salmon Fishery Boards (ASFB) and Rivers & Fisheries Trusts Scotland (RAFTS) to consider how best to represent their respective memberships in the future, particularly in light of the Scottish Government's (now former) proposals to create Fishery Management Organisations in place of the current network of Boards and Trusts. The ASFB and RAFTS subsequently recommended to its members that a single organisation should represent the interests of the sector and the ASFB's Constitution was altered to allow RAFTS members (the Trusts and Foundations) to become members of it, alongside the District Salmon Fishery Boards. It was also re-named Fisheries Management Scotland (FMS) and the SFB became a member of it, subject to periodic review and to confirmation of the new organisation's management structure and strategy.

FMS has published its vision and objectives in which it aims to be the pre-eminent, representative fisheries management body in Scotland, recognised as such by local fishery management, Governments and other agencies. It will achieve this by promoting and ensuring the best fisheries management for the protection, preservation and development of Scotland's wild salmon and freshwater fish, along with their fisheries and environment. FMS will also provide value to and represent the interests of its member organisations by enabling and supporting local fisheries management. It will work to ensure that its members are recognised by all relevant stakeholders as the pre-eminent, professional and positive influence on all matters relating to the evidence-based management of fish and fisheries. The SFB's Chairman, Brian Doran, is a member of the FMS Board.

## 1.7 EU Water Framework Directive

The European Union (EU) Water Framework Directive (WFD) came into force in December 2000 and was transposed into Scottish law through the Water Environment & Water Services Act 2003. Under the aegis of the Scottish Environment Protection Agency (SEPA), the Act aims to establish a process of River Basin Management Planning to achieve "Good Ecological Status" of freshwater, groundwater and coastal water bodies by 2027. For Heavily Modified Water Bodies (e.g. those impacted by water diversion for the production of hydro electricity), such as parts of the River Spey, the aim is to achieve "Good Ecological Potential".

SEPA divided Scotland into eight sub-basins, where catchments of similar types are grouped and managed collectively. The Spey is included in the North East sub-basin, which also includes the Rivers Deveron, Ythan, Don and Dee and is part of the North East Area Advisory Group. The first River Basin Management Plan (RBMP) concluded in 2015. The second RBMP runs from 2015 - 2021 and the third and final Plan will be implemented between 2021 - 2027.

Significantly, at the end of 2015 SEPA re-classified Spey Dam as a barrier to fish passage, with a consequential down-grading of the water bodies above the Dam to "poor" status. This is covered in more detail in section 1.8 of this Report. This re-classification of Spey Dam has remained throughout 2017. SFB Staff contributed to a review of all Spey water bodies in late 2017 and the SFB will continue to work closely with SEPA throughout 2018 on the implementation of the WFD.

## 1.8 Water Abstraction Update

***Above:*** *Spey Dam near Laggan, operated by the Gupta Family Group.* (Photo: Roger Knight)

### 1.8.1 GFG Alliance: Spey Dam

One of the greatest threats to the River Spey and its fish is that of increased water abstraction. The SFB remains concerned by the significantly high levels of water abstraction, particularly in the upper catchment by Liberty House and Simec as part of the GFG Alliance, which is licensed to divert substantial volumes of water from Spey Dam, some twelve miles from the source of the Spey, to Fort William. The impact of the abstraction and its associated infrastructure on the upper Spey salmon population is severe; in recent years the Board's electro-fishing monitoring above the dam has found either no salmon fry present, or very low densities of salmon fry present at any of the ten sites visited. This was subsequently and independently verified by SEPA and led to the designation of Spey Dam by SEPA as a barrier to fish passage. The Board's monitoring during 2017 showed low numbers of salmon fry present at most sites electro-fished above Spey Dam, indicating that a few fish had ascended the Dam's fish pass and limited spawning had taken place.

The Board remains concerned about the efficacy of the fish pass at Spey Dam and also maintains that the water flows emanating from the Dam are insufficient to allow adult salmon to ascend up to and above it to spawn, or to allow salmon smolts to descend below it. The Board is also worried

about the effectiveness of the screens at the off-take (which are in place to prevent juvenile fish from exiting the River Spey and its catchment and gaining access to Loch Laggan) and concerned by the water flow speeds through the off-take and down the Crunachden Cut. The heck on the River Markie, which enters the reservoir immediately above Spey Dam, also remains an issue as it appears to completely block access to migratory fish. Furthermore, the Board would like to see the restoration of the River Mashie, much of the flow from which is also diverted to Fort William.

We reported last year that in December 2016, Spey Dam had been sold to Liberty House and Simec, owned by the Gupta Family Group (GFG), as part of the purchase of the aluminium smelter at Fort William. Since then, senior representatives of the SFB have held quarterly meetings with representatives of GFG to raise awareness of our concerns amongst the new owners.

The SFB has also continued to press the Scottish Environment Protection Agency (SEPA), as the regulator of water quality and quantity, to address the Board's concerns. SEPA's designation of Spey Dam as a barrier to fish passage ensured its re-classification to "Poor" under the EU's Water Framework Directive (WFD), with a consequential impact on the water bodies above Spey Dam, which are now also classified as "Poor" (see section 1.7). Significant remedial action will need to be taken during the second and third River Basin Management Plans (RBMPs) in order for this area to achieve the requirements of the WFD. The SFB will continue to press SEPA during 2018 to take regulatory action regarding Spey Dam, as SEPA have confirmed that many of the Spey Dam issues are now regulatory compliance issues, rather than RBMP matters and Spey Dam is failing to meet its owner's Controlled Activities Licence requirements.

### 1.8.2 Scottish & Southern Energy: Tummel CAR Licence Scheme

Scottish & Southern Energy (SSE) divert water from Loch An-t Seilich at the top of the River Tromie and from the River Truim, both important upper Spey Salmon spawning tributaries, into the River Tay catchment as part of the Tummel CAR (Controlled Activities Regulations) Licence Scheme. Water from Loch An-t Seilich (River Tromie), and from Loch Cuaich, which is also impounded by SSE, is piped to a power station on the River Cuaich (a tributary of the River Truim) before being channelled to Loch Ericht near Dalwhinnie. This Spey water from Loch An't Seilich and Loch Cuaich, together with water from the off-take above Dalwhinnnie at the top of the Truim and from the Allt An't Sluie (another tributary of the Truim just below Dalwhinnie) then travels through Loch Rannoch and on to Loch Tummel, passing through six further power stations at Rannoch, Gaur, Tummel, Errochty, Clunie and Pitlochry, before being disharged into the Tay system.

SSE had proposed to re-water the River Garry (in the Tay catchment, the flow from which is diverted to generate hydro-electricity) under the Water Framework Directive (WFD). In so doing, they had proposed to take additional water from the Tromie (Loch An't Seilich) and the Truim to make up for a minor drop in renewable energy that would come from re-watering the River Garry (because the water used would only go through three power-generating stations, rather than six). These proposals had been in place since September 2006, but were withdrawn in October 2014 after staunch objection from the SFB.

In January 2017, SSE began re-watering the upper River Garry without taking any additional water from the Spey catchment.

Whilst the SFB had objected to some of SSE's proposals, there had been positive proposals as well, such as the re-watering of the Allt Bhran and the Cuaich. The whole flow from the Allt Bhran, which is the most significant tributary of the River Tromie, is currently diverted into the Tromie Dam at Loch An-t Seilich, thereby denying access to it by migratory fish. However, the restoration of a flow down the lower section of the Allt Bhran provides a significant river restoration opportunity and the SFB will continue to pursue this in 2018.

***Above:*** *The River Cuaich just below Scottish & Southern Energy's impoundment at Loch Cuaich. The SFB is keen to see this re-watered under the Water Framework Directive.* (Photo: Roger Knight).

## 1.9 Angling, Canoeing and Access

A major issue highlighted by the economic survey commissioned by the Spey Catchment Management Plan was the potential conflict between angling and canoeing. This situation was complicated by the introduction of the Land Reform (Scotland) Act 2003 and the launch of the Scottish Outdoor Access Code in 2005. The Code encourages reasonable and responsible access to rivers and river banks, and has been promoted within the Spey catchment by the Moray Council, Highland Council, SNH and the Cairngorms National Park Authority.

To aid the resolution of any issues, core representatives of the Spey Users' Group (SUG), including the SFB, Scottish Canoe Association and Access Officers from the three Local Authorities, met again in November 2017. However, 2017 was generally another settled year for paddling and angling relations, with only a few incidents reported to the SFB. The principle concerns remain though, in relation to the significant numbers of paddlers between the Ballindalloch and Knockando areas of the River, which are acknowledged to be the busiest paddler sections of the River.

# Part 2

# Fisheries and Conservation

## 2.1 Salmon and Grilse Catches

2017 was a challenging season for the River Spey and reported rod catches amounted to **5,292** Salmon and Grilse caught, which was considerably less than the 7,632 caught the previous year (Figure 5).

Catches during March and April of the 2017 season were the best for those months for some years and produced an early spring catch (between 11th February and 30th April) of 783 fish, which was a notable increase on the 564 caught for the same period last year. However, the Spey is dependent upon snow melt for its spring water and the benign winter and lack of snow led to particularly low water throughout the spring. These conditions saw 720 fish caught in May (c.f. 1,027 fish in May 2016) and 1,174 in June (c.f. 2,349 in June 2016). This brought the catch for February – June to a total of 2,677, which was 1,263 fish less than the 3,940 caught during the same period in 2016.

A further 815 salmon & grilse were caught in July, which was less than half of the 1,695 caught in July 2016. Catches rose slightly in August to 959, but were still lower than the 1,271 fish caught the previous year and, in common with many other Scottish rivers, grilse were noticeable by their absence. September saw catches fall back to 841 and whilst this was better than the 726 caught for the same period last year (Figure 6), it completed what for many anglers and ghillies had been a particularly challenging season.

Further details regarding catches by river area (lower, middle and upper) are available on the Board's website and can be found at the following link: http://www.speyfisheryboard.com/spey-fishery-board-publications/


**Above:** Visiting angler Clare Shaw at Delfur in June 2017, with one of the 5,292 salmon & grilse caught on the River Spey during the season. (Photo: Mark Melville, Head Ghillie, Delfur)

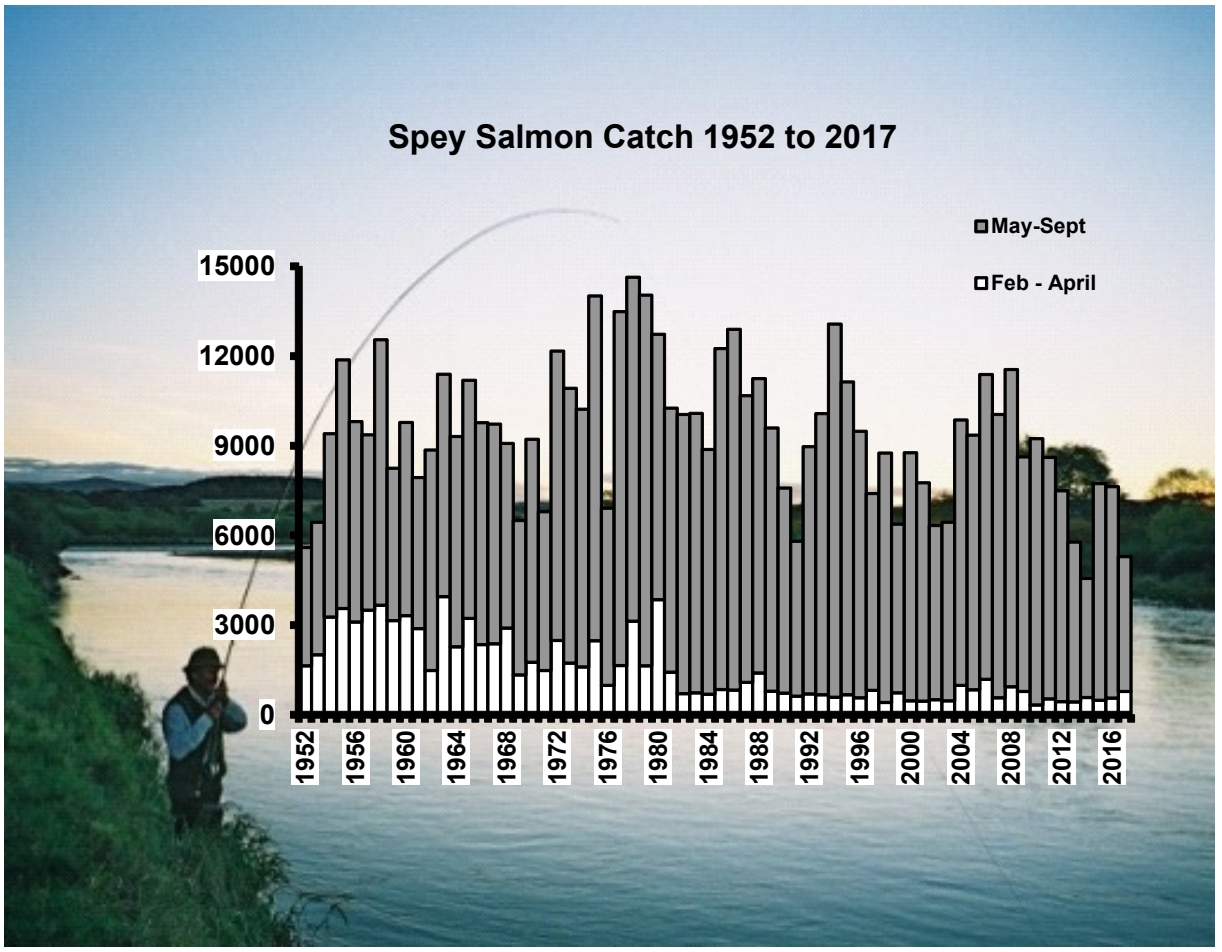


***Figure 5:*** *Annual declared rod catch of wild Salmon and Grilse from the River Spey, 1952-2017. The 2002-2017 catches are from returns made to the SFB by proprietors.*

