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DEVERON
BOGIE
& ISLA

The River Deveron District
Salmon Fishery Board

The Deveron, Bogie
and Isla Rivers
Charitable Trust

Annual Report and Accounts 2022/23





Report by
A Allwood, R Miller, M Walters, K Müller and S Roebuck

KINDLY DONATED BY A G MORISON



The Morison Trophy

Awarded for the heaviest fly-caught salmon
of the season from the Deveron

View it at Henderson's Country Sports

Release your salmon
to win a Vision fly-rod



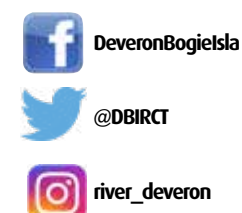
Mrs 'Tiny' Morison's
magnificent 61lb
Deveron salmon.
The heaviest UK
fly-caught salmon.

Catch it...
Weigh it...
Measure it...
Verify it...
Record it...
Enter it...

For more details contact The Deveron Bogie & Isla Rivers Charitable Trust
Tel 01466 711388 www.deveron.org

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Sunset at Inverichnie



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Fishing or doing water sports abroad?

Just come back from Denmark, Finland, France, Germany, Italy, Norway, Portugal, Russia, Spain or Sweden?

Ensure your equipment is not carrying the highly contagious Gs parasite which has the ability to wipe out freshwater salmon stocks.

What is the Gs Parasite?

The Gs parasite is a highly contagious bug that has devastated salmon stocks in Norway. We want to keep it out of Scotland's rivers.

Here's what you need to do

To ensure your equipment is not contaminated, please take one of the following precautionary measures:

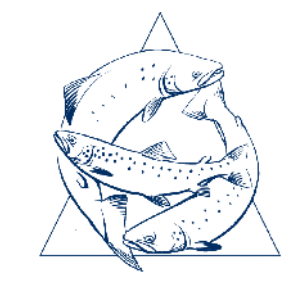
- Completely dry equipment (e.g. waders, fishing equipment, bags, canoes and windsurf gear) at the minimum temperature of 20° for at least 2 days **or**
- Heat for at least 1 hour at above 60°C **or**
- Deep freeze for at least 1 day **or**
- Immerse in a Gs killing solution for min 10 minutes

Gyrodactylus salaris parasite magnified

For more info call: 0131 244 6225 or go to: www.infoscotland.com/gsbug

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Supporters and Funding

The River Deveron District Salmon Fishery Board (RDevDSFB) and The Deveron, Bogie and Isla Rivers Charitable Trust (DBIT) would like to take this opportunity to thank all its supporters and funding partners who have helped implement our district fisheries management programme during 2022/23.

The RDevDSFB and DBIT would like to thank the following:

- Aberdeenshire Council**
- Bowlts Chartered Surveyors**
- Chivas Regal**
- DBIT members**
- European Open Rivers Programme**
- Fisheries Management Scotland**
- Henderson's Country Sports**
- John Dewar & Sons**
- Longcliffe Quarries**
- Loop Tackle Design**
- Marine Directorate**
- NatureScot**
- The Atlantic Salmon Trust**
- The National Lottery Heritage Fund**
- Turrieff Angling Association**
- TwinPeakes Fly Fishing**

Volunteers (River Champions)

We thank all volunteers who have given up their own time to help with projects such as the river opening ceremony, control of American mink, invasive plant control and piscivorous bird surveys.

Ghillies and Estate Workers

We thank all the Deveron Ghillies and Estate workers who have helped with many aspects of managing the fishery from assistance with piscivorous bird surveys, scale sampling, obstacle removal and biosecurity measures.

Officials and Staff

The River Deveron District Salmon Fishery Board Members

Representatives of upper proprietors
 A. G. Allwood (Chairman), R. J. G. Shields, A. G. Morison, Mrs J. A. Player, R. Cooper, J. S. Cruickshank OBE, A. Higgins

Representatives of lower proprietors
 M. C. R. Marsden, R. Copland

Representatives of salmon anglers
 F. Henderson, R. Breakell, D. Borthwick

The Deveron, Bogie and Isla Rivers Charitable Trust

Trustees J. S. Cruickshank OBE (Chairman), R. J. G. Shields, M. C. Hay, F. Henderson, D. Borthwick, R. Cooper, A. Allwood

Trust Scientific Advisory Board
 Dr M. Stutter (The James Hutton Institute), G. Clark (SNH), P. Wright (SEPA Diffuse Pollution team), Professor R. Van Der Wal (Aberdeen University), Professor S. Martin (Aberdeen University), Professor C. Adams (Glasgow University), Dr A. Walker (Consultant), D. Roberts (GWCT), G. Pedley (Wild Trout Trust), C. Macadam (Buglife), Dr Colin Bull (AST)

Team	
Director	R. Miller, BSc MIFM
River Operations Manager	M. Walters, MSc BSc MIFM
Project Officer	K. Müller, MSc BSc (Hons)
Seasonal Volunteer Coordinator	T. Humphries BSc
Clerk and Administrator	S. Roebuck, BA MICB
Field Assistant	C. Grant





Chairman’s Report

Andrew Allwood, Chairman of the RDevDSFB

All too often at the end of a session on the water, sitting in the hut or on the bank contemplating why, despite all my careful casting and misplaced cunning, I am reminded by an expert that it’s not all just luck but more about being in the right place at the right time. These anglers are to my innocent eyes river gods who have the power to beguile fish to come to the fly, and listening to their tales of fish landed or lost, not without an inner twinge of envy, I realise that they have something I do not possess: ability.

The problem is, even these higher mortals are running out of right places and right times. Mother Nature has created wonderful rivers but without the vital ingredient of cold clean water these habitats will shrink. Weather forecasters tell us with glee that it’s going to be another lovely sunny day, and increasingly they are right, about the sun. Whether it is always lovely is a matter of opinion. The river is often seen as an endless supply of water, abstracted by many interested parties, but it is, like most habitats, fragile, precious and should be nurtured. Lots of work has already been started to restore our catchment habitat and further plans are afoot which you can follow further in this report. I hope you can contribute in any way you can so we can make the most of our efforts.

Life on the river goes on, 2022 was a busy year as things started to return to normal after the pandemic. The salmon rod and line catch showed a total of 963 fish (902:2021) of which 54% were salmon and 45% grilse. At least a small uptick on the year before but still the 5th lowest year on record. 97% of salmon and grilse were returned to the river which is very good news. The sea trout showed a similar pattern, 294 were reported (264:2021) and 99% of these were returned. Angling was greatly helped by the rise in water during September and October, although it appears that not many fish came into the river after August.

‘Mother Nature has created wonderful rivers but without the vital ingredients of cold, clean water these habitats will shrink’

The above figures point to a continued decline of fish returning to the river. After all, these numbers are paltry compared to sums seen even two or three decades ago. For what ever reason we have to find out what’s going wrong so that we have a chance to redress the balance before it’s too late.

The River Deveron has been given a substantial boost from the Marine Directorate by designation, along with the Laxford, as an indicator river for Scotland. This recognition is important as it has released government funding for a very sophisticated sonar fish counter and two PIT tag arrays. These instruments should over time dispense with a lot of conjecture and replace it with empirical fact. Finally, we are able to count and measure the fish in the river system and by tagging salmon parr allow us not only to monitor their progress out to sea but also allow us to measure their return in the future. As it seems the marine survival of salmon has declined from 30% to less than 5%, these measurements will at least mean we can highlight the crisis of the decline of the fish at sea and consequently in our rivers. During the summer we were able to welcome Mairi Gougeon, Cabinet Secretary for Rural Affairs and Islands who kindly came to see the valuable work of our Trust and discuss our concerns and plans we have for the future. It was also an opportunity for us to thank the Scottish Government for what has been a substantial grant to fund the equipment we needed. Since then, the findings have been fascinating and we look forward to sharing the results with you over time. We have yet to see the first seal passing the sonar but it cannot be long before it does as once again, we have been denied a license to dispatch specialist seals who have taken to fresh water dining.



Rothiemay Valley

Sadly, two proprietors passed away in 2022. Pam Ingleby of Aswanley and Richard Marsden of The Wrack beats. Both were Board members and dedicated to the life of the River Deveron. Their care and attention to all things of the country is greatly missed. We also sadly lost Professor David W Mackay OBE, honorary life president and former chairman of our Trust.

Much work has been done to improving the water quality and access to the upper reaches of the catchment. Two important weirs are in the process of being removed or modified with fish passes. A number of partners and organisations including the Atlantic Salmon Trust are providing vital support and funding for work to launch major restoration programmes in 2024. Our Scottish Invasive Species Initiative funding has been extended for another 3 years which is wonderful news as the benefits to our native flora and fauna attest. Karen MÜller who has spearheaded the SISI work for so long is moving to a new position on the Spey, we are going to miss her enthusiasm and zeal, we welcome Mirella Toth who replaces her.

The Board’s efforts are underpinned by the invaluable work done by the Deveron, Bogie and Isla Rivers Trust team. Without them hope for better times would not exist and the Board is so grateful for their dedication. Whether you embark on a fishing holiday or a holiday with some fishing on the lovely river Deveron spare a thought for all the work that goes into keeping it beautiful and fishable. I wish you happy times and tight lines. Time and place are everything.

Deveron Salmon - Historical

The total annual salmon rod & line catch for the Deveron District was relatively stable from 1952 (when records began) until the end of the 1980s, with the 10-year average consistently sitting at just over 2000 fish per year. There was a record low catch in 1989 before catches gradually improved with the 10-year average increasing to just over 3000 (1993-2002) and increasing again to an average of 3418 for the 10 years from 2003-2012. Since then, catches have fallen steeply, with 2018 being the lowest rod catch on record followed by slightly improved catches in 2019 & 2020 before falling again 2021 & 2022 and reflected in the latest 10-year average of 1208 (2013-2022).

Catch and release records began in 1994 and the practice has increased from 22% of salmon returned in 1994 to 97% returned in 2022. The procedure was adopted in the river as a voluntary conservation measure to preserve fragile stocks and has been particularly encouraged by the RDevDSFB for the spring component of the salmon catch (Feb- May) and for sea trout.

Spring salmon

Spring salmon return to the river in the spring months and are available to the rod & line fishery from February onwards. They are typically Multiple Sea Winter fish, which have spent at least 2 years feeding at sea. Figure 2 shows that the spring salmon catch (Feb-May) has declined significantly since 1952. There was a steep decline in the late 1960s before a brief recovery in the late 1970s. The catch continued to decline to record low levels in the early 1990s but despite a slight recovery in the 2000s, fell again in 2015 and has since remained relatively low. The Spring Catch in 2020 was the lowest on record but should be considered in the context of the COVID-19 lockdown and limited angling effort as result. There was a slight improvement in 2021 when some travel restrictions were still in place but remained low in 2022 after restrictions had eased.

The River Deveron Summer (June-Aug) and Autumn (Sep-Oct) Rod & Line catches have shown very different trends to spring salmon (Figure 3). Both summer and Autumn catches steadily increased until the late 2000s but then both fell away sharply to a record low in 2018. There have been slight improvements during 2019-2021 but in 2022 summer catch fell again while the Autumn catch improved slightly.

Figure 1. Annual Rod & Line Catch for the River Deveron District showing 10-year averages and the numbers released since 1994.
Figure 2: River Deveron Spring (Feb-May) Rod & Line catch.
Figure 3. River Deveron Summer (June-Aug) & Autumn (Sep-Oct) Rod & Line Catch.