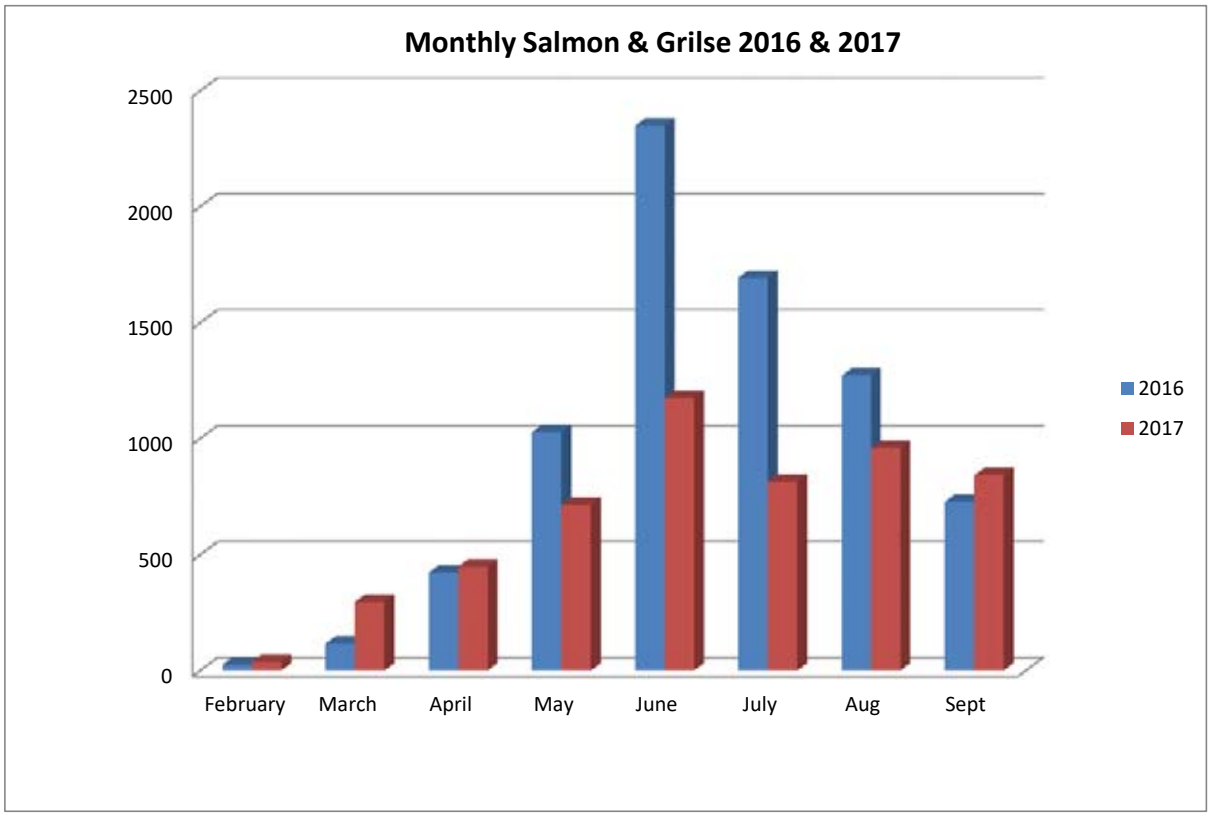


***Figure 6:*** *Declared monthly rod catch of wild Salmon and Grilse from the River Spey in 2016 and 2017, calculated from returns made to the SFB.*

## 2.2 Sea Trout Catches

The 2017 declared rod catch for Sea Trout was **2,293** (Figure 7), which was a 74% increase on the 1,318 caught in 2016. In common with many previous years (with the exception of 2014), monthly catches during 2017 showed that June was the most prolific month for Sea Trout. 746 Sea Trout were caught in June 2017, which accounted for 32.5% of the annual catch. July was once again the second highest month, with 663 caught (28.9%). Overall therefore, over 60% of Sea Trout caught were recorded in these two months.


***Above: A** Sea Trout caught at Kinchurdy in June 2017. A total of 2,293 Sea Trout were caught on the River Spey during 2017.* (Photo: Bobby Hall, Ghillie, Kinchurdy)

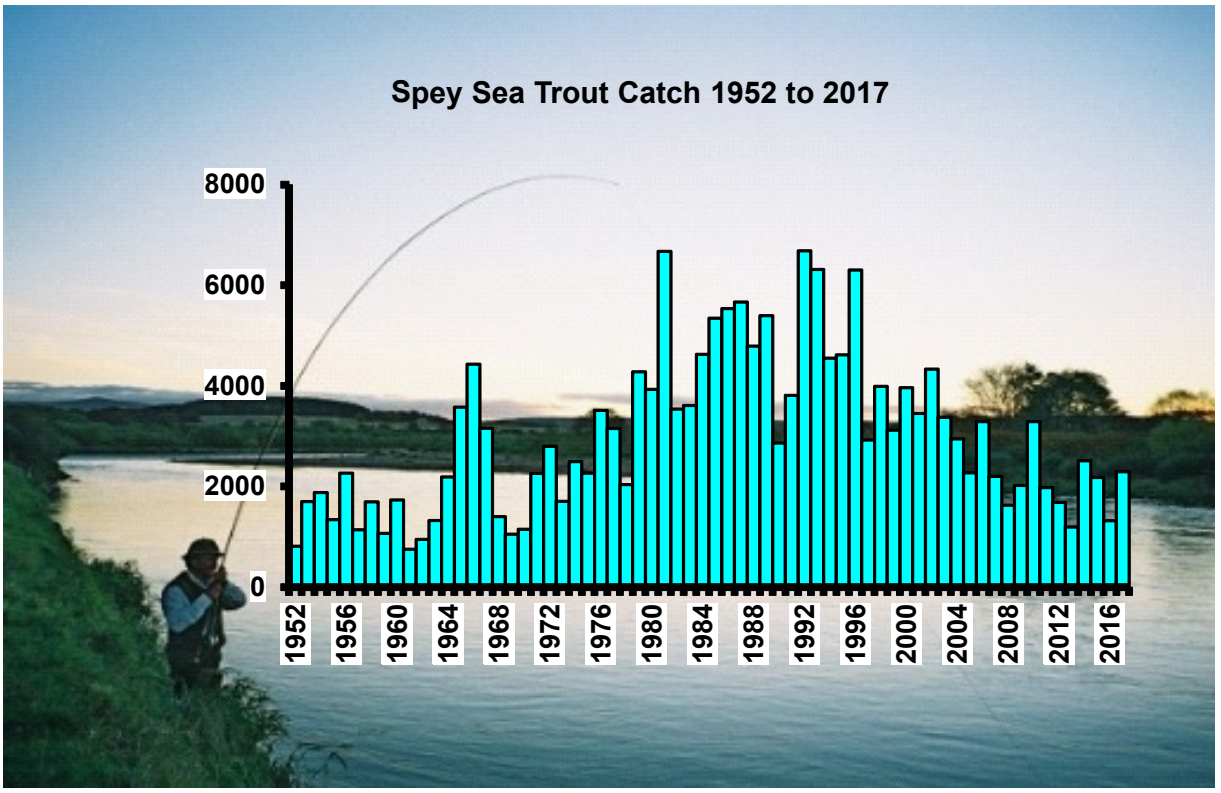


***Figure 7.** Annual declared rod catch of Sea Trout from the River Spey, 1952-2017. The 2002-2017 catches are from returns made to the SFB.*

## 2.3 Salmon Conservation Policy

As part of its long term commitment to the protection of Salmon stocks, the SFB launched a Salmon Conservation Policy in 2003. The policy aimed to achieve the release of at least 50% of Salmon and Grilse and to protect the depleted stocks of multi-sea winter Salmon in February-June. It has now achieved a level far higher than what was originally anticipated. Most of the larger fish arrive in the river in the early months and these are the fish which have the potential to make the most significant contribution to successful spawning. Furthermore, a high proportion of these fish are female, and therefore contribute an important part to the river's spawning stock. Studies by the former Spey Research Trust (the fore-runner to the Spey Foundation) have also shown that these fish are particularly vulnerable to capture and re-capture having been released.

Throughout the 2017 season on the River Spey, **96%** of salmon and grilse caught were released (Figure 8). For a voluntary policy to achieve such a significant release rate is highly commendable and we are grateful to all proprietors, ghillies and anglers for their support for the policy. In total, **5,063** Salmon and Grilse were released to spawn in 2017. The SFB would also like to draw attention to the Conservation of Salmon (Annual Close Times and Catch and Release) (Scotland) Regulations, which came into force in January 2015 and which make it illegal to kill wild Atlantic salmon caught before 1st April each year.

## 2.4 Sea Trout Conservation Policy

Sea Trout are the sea-running form of Brown Trout. The majority of Sea Trout are female and Sea Trout and Brown Trout interbreed. Under fisheries legislation, Sea Trout have the same legal status as Salmon and District Salmon Fishery Boards are also responsible for their protection and enhancement. Catch statistics show that the Spey Sea Trout rod fishery has historically been one of the largest in Scotland, although catches have declined in recent years and the SFB has maintained a precautionary approach.

2017 saw the rate of catch and release for Sea Trout rise to **82%, up** from 77% last year (see Figure 9).

When it reviewed the Conservation Policy during 2017, the Board decided that in line with its precautionary approach, the voluntary policy overall was working well and should remain unchanged for 2018. The Conservation Policy for 2018 is illustrated in Figure 10 and the SFB will continue to monitor the situation throughout the forthcoming year.

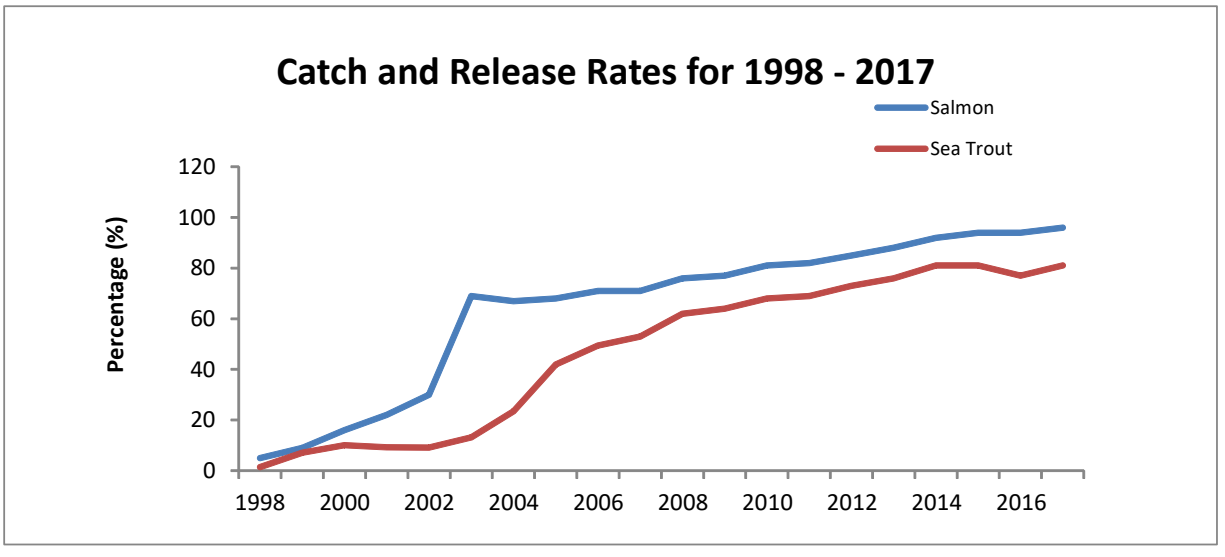


**Figure 8:** Catch and Release Rates for the River Spey 1998-2017.

# Spey Conservation Policy 2018

SPEY FISHERY BOARD RESEARCH OFFICE
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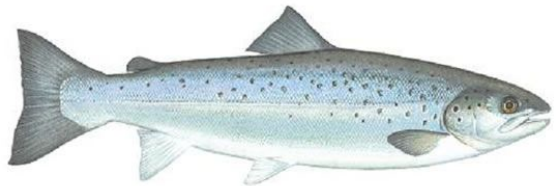
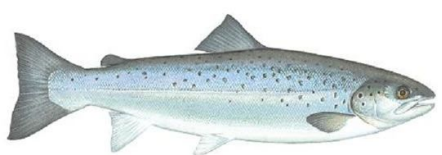
**Scottish Legislation requires that all salmon caught before the 1st April must be released. In order to protect the integrity of the Spey stock and to maximise their spawning potential, the Spey Fishery Board's policy is that all fish caught up to and including the 31st May should be released alive. From the 1st June the policy set out below will apply.**

## SEA TROUT

Release all finnock of 16oz / 35cm / 14" or less



Release all Sea Trout of 3lb / 50cm / 20" or above



Retain only 1 Sea Trout of takeable size per calendar day. Anglers are also encouraged to release their first fish and keep the second that is of takeable size

Release all stale or coloured fish

Release all unseasonable fish (smolts, kelts, over-wintered finnock)

## SALMON

Each angler must return the 1st, 3rd, 5th etc... cock fish caught

All hen salmon and hen grilse must be released

Throughout the season all stale or unseasonable fish must be released e.g. gravid, kelts

Escaped farmed salmon must be retained

# Part 3

# Management Report

## 3.1 Spey Catchment Initiative

Throughout 2016, the Spey Fishery Board has continued to be the driving force behind the Spey Catchment Initiative (SCI), as well as providing it with substantial administrative and management support. This is a highly effective demonstration of a public/private partnership and it is managed by the Spey Fishery Board. The SCI exists as a result of support from the organisations illustrated above.