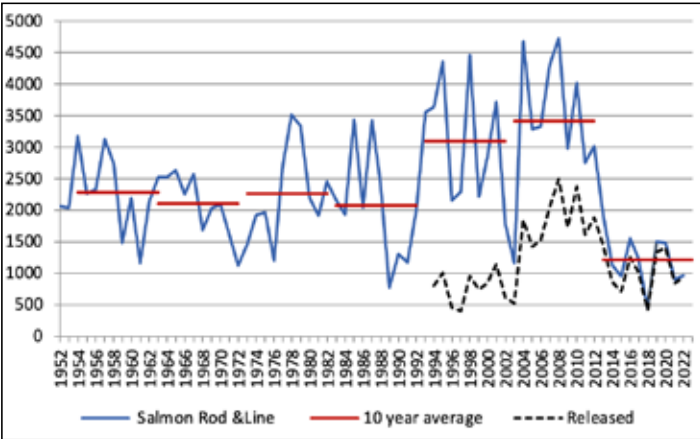


Figure 1

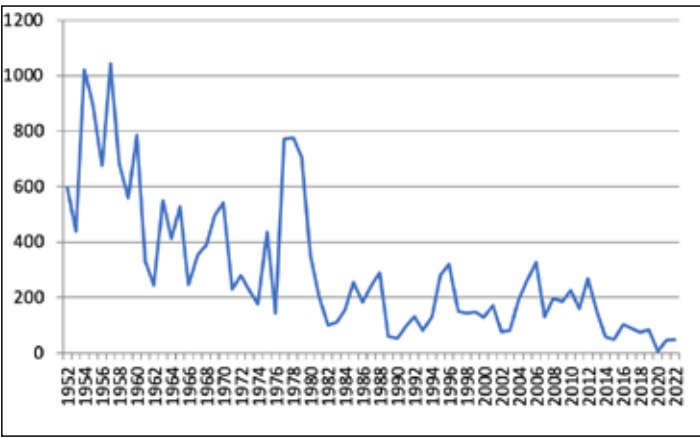


Figure 2

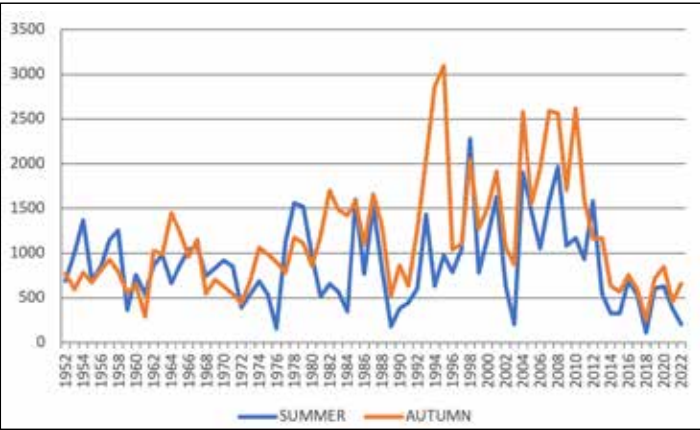
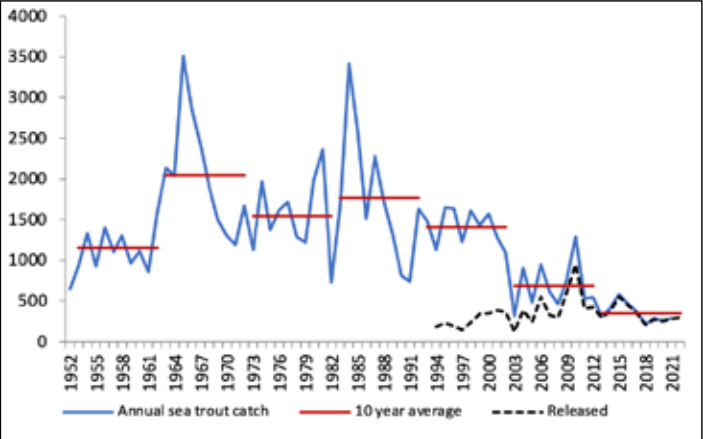


Figure 3

Deveron Sea Trout - Historical

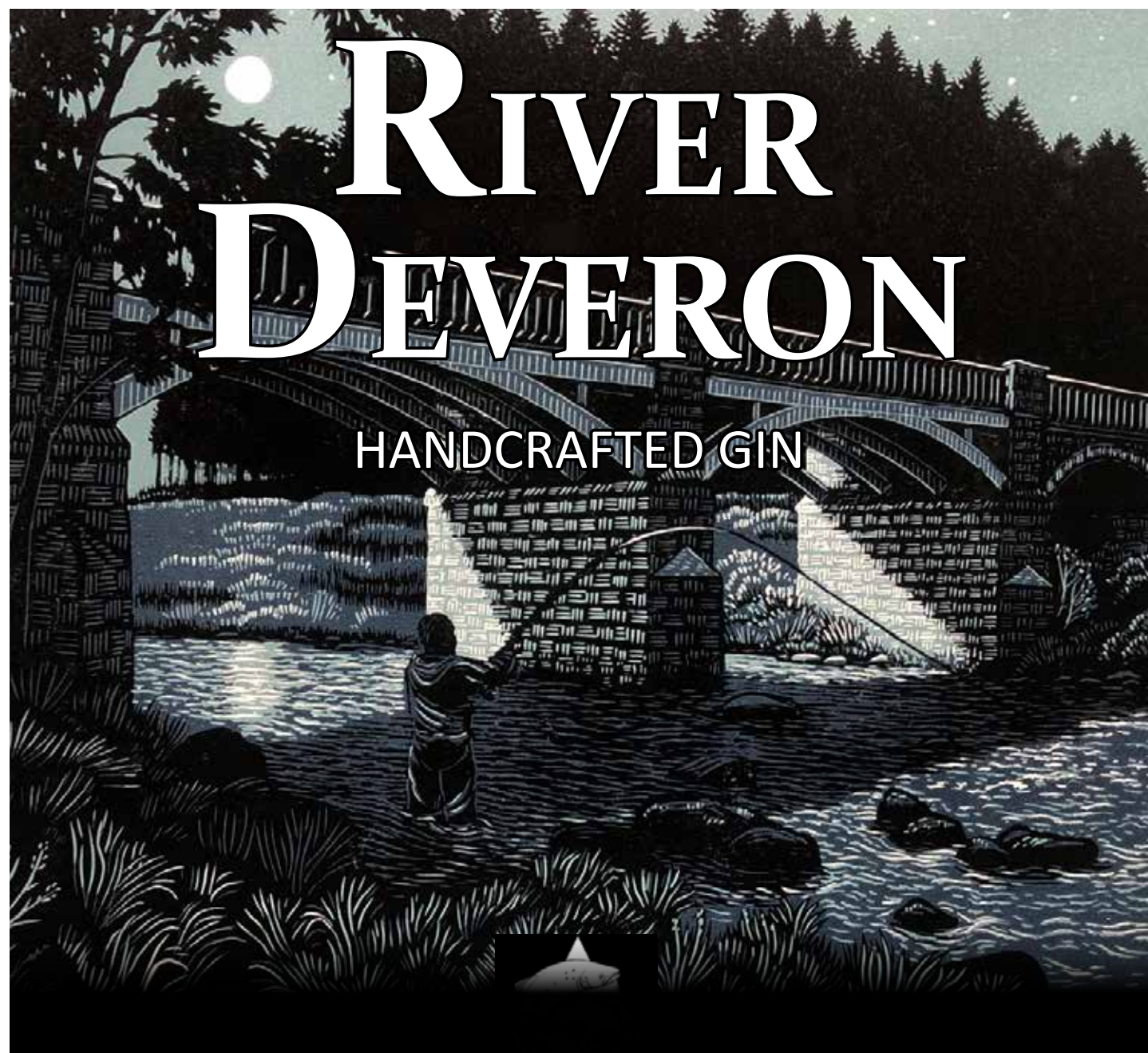
The Deveron sea trout Rod & Line catch (Figure 4) has shown annual variations from 1952 with two significant peaks of nearly 3500 fish. The 10-year average was consistently between 1000 and 2100 fish until 2003 when catches fell to the second lowest catch on record of 317 fish. Since then, catches have remained low with the 10-year average from 2003-2012 falling to 685 fish and from 2013-2022 to 348. A similar decline has been seen across the Moray Firth region and many Scottish Rivers.



Catch and release records began in 1994 and the practice has gradually increased from 16% in 1994 to 98% of the total sea trout catch in 2022. In response to the clear decline in stocks the RDevDSFB adopted a 100% catch and release policy for sea trout in 2013.

Figure 4. Annual sea trout Rod & Line Catch for the River Deveron District showing 10 year averages and the numbers released since 1994.





A JOURNEY FROM HILL TO FIRTH...

Rising in Banffshire's remote Cabrach, the River Deveron flows for sixty one miles, carving a winding path through some of the most beautiful countryside in Scotland.

Over countless millennia, the Deveron has influenced and supported those who have lived and worked near its banks. Rich in salmon and trout, the river remains a vital artery for surrounding communities.

The Deveron, Bogie and Isla Rivers Charitable Trust was formed to protect this magnificent resource for future generations.

Our gin uses botanicals found growing on the banks of the river, with wild angelica, common bilberry and heather blossom truly capturing the Deveron's essence.

70cl

41% vol

Proceeds from sales support The Deveron, Bogie and isla Rivers Charitable Trust

Deveron District - 2022 Catches

Rod and line

The 2022 salmon and grilse rod catch of 963 was slightly higher than the 2021 catch (902) but significantly lower than the 1483 caught in 2020. The total catch was well below the long-term average of 2384 salmon per annum (1952-2020) but only just below the latest 10 year average of 1208 (2013-2022). Of the 902 salmon and grilse caught, 97% were returned. Spring salmon catches were still very low with only 48 spring salmon caught similar to 2021 when 47 were caught but a drop from the 84 in 2019. All of the spring salmon were returned to the river, aided by the RDevDSFB angler reward scheme. The sea trout catch increased slightly to 294 sea trout, but is well below the long term average (1952-2020) of 1298, of which 99% were returned.

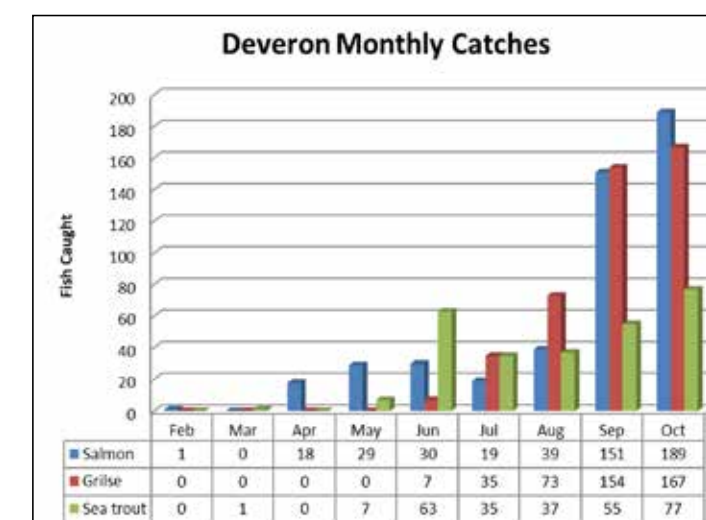


Figure 5: Rod & Line Monthly Catches 2022

Conservation Code and Statutory Regulations

To assist in protecting and improving fish stocks the RDevDSFB launched a conservation code in 2003, outlining local policy and statutory regulations. Local and visiting anglers are asked annually to observe the code to help conserve local fish stocks, ensure a sustainable fishery and stop biosecurity threats such as *Gyrodactylus salaris*. The code aims to achieve a high release rate (>80%) of salmon and grilse (particularly female fish) and to protect stocks of multi-sea winter spring salmon which have declined considerably.