Since its inception in 2010, the SCI has enjoyed considerable success delivering a range of multiple-benefit projects, which in turn have enabled the SFB to secure significant fishery habitat enhancements. These have included river restoration and bankside improvement works, in-river habitat enhancements and riverside amenity works to improve access and enjoyment of the River Spey for local communities.

We reported last year that 2016 saw the publication of a new River Spey Catchment Management Plan, replacing the original plan which dated back to 2003.

The 2016 Plan sets out a broad strategic framework for the wise and sustainable use of the water resource for the next five years, and for the protection and enhancement of the water quality and natural heritage throughout the whole River Spey catchment. It summarises in one document all the key issues, pressures and opportunities that currently exist as they relate to the local environment and provides a wealth of information on flood management, water quality, economic development, protected species and habitats, fisheries, forestry and woodland. The new Plan, together with a comprehensive Business Plan, was used to extend the SCI for a further five years and to stimulate funding. The Spey Catchment Management Plan is available on line to view or download at:

http://www.speyfisheryboard.com/wp-content/uploads/2016/12/SCI-2016-Catchment-Management-Plan.pdf

### 3.1.1 Tomintoul & Glenlivet Landscape Partnership (TGLP)

We reported last year on the approval of £3.6 million of grants towards a multi-faceted regeneration project in the Tomintoul and Glenlivet area. This includes £420,000 worth of activities associated with improving the water environment

which have been developed by the SCI Project Officer, Liz Henderson. This is split into four discrete projects: improving fish passage where there are currently barriers; enhancing the condition of water margins in the area; flood resilience-building measures for the Avon; and increasing recreational angling participation through improved fishing access.

Work on these projects began in 2017, which has seen the establishment of over 100 metres of willow spiling and creation of an artificial log jam at Mains of Auchriachan, which is also intended to become a demonstration farm for such works. Further implementation work will continue during 2018 and will also see the SFB becoming actively involved as it assists with the removal of three barriers to fish passage.

### 3.1.2 Aviemore Backwater

Plans to install culverts which will reintroduce flows to two backwater channels at Delagyle and Aviemore were developed by the SCI in 2016. Practical implementation on the Aviemore channel began in 2017, whilst work on the Delagyle channel is anticipated to be completed in early 2018.

At Aviemore, a 500 metre side channel was reconnected to the River Spey, restoring in-stream habitat for a multitude of species. The channel had been blocked-off about 50 years ago, using rock armour, to reduce flood and erosion risk to adjacent properties. Flow had only entered the channel during spate conditions, when the main stem of the Spey over-topped the bank. At other times, the channel stagnated due to lack of continuous flow and created a loss of potential habitat for salmonids.

During the spring of 2017 a culvert was incorporated into the rock armour, such that there will now be a constant flow in to the backwater. During larger flow events, the River Spey already over-tops the existing banks and so the opening of this backwater channel will have no significant impact on flood levels or extents. The 500 metre channel was also cleared of extraneous accumulated debris, but was not dredged or re-modelled in any way.

Reconnecting this backwater channel with the River Spey will improve habitat for fresh water pearl mussels and salmonids. The constant water flow will provide sustainable habitat for individual mussels washed in to the backwater during flood events, whilst also providing high-water refuge habitat for juvenile fish. It was completed with funding from the Pearls in Peril European Union LIFE Project, working in partnership with the SCI, the SFB and Seafield Estate.

**Above:** The culvert incorporated into rock armour which has enabled a 500 metre side channel at Aviemore to be opened-up to provide additional habitat. (Photo: Liz Henderson, SCI Project Officer)

### 3.1.3 Aviemore Willow Spiling

All too often, the approach to protecting river banks from erosion has involved hard engineering solutions that use rock or concrete. However, where possible, this is being discouraged in favour of more natural, environmentally-friendly and aesthetically-pleasing "soft engineering" techniques based upon natural materials such as root wads or live trees. Although popular elsewhere, there have so far been very few examples of techniques such as willow spiling or log jams being used in the Highlands. The SCI was therefore keen to trial them within the Spey catchment.

A section of eroding river bank near Aviemore was restored during 2017 using willow spiling. This is a technique whereby live willows are woven into a support structure of vertical willow posts. As they root, the willows form a living wall, reinforcing the bank and protecting it from further erosion. In this case a two-tiered system was used, but a single tier is often sufficient for smaller banks.

The site is now being monitored to assess the effectiveness and suitability of this technique next to high-flow river systems and its resilience to the Highland climate. Once established, annual pruning will be required, but the cuttings can then be utilised elsewhere. This project was made possible thanks to the generous support of the Cairngorms National Park Authority.

**Above: Willow** spiling - weaving live willows into vertical willow posts - to prevent river bank erosion, seen here at Aviemore in 2017. (Photo: Liz Henderson, SCI Project Officer)

### 3.1.4 Fochabers Burn

When the Fochabers Burn experienced a 1-in-50 year flood event in 2009, there was extensive de-stabilization of the river bed, which resulted in huge volumes of sediment being released. The Burn has continued to take a long time to settle down from this event and the sediment movements within it during 2017 have been extraordinary.

The photographs below, which were taken following a spate during 2017, illustrate the highly mobile nature of this Burn and the huge amount of sediment/shingle that has collated at the confluence with the River Spey. It rendered the lower fish pass, which had been installed during the CASS Life Project between 2004 and 2008, completely inoperable. This, in turn, became a project for the SFB's Water Bailiffs to clear so as to restore functionality. The SCI and the SFB will continue to explore restorative options for this Burn during 2018.

**Above:** the lower fish pass on the Fochabers Burn had been rendered useless by a spate in 2017, which had filled it with sediment. (Photo: Richard Whyte, SFB Head Bailiff).

**Above:** the lower fish pass on the Fochabers Burn after the SFB's Head Bailiff Richard Whyte and Water Bailiff Jason Hysert had cleared it of debris and re-opened it to fish passage. (Photo: Richard Whyte, SFB Head Bailiff).

## 3.2 The Spey Fishery Board & The Spey Foundation: Proposals For The Way Ahead

For many years, fishery management on the River Spey has been conducted by two principal organisations: the Spey Fishery Board and the Spey Foundation (previously the Spey Research Trust). The Board is a Statutory Body born out of legislation dating back to 1862 and has a remit to take such acts as it considers expedient for the protection, conservation and enhancement of Atlantic salmon and sea trout throughout the River Spey district. The Foundation is a charitable Company Limited by Guarantee to undertake and promote research so as to inform the Spey Fishery Board of developments within the river and help to determine the Board's approach to fishery management. It therefore provides the Board with the evidence base from which management decisions may be taken. The Foundation also has an educational role, as part of its charitable status.

For many years the Board and Foundation have existed, at least administratively, as two separate organisations. In practice, though, they have operated as one, particularly as it is the Board which employs all of the permanent staff who, in turn, undertake the work for both organisations. During 2017 we have been reviewing the fishery management operation on the Spey and, specifically, considering the future of the Spey Foundation. This has been brought about for two main reasons:

i. The operation of a separate organisation to undertake scientific and contract work which is then carried-out by employees of the Board is an unnecessary expense. There are additional administration and governance costs and quite often, the sum of charitable donations we receive during the course of a year and the benefits associated with charitable status are far out-weighed by the costs of running the organisation.

ii. The broad membership of the Spey Foundation Committee has, over time, almost duplicated the discussions had by the Board and diluted the analysis of the science, which is something we are keen to reverse. Specifically, we want to revert to a more scientific committee (similar to the former Spey Research Committee) which interrogates and peer-reviews the science that is being undertaken by our Biologists. This, in turn, will ensure that the Board receives enhanced and even more robust scientific evidence on which to base its fishery management decisions.

The present legislation is not sufficiently flexible to allow the amalgamation of the two organisations; we are not able to extend the Board's remit to cover all fish/aquatic species and the statutory nature of the Board will not allow it to have charitable status. There are, however, steps we can take to streamline our fisheries management operation on the Spey to make it more appropriate for the twenty-first Century, whilst also enhancing our scientific capabilities and reducing costs at the same time. The Board has therefore resolved that:

- The Spey Foundation will remain as a charitable organisation, albeit maintained so that it may receive any specific charitable donations that could not otherwise be made (for example money that is sometimes provided by another charity, or through occasional charitable gifts).

- The Spey Fishery Board will henceforth undertake contract work and projects hitherto undertaken by the Spey Foundation.

- The Spey Foundation Committee will be replaced by a smaller, more science-focussed Spey Scientific Committee, which will be a sub-committee of the Spey Fishery Board. The membership of this Scientific Committee has also been determined by the Board and the new Committee will begin meeting in early 2018.

The Board will work to implement these decisions during the course of 2018.

## 3.3 Spey Action Plan

As we have previously reported, in 2014 the Spey Action Plan replaced the former Spey Fishery Management Plan, which had been in place since 2008. The latter had provided a comprehensive framework within which the Spey Fishery Board could identify target areas for research and apply specific funding. Its successor has been streamlined into something more user-friendly and, whilst principally for the Spey Foundation, but in close collaboration with the SFB, the Spey Action Plan has allowed us to determine and prioritise our future work.

The Spey Action Plan does not, however, replace the Spey Catchment Initiative. Rather, it complements it and focusses on more specific issues directly relating to the management of the Spey's fish stocks. Work on its implementation continues and progress has been reviewed at meetings of the Spey Foundation Committee and the Spey Board throughout 2016.

## 3.4 Salmon Stocking on the Spey

Historically, stocking has often been the first choice strategy adopted by organisations such as fishery boards to try to improve fish numbers. Hatcheries have been operated on the Spey periodically since the late 1800's, when a large scale hatchery at Gordon Castle reared up to one million fish, although it was discontinued in 1914 after 22 years of operation. In the late 1960's, the fishery board established a hatchery at Knockando, prior to the construction of the current facility at Glenlivet in 2001. Various drivers have prompted the establishment of hatcheries on the Spey, including declining catches or stock components, or UDN-associated mortalities.

More recently, the SFB established a Stocking Sub-Group to review the Board's stocking policy annually. It makes recommendations initially to the Spey Foundation Committee, which then makes recommendations to the Board. These may then result in a number of refinements and changes.

It is generally considered that there are four different types of stocking:

- **Reintroduction**: with the aim of re-establishing populations in areas from where they have been lost, e.g. salmon stocking in the Thames where there was historically a thriving salmon population.
- **Restoration**: where the aim is to restore populations at low ebb back to numbers back to previous abundance.
- **Enhancement:** the aim is to increase stocks, and subsequently catches, in the catchment above natural carrying capacities.
- **Mitigation:** compensatory stocking to maintain production in areas no longer accessible to migratory fish due to e.g. man-made obstacles.

Back in 2003, the number of salmon stocked on the Spey had been increased three-fold as part of a programme aimed at increasing salmon catches by 8%, using a combination of catch and release, habitat improvements and stocking. The stocking expansion was based on a combination of enhancement and mitigation stocking. The enhancement element focussed on stocking suitable habitat above impassable waterfalls, in effect expanding the range of salmon within the Spey catchment, and in "under-utilised" areas. Meanwhile, mitigation stocking upstream of man-made obstacles was also increased.

In recent years the focus has been on mitigation stocking. Whilst this is generally considered acceptable, providing best practice is followed, it is now illegal to stock above impassable waterfalls following implementation of the Wildlife and Natural Environment Act (the WANE Act), which makes it

an offence under the Habitats Directive to move a species out-with its natural range. The opportunities for mitigation stocking on the Spey are limited; it is estimated that the proportion of the catchment rendered inaccessible by man to migratory fish is less than 1%, a figure that is slowly reducing as more and more barriers are removed. Hence, we are now in a situation where we have a relatively small hatchery operation, focused on mitigation stocking, mainly in small tributaries in the middle and lower catchment. The Board considers that there may be further opportunities for mitigation stocking above Spey Dam in due course.

The identification of areas perceived to be under-utilised can be difficult and may lead to incorrect conclusions being drawn. There are areas of the Spey catchment which are likely to have always supported only low densities of fish, such as high altitude areas and those with granite geology that support only low productivity. So to try to improve fish populations in these areas by stocking is unlikely to be productive. Salmon do use these areas in the Spey - we have a strong population of salmon spawning at over 500m (1640ft) altitude, up to over 600m (2130ft) - but these should be viewed as highly specialised and adapted fish that spawn early, hatch late and concentrate their growth in the relatively short summer. Highly adapted populations such as these are particularly susceptible to disruption, be that climate or habitat change, or the introduction of stocked fish from out-with that particular area.

A more sustainable strategy, that will benefit the whole river, is to conserve stocks to ensure there are adequate fish available to spawn, and to ensure that the habitat in the nursery areas is as good as possible, so as to promote enhanced survival through the parr and ultimately smolt stages of the salmon life cycle.

### 3.4.1 Stocking Policy

The Spey Foundation Committee recommended to the Board back in 2011 that a far more targeted approach to stocking than had hitherto been practised, together with a reduced production that could be effectively monitored, should be undertaken. This had followed consideration of the extensive programme of electrofishing that had been undertaken that year, together with the results of the genetic analysis project (see the Annual Report 2013, available on the SFB website, for extensive reporting on this) which had provided an indication of the hatcheries' contribution to the rod fishery.

In 2013, the SFB had decided to retain the operation of the hatchery, at broadly similar levels to the current production, for the next five years. Since then, however, the Spey Foundation Committee and the Board have also had to consider the stocking policy and requirement for each year. To enable this for 2018, another comprehensive programme of electro-fishing was undertaken by the Board during 2017 (see section 4), initially to monitor its stocking in 2016 and to confirm the stocking locations for 2017 (see Table 2). The Board then reconvened its Stocking Sub-Committee, which considered the results from this year's electro-fishing. It subsequently decided to recommend that stocking in 2018 should increase to 330,000 fed fry and include burns in the upper catchment, with a view to providing a source of broodstock in future years for stocking above Spey Dam, once the issues around that Dam had been resolved. The Sub-Committee's findings were subsequently presented to and endorsed by the Spey Fishery Board (see Table 3). Thereafter, the Board applied for a licence from the Scottish Government to catch and hold broodstock outside the Salmon net fishing season. By the nature of the SAC-designation of the River Spey, this application also required an Appropriate Assessment.

The Board was granted a licence from the Scottish Government for the collection of broodstock and this began in October, once the 2017 stocking programme had been completed.

For several years the Board has also been conducting stocking of the Tommore Burn at Ballindalloch, with assistance from the Ghillies and local volunteers. Stocking of this Burn has been carefully monitored and the results of this are reported separately in the Spey Foundation Report (see section 4) The Board is grateful to all of the Ghillies who took part in this, and particularly to Ballindalloch Castle's Head Ghillie, Steve Brand, for his work in coordinating it. This has highlighted the value of public engagement in our work.

The SFB Stocking Policy remains progressive and will continue to be subject to review in light of new legislation, our ongoing monitoring and advances in scientific research.

**Above:** the SFB's Sandbank Hatchery in Glenlivet in 2017 (Photo: Roger Knight).

**Table 2: Spey Fishery Board stocking numbers and locations 2017. All fish stocked as 0+ parr in September.**

| Burn | Site details | | Stocking | | |
|---|---|---|---|---|---|
| | Area ($M^2$) | Quality | No 0+ parr required | Hatchery Source | Stocking Density |
| Tommore Burn | 8,800 | Good | 45,000 | Avon | 5.1 |
| CorrieBurn/Dullan Water | 46,000 | Good | 67,000 | Fiddich & Dullan | 1.5 |
| Ringorm Burn | 8,000 | Moderate | 23,000 | Fiddich/Dullan | 2.9 |
| Knockando Burn | 25,000 | Good | 35,000 | Middle Spey | 1.4 |
| Rothes Burn | 10,000 | Good | 30,000 | Lower Spey | 3.0 |
| Broad Burn | 7,500 | Moderate | 15,000 | Lower Spey | 2.0 |
| Mackalea Burn | 5000 | Moderate | 5,000 | Lower Spey | 1.0 |
| Batten Burn | 8,750 | Good | 30,000 | Dulnain | 3.4 |
| **Total** | | | **250,000** | | |

Table 3: Eggs laid down in Sandbank hatchery for stocking in 2018

| Source | Number females | Eggs laid down in hatchery |
|---|---|---|
| Lower Mainstem | 23 | 112,645 |
| Middle mainstem | 11 | 76,400 |
| Upper Mainstem | 15 | 66,840 |
| Fiddich | 13 | 81,090 |
| Avon | 20 | 123,800 |
| Dulnain | 9 | 55,040 |
| **Total** | **91** | **515,815** |

**Above:** Local volunteer Ian McMaster assists Ballindalloch Castle's Head Ghillie, Steve Brand, with the planting of fed fry into the Tommore Burn, September 2017. (Photo: Roger Knight).

## 3.5 Pollution Incidents

There were no significant pollution incidents during 2017.

## 3.6 Control of Invasive Non-Native Species

Giant Hogweed (Heracleum mantegazzianum) was introduced into the UK in the 1800's as an ornamental garden plant. However, since then this invasive, non-native species has now become resident in many river catchments across Scotland, including the River Spey. It is now well-established in the lower River Spey, from Boat o'Brig downstream and in the Mulben Burn. There are also sporadic plants above the Mulben Burn, including as far upstream as Ballindalloch although these are more readily controlled on an annual basis.

As with most invasive species, Giant Hogweed is capable of out-competing and dominating native plant species, to the detriment of native biodiversity. Individual plants can grow to over 12' high and in the final year of their life they produce the characteristic large white flower head, which can result in up to 50,000 seeds. These seeds can remain viable for up to 10 years, so persistence is required in any control programme.

Giant Hogweed also presents a serious threat to human health, as contact with its sap can result in blistering of the skin. The sap reacts to sunlight and blistering of the skin can recur over a long period upon exposure to the sun (photo-dermatitis). Members of the public should therefore avoid contact with this plant.

The SFB is grateful to The Crown Estate, Diageo and local landowners for providing funding to facilitate the licensed herbicide treatment of Giant Hogweed along the lower River Spey and, for the first time, throughout the entire Mulben Burn, during the spring of 2017. SFB staff, together with a local contractor, sprayed Giant Hogweed at various sites throughout the control area and in the lower River Spey, the control work was targeted primarily at popular recreational and access areas.

In the Mulben Burn it was interesting to observe how effective “iron age” pigs had been at clearing Giant Hogweed. The pigs have been used by landowner William Mountain to clear Giant Hogweed from within enclosures. Grazing animals have been known to control Giant Hogweed, but the pigs have the added benefit of rooting-up the seeds, preventing germination and potentially reducing the duration of any control period. These pigs are worthy of further consideration as a sustainable control method for Giant Hogweed.

**Above:** Controlling Giant Hogweed. SFB Biologist Brian Shaw spraying near the Mulben Burn (pictured left) and (pictured right) SFB Water Bailiff Jason Hysert and Head Water Bailiff Richard Whyte on the banks of the lower River Spey in April 2017 . (Photos: Roger Knight).

## 3.7 Control of Ranunculus

*Ranunculus sp.*, or water crowfoot, is an invasive aquatic plant species which is non-native to the River Spey. It was accidentally introduced to the river over 40 years ago near Grantown-on-Spey and much of the River downstream of Grantown is now badly affected by this plant.

In the past the chemical Midstream, which contained the active and toxic ingredient Diquat, was used to control Ranunculus. As a result of EC legislation, we are no longer able to use this chemical and so the plant is spreading and in some areas choking the flow of the river. The extensive mats of Ranunculus often accumulate sand and gravel underneath, choking the underlying substrate beneath it. This affects the Freshwater Pearl Mussel and Salmon fry habitat. Alternative methods of control, such as manual cutting and removal or hand pulling, are not considered practical as they are costly, labour-intensive and pose considerable health and safety issues for individuals working in a fast-flowing river.

A Scottish Natural Heritage (SNH) Position Paper in 2010 clearly explained how Ranunculus is detrimental to two of the four species (Atlantic Salmon and Freshwater Pearl Mussel) for which the River Spey is designated a Special Area of Conservation (SAC). The SFB subsequently identified the glyphosate herbicide, Roundup Pro

Biactive, mixed with the sticking agent Top Film, as a potentially suitable chemical for plant control that had been accepted for use in and around watercourses. However, subsequent trials in the Rivers Don, Dee and Spey unfortunately showed this mixture to be ineffective.

We reported last year on the correspondence that we and the Dee District Salmon Fishery Board had had with two Scottish Government Ministers. We had explained that the Boards had done everything that could reasonably be expected of them to find a solution to this long-running issue and said that if substantive progress was not forthcoming from the Scottish Government or its agencies within the next six months, the Boards would have no alternative but to refer the issue to Europe.

We wrote again to the Cabinet Secretary for Environment, Rural Affairs and Land Reform, who responded in July 2017 by saying that whilst she understood that an emergency authorisation might be sought from the CRD, the environmental checks associated with such an authorisation were rightly stringent, the outcome was far from certain and should it be successful it was, she believed, unlikely to offer a long term solution. The SFB subsequently concluded that it was clear that the Scottish Government was not going to take any proactive or effective action on this issue. Having taken legal advice, the SFB subsequently submitted a formal complaint to the Secretary-General of the European Commission in July 2017. The complaint relates to the Scottish Government's failure to take action to maintain the integrity of the species designated as part of the River Spey Special Area of Conservation (SAC). In particular this relates to the failure to take action to address the invasive non-native plant species, Ranunculus fluitans (*ranunculus sp.*), which is detrimental to juvenile Atlantic salmon and to the internationally-renowned populations of Fresh Water Pearl Mussels within the River Spey.

In late December 2017, the SFB received an interim response from the European Commission, in which it indicated that Ranunculus fluitans was native to the United Kingdom and suggested that this was an individual case and so did not point to a systemic or consistent failure by the UK authorities. It also invited the submission of further scientific evidence in order to give further consideration to our complaint. The SFB will be responding to this early in 2018 and providing some of the extensive scientific evidence in order to enable the European Commission to pursue its enquiry.

**Above:** Ranunculus fluitans in the River Spey. The SFB made a formal complaint to the European Commission about this in 2017. (Photo Roger Knight).

## 3.8 Sawbill Ducks and Cormorants

The SFB has continued to coordinate a combined application to Scottish Natural Heritage for a sawbill licence to run from October until the following April/May, rather than from January until April/May as had previously been the case before 2015. This application is to shoot a licensed number of Goosanders, Mergansers and Cormorants as part of a broader programme of shooting to scare. The application is submitted on behalf of the Spey, Conon, Ness, Beauly, Kyle of Sutherland, Findhorn, Nairn and Lossie Rivers and this year we also added the River Deveron to our applicants. Although one application is submitted, the licence (if granted) provides separate quotas for each river involved, following analysis by Scottish Government agencies of the respective supporting bird count data.

The application for 2016/2017 was successful and a licence was issued, with the Spey being granted a quota of 17 Goosanders, 3 Mergansers and 2 Cormorants which could be shot during the almost nine months of the year between 8th September 2016 and 31st May 2017. The latter date is significant because we need to provide additional protection to Salmon stocks during the annual smolt run. Carcasses of birds shot were also collected where possible for submission to the Marine Scotland Science laboratory in Pitlochry for the analysis of stomach contents.

Throughout 2017 the SFB continued counting Goosanders, Mergansers and Cormorants, with counts carried out from Boat o'Garten to Spey Bay in late March and early May, early October and mid-December. We had also conducted a count in mid-December 2016 and the data collated, together with that collated during the count in early October 2016, contributed to our 2017/2018 Licence Application, which was submitted in early July 2017. In general, counts in October have shown the highest concentrations of sawbill ducks on the Spey, which have then gradually declined over the winter and into spring.

Our 2017/2018 licence application was again successful and the Board has been granted a licence to shoot 33 Goosanders, 6 Mergansers and 2 Cormorants between 1st October 2017 and 31st May 2018. This is an increase on the quota from previous licences and reflects the higher bird counts in 2016 and 2017, which we reported last year. It enables us to manage pisciverous bird predation on juvenile salmonids in the River Spey for eight months of the year.


**Above:** The numbers of piscivorous birds such as Goosanders (pictured left, photo courtesy of www.arkive.org), Mergansers and Cormorants (pictured right, photo courtesy of Bruce Yolton) are controlled on the River Spey under licence from the Scottish Government.

## 3.9 Moray Firth Seal Management Plan

2017 saw the continuation of the Moray Firth Seal Management Plan, which the SFB has coordinated since October 2013. This Plan licences the SFB and other Fishery Boards (and previously salmon netting stations) around the Moray Firth to shoot Common/Harbour and Grey seals which have entered the rivers to predate on its 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, 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 for seal management for 16 rivers and 5 netting stations throughout the Moray Firth region.

In late 2015, the SFB had submitted a Licence Application for the period 1st February 2016 until 31st January 2017. This application had been successful and a licence was issued which permitted the shooting of 18 Grey Seals and 0 Common Seals. This was a significant reduction from the 45 Grey Seals and 6 Common Seals which had been licensed to be shot throughout the Plan area the previous year. The SFB's coordinated licence application in October 2016 saw a repeat of this licensed quota from the 1st February 2017 until the 31st January 2018.