The Conservation of Salmon (Annual Close Times and Catch and Release) (Scotland) Regulations 2016 made it illegal to kill wild Atlantic salmon caught before 1st April each year. The RDevDSFB conservation code recommends additional protection of this fragile stock and recommends that all salmon are released until 31st May. This is due to our local data showing spring salmon still make up a significant percentage of the catch right through May. The code also outlines measures for conservation of sea trout, recommending 100% catch and release until stocks are shown to recover. Low exploitation of resident brown trout is also encouraged to maintain the sustainability of this popular fishery.

For the 2023 Angling season, the Scottish Government has classified the river Deveron as a Category 2 river having been category 1 in 2019 and category 2 in 2018, 2020-2022. The RDevDSFB has maintained the changes made to the Deveron Angling Code in 2018 for salmon and trout and is implementing additional management measures to protect juvenile salmon during their river phase. The Water of Philorth (coastal) has been classified as a Category 3 river again, which requires all salmon to be returned by law throughout the 2023 season.

Management Report

Moray Firth Seal Management Plan

There was a significant review of the Seal Licensing process by Scottish Government in 2022. The Moray Firth Seal Licence and Management plan is no longer in operation. The Trust submitted (on behalf of the RDevDSFB) a new seal licence application for the Deveron on the 15/02/22 which was rejected. On the 20/06/22 we wrote to MS-LOT stating it is our intention to appeal the decision and requested all advice received by MS-LOT in making their final determination on our application, including, but not limited to, advice from NatureScot and Marine Scotland Science. On the 20th of June we received the information we requested under the Environmental Information (Scotland) Regulations 2004 (EIRs) which included responses from Marine Scotland and NatureScot in relation to our application. After reading the responses we concluded that the decision taken by MS-LOT was, in our opinion, unreasonable and we formally appealed the decision on 11th of July. On the 16th of December we received a letter informing us that the review panel had upheld the original decision and rejected our appeal. After discussions with FMS the Trust submitted, on behalf of the board, a new Seal Licence application in January 2023.

Fishery Protection

Protecting Deveron fish stocks from illegal activity, such as poaching, is enforced by the RDevDSFB. Fishery protection is essential in combating both damage to local fish stocks and the economy and is an ongoing priority.

During 2022 the RDevDSFB Water Bailiffs continued to carry out patrols and work closely with Police Scotland. Our bailiffs received a call on 15th June to report 3 males were fishing illegally below Banff bridge and had also lit a fire. Our team responded and on arrival the 3 males packed up their fishing gear and left the scene. The RDevDSFB commissioned signage for the lower Deveron (Banff & Macduff AA, Wrack and Montcoffer) to direct anglers where to buy permits. It is hoped the new signage will reduce illegal fishing incidents in that area and help support cases against individuals fishing illegally. We received reports of a rod and line poaching incident at Turtory fishing's on 20th August where 2 males were asked to leave the beat. RDevDSFB bailiffs located a male fishing without written permission on the Huntly fishing's section of the river Isla on the evening of the 24th of August. The male was warned and asked to leave the beat. A substantial illegal fish trap was found on the Isla in September and confiscated.

Pollution Incidents

During early 2022 there was a significant diesel spill from a local farming operation into the Miaggie burn which enters the Deveron at Laithers. SEPA attended the pollution event and Briggs Environmental were contracted to attend the scene to deploy absorbent booms to assist with the clean-up operation.

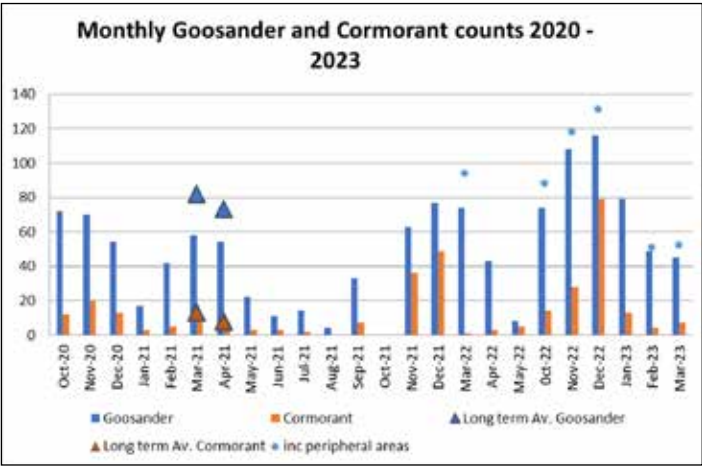
We received reports of an unregulated discharge into the lower Bogie that had caused discoloration into the Deveron mainstem. It was confirmed as a Scottish Water asset and the pollution source was from an unregulated grey water discharge into a surface water drain. We continue to work with SEPA and Scottish Water to resolve the issue.

Over the summer multiple livestock watering points in breach of current SEPA regulations were discovered and reported to SEPA via the Rural Land use Unit team. In one location this resulted in the immediate removal of a livestock watering that was heavily polluting the lower Forgue burn. We also received notification of a heating oil leak reported to SEPA in the middle Deveron but this was dealt with quickly and cleaned up with no lasting damage to the river ecology.



Fish Eating Birds

The RDevDSFB continue to monitor the number of fish eating birds in the River Deveron by conducting a bird count from Huntly to Banff using our Trust team, ghillies and beat owners. The count helps our team understand the potential impact of fish-eating birds on juvenile salmon and trout but is also an essential step in securing the annual licence from NatureScot to shoot as an aid to scaring. Previously the count has been conducted only in March and April in advance of the smolt run. However, with increasing numbers of fish-eating birds being observed throughout the Autumn and Winter the count was conducted monthly to improve our understanding of predator numbers and their potential impact on juvenile fish throughout the entire year and not just on the smolt run. In March 2022 the count was also extended upstream of Huntly to Edinglassie. The graph below shows the number of Goosanders and Cormorants counted each month from October 2020 to December March 2023. The average counts from the long-term March and April counts (2010-2019) are shown by the triangles for both Goosander and Cormorant. The bars show the counts from Huntly to Banff and the blue dots represent the addition of the peripheral areas that have been added to the count (Edinglassie to Huntly, Lower Isla and Lower Bogie).



Top: Goosander fishing.
Above: Monthly counts of Goosander and Cormorant between Huntly and Banff 2020-21 as compared to historical average counts for March and April (2010-2020).

The monthly Goosander counts have illustrated that they are present on the river all year round with the highest numbers present during the autumn and winter months (October - December) and remaining quite high in March and April around the smolt run. This is important when assessing the impact of Goosanders on Deveron salmonid populations as predation is taking place all year round and not just during the smolt migration. Incidental sightings and reports upstream of Huntly have also proved that Goosanders use the Upper Deveron and broods are often seen in this section in the spring.

The monthly Cormorant counts showed that they are present all year round but in lower numbers than the Goosanders. Although slightly more Cormorants were seen throughout the Autumn months (October-December) in 2020. There were an unprecedented number of Cormorants seen as far upstream as Huntly during November and December 2021 and December 2022. Given the voracious feeding behaviour of Cormorants, the potential impact of their predation on salmonids over the winter is significant.

It is worth noting that the numbers of Goosanders and Cormorants observed in March and April 2021-23 are still below the long-term average numbers of Cormorants and Goosanders seen during these months (2010-2020).

The RDevDSFB successfully secured a licence to shoot, as an aid to scaring, for 16 Goosander and seven cormorant between Oct 2022 and May 2023.

Onshore Windfarms

With the Scottish Governments ongoing commitment to renewable energy production more windfarm plans continue to be forthcoming within the Deveron Catchment. The below list provides a summary of the various projects and their current status.

- **Aultmore** - Vatenfall - 16 turbines - 96MW - Originally consented in 2013 this project has undergone a redesign to allow for new larger turbines.
- **Clashindarroch 2** - Vatenfall - 14 turbines - 77MW - Went to Public Enquiry with a case report submitted in March 2023 and now awaiting decision by Scottish Ministers.
- **Clashindarroch Extension** - Clashindarroch Windfarm Extension Ltd consists of 22 turbines with a capacity of 195MW plus a battery storage facility - In January 2023 Infinergy submitted a Section 36 application to the Energy Consents Unit of the Scottish Government.
- **Craig Watch** - Statkraft submitted plans for 11 turbines with a capacity of 72.6MW to the Scottish government in June 2022.
- **Garbet Hill** - Energiekontor proposed seven turbines with a capacity of 46.2MW plus an electricity storage facility of 3MW. Planning was refused by Moray Council but subsequently granted by Scottish Government in September 2022 subject to 19 conditions. These included the requirement for a Habitat Management Plan (HMP) with our Trust on the steering group. The Habitat Management Plan needs to include a fishery management plan and a peatland management plan.

Offshore Windfarms

There is a rapid expansion of offshore windfarms out at sea with subsea cables coming ashore on the Moray and Aberdeenshire coast before connecting to substations near Keith and New Deer.

- **BOWL (Beatrice)** is fully operational with 84 turbines producing a maximum capacity of 588MW. The subsea cable comes ashore at Portgordon and is connected via an underground cable to the National grid at the Blackhillock Substation near Keith.
- **Moray East** has completed construction and consists of 100 turbines with a capacity of 950MW which are connected to the grid at a substation in New Deer via a cable that comes ashore at Banff and passes under the Deveron at Inverichnie.
- **Moray West** has just begun construction of 60 turbines with a capacity for 882 MW. The subsea cable will come ashore in Sandend and is connected via underground cable (passing under the Isla at Grange) to a new substation at Whitehillock near Blackhillock at Keith.



Following the ScotWind Leasing Auction in January 2023 a further 17 projects around Scotland's coastline have been chosen to generate another 25GW of offshore wind. These will be developed over the coming years as they go through the Licencing, planning and EIA process. Although these projects are further offshore and not close to the mouth of the Deveron their impact needs to be considered as a cumulative impact on the migration routes of salmon and sea trout.

Ocean wind have recently been in touch regarding the Caledonia windfarm that is planned for the outer Moray Firth and will more than double the Moray Firth's wind energy production with a 2GW capacity. The subsea cable will likely come ashore to the west of Banff and connect to the National Grid at New Deer.

Fish Passage - Isla

The Isla tributary flows over three weirs and a steep rock ramp all within a short 400m section in the town of Keith. These structures are cumulatively restricting the upstream migration of salmon and trout to spawn. Electrofishing data collected by DBIRT and independent SEPA surveys show that the number of salmon fry upstream of Keith is significantly less than found during downstream surveys. The worst obstacle is the Glen Keith Weir which has caused adult salmon to become trapped in the past and have subsequently had to be rescued by DBIRT. In the Autumn of 2020 significant numbers of salmon succeeded in climbing the rock ramp at the Linn Pot but then became trapped at the Glen Keith Weir. This area is often targeted by poachers and these fish are very vulnerable to illegal fishing methods. The DBIRT were poised to conduct a fish rescue before a fortunately timed flood overtopped the weir and allowed the salmon to move upstream to spawn.

After a Fish Barrier Assessment conducted by SEPA Fish Ecologists in 2019 the Glen Keith Weir has been downgraded to impassable to salmon and trout. This new classification is reflected in the 2019 River Basin Management Plan for Scotland 2021 - 2027 that has reclassified the Isla upstream of Keith as poor. Chivas have now been issued with a letter by SEPA informing them that they have a legal requirement to install fish passage on the Glen Keith weir by 2024 in order to demonstrate the ecological improvement to achieve Good Status for fish ecology and fish barrier assessment by 2027.

Chivas have produced a high-level options document to determine best solution for easing fish passage over Glen Keith weir. The Trust are contributing to this process and a final option should be agreed by the end of summer 2023. It is a complex site with very limited space and various historic and protected monuments in proximity. This will inevitably complicate the process of getting a solution agreed by all stakeholders. We are working with Chivas to identify monitoring options to assess the effectiveness of the ultimate solution. Build cost is projected between £80-150k.



Lower Tributaries Project - King Edward
Priority sections for restoration has now been assessed and we continue to investigate landowner support/permissions and finalise project costings. This information was recently used to successfully apply to the European Open Rivers Programme. The Trust secured €36,071 to contract CBEC to carry out the required surveys and secure the SEPA licence to remove the King Edward Dam. We aim to remove the King Edward Dam by the end of summer 2024.

Invasive Non-Native Species Initiative and Biosecurity Programme

The Scottish Invasive Species Initiative (SISI) project started in March 2018, funded by the Heritage Lottery Fund and NatureScot. The project has since completed its fifth year and has received confirmation of further funding through the Nature Restoration Fund until end of March 2026.

Project Officer Karen Muller and Seasonal Project Officer Tom Humphries have continued to strategically control Giant Hogweed across the Deveron, Ythan and Ugie catchments. From May onwards, project officers, with the help of multiple volunteers, contractors and ghillies successfully tackled the hogweed across the catchments. A big thanks is due to land managers, who were out in force to control Giant hogweed on their land.

The sheep trial site at Kirkside Farm, Macduff, which has been running since 2019 to assist in the control of a heavily infested area of hogweed, ran for its fourth year. The official trial was completed at the end of 2022 and a best practice guidance document for land managers was published to encourage easy replication of this approach elsewhere. We continue to monitor our progress and the current grazing regime and pressure. Over the next few years, we hope to see a big change in the volume of giant hogweed. The Ury Riverside Park SCIO are replicating this approach at Inverurie, following a site visit with Karen in 2022, and we are advertising open days for 2023, alongside publicising the trial through interviews with BBC and STV.

We have also continued to get to grips with Himalayan balsam, which provided opportunities for larger volunteer groups, corporations, and people of all ages to get involved in invasive species control in the past. In 2022, managed to head out with volunteers to clear our priority areas of balsam again, which are starting to show improvement.

Japanese knotweed control was once again completed in 2022 and previously infested areas showed much improvement from 2018 when the SISI project began.

American Mink monitoring and trapping efforts have continued and increased, with 12 mink caught over the last year. Over the past five years we have been building up a network of volunteers to monitor mink traps throughout the catchments as well as along the coast to control their numbers in these, at times, difficult locations.

For 2023 we will continue to control invasive species and encourage and support local landowners, communities, and volunteers to do the same. We will be actively working to ensure a sustainable approach to invasive species control beyond March 2023 and the end of the SISI project and to sustain the progress made during the SISI project. As part of this, funding for pesticide application training is available - please get in touch if you are interested to hear more.

As part of the new iteration of funding and restructuring of the SISI project, Karen will be moving over to be the Spey catchment and the Deveron, Ythan and Ugie will be taken over by new recruits Mirella Toth and Rachel Turner.

You can find out more about the SISI project and the invasive species we are controlling here: www.invasivespecies.scot



Top: the war on invasive species and American Mink (above) continues...



Above: Pink Salmon - know the difference.

Pink salmon
In 2017, unprecedented numbers of pink salmon were captured in Scotland. A similar situation was observed in 2019 and 2021, and in the same years pink salmon were also reported in Norway, Finland, Iceland, Denmark, and Germany. Pink salmon are not native to Scotland and are likely to have 'strayed' from some of the rivers in northern Norway or Russia. We would anticipate pink salmon to be caught again in Scottish rivers during 2023. All pink salmon should continue to be dispatched and reported to our fisheries office.

For more information, please visit <https://fms.scot/pink-salmon-in-scotland/>

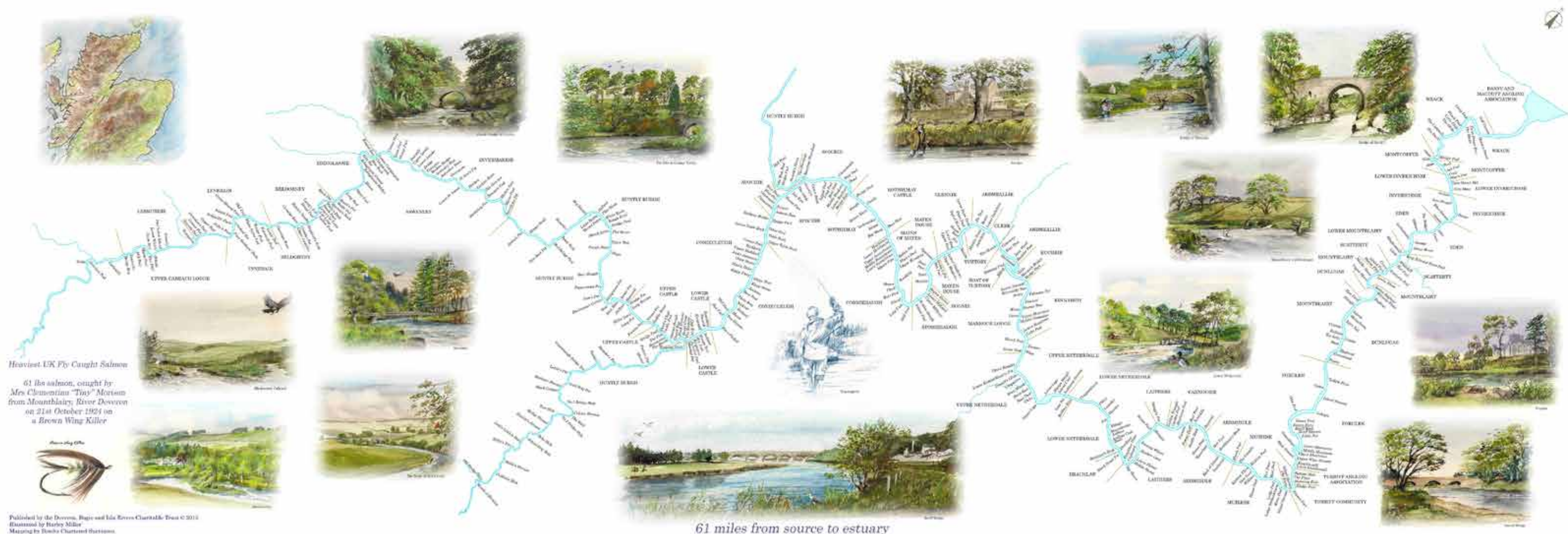
Wild salmon strategy: implementation plan 2023 to 2028
The governments Scottish Wild Salmon Strategy (the Strategy) published in January 2022 sets out the vision, objectives, and priority themes for action to ensure the protection and recovery of wild Atlantic salmon populations in Scotland. This Implementation Plan has now been published and is a companion piece to the Strategy and should be read in conjunction with it. In this Plan the government set out a suite of actions and initiatives that will be the focus of collective efforts across a range of government and non-government stakeholders over a five-year period to 2028.

For more information, please visit www.gov.scot/publications/wild-salmon-strategy-implementation-plan-2023-2028/

Water Temperature and Water Scarcity 2022
Warm and drought conditions put the river and fish populations under stress through July and August 2022. During August 2022 the Deveron was classified as moderate scarcity under the SEPA water scarcity index, which is the second highest level. On the 10th of July the RDevDSFB released a statement on the current river conditions and the following guidance below for anglers to follow:

- Cease fishing when river water temperature exceeds 18°C
- Use strong tackle
- Play the fish quickly
- Always use a knotless net
- Keep the fish in the water at all times
- Use long-nosed forceps or a hook releasing tool to gently remove the hook

Angler's Map of the River Deveron - Tom Ingleby Edition



2023/24 PRIORITIES

- Project Deveron - Operation of Aris Sonar (Fish Counter) and Pit Tag Arrays in collaboration with the Marine Scotland Directorate and Atlantic Salmon Trust.
- Project Deveron Phase II - Launch catchment wide restoration funding bid to carry out activities such as a catchment audit, 3D buffer strip creation, peatland restoration, riparian planting and barrier removal.
- Continue Smolt Shepherding Programme to maximise number of smolts successfully entering the sea.
- Improve Fish Passage - Glenkeith Weir (Isla) final fish pass design to completed and Mill of King Edward Weir (King Edward) removal licence to be secured from SEPA.
- Continue regular dialogue with SEPA to improve water quality within the catchment.
- Continue Invasive Non-Native species control through the Scottish Invasive Species Initiative (SISI) Project.



Copies of the Angler's Map of River Deveron are available to buy.

The cost of the print is £35 (plus £6 p&p). It is printed on matt, coated 180gsm; print size is 100cm x 35cm. Please email office@deveron.org or call the DBIT on 01466 711 388 for further information.

Research and Monitoring



Diffuse pollution entering the Deveron at Huntly

Water Quality and diffuse pollution

DBIT representatives now meet with the SEPA Rural Land Unit on a regular basis to discuss ongoing water quality concerns in the Deveron. This is a good opportunity to share information and discuss concerns and maintain good lines of communication. We continue to be frustrated with the lack of progress made on diffuse pollution in the Deveron Catchment. During periods of heavy rainfall, particularly in the spring when fields are bare, the Deveron often turns brown as significant quantities of soil and sediment wash off the land and end up in the river. The Bogie, Isla and King Edward tributaries are often the main offenders and frequently the source of significant amounts of sediment and associated contaminants washing into the Deveron. This is not only damaging to the river ecology and fish populations as it smothers gravels but also impairs fishing for days at a time. The Deveron catchment has been designated by SEPA a priority catchment for diffuse pollution since 2010 but there has been no significant improvement observed in water quality. While SEPA are reporting an increased compliance with the rules the situation on the ground has continued to deteriorate which leads to only one conclusion; that the rules and regulations are not currently adequate. Our team will continue to report incidents of pollution to SEPA and lobby to update the regulations and increase enforcement but is also exploring options to begin our own longer term water monitoring to highlight and document the problem.

Project Deveron

Project Deveron is a joint project between the DBIT, Atlantic Salmon Trust (AST) and Marine Directorate (MD) with the ambitious aim of making the Deveron a fully 'Instrumented river'. This groundbreaking project includes significant investment in equipment that will allow the annual monitoring of smolts leaving the river and the subsequent counting of returning adults to not only provide a full annual river count but also an estimate of marine survival. Significant capital funding was secured from MD for an acoustic counter and a PIT tag. MD will retain ownership of the equipment and AST will provide financial support to assist with the operation for an initial three years and once proven a further seven years is planned.



Above: The Deveron at Eden
Left: Catherine Allwood at Muiresk

Fishtek Counter Trial - Summer 2022

Summary by Fishtek - Stuart Pudwell

Marine Scotland commissioned Fishtek Consulting to provide two multibeam sonar fish counter systems that will allow accurate enumeration of adult salmon moving up and down the River Laxford and the River Deveron.

This installation comprised of an ARIS Explorer 1800 (with AR2 rotator) fixed to an adjustable, steel frame, a 900W solar array, and site box containing the ARIS command module, laptop and associated hardware. This equipment was accessed and checked remotely via a 4G router.