We reported last year that there had been repeated incursions into the River Spey between late March and mid-May 2016 by a Common Seal (or seals) There had also been reports of Common Seal incursions into the Rivers Findhorn and Conon. This had led the SFB to apply to Marine Scotland for a variation to the Moray Firth Seal Plan licence, which acknowledged that the Dornoch Firth was a Special Protection Area for Common Seals, but also highlighted the Special Area of Conservation status of the River Spey. The SFB also explained that it was being denied the opportunity to fulfil its statutory obligations and to adequately protect one of the four species for which the Spey was designated a Special Area of Conservation. We had therefore called for a balanced approach and requested that two Common Seals be allocated to the 2016/2017 quota to enable the protection of these important salmon rivers.

Marine Scotland had acknowledged our concerns, but explained that the numbers of Common Seals throughout the Moray Firth had significantly declined in recent years and that, as a result, the Potential Biological Removal (PBR) figure was 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 told us they were therefore unable to vary our licence, but would re-consider our case if supplementary information, particularly in the form of high-resolution photographs, could be submitted to clarify whether a single predatory animal could be identified or whether it was a group of different animals which were causing the problem.

In late March 2017, the Directors of the SFB and the Dee District Salmon Fishery Board met with representatives of the Scottish Government and SMRU to discuss the Common seal problem. This

led to a greater mutual understanding of the issues at stake. In April 2017 the SFB's Director and Head Bailiff met with a representative of the Sea Mammal Research Unit from St. Andrew's University and undertook a tour of the lower River Spey to discuss the Common seal problem. We examined the potential for the deployment of Acoustic Deterrent Devices (ADDs) in the area and other non-lethal methods to deter seal incursions into the river. We also discussed the collation of photographic evidence to provide evidence to justify lethal action against a clearly identifiable individual Common Seal in the future. These meetings enabled the Spey Board at its meeting in May 2017 to consider its policy options for deterring Common seals henceforth. It has subsequently invested in appropriate photographic equipment to collate high-resolution photographs of Common seals entering the river so as to provide evidence for future applications to remove them.

The Directors of the SFB and Dee District Salmon Fishery Board, together with the Chief Executive of Fisheries Management Scotland subsequently met with Marine Scotland and its scientific advisers from Marine Scotland Science (MSS) in June 2017 to to discuss what research needed to be undertaken to underpin the Scottish Government's seal management strategy. It was agreed that properly-effective Acoustic Deterrent Devices needed to be developed in order to keep seals out of rivers and MSS agreed that SMRU would be tasked to take this forward. The consumption of salmon smolts by seals and interactions between seals and returning adult salmon out at sea were also identified for research. Tools such as PIT tags already exist to help determine this, but it was recognised that a clear strategy needed to be developed to take this forwards. Seal responses to Acoustic Deterrent Devices at fish farms, where they are permanently deployed, were also identified as a topic for research. The River Directors also took the opportunity to request greater transparency and consistency in relation to the licensing process.

The SFB will continue to work closely with the Scottish Government, its advisers and other District Salmon Fishery Boards throughout 2018 to refine the approach necessary for the effective deterrence of seals from salmon rivers.


**Above:** The issue of Common seals around the Moray Firth has continued to cause problems for fishery managers. More research and evidence is needed to provide an effective and sustainable seal management strategy. (Photos: courtesy of www.arkive.org).

## 3.10 Fishery Protection

A Government-sponsored survey conducted in 2003 showed that Salmon and Sea Trout angling on the Spey contributes at least £11.8 million each year to the local economy and supports 367 full-time-equivalent jobs. Poaching therefore not only causes serious environmental damage, but also has a significant impact upon the local economy and causes damage to the rural community.

Throughout 2017, the Board's Water Bailiffs continued to work tirelessly to protect the River and its tributaries from illegal fishing. The SFB has also continued to work closely with Police Scotland, with whom we have been fortunate to enjoy close links, in order to control the poaching of these valuable fish.

Coastal patrols between the Boar's Head stretch of coastline and Cowhythe Head, using our commercially-coded 6.4 metre Rigid-hulled Inflatable Boat (RIB), were also continued from April-September 2017. This RIB was a significant investment for the Board, but it enables us to conduct patrols along the 20 miles of coastline over which we have jurisdiction. Furthermore, our jurisdiction extends 3 nautical miles out to sea. Numerous patrols were completed during 2017 to deter illegal netting and were it not for these patrols being undertaken, the level of illegal netting along our coastline - which has historically been prolific before coastal boat patrols were undertaken - would likely soon return. The SFB was also contracted in 2017 to undertake a patrol for the Deveron DSFB and would also have undertaken patrols for the Dee DSFB, had adverse weather not intervened.

The SFB has, in previous years, also conducted patrols on behalf of other DSFBs. Some of these patrols were used to enforce the weekly "slap" time at mixed stock net fisheries (prior to the moratorium on netting out-with estuary limits and when leaders had to be removed) and yielded evidence which was later submitted in court for successful prosecutions. These contracted patrols have also continued to enhance our already close ties with other regional DSFBs and illustrated the value of pooling resources to tackle shared problems.


**Above:** The SFB's 6.4 metre Rigid-hulled Inflatable Boat (RIB) used to patrol the 20 miles of coastline for which the Board is responsible. The SFB also patrols some of the coastlines of other District Salmon Fishery Boards when contracted to do so. (Photo: Roger Knight).

One notable poaching incident to which the Board successfully responded occurred at Knockando on Sunday 3rd September 2017. Following information received from a member of the public, who reported three men spinning at Pollarder, the Head Water Bailiff and Director attended at Knockando. One suspect was subsequently apprehended and fishing tackle from two other suspects was seized, along with five fish (four sea trout and a grilse). Police Scotland attended at the scene and later interviewed and subsequently charged at least one suspect. The case will be submitted to the Procurator Fiscal and we now await details of when it will come to court.

The SFB will continue to work closely with Police Scotland and our colleagues in other District Salmon Fishery Boards throughout 2018 in the effective enforcement of fisheries law.

**Above:** Four sea trout and a grilse were illegally taken from the River Spey on a Sunday in early September 2017. These fish were seized, along with fishing tackle, by the SFB's Water Bailiffs. One suspect was also apprehended and later charged by Police Scotland and the case will be submitted to the Procurator Fiscal. (Photo: Roger Knight).

## 3.11 Administration and Staffing

The Spey Catchment Initiative's Project Officer, Liz Henderson, who has been employed by the SFB, decided to move on after five-and-a-half particularly successful years in post. We wish Liz every success in her new post with the Cairngrorms National Park Authority.

The departure of Liz led to a recruitment programme to replace her and resulted in the appointment of Mrs Penny Lawson, who will join the Initiative (as an SFB employee) from the Cairngorms National Park Authority. We look forward to welcoming Penny in January 2018.

It is with great sadness that we report the death of Major-General Bernard Gordon Lennox CB MBE on the 27th December 2017 at the age of 85."The General", as he was ubiquitously known, was a long-serving member of the Spey Board and made a substantial contribution to its work over many years of dedicated service. The Board is most grateful for all he did throughout his long involvement with the management of the River Spey and he will be sadly missed by many on Speyside. He retired from the Board in 2009 and was succeeded by his second son, Angus Gordon Lennox, who continues to make a similar and substantial contribution to the work of the Board.

The Spey Board sends its sincere condolences to the family and offer them our thoughts and prayers at this most difficult time.

# Spey Foundation Report

## 4.1 Juvenile surveys 2017

The Spey Foundation team were kept busy from July to September fulfilling the 2017 electrofishing monitoring programme. Some of these surveys are investigative, or for contract work but the main driver behind the programme is the collection of monitoring data against which the health of the catchment is assessed. The 2017 survey plan included salmon fry index surveys in the mainstem of the Spey, Fiddich, Feshie, Tromie and Calder. In addition repeat salmon fry index surveys in the Avon and Livet mainstem were completed to assess the status of fish stocks a year on from Storm Frank. Density based surveys were completed in the same tributaries plus a selection of the burns flowing directly into the Spey and in stocked sites. In total 133 salmon fry index surveys were completed along with 102 density surveys. The findings of the 2017 programme were designed to be directly comparable with the results of the 2014 surveys. The late summer weather of 2017 was quite wet and consequently 7 of the planned survey sites were not completed.

## 4.2 Salmon Fry Index surveys

During 2017 the 62 annual salmon fry index sites were completed in the Spey mainstem, covering the entire river from Garmouth to above Spey Dam. The Spey mainstem is surveyed annually as 60% of the juvenile habitat within the catchment occurs here. The 2017 programme included 8 salmon fry index sites in the Fiddich sub-catchment, 8 in the Feshie, 13 in the Tromie and 5 in the River Calder. This was the first year that the River Calder had been surveyed using this technique. In addition the 2013/2016 sites in the Avon and Livet were resurveyed in 2017 to investigate whether there had been any recovery in stocks following Storm Frank.

Salmon fry index surveys do not provide an absolute value for fish densities in at any site but when changes to variables such as time of year, survey team and location are minimised the results from this type of survey are very good for establishing trends, particularly in large watercourses where density based surveys are impracticable. As there is no national standard for salmon fry index surveys a Spey salmon fry index classification has been developed based on the five year average of the 2012 to 2016 surveys. The breakpoints in the classification system increased steadily from 2012 to 2015 but the reduced fry counts in 2016 lowered the average values for each breakpoint. As this five year period covered a range of values the classification was frozen so that future surveys can be assessed against the current five year average.

| 2012/16 Salmon fry breakpoints (No/min) | Classification |
|---|---|
| 0.0 | Absent |
| < 5.0 | E – Very low |
| 5.1 – <10.9 | D - Low |
| 11.0 – <17.3 | C - Moderate |
| 17.4 – 28.0 | B - Good |
| >28.1 | A - Excellent |

The Spey mainstem salmon fry index results for the period 2012 to 2017 are shown on the next page. During these surveys salmon parr, and other fish species, are also caught. Over the last four years the salmon parr counts have shown a higher degree of variability than the fry counts (factor of 3.5 compared to 2.0 for fry). The mean salmon parr counts in 2017 was 2.6/min, lower than 2016 (4.2/min), but within the range of previous values. From Aberlour upstream the parr counts were above average, whilst downstream of Aberlour they were only 23% of the previous five year average. This was due to the impact of Storm Frank on fry counts in the lower river in 2016.