The study period was dominated by low summer flows, ranging from Q94 - Q77. In addition to this period, footage recorded in September (5th and morning of the 7th) was also reviewed, covering higher flows from Q63 - Q8. Over this review period, 487 fish moved upstream, 101 moved downstream and 43 milled in front of the camera (net upstream movement of 308 salmonids >45 cm and 43 salmonids <45 cm). Small resident trout were not intended to be included in this summary but cannot always be distinguished from small seatrout. The site was not a hotspot for fish milling; although there were several brown trout <25 cm resident within the reach, few larger salmonids resided within the sonar beam for extended durations. Although 7% of larger salmonids remained within the sonar beam for >1 minute, this is expected to lessen in higher flows when the riffles upstream are deeper, and fish are more inclined to run upstream.

There was no observed change in image quality as the river level increased aside from the increase in debris. Unfortunately, the lower River Deveron carries a significant quantity of debris (primarily vegetation) at all flows. At first glance, debris could be mistaken for fish traces on video echograms and require extra scrutiny. With practice, it is possible to distinguish between debris and fish traces, however the presence of debris certainly increases video review time. A high debris load also renders automatic data processing software less effective, as any frames containing larger debris (of a similar size to fish) are exported alongside fish frames and must be reviewed. As depths increased, slightly more fish were observed closer to the ARIS, however it is unlikely many fish would pass between the camera and right-hand bank. In the lowest trialled flows, the ARIS picked up some surface turbulence, however it is anticipated that the system can remain fixed in the same position for most of the year, with only slight adjustment required in low summer flows (approximately <Q95).

In summary, the data analysis from the trial period did not identify any major issues with the site and suggests that with some modifications, the site could be used for a permanent hydroacoustic fish counter.

Biomark PIT Arrays

Alongside the new counter a series of pit tag arrays were installed in the Allt Deveron and at Avochie in May 2022 by Biomark representatives from Idhao and Europe with assistance from our team. These arrays will detect PIT tagged fish and allow us to not only monitor smolts leaving the river each year but also monitor how many make it backs as adults from their marine migration. The PIT tags used for this work have three significant advantages over the acoustic tags that we have previously used



Counter trials using an ARIS Explorer

for smolt tagging: 1. the tags are passive so they do not have a battery which means they will work for the life of the fish, 2. they are much smaller so can be inserted with minimal stress to the fish and 3. they are far cheaper so far more fish can be tagged.

The uppermost array was installed just downstream of the Blackwater confluence and is now powered by a new metered mains connection that our Trust have had commissioned. This array acts as the first detection point as smolts begin their downstream migration. The furthest downstream array is at Avochie where a double array has been installed and is powered via Avochie Estate and is the final detection point as smolts head for the sea. All the arrays can be monitored remotely to check performance and monitor tag detections.

Two thousand salmon parr were tagged in the Autumn of 2021 and 2022 from the Allt Deveron and Blackwater and any that smolted this spring (2023) will be logged on the Allt Deveron and Avochie arrays as they head to sea. This will help us monitor freshwater smolt survival on an annual basis. If those smolts survive their marine migration and return to the river after a year or more at sea, they will be logged again as they migrate upstream past the arrays to their spawning grounds. This will allow us to calculate how many are surviving the marine phase.

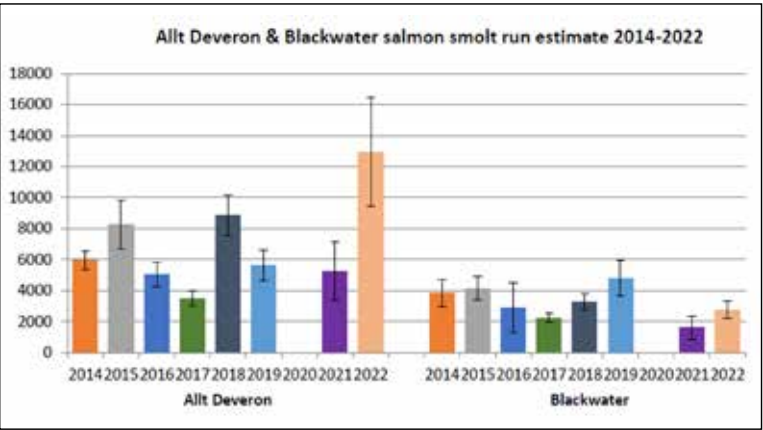
The combination of the full river count and the smolt and marine survival estimates will be invaluable in helping us to understand where the losses are taking place for Deveron salmon and what management measures can be implemented to protect stocks in the future.

Smolt Monitoring

In March 2022 the 2 rotary screw traps were deployed in the Allt Deveron and Blackwater for the last time. It was an unusual smolt season in the upper river, with an unusually early but significant run recorded at the beginning of April on the back of a snow melt event. Numbers of smolts quickly dropped off despite the river remaining at a good level, which was likely due to the low water temperatures. Numbers remained low through April and into May but then picked up slightly and unusually kept migrating throughout May.

Smolt run estimate

Overall numbers were quite good with the Allt Deveron catching the second highest number of smolts recorded since 2014 (2182) despite some days being missed due to high flows. This translated into the largest estimated total run for the Allt Deveron of 12943 (+/- 3482). Conversely the Blackwater recorded the third lowest catch (886) on record and the third lowest estimated run of 2761 (+/- 553). This in part is due to the Blackwater trap being flooded out during the period the large run was recorded on the Allt Deveron at the Beginning of April and all fish migrating for 5 days were unfortunately missed.



The Moray Firth Smolt Tracking Project 2022

Extract - AJ Lothian, Atlantic Salmon Trust

Background

The Moray Firth Tracking Project (MFTP) 2022 study year differed in design to the 2019 and 2021 study years. From the previous two years, we identified that more smolts were going missing in our rivers than we expected. By increasing receiver density in 2021, we were able to identify some of the likely suspects for this shocking loss rate in rivers. Namely, we identified that anthropogenic modifications to our rivers, either in terms of building barriers to migration or the associated mitigation efforts, may be a key culprit in for areas of high losses. Modified environments may delay migration by physically holding back smolts or by altering environmental cues and thusly induce behavioural changes. Alterations to the habitat surrounding the environmental modification may allow for a shift in the community structure, and thus the species assemblages. This, therefore, could enable a greater gathering of predatory species. Further behavioural changes in smolts because of habitat modification may also make smolts more susceptible to predation as they search for the way forward. Likewise, flow conditions identified as key component of smolt success across the river (not just at a localised scale). Fluctuations in annual flow have become more pronounced through climate change, and as a result some rivers experience flow extremes both across and within years. Stable, higher flow conditions are necessary to increase the chances of smolt migration success. Taking those two major findings into account, and with the aim of the third and final MFTP tracking year to be testing management solutions, the MFTP 2022 study year focused its efforts on four rivers: the Deveron, the Spey, the Ness and the Oykel. The studies in each river, although fitting in with the general theme of observing smolt migration success to sea, was bespoke to answering a specific question.

Over the course of the first two years of the MFTP, a common question asked about the project was the role of tag burden or tagging induced mortality on the results. Tag burden is here defined as the proportional weight of the tag against the weight of the fish. In the literature, a rule of thumb to ensure no behavioural or long lasting effects of tagging is to tag within 2% of the fish body weight. There have, however, been several studies in recent years that have questioned the '2% rule' and it's need. During the MFTP, tagging with the V7 transmitters has induced a maximum tag burden of approximately 8% on smolts. New advances in 69KHz tagging technologies (the systems that are employed for the MFTP) have now produced a V6 transmitter. Although this transmitter is only 0.7 mm smaller in diameter, it constitutes 60% of the weight and physical volume of the V7 transmitter. Thusly, the maximum tag burden for fish of the same weight and length can be dropped to approximately 3-4%.

As such, a tag burden study was carried out in the Deveron for the MFTP 2022 study year to validate and put into context the results of the entire MFTP. Along side the tag burden focus of the study in the Deveron, further aims of the MFTP 2022 study year is to provide replicate data that enhances our long term understanding of smolt behaviour and loss rate in freshwater. This report aims to provide a summary of the findings from the smolt tracking study in the Deveron as part of the MFTP 2022 study year.

Methods

Receiver deployment

In total, 18 Receivers or Automated Listening Stations (ALSs) or were deployed in the Deveron to monitor the downstream migration of smolts (Figure 1). All ALSs were placed in areas of low flow in pools that optimised detection coverage across the river. Fifteen ALSs were positioned in the river



(freshwater; FW), and three were positioned in Banff Bay (marine; MAR). For the analyses, due to the relatively short distance between Banff Upper and Banff Lower ALSs, they were merged into a single ALS. For simplicity in analyses as well, the three ALSs in Banff Bay were amalgamated into one ALS array.

Fish capture and tagging

Two rotary screw traps were deployed for the duration of the smolt run in the Blackwater and the Allt Deveron tributaries that form the Deveron at their confluence. The rotary screw traps were operated during April and May, and were checked for smolts every day. Smolts greater than 130 mm in length and 20 g in weight were selected and retained for acoustic tagging.

Selected smolts were heavily anaesthetised in a buffered solution of river water and MS-222 before being measured in length and weight. An incision approximately 10-12 mm in length was then made on the ventral surface anterior to the pelvic girdle through which the tag (either a V6-2x [13 x 6.3 mm, 0.9 g in air] or V7-2x [19.5 x 7 mm, 1.5 g in air]) was passed into body cavity. The incision was sutured shut with 2 independent sutures. Fish were left to recover for approximately and hour in a river container until they were fully responsive to external stimuli and swimming normally. Fish were released approximately 100 m downstream of the confluence in the Deveron. All procedures were carried out under Home Office issued licence in accordance with the Scientific Procedures Act 2003.



Figure 1: Location of the MFTP 2022 ALSs in the Deveron

Results

Biometrics

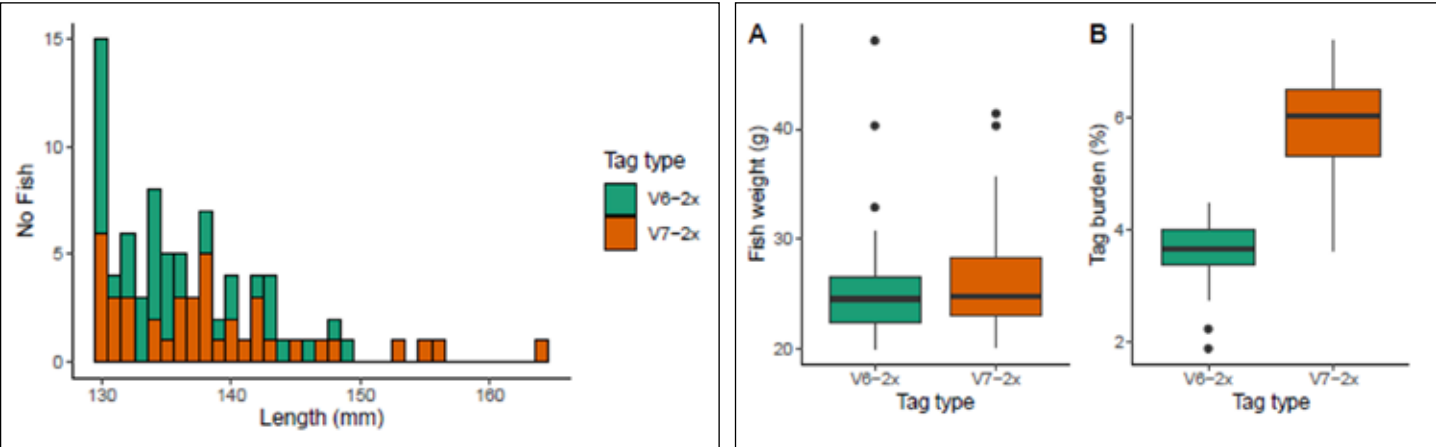
A total of 100 smolts were tagged and released into the Deveron, with 50 being tagged with the V6-2x tag and 50 with the V7-2x tag (Table 1). The smallest fish tagged was 130 mm and the largest fish tagged was 164 mm in length (Figure 2). There was no significant difference in the weight of fish between the two tagging groups (t-test: t (97.8) = -1.0, p = 0.31; Table 1; Figure 3A). Overall, tag burden ranged between 1.88% and 7.39%, but mean tag burden for V6-2x tagging group (3.63 ± 0.51%) was significantly lower than for the V7-2x tagging group (5.84 ± 0.95%; t-test: t (75.5) = -14.5, p < 0.01; Table 1; Figure 3B).