**Table 2: Spey mainstem salmon fry index (fry/min) 2012/13/14/15/16/17.**

| | | Salmon fry/min | | | | | |
|---|---|---|---|---|---|---|---|
| Site code | Location | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
| S007R1 | Gordon Castle | 24.7 | 22.7 | 16.3 | 27.3 | 5.7 | 46.3 |
| S012R1 | Gordon Castle | 11.3 | 17.0 | 17.3 | 20.3 | 10.7 | 14.7 |
| S017L2 | Gordon Castle | 31.7 | 52.7 | 24.7 | 20.0 | 13.0 | 32.0 |
| S019L2 | Gordon Castle | 13.3 | 57.7 | 28.7 | 34.7 | 17.3 | 59.3 |
| S025L1 | Gordon Castle | 7.7 | 26.0 | 23.0 | 26.0 | 20.7 | 24.0 |
| S029L1 | Orton Water | 6.3 | 41.0 | 15.0 | 31.7 | 15.7 | 29.0 |
| S032L1 | Orton Water | 9.0 | 44.0 | 17.7 | 28.3 | 14.7 | 36.3 |
| S034R1 | Delfur | 19.7 | 12.0 | 55.0 | 27.0 | 5.0 | 27.7 |
| S040L1 | Delfur | 6.7 | 14.0 | 13.3 | 22.0 | 4.7 | 50.3 |
| S040L2 | Delfur | | 90.0 | 66.0 | 29.0 | 15.7 | 52.7 |
| S042L1 | Rothes | 7.7 | 44.0 | 10.3 | 14.7 | 12.0 | 31.7 |
| S047L1 | Rothes | 6.3 | 9.3 | 9.0 | 18.3 | 4.7 | 21.7 |
| S050R1 | Arndilly | 13.7 | 29.7 | 28.3 | 16.0 | 13.3 | 31.0 |
| S052L1 | Arndilly | 15.7 | 15.7 | 19.7 | 23.7 | 9.3 | 21.3 |
| S056L1 | East Elchies | 17.7 | 34.7 | 43.7 | 39.7 | 16.0 | 50.3 |
| S059R1 | Craigellachie | 36.7 | 28.3 | 33.3 | 23.0 | 17.3 | 45.7 |
| S060R1 | Craigellachie | 13.0 | 12.3 | 23.0 | 11.7 | 17.7 | 20.3 |
| S061R1 | Craigellachie | 20.3 | 12.3 | 22.0 | 10.0 | 4.7 | 16.0 |
| S066R1 | Aberlour | 10.0 | 15.3 | 27.7 | 17.0 | 11.0 | 31.3 |
| S068R1 | Kinermony | 3.3 | 7.3 | | | | |
| SO68L1 | Wester Elchies | | 15.7 | 12.0 | 9.3 | 3.3 | 36.7 |
| S071R1 | Delagyle | 7.0 | 6.3 | | | | |
| SO72L2 | Wester Elchies | | 19.3 | 7.3 | 28.3 | 3.0 | 22.7 |
| S074L1 | Laggan | 7.0 | 5.3 | 9.0 | 13.7 | 2.0 | 18.0 |
| S077L1 | Laggan | 36.7 | 10.0 | 31.3 | 27.7 | 7.7 | 32.0 |
| S079R1 | Carron | 15.7 | 31.0 | 16.3 | 18.3 | 11.7 | 27.0 |
| S082L1 | Knockando | 8.3 | 9.3 | 17.7 | 15.0 | 8.7 | 18.7 |
| S087L1 | Phones | | 3.7 | 6.0 | 4.7 | 0.7 | 7.0 |
| S093R1 | Lower Pitchroy | 21.3 | 25.7 | 20.3 | 41.7 | 16.7 | 40.7 |
| S096R1 | Ballindalloch | 11.0 | 20.0 | 49.0 | 37.0 | 20.3 | 52.0 |
| S104L2 | Ballindalloch | 20.3 | 61.3 | 40.7 | 43.0 | 25.0 | 54.7 |
| S105L2 | Tulchan D | 35.0 | 65.7 | 33.7 | 45.7 | 33.3 | 39.0 |
| S112L1 | Tulchan C | 10.3 | 35.0 | 11.3 | 31.3 | 14.7 | 28.7 |
| S119L1 | Tulchan B | 28.0 | 30.7 | 10.0 | 27.7 | 12.7 | 31.0 |
| S124R1 | Tulchan A | 13.0 | 38.0 | 14.7 | 18.7 | 11.7 | 33.7 |
| S131L1 | Castle Grant 3 | 29.0 | 40.0 | 21.0 | 34.3 | 24.0 | 35.3 |
| S135L1 | Castle Grant 2 | 17.7 | 44.0 | 36.3 | 20.0 | 10.0 | 32.3 |
| S141L1 | Castle Grant 1 | 3.7 | 8.0 | 9.3 | 17.0 | 24.3 | 19.7 |
| S147L1 | SAIA | 11.0 | 17.3 | 16.0 | 45.3 | 24.7 | 42.3 |
| S149L1 | SAIA | 12.0 | 10.3 | 14.7 | 21.7 | 23.7 | 23.0 |
| S163L1 | Abernethy AA | 33.7 | 73.3 | 59.3 | 26.0 | 28.3 | 66.3 |
| S177L1 | Abernethy AA | 23.0 | 53.0 | 24.0 | 31.0 | 24.3 | 45.3 |
| S183L1 | Kinchurdy | 5.7 | 45.0 | 21.0 | 29.7 | 17.3 | 38.0 |
| S195L1 | Aviemore AA | 14.0 | 36.0 | 13.7 | 11.0 | 14.3 | 17.7 |
| S209L1 | Kinrara | 19.0 | 28.3 | 13.3 | 19.3 | 12.3 | 27.0 |
| S212R1 | Kinrara | 16.0 | | | | | |
| S215L1 | Dalraddy | 24.3 | 63.3 | 47.7 | 24.0 | 21.3 | 24.3 |
| S243R1 | Badenoch Ruthven Bric | 8.7 | 14.3 | 17.7 | | 36.7 | 56.0 |
| S254R1 | Badenoch Golf course | 6.0 | 8.0 | 18.3 | 10.7 | 12.0 | 18.7 |
| S258L1 | Badenoch Calder Mout | 12.7 | 11.0 | 19.3 | 5.7 | 38.3 | 37.0 |
| S260L1 | Badenoch AA | | | | 20.7 | 22.7 | 23.7 |
| S264R1 | Truim | 22.0 | 4.3 | 5.3 | | | |
| S282R1 | Laggan | 19.7 | 17.7 | 18.7 | 26.0 | 20.7 | 30.0 |
| S287L1 | Laggan | 12.3 | 21.3 | 14.7 | 5.0 | 29.7 | 25.3 |
| S290L1 | Below Spey Dam | 18.0 | 25.0 | 5.7 | 8.0 | 17.0 | 8.0 |
| S298R1 | Glenshirra | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 |
| S305R1 | Garvamore | 3.3 | 3.7 | 0.0 | 2.7 | 0.0 | 6.3 |
| S305R2 | Garva Bridge | 1.3 | 1.3 | 0.0 | 1.0 | 0.0 | 1.0 |
| S311L1 | Upper Spey | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 |
| S312L1 | Upper Spey | 4.7 | 0.0 | 0.0 | 0.3 | 0.0 | 2.7 |
| S315L1 | Upper Spey | 5.7 | 0.0 | 0.0 | 8.0 | 0.0 | 2.0 |
| S317L1 | Upper Spey | 7.0 | 0.0 | 0.0 | 1.0 | 0.0 | 6.7 |
| S318L1 | Upper Spey | 3.0 | 0.0 | 0.0 | 0.3 | 0.3 | 1.3 |
| S319R1 | Upper Spey | 0.7 | 0.0 | 0.0 | 0.0 | 0.7 | 1.3 |
| S324L1 | Upper Spey | | | | 0.0 | 2.0 | 0.7 |
| S326L1 | Upper Spey | 5.7 | 0.0 | 0.0 | 0.0 | 0.7 | 0.0 |
| S328R1 | Upper Spey | 0.0 | * | | | | |
| Mean | | 13.6 | 23.6 | 18.8 | 19.2 | 13.0 | 27.0 |

The value of the salmon fry index surveys in the mainstem becomes greater with each successive year class added to the series.

- The mean 2017 salmon fry count across the Spey mainstem was the highest recorded since 2012 and was more than double the 2016 value.
- Downstream of Spey dam salmon fry were found at every site surveyed.
- Downstream of Spey Dam there were only two sites not in the moderate to very good categories; one immediately below Spey Dam and the other the perennial low scoring site at Phones.
- 92% of the sites below Spey Dam were in the very good or good categories.
- Site S105L2, Tulchan D beat, continues to be the only site with 100% of the fry counts in the very good category.
- For sites downstream of the Avon confluence (Site S096R1, northwards) the average count in 2017 was almost three times higher than that recorded in 2016.
- In the last two years there has been a substantial increase in the average fry counts in the upper river (Loch Insh to Spey dam) compared to the previous four years.
- Upstream of Spey Dam salmon fry were present in 82% of the sites surveyed, equalling 2012 in that regard.
- The mean salmon fry count upstream of Spey Dam in 2017 (1.5/min) was the second best in the series, although lower than in 2012 (3.5/min).
- The step change in salmon fry counts upstream of Spey Dam is obvious. This is considered to be entirely due to the presence of the hydro infrastructure as habitat quality above the dam is highly suitable.
- These surveys continue to show that salmon fry are widespread, and in 2017 abundant, throughout the Spey mainstem, with recruitment only a significant issue upstream of Spey Dam.

**Table 3: 2013, 2016 and 2017 River Avon salmon fry index results.**

| Avon | | Salmon fry/min | | | Salmon parr/min | | |
|---|---|---|---|---|---|---|---|
| Site code | Location | 2013 | 2016 | 2017 | 2013 | 2016 | 2017 |
| TA01L1 | Ballindalloch Castle | 38.7 | | 14.7 | 21.7 | | 3.3 |
| TA05L1 | Golf Course | 39.7 | 1.33 | 17.0 | 28.3 | 12.3 | 1.7 |
| TA11L1 | Haugh Pool | 41.3 | 6.67 | 34.0 | 12.3 | 3.0 | 2.7 |
| TA15L1 | Upstream Black Burn | 83.0 | 4.33 | 83.0 | 7.0 | 2.0 | 1.3 |
| TA21R1 | Little Dalrachie | 22.3 | 5.33 | 39.7 | 15.7 | 2.0 | 4.0 |
| TA24R1 | Dell footbridge | 25.0 | 5.67 | 30.3 | 12.3 | 6.3 | 0.7 |
| TA29L1 | Upstream Fodletter Bridge | 26.3 | 4.00 | 38.0 | 18.0 | 3.3 | 6.0 |
| TA34L1 | Lochy mouth | 18.7 | 6.00 | 11.0 | 5.3 | 3.0 | 3.3 |
| TA38L1 | Dalvrecht-Conglass confluence | 22.0 | 3.33 | 12.3 | 14.0 | 5.0 | 6.3 |
| TA43R1 | At "S" bend Kylnadrochit | 23.7 | 5.67 | 17.7 | 1.7 | 0.00 | 2.0 |
| TA49R1 | Below Fordmouth Farm | 15.0 | 4.67 | 19.3 | 9.7 | 1.67 | 3.3 |
| TA56R1 | Upstream Delavoar Bridge | 14.0 | 1.33 | 12.7 | 10.7 | 4.00 | 8.3 |
| TA60R1 | Muckle Fergie confluence | 9.3 | 4.67 | 13.0 | 4.7 | 1.33 | 3.7 |
| TA65R1 | Heathery island far channel | 6.0 | 1.33 | 7.0 | 6.0 | 2.67 | 2.0 |
| TA70R1 | Opposite side channel | 10.0 | 3.33 | 6.0 | 3.0 | 1.33 | 3.0 |
| TA76R1 | Upstream Builg confluence | 7.3 | 3.00 | 5.0 | 3.7 | 3.00 | 0.3 |
| TA81L1 | Upstream Allt Loin | 3.7 | 0.67 | 3.7 | 4.0 | 1.0 | 0.7 |
| TA84L1 | Downstream Allt Loin Bheag | 11.0 | 1.33 | 9.0 | 1.7 | 1.7 | 3.7 |
| TA89L1 | Glenavon Estate | 1.0 | 0.33 | 5.0 | 3.3 | 1.3 | 0.3 |
| TA94L1 | Glenavon Estate | 2.7 | 1.67 | 3.0 | 4.3 | 0.7 | 2.0 |
| TA99L1 | Faindouran | 1.3 | 0.67 | 3.0 | 1.7 | 1.3 | 1.3 |
| TA101L1 | Glenavon Estate | 1.0 | 0.67 | 1.7 | 0.7 | 0.0 | 0.0 |
| **Mean** | | **19.2** | **3.1** | **17.5** | **8.6** | **2.7** | **2.7** |

After the marked reduction in salmon fry counts in the Avon in 2016 the counts had recovered to similar levels as in 2013. The same decline in the counts with altitude was noted. Site TA15L1 highlights the stark impact of Storm Frank. In 2013 and 2017 83 salmon fry per minute were captured at this site (249 fry in the three min survey), whereas in 2016 only 13 fry were caught in the same three min survey.

The 2017 parr counts in the Avon did not show the same recovery with the mean counts the same as in 2016 although a recovery in 2018 can be expected based on the improved fry counts recorded on 2017.

## 4.3 Tributary surveys 2017

2017 was the sixth year of the three-year rotational survey programme introduced in 2012. Consequently, in 2017 the Fiddich/Feshie/Tromie/Calder catchments, previously surveyed in 2014, were re-surveyed, providing an opportunity to assess trends in the juvenile stocks. In addition, the rotational selection burns flowing directly into the Spey were also re-surveyed, along with stocked and contract monitoring sites.

The general finding from these surveys was similar to that obtained during the salmon fry index surveys, with increased, or stable, salmon and trout fry densities and reduced parr densities, except in the burns where the mean salmon and trout parr densities were almost identical to the 2013 results. However, only in the Fiddich and Feshie were any of these differences statistically significant. In the case of the Calder, the number of surveys was too low for statistical testing.

**Table 4: Tributary Fry and Parr Densities in 2017 Compared to 2014**

| Density/100 m2 | Number samples | | Salmon fry | | Salmon parr | | Trout fry | | Trout parr | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | 2017 | 2014 | 2017 | 2014 | 2017 | 2014 | 2017 | 2014 |
| Fiddich | 12 | Mean | 67.3 | 59.4 | 4.2 | 14.3 | 111.0 | 54.5 | 13.9 | 20.4 |
| | | T-Test | 0.830 | | 0.14 | | 0.02 | | 0.41 | |
| Feshie | 10 | Mean | 15.6 | 13.0 | 6.2 | 14.2 | 18.9 | 14.2 | 2.4 | 5.3 |
| | | T-Test | 0.743 | | 0.1547 | | 0.414 | | 0.039 | |
| Tromie | 10 | Mean | 18.5 | 8.5 | 8.0 | 9.4 | 14.1 | 12.5 | 1.9 | 4.9 |
| | | T-Test | 0.10 | | 0.71 | | 0.75 | | 0.15 | |
| Burns | 26 | Mean | 16.2 | 22.3 | 10.0 | 10.1 | 55.4 | 37.6 | 17.2 | 17.2 |
| | | T-Test | 0.49 | | 0.97 | | 0.24 | | 0.99 | |

## 4.4 Dulnain & Tommore smolt traps

After three successive years of smolt trapping in the Avon the focus was switched in 2017 to the Dulnain where we had no specific knowledge of the smolt run characteristics. In addition the Tommore Burn smolt trap was operated for the third year to monitor the smolt output arising from the stocking carried out over the previous four years.

The Tommore Burn trap is a "Wolf" style complete capture trap with all fish caught processed and released downstream. The rotary screw smolt trap, as used in the Dulnain in 2017, only sample part of the run therefore mark and recapture techniques (*described in the American Fisheries Society Salmonid Field Protocols Handbook*) were used to generate an estimate of the Dulnain smolt run. This involved a number of individual trials where marked smolts were transported 1km back upstream and released.

A new river involves the search for a suitable site for the trap. In the case of the Dulnain we ended up deploying the trap at East Gallovie, which lies between Carrbridge and Dulnain Bridge. The site was excellent in terms of logistics and flow characteristics but it did miss the lower 7.5km and productive tributaries such as the Auchnahannet Burn. The number of salmon (pre smolts and smolts) captured in the Dulnain trap in 2017 was 3,399, with an additional 205 parr which were too small to smolt in 2017. Trap efficiency in the Dulnain was 18.4% for salmon and 6.7% for trout.

For RST operation the best scenario is consistent water levels with regular small rises but that was not the case in 2017. Water levels were low throughout with the exception of a big spate on the 28th April when the trap became inoperable for one night due to debris. In the day prior to that 1237 salmon smolts were captured, over one third of the total.

Based on these figures the salmon smolt run was estimated at 18,302+/-2,754. This equates to 3.77 (range 4.3 to 3.2) salmon smolts per 100m$^2$ wetted area. Considering how concentrated the run was, and the loss of one day of trap operation at peak smolt run time, this was considered to be a satisfactory result. The wetted area in the Dulnain upstream of the smolt trap is 485,065m2, of which 36% lies above the 350m contour.

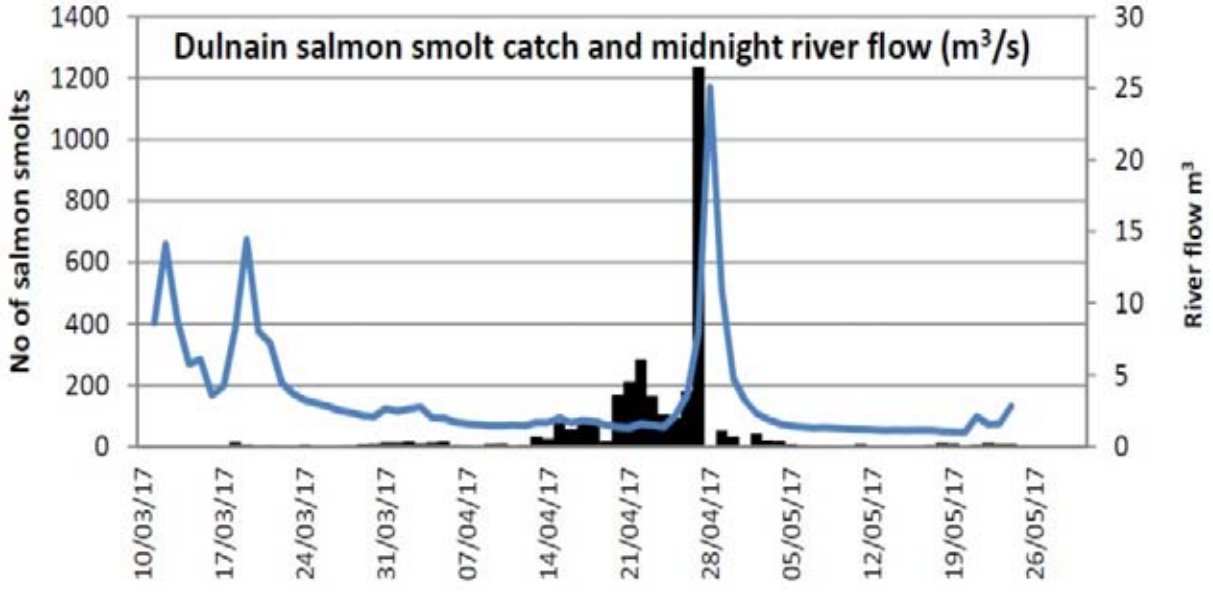


**Table 4:Dulnain smolt trap mark and recapture run estimates 2017**

| Species | Salmon (pre smolts and smolts) captured | Marked fish $M_i$ | Recaptures $m_i$ | Estimate of salmon smolt run | 95% confidence limits |
|---|---|---|---|---|---|
| Salmon | 3342 | 769 | 142 | 17,995 | +/- 2,708 |
| Trout | 938 | 150 | 10 | 13,494 | +/- 7,393 |

Low flows were also prevalent in the Tommore Burn to the extent that 78% of the salmon smolts were captured in the three day period from the 26th to the 28th April, during a significant rise in water level. A total of 261 fin-clipped smolts were captured, down from 317 in 2016 and 377 in 2015. In 2015 scale readings showed that all the smolts leaving the burn were two year olds whereas in 2016 24% were three year old, and in 2017 12%, the remainder 2 years old. The median day of smolt migration (day when 50% of the run was captured) was 21 and 22 days later than in 2015 and 2016 respectively. This was due to the low water which persisted until late April.

The annual electrofishing monitoring in the Tommore Burn found that parr densities were approximately double those recorded in previous years. The expectation is that this should result in higher smolt production in 2018.

**Above:** The Rotary Screw Trap deployed on the River Dulnain in 2017. (Photo: Brian Shaw).
**Below:** The "Wolf Style" smolt trap in operation on the Tommore Burn. (Photo: Brian Shaw).

## 4.5 Education

The “Salmon Go To School” project has continued to be as popular as ever, providing pupils with a fascinating insight into the ecology of salmon and other fish species. It also explains the importance of fishing to the local community, through a range of hands-on practical projects.

Three primary schools participated in the project in 2017: Newtonmore, Kingussie and Grantown. The pupils received an illustrated talk by John Trodden, a retired Head Teacher of Millbank Primary School in Buckie and Committee Member of the River Spey Anglers Association. The pupils then took charge of a classroom hatchery with around 250 salmon eggs, assisted by SFB Assistant Biologist Steve Burns, Each school monitored the successful hatching of these eggs and studied their development from salmon egg to fry, after which they were released back into their natural environment in a local burn.

**Above:** Newtonmore Primary School pupils release their salmon fry into a local burn. (Photo: Mrs Sarah Fraser).

**Right:** SFB Assistant Biologist Steve Burns and volunteer John Trodden teaching pupils at Kingussie Primary School. (Photo: Mrs Aida Munro).

The Spey Fishery Board and the Spey Foundation are particularly grateful to John Trodden for volunteering to deliver this project; his vast educational experience was greatly appreciated by all.


The Spey Fishery Board and the Spey Foundation are also most grateful to Walkers Shortbread for their continued and generous support of the Board’s and Foundation’s educational projects.

## 4.6 Pink salmon (*Onchorynchus gorbuscha*)

In early July 2017 some unusual looking salmon started turning up in catches in the Spey, and in many other UK rivers. These were soon identified as pink salmon, a species of Pacific salmon, which had turned up occasionally in Scottish rivers over several decades, notably in 2015 when a single specimen was caught in the lower Spey. Clearly a large incursion of pink salmon into the North Sea had occurred, probably originating from fish stocked in northern Russian rivers. Populations in these stocked rivers have eventually become established with a westwards spread into Scandinavian rivers.

During July and August ten pink salmon were reported by anglers on the Spey, including as far upstream as Abernethy, 81km from the sea. The first fish captured were quite silvery but the rapid colouration of the fish as they matured towards spawning was quite different to the slow colouring of our native Atlantic salmon. On the 7th August a gravid female was caught at Craigellachie and on the weekend of the 12th August redds were seen in the lower river. There appeared to be synchronous spawning event that weekend in a range of rivers including the Spey, Dee & Ness. On the 14th August the biologists counted, and marked, ten pink salmon redds in the river below Fochabers. Based on the area counted and other reports from ghillies further upstream the total number of redds in the river is likely to have been at least 100, however rising river levels on the 15th August precluded a full river assessment.

In response to this unprecedented invasion of pink salmon national risk assessments were conducted and workshops convened. As is often the case when non-natives arrive, particularly under their own steam, there is very little that can be done. Some fishery boards decided to try and destroy all known redds. In an attempt to understand more about the risks of establishment of this non-native species in Scotland the Spey collaborated with Marine Scotland Science in a coordinated assessment of egg viability. After an appropriate period of time to allow the eggs to become eyed viable 200 eggs were excavated from redds with 100 placed into two secure instream incubators which were buried into the gravel close to spawning site, along with temperature loggers.

These incubators were then monitored until fry emergence. This trial found that survival was very low, only 1.5% of the eggs stocked survived to the point of yolk sac absorption. The reasons for the very low survival are not understood, but a great deal was learnt about the incubation process. By the end of November the alevins were on the point of emergence as fry. The entire incubation process for the relatively large eggs produced by this species (eggs from a 44cm gravid female pink were as large as those typically produced by an 80cm/12lb Atlantic) from spawning to fry emergence, took 1075 degree days, (around 850 degree days for Atlantic salmon).

The early spawning observed in the Spey combined with the mild autumnal temperature regime of this part of the world resulted in rapid development of the eggs with the surviving alevins ready to emerge as free swimming fry in December, much earlier than they do in their native range, or where they have become established in northern Scandinavia. Those that survived would have emerged from the redds into a frigid and relatively barren River Spey. They are supposed to migrate immediately to the sea, where the temperature will be a little warmer but not exactly teeming with life at this time of year. However, *Onchorynchus gorbuscha* is the world's most successful salmon species; we would be foolish to think that they will all perish.

Given the strict two year life cycle of this species 2019 will be closely monitored for the arrival of the next generation. The poor survival of the pink eggs in the Spey, and in other river trials, suggests that the production of local origin fry is likely to be low.

If pinks do arrive back in numbers in 2019 the most likely scenario is a further incursion from an expanding Scandinavian/Russian population, with an ever increasing likelihood of establishment here.

**Above:** A 3.5lb Pacific pink salmon caught at Abernethy in July 2017. (Photo: Brian Shaw).

## 4.7 Fungus/Saprolegnia

During April and May 2017 a number of fish (adults and smolts) in the river were affected by fungus, in this case ***Saprolegnia***, a group of freshwater fungi which is present all year round and can affect all stages of fish if the conditions are right. For example, if dead eggs in the hatchery are not removed they soon turn into fluffy balls, even in mid-winter. Fungi actually play a key role in the ecosystem in the decomposition process, helping to recycle dead animals/plants.

In response to reports of an increase in the number of fish affected by fungus, a visit from Marine Scotland fish health inspectors was organised to sample affected fish. Reports from the samples confirmed that the fish sampled were not infected by any other underlying disease or condition.

Fungus is a natural phenomenon and we see infected fish every year, as do many other rivers, although not normally as many as in 2017. The low water conditions of spring 2017 exacerbated the condition and also made affected fish more obvious. When these conditions are combined with a decent stock of susceptible fish e.g. springers,

*Saprolegnia* is one of the most significant killers of salmon. Fish rely on their layer of mucus and its skin to provide protection from challenges such as fungus. It is therefore important to ensure that best practice in catch and release is implemented so that any fish caught are not damaged. If fungus becomes established on a fish it spreads across the skin, penetrating the flesh and unprotected areas such as gills. Fungal colonies produce spores which are released into the water, increasing the risk of infection for other fish.

Experience on the Spey has taught us that situation normally improves from June onwards, as was the case in 2017. Some of the ghillies on the river are of the opinion that the fluctuating temperatures at this time of year; a feature of the spring river, result in the fish being more prone to fungal infection and it usually clears up as the temperature increases and stabilises. This would explain why we rarely see fungus in the summer months, even though temperatures are higher. During low water periods, a change in conditions, such as a decent spate, helps a great deal by removing dead fish and revitalising the river.

**Above:** a fish affected by the fungus Saprolegnia. It was one of many seen to be affected during the spring of 2017, although the condition normally improves from June onwards. (Photo: Brian Shaw)

## 4.8 Salmon Run Timing Changes

If anyone takes the time to study historic salmon runs it will soon become apparent that the size and characteristics of the runs are always changing. This subject has been studied by several authors including Tony George[1]. He concluded that in Scotland the east coast rivers, particularly between Findhorn and the Tweed were the most responsive to changes in run timing with the main change a switch in the proportion of grilse and multi sea winter fish, particularly spring salmon. The runs in northern rivers, and indeed in the rest of the country, also change although to a much lesser extent.

In the last 200 years there have been three major salmon and grilse cycles. The main driver for these changes are considered to be long term cycles in oceanic conditions. The theory is that when the Atlantic Ocean is in a cool phase the migrating salmon don't need to travel so far to find good feeding, consequently a higher proportion return as one-sea winter fish, or grilse. Conversely when the ocean is in a warm phase this tends to favour the multi-sea winter fish as they need to travel further and spent more time at sea to find sufficient resources to mature.

When changes in run timing occur the can be dramatic. In 1980 the number of spring salmon caught by rods on the Spey was 5457, yet the spring five year average from 1981-85 was 1503. At the same time the grilse catch was increasing and in 1981 the grilse catch exceeded the spring catch for the first time since national catch reporting was introduced in 1952. In each year since 1981 there had been more grilse caught on the Spey than spring fish, until 2011. Since then, the spring catch has been greater than the grilse catch for the last two years. Unfortunately this has been largely due to the reduction in the grilse catch with only limited increases in the spring catch to date.