Tag Type	No. of fish tagged	Weight \pm sd	Length \pm sd	Tag burden	Min tag burden	Max tag burden
V6-2x	50	25.46 \pm 4.79	135.73 \pm 5.38	3.63	1.88	4.48
V7-2x	50	26.47 \pm 5.08	138.49 \pm 7.94	5.84	3.62	7.39

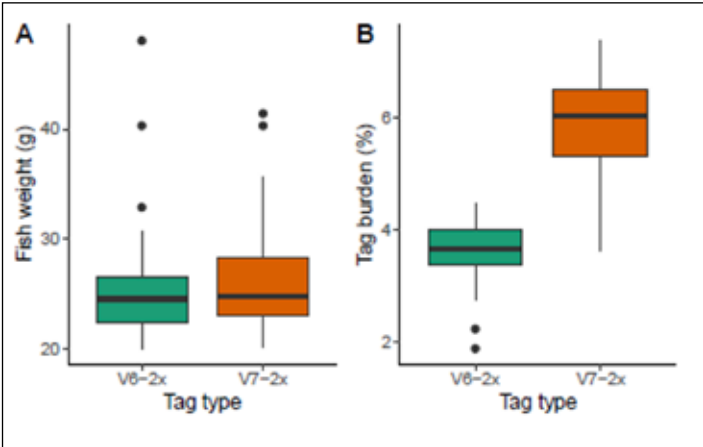
Table 1. Biometrics for the fish tagged on the River Deveron. Number of fish tagged, weight (mean ± sd), length (mean ± sd), mean tag burden (%), minimum tag burden (%) and maximum tag burden (%).

Downstream losses

Overall, of the 100 smolts released into the Deveron, 6 were detected on the last river ALS, and 4 were detected on the last ALS. This indicates an overall success rate of 4% to banff_bay3 in the Deveron (Figure 4). The overall minimum estimated loss rate in the Deveron from release to banff_bay3 is 1.14 % km-1. The greatest source of smolt loss occurred between the release and Cabrach, with an estimated loss rate of 18.5 % km-1. For those fish detected within the Deveron ALS array (n = 102), the next greatest loss rate occurred between Drumdelgie and Conieclogue equating to 5.07 % km-1. Within the two tagging groups, 4 V6-2x tagged smolts and 2 V7-2x tagged smolts were detected on the last river ALS Banff_Lower, with 3 V6-2x tagged smolts and 1V7-2x tagged smolts being detected



Above left: Figure 2: Histogram of the lengths of fish used in the MFTP 2022 Deveron study.
Above right: Figure 3: Boxplot of the weights of fish in each tagging category (A) and tag burden in each tagging category (B).



on banff_bay3 (Figure 4). This equates to 6% and 2% success in the V6-2x and V7-2x release groups, respectively, and minimum estimated loss rates from release to banff_bay3 of 1.11 % km⁻¹ and 1.16 % km⁻¹. With such low numbers of fish escaping the Deveron, it suggests that there is no tag burden related effect on success rate. This is further supported by the visual inspection of Figure 4 which shows almost identical loss rates in each tagging group throughout the study. This does not, however, rule out lasting handling effects from the trapping and tagging process which could not be investigated in this current study.

One note of interest that is that those fish that successfully left the river were tagged on the first day of tagging. Those fish were caught at a time of high flow and within a large pulse of smolts moving downstream (trapping over 3 days provided ~2000 smolts). The rest of the study period experienced much lower flows and much lower numbers of capture smolts. A working hypothesis on this is that the fish captured and tagged on the first tagging day were part of the main smolt run, and subsequent caught and tagged fish were within the 'stragglers' and were perhaps less suited smolts. Twenty fish were captured and tagged on the first day of tagging, and so the proportion of those that were successfully detected on Banff lower and banff_bay3 were 30% and 20%, respectively, which is more in line with the findings of poor river flow years in previous studies on the Deveron. There was no significant difference in the detection efficiency between either the V6-2x tag or the V7-2x tag (Wilcoxon rank sum test: $W = 75$, $p = 0.46$; Figure 5). However, the V6-2x tag had a mean detection efficiency of 81.81 for the V7-2x tag.

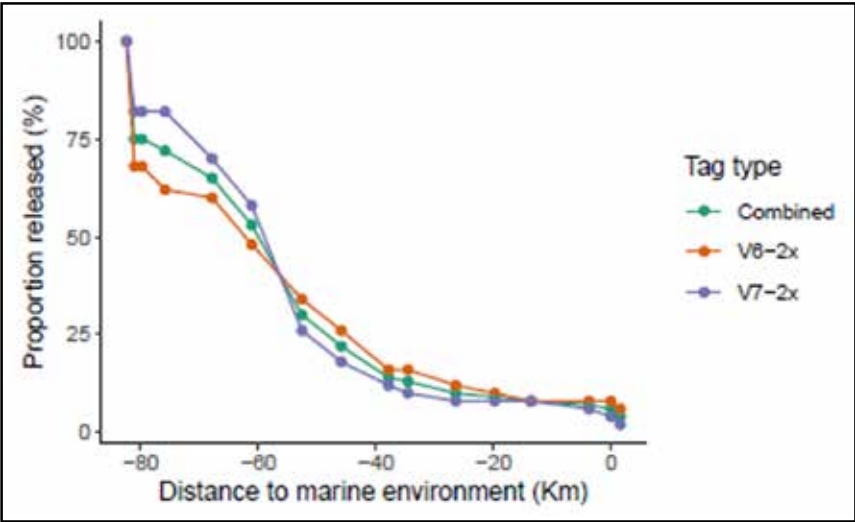


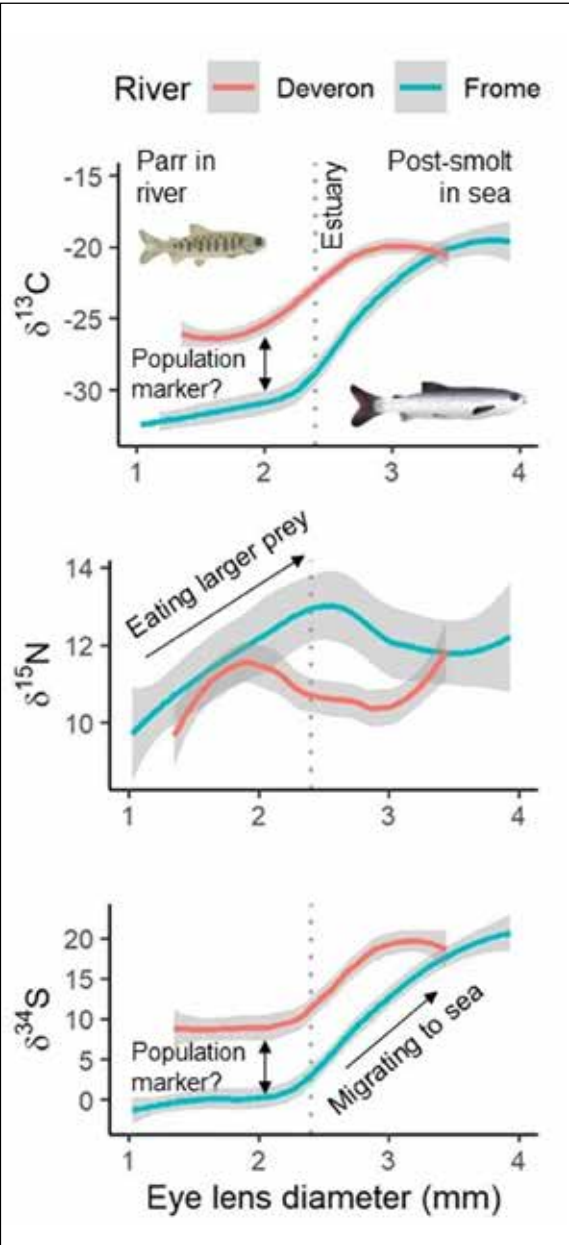
Figure 4: Survival curve showing losses from release to the ALSs at Banff for the two tagging groups separately and combined. Marine environment defined as the last river ALS. Points represent ALS locations.



DBI and AST teams smolt tagging in the Cabrach 2022



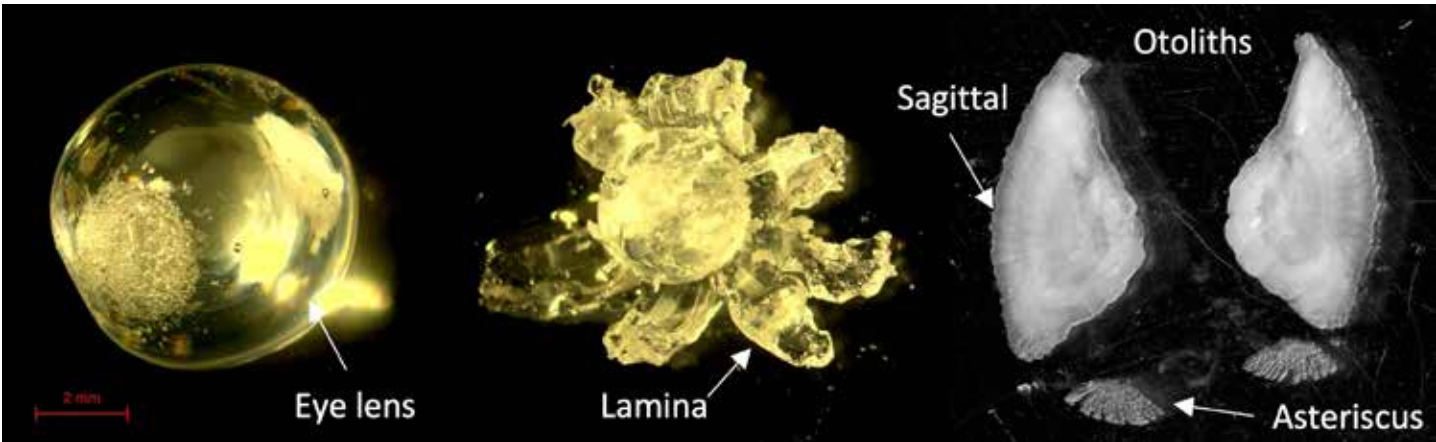
New 'forensic' tools being used to tell the stories of the survivors



Sturrock, Anna M, Astejada, Felix F., Bevins Cameron, Michael J., and Dawson, Joe

Eye lenses and otoliths (earstones) of fish are curious structures (see figure below). They grow in layers throughout the fish's life, incorporating clues about the fish's food, environment and health (e.g. growth) permanently in each layer. By analysing the chemistry of those layers right down to the core (where the fish was born), we can 'go back in time' to tell each fish's life story. Thanks to the hard work of biologists on the Deveron River and other rivers around the UK (e.g. Frome also shown on plot on left) we have an archive of salmon samples collected since 2020. These are now being used by researchers at the University of Essex to investigate the movement patterns and feeding habits of salmon from different populations and years. Some chemical markers (e.g. lens $\delta^{13}C$ and $\delta^{34}S$, and otolith barium and/or strontium concentrations) are related to salinity, which means they can reveal the point at which that adult had left freshwater 1-3 years prior as a smolt (shown as a dotted line on the plot). Nitrogen isotopes ($\delta^{15}N$) show how the parr feed on increasingly higher trophic level prey as they grow, but also show curious dips as the smolts move across the salinity gradient. Some markers also differ among populations as the result of differences in local water chemistry and food webs. These could become key tools to identify the origin of salmon sampled at sea to understand river-specific foraging areas. Ultimately, by understanding how the growth, habitat use and migratory timing of the survivors varies between populations and years, we can start understanding why that individual successfully came home, and to start making conservation plans to improve the chances for the many that don't.