A key feature noted by Tony George was that in all instances when the grilse runs were in decline there was a period when overall abundance was also low; this period lasting from 6 to 24 years. This factor is likely to be highly relevant to the current situation as when oceanic conditions become unfavourable for grilse then growth and survival of that class of fish will decline. The transition from a population with a high proportion of grilse to one with a higher proportion of multi-sea winter salmon will be costly for the population as a whole due to the additional mortality associated with spending an extra year(s) at sea. Conversely, at the opposite stage in the cycle, when grilse runs are increasing this has always occurred at a period when salmon runs were also high.

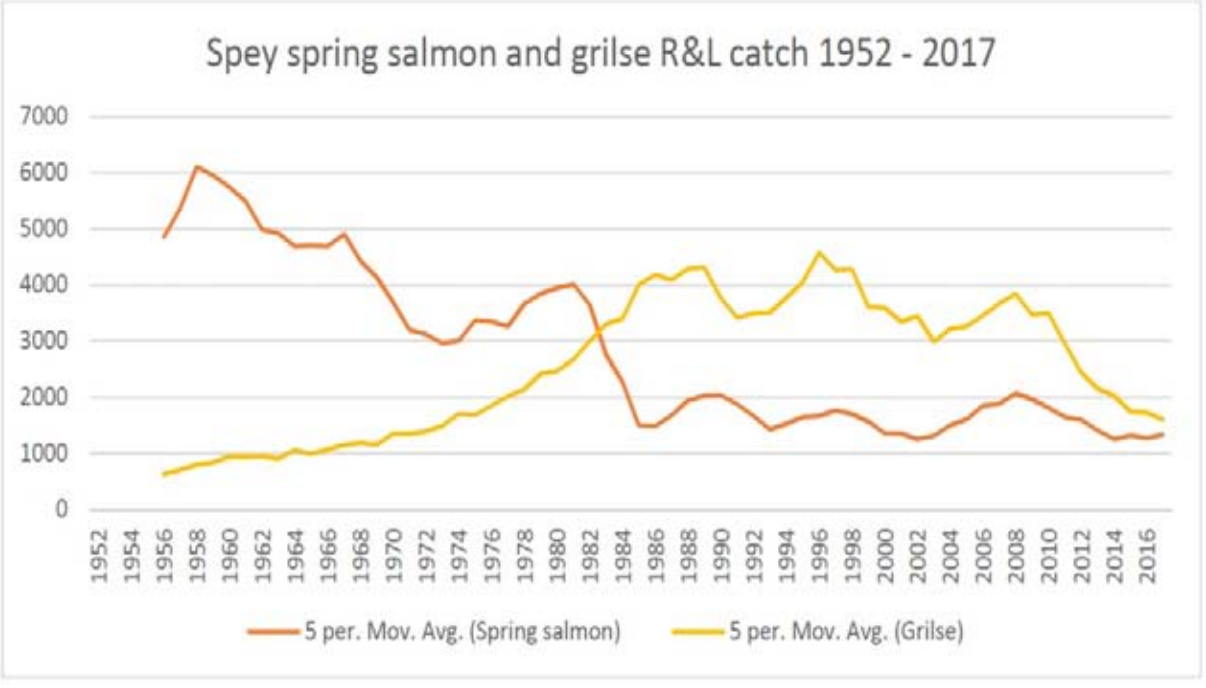
At the same time as the grilse runs decline they, historically at least, seem to arrive earlier and the growth increment seen during period of high grilse abundance disappears. There does appear to be some evidence of this occurring now; 4lb is now the typical size for grilse over the course of the summer and there are very few fresh grilse entering the river after mid-August.

In a Trout & Salmon article in 1983 Tony George wrote that when "*the grilse return you can say au revoir to the salmon*…". It could be argued, in the case of the Spey at least, that you should say au revoir to the spring salmon, as the runs of summer salmon have been the comparatively stable over many decades.

If we are experiencing one of these infrequent, although predictable changes in run timing, what does the future hold? The more optimistic are already investing in the spring fishing and there is considerable weight of historical evidence to support that strategy. However, for the first time human impacts are now considered to be affecting oceanic temperatures and circulations. Global oceanic temperatures are increasing but the sea surface temperatures in the north Atlantic Ocean have cooled dramatically in recent years which may have unpredictable impacts.

Whilst we may be living through a period of low abundance on the Spey, as are many rivers, there are reasons for optimism. For example 1921 was considered to be a seminal year for Scottish salmon fisheries with a "remarkable recovery from the depressed condition", largely due to a recovery in the salmon component. From that year on spring catches went into the ascendency, remaining high on the Spey until the 1970s, when the grilse run become much more important.

As Tony George noted these cyclical changes in run timing have profound implications for the sport of salmon angling, particularly on the larger east coast rivers. In reality these implications reach beyond angling alone, affecting the local economy and all aspects of fishery management structures.




1. Tony George, 1982. Cyclical variations in the return migration of Scottish salmon by sea-age c.1790 to 1976. Dept of Biology, Open University.

# Part 5

# Publicity

## 5.1 Media Coverage

Both the Board and the Foundation have continued to receive media coverage throughout 2017 and, in particular, the Spey Foundation's "Salmon Goes to School" project has continued to remain as popular as ever with the press. Meanwhile, the Board's Director, Roger Knight, was interviewed by the Press & Journal at the Fochabers Burn with regard to the impact of recent spates on the ecology of the Burn (see section 3.1).

## 5.2 Opening Ceremony

The SFB coordinated another successful annual Opening Ceremony at Aberlour on 11th February 2017, with local Member of Parliament Angus Robertson as our Guest of Honour, to celebrate the start of the fishing season. The Board would like to sincerely thank the sponsors for this event, particularly Aberlour Distillery, Walkers Shortbread and Le Petit Gourmand. The Board was also grateful for the assistance provided by the River Spey Anglers Association, who also participated in the event.

## 5.3 Briefings

Four comprehensive Briefings were published during 2017, with paper copies displayed at ghillies' huts and other distribution via the Board's website. They are available at the following web address:

**http://www.speyfisheryboard.com/spey-fishery-board-publications/**

## 5.4 Website

Weekly updates of catches have continued to be made available on the Board's website throughout the season. The Board is most grateful to Dr Malcolm Newbould for his time and dedication in maintaining this. However, more information and fishing reports from beats (including anecdotes and particularly photographs) would be greatly appreciated. Full details of this, as well as full details about the Board and Foundation and a wealth of research reports, can be found at **http://www.speyfisheryboard.com/**

News items are also regularly published and The "Blog" on the Board's website has continued to enable swift publication of regular accounts of the Biologists' work and the research that is being undertaken. This, in turn, is linked to social media including Facebook and Twitter. It has continued to be well-received and its popularity grows year-on-year. There continues to be the facility whereby visitors to the "Blog" may leave comments or ask questions, but whilst this does not imply that the Board's website is a salmon forum, it has helped to make our work even more transparent.

## 5.5 Public Meeting

The Board and the Spey Foundation held their annual local Public Meeting also at the Fleming Hall in Aberlour on 30th November 2017. This was attended by approximately 20 proprietors, ghillies and local anglers. The Board's Director, Roger Knight, presented an update on the Scottish Government's u-turn over its proposals for the reform of wild fisheries management (see section 1.6) and outlined the major issues currently affecting the river, with particular regard to water abstraction (see section 1.9) and predation. The Board's Biologist, Brian Shaw, also presented the results of our scientific monitoring throughout the catchment during the year and provided a comprehensive briefing on the arrival of Pacific salmon earlier in the 2017 season and the changes being seen to fish run timings .

## SPEY DISTRICT FISHERY BOARD
## INCOME AND EXPENDITURE ACCOUNT
## FOR THE YEAR ENDED 30 SEPTEMBER 2017

| | £ | 2017<br>£ | £ | 2016<br>£ |
|---|---|---|---|---|
| **Income** | | | | |
| Fishery accessments | | 410,963 | | 410,578 |
| **Other income and Interest receivable** | | | | |
| Recharges to the Spey Foundation | 23,559 | | 18,189 | |
| Spey Catchment Initiative | 32,400 | | 29,354 | |
| Other operating income | 1,685 | | 1,923 | |
| Interest received | 31 | | 176 | |
| Electro Fishing | 5,000 | | 0 | |
| Inver House allocation | 10,000 | | 0 | |
| | | 72,675 | | 49,642 |
| | | 483,638 | | 460,220 |
| OVERHEADS | | | | |
| Personnel Costs - (Note 2) | | 326,417 | | 322,642 |
| Direct Expenses - (Note3) | | 58,415 | | 56,531 |
| General expenses - (Note 4) | | 49,421 | | 44,101 |
| Financial Costs- (Note 5) | | 962 | | 2,998 |
| Spey Catchment Initiative - (Note 6) | | 32,400 | | 29,354 |
| | | 467,615 | | 455,626 |
| **PROFIT FOR YEAR** | | **16,023** | | **4,594** |

## SPEY DISTRICT FISHERY BOARD
## BALANCE SHEET
## AS AT 30 SEPTEMBER 2017

| | 2017<br>£ | 2016<br>£ |
|---|---|---|
| **FIXED ASSETS** | | |
| Tangible assets | 24,191 | 40,970 |
| **CURRENT ASSETS** | | |
| Debtors | 50,077 | 42,597 |
| Bank - Deposit Account | 0 | 232,286 |
| Bank - Current Account | 290,429 | 43,310 |
| | 340,506 | 318,193 |
| **CURRENT LIABILITIES** | (13,188) | (13,677) |
| **NET CURRENT ASSETS** | 327,318 | 304,516 |
| **NET ASSETS** | 351,509 | 345,486 |
| **REPRESENTED BY:** | | |
| **Capital accounts** | 38,569 | 38,569 |
| **Current accounts** | 282,940 | 266,917 |
| **Inver House Designated fund balance** | 30,000 | 40,000 |
| **Surplus as at 30 September 2017** | 351,509 | 345,486 |

1. The above figures must be considered as draft until approved by the Board's Annual General Meeting.
2. These are abbreviated accounts. A copy of the Board's full Financial Statements, together with explanatory notes, will be published on its website (www.speyfisheryboard.com), once they have been approved at the Annual General Meeting.

## THE SPEY FOUNDATION
## COMPANY LIMITED BY GUARANTEE
## COMPANY REGISTRATION NUMBER SC366048
## CHARITY NUMBER SC005794
## STATEMENT OF FINANCIAL ACTIVITIES
## FOR THE YEAR ENDED 30 SEPTEMBER 2017

| | Unrestricted Funds £ | Restricted Funds £ | Total Funds 2017 £ | Total Funds 2016 £ |
|---|---|---|---|---|
| **Incoming Resources** | | | | |
| Incoming resources from generated funds: | | | | |
| Donations and Legacies | 1,688 | 5,000 | 6,688 | 13,703 |
| Investment income | 94 | 0 | 94 | 498 |
| Activities for generating funds | 35,662 | 0 | 35,662 | 41,336 |
| Charitable activities | 0 | 0 | 0 | 2,156 |
| **Total Incoming Resources** | 37,444 | 5,000 | 42,444 | 57,693 |
| **Resources Expended** | | | | |
| Costs of generating funds | | | | |
| Charitable activities | (53,669) | (7,608) | (61,277) | (57,577) |
| **Total Resources Expended** | (53,669) | (7,608) | (61,277) | (57,577) |
| **Net Movement in funds** | (16,225) | (2,608) | (18,833) | 116 |
| **Reconciliation of Funds** | | | | |
| Total funds brought forward | 59,967 | 24,463 | 84,430 | 84,314 |
| **Total funds carried forward** | 43,742 | 21,855 | 65,597 | 84,430 |

## THE SPEY FOUNDATION
## BALANCE SHEET AS AT 30 SEPTEMBER 2017

| | 2017 £ | 2016 £ |
|---|---|---|
| **FIXED ASSETS** | | |
| Tangible assets | 1,503 | 6,526 |
| **CURRENT ASSETS** | | |
| Debtors | 9,100 | 4,321 |
| Cash at bank and in hand | 95,624 | 113,107 |
| | 104,724 | 117,428 |
| **CREDITORS: amounts falling due within one year** | (40,630) | (39,524) |
| **NET CURRENT ASSETS** | 64,094 | 77,904 |
| **TOTAL ASSETS LESS CURRENT LIABILITIES** | 65,597 | 84,430 |
| **FUNDS** | | |
| Restricted income funds | 21,855 | 24,463 |
| Unrestricted income funds | 43,742 | 59,967 |
| **TOTAL FUNDS** | 65,597 | 84,430 |

1. The above figures must be considered as draft until approved by the Foundation's Annual General Meeting.
2. These are abbreviated accounts. A copy of the Foundation's full Financial Statements, together with explanatory notes, will be published on the Spey Fishery Board's website (www.speyfisheryboard.com), once they have been approved at the Annual General Meeting.

***Top Left Cover Photo**:* *Visiting angler Simon Caswell with 13 lb salmon at Two Stones, Delfur* (Photo: Mark Melville Head Ghillie, Delfur Fishings).

***Top Centre Cover Photo:*** *SFB Biologist Brian Shaw and Macallan Ghillie Robert Mitchell Stocking the Ringorm Burn at Craigellachie* (Photo: Roger Knight).

***Top Right Cover Photo**:* *The Tommore Burn Smolt Trap in 2017* (Photo: Brian Shaw).

***Bottom Cover Photo**:* *Castle Grant Beat 3, September 2017* (Photo: Roger Knight).