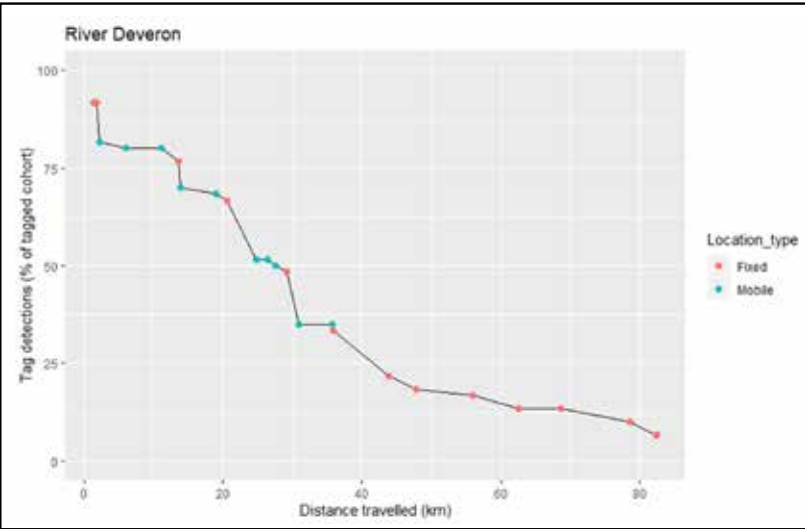
Below: A salmon eye lens before dissection (left) and with one layer (lamina) peeled back to remove and send off for isotopic analysis (middle). A pair of salmon otoliths (right) showing the larger sagittal otoliths and the much smaller asterisci.



Marcus Walters tracking smolts by Kayak

Marine Scotland Science Tagging Project - 2022

In 2022 we took part in a smolt tracking project commissioned by Marine Scotland Science. This was a joint Project with the Dee, Spey and Tweed rivers. For this project 60 smolts were tagged with a smaller tag on a higher frequency than used in the AST's project. The receivers were located at the same locations, but additional tracking was conducted by Kayaking from the Cabrach to Banff towing a hydrophone. Of the 60 tagged, 55 were detected and 4 made it to Banff Bridge which translates as 6.6% survival to sea.

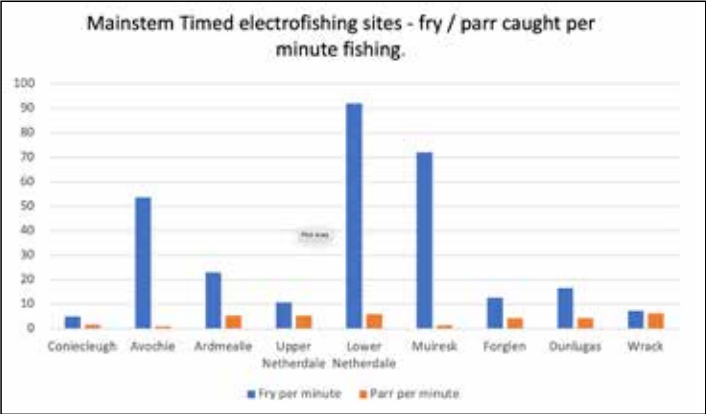


Tag detections during the MSS science tagging project 2022. The orange dots represent detections on fixed receivers and the blue dots represent mobile detections while kayaking (above).

Electrofishing Surveys - 2022

In August 2022 we conducted 46 electrofishing sites across the Deveron catchment. There wasn't a NEPS (National Electrofishing Programme for Scotland) funded survey in 2022 so we conducted our own electrofishing survey. Our strategy was to mainly use 'timed electrofishing' across the rivers to give an overall 'health check' of the catchment. Timed fishing involves fishing a burn or river stretch for designated amount of time (3 minutes with equipment running) rather than fully quantitative electrofishing that requires fishing a stretch 3 times to get a more accurate quantitative assessment. Timed electrofishing is quicker and provides presence absence for different species and life stages but only a very rough idea of abundance. Timed electrofishing is also the only effective way to fish the mainstem where the whole river cannot be waded or netted off.

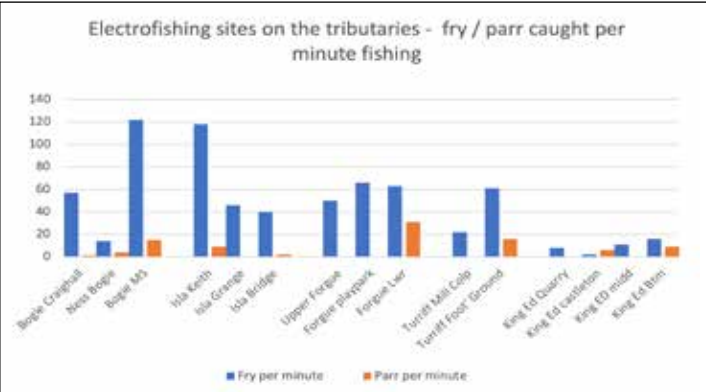
A graph of the number of salmon fry and parr caught per minute at the 9 mainstem timed electrofishing sites.



The 15 timed sites on the tributaries showed a good distribution of fry across most sites while parr were less well distributed. Below is a summary and graph of fry and parr caught per minute.

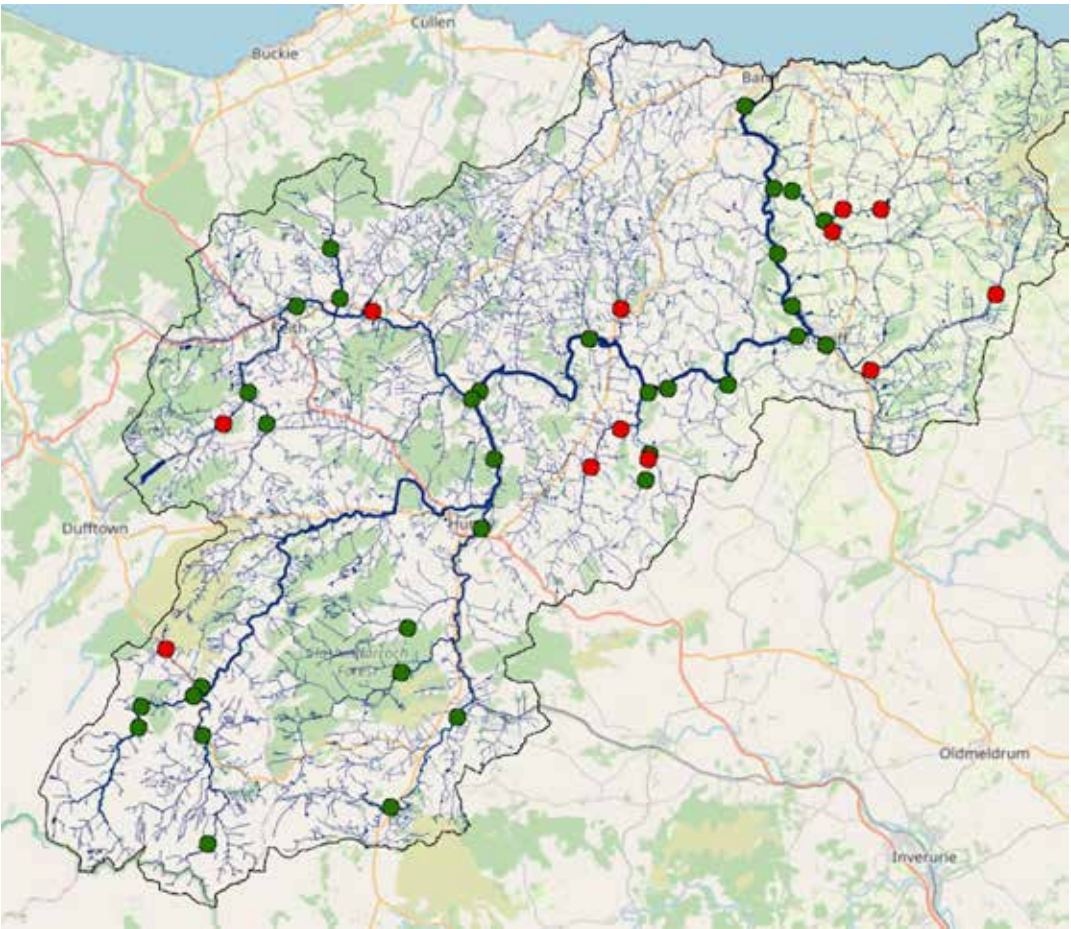
ALLT DEVERON & BLACKWATER	Good salmon fry and parr numbers at all sites including A3 at the top of the Allt Deveron.
ISLA	Salmon fry found in Davidston burn above Scottish water fish pass and road culvert.
BOGIE	Salmon fry at all sites including Craigwater at top, and in Kirkney and Ness Bogie. Excellent numbers in mainstem at Huntly.
FORGUE	Salmon fry found at site at top where algal bloom observed and good numbers of parr at Inverkeithy. No salmon above GlenDronach weir area.
KING EDWARD	Salmon fry and parr in good numbers at Mill of Eden but numbers lower upstream. Salmon fry found in the Fishrie but not the Craigston.
AUCHINTOUL	Very little water but salmon fry up at A97 Bridge by Aberchirder well above site of Kinnairdy dam removal.

A graph of the number of salmon fry and parr caught per minute at the 15 tributary timed electrofishing sites.



These two maps show the presence and absence of salmon fry and parr at the 46 electrofishing sites across the catchment.

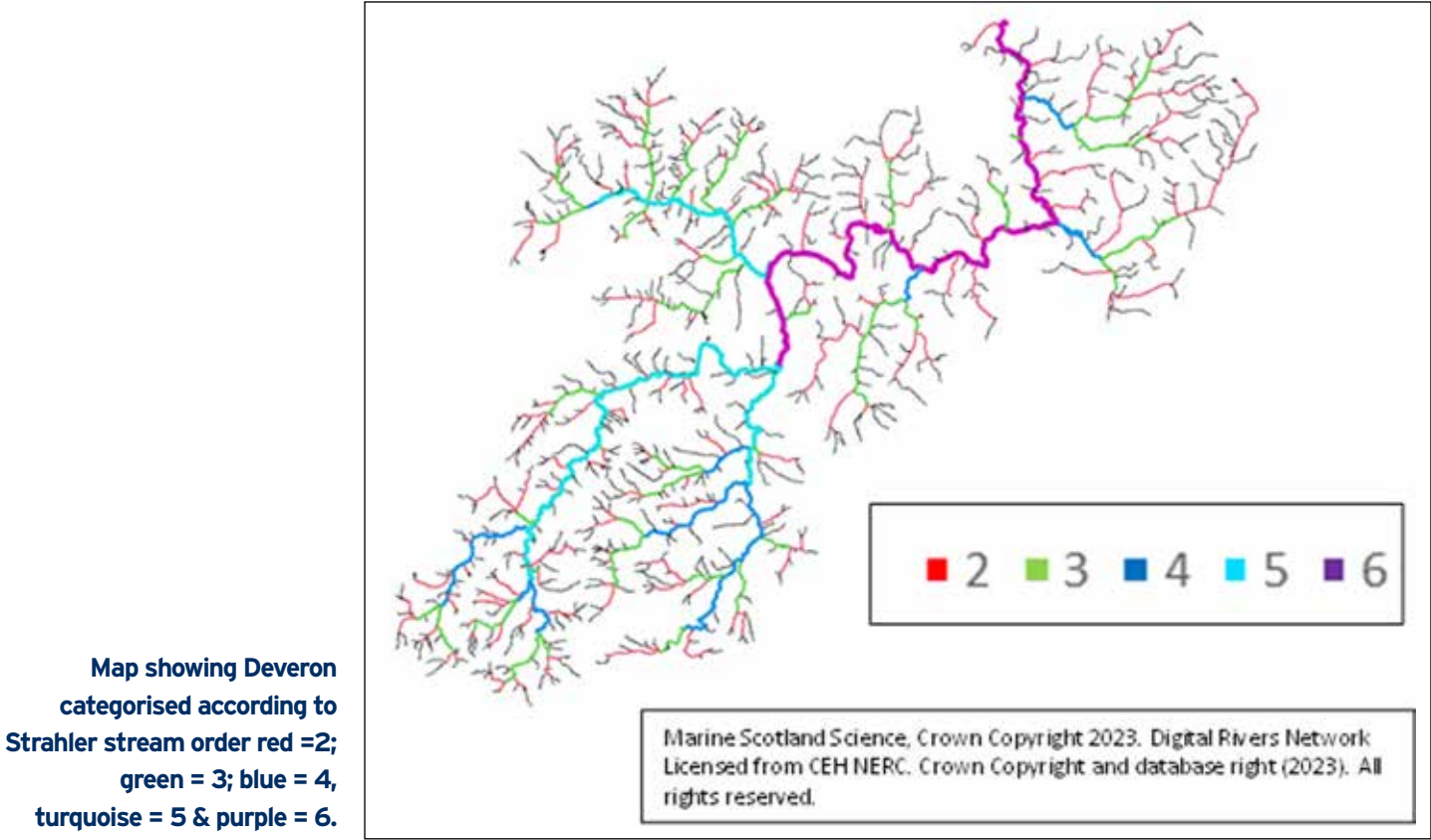
Electrofishing 2022 - salmon fry presence (green dots) and absence (red dots).



Electrofishing 2022 - salmon parr presence (green dots) and absence (red dots). Nine timed sites were conducted on the mainstem and good number numbers of salmon fry were present at all sites. Salmon parr numbers were more variable but often the sites that can be accessed in the mainstem are riffle and more suited to fry.

Where do Deveron salmon come from?

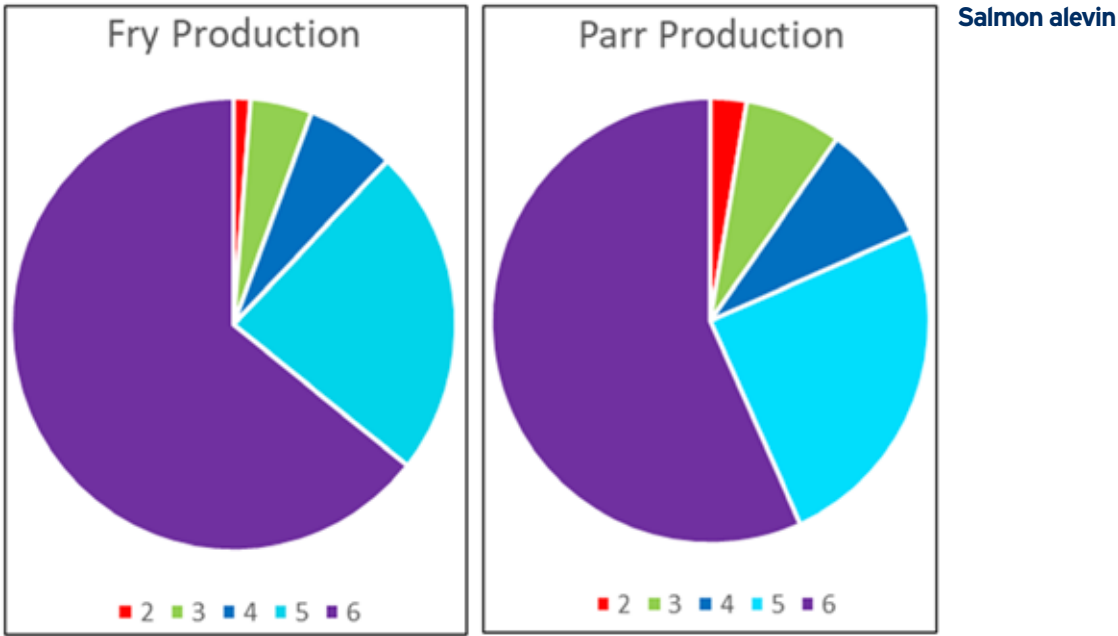
To help us inform management and prioritise where work takes place, our team have been interested in working out the relative production of salmon fry and parr from the smaller burns, tributaries, and the Deveron mainstem. To do this the different sections of the Deveron have been classified according to Strahler stream order which defines stream size based on a hierarchy of tributaries. Where two Strahler order one rivers join, this becomes a second order river, where two second order rivers join this becomes a third order river and so on. Strahler river order 1 are thus the smallest rivers, up to 6, the largest rivers (see map below).



Malcolm et al., 2019 developed a model to predict the expected densities of juvenile salmon across Scotland. The model was based on all of the available multi-pass electrofishing data collected between 1997 and 2015 and included a number of landscape scale habitat predictors. This model predicts that densities generally increase with distance from sea and decrease with altitude and the amount of conifer trees adjacent to the channel. Importantly the model also predicts that densities increase with catchment area up to around 256 km², after which the predictions are uncertain due to a lack of reliable data.

More recently, the observation that juvenile densities tended to increase in larger streams and rivers was further supported by data collected under the National Electrofishing Programme for Scotland (NEPS) 2021 (Malcolm et al., 2023) which showed that densities of salmon fry and parr increased between Strahler River Orders two and four, before stabilising between fourth and fifth order rivers. Put simply, this suggests that in general juvenile salmon densities increase between small and medium sized channels and that medium and large rivers are characterised by similar densities.

Using the juvenile salmon density models developed by Malcolm et al., (2019), it is possible to estimate the densities of fry and parr expected in each river reach. These can then be multiplied by the wetted



area of the river reached and the values aggregated to provide an estimate of the total juvenile salmon density in each river order. Thus, the relative estimated production of fry and parr from Deveron river orders 2-6 is represented in the pie charts above (colour coded according to the map colours above). It is striking from this how much of the Deveron salmon fry (62 %) and parr (54%) are potentially produced in the Deveron mainstem downstream of Huntly although it is hard to validate this as the mainstem is too large to conduct quantitative electrofishing. But also, how important the Upper Deveron, Bogie and Isla tributaries are. When considering restoration management actions, we need to make sure we are not only protecting the smaller tributaries and channels (that influence everything downstream) but also making sure the Deveron mainstem habitat is in the best condition possible.

The estimated relative production of salmon fry and parr from Strahler Stream orders 2-6 (see map on page 32) in the Deveron Catchment.

I A Malcolm, F L Jackson, K J Millidine, P J Bacon, A G McCartney and R J Fryer. (2023). The National Electrofishing Programme for Scotland (NEPS) 2021. Scottish Marine and Freshwater Science. Crown Copyright 2023 DOI 10.7489/12435-1

National Adult Salmon Sampling Programme - 2022

Background

Last season the Trust, along with local volunteers participated for the second year running in the National Adult Salmon Sampling Programme managed by Marine Scotland Science (Salmon & Freshwater Fisheries Programme) & Fisheries Management Scotland.

Sampling of individual adult salmon is used to collect information on the size, sex, and age of the fish. This information feeds directly into stock assessment used for national and international management. In Scotland, and other countries, scale samples were historically collected from commercial netting. With the closure of most of these fisheries in recent years, the options for using existing rod fisheries and targeted scientific sampling as a source of biological information on salmon is being investigated. In 2021, a pilot national adult salmon sampling programme was developed by Marine Scotland, Fisheries Management Scotland and local Fisheries Trusts and Boards to develop a pilot national adult sampling programme. The objectives of the programme were:

- To trial different approaches to obtaining biological data on adult salmon (length, weight, age) and to see what approaches work in different settings.
- To determine whether measurements taken with sedated and unsedated fish are comparable.
- To obtain data that can be used to inform the design of any future adult sampling programme for use in stock assessments.

Methods

A standard operating procedure was developed detailing a set of agreed shared practices for the sampling (see Annex 1). These were designed to allow the maximum flexibility for local arrangements to be made on, for example, how fish would be collected for sampling. Samplers were encouraged to (where possible) select sites:

- From rivers with historic data collections;
- With the best chance of returning a good number of fish;
- As close to the sea as possible.

Samplers were requested to sample both retained and released fish, where appropriate, and to sample a proportion of released fish both unsedated and under anaesthetic to allow calculation of variation in measurements due to the state of the fish. Sedated fish were marked prior to release to inform anglers of the potential presence of anaesthetic. Adult salmon were sampled July - September; fish were primarily captured by rod angling with some catch and release netting. An online GIS-based reporting tool was used to allow easy and standardised data collection. The reporting form collected information on the location of capture, fish biometrics, equipment used, photographs and sampler identification. The tool generated a unique code which was written on scale packets. Scale packets were sent to Marine Scotland for pressing, ageing, and imaging.

Results

A total of 582 adult salmon were sampled during May-September 2022 across 29 different regions including 22 salmon from the Deveron which are shown in table opposite .



Overlooking the Deveron at Rothiemay

sample date	site name	length cm	weight kg	weight lbs	sex	freshwater age	sea age
05/08/2022	Lalthers	71	4	9	Female	2	2
26/07/2022	Lalthers	57.5	2.3	5	Male	1	1
22/07/2022	Boat of Turtory	60	2.1	5	Male	Unreadable	1
23/07/2022	Inverichnie	54	1.5	3	Male	2	1
23/07/2022	Inverichnie	50	1.3	3	Female	Unreadable	1
25/07/2022	Inverichnie	52	1.5	3	Male	1	1
26/07/2022	Inverichnie	53	1.5	3	Female	2	1
26/07/2022	Inverichnie	58	1.6	4	Male	1	1
26/07/2022	Inverichnie	59	1.8	4	Male	1	1
30/07/2022	Inverichnie	52	1.2	3	Male	1	1
13/07/2022	Avochie	71	3.2	7	Female	2	1
19/08/2022	Inverichnie	59	1.9	4	Male	2	1
20/08/2022	Boat of Turtory	71	4.2	9	Male	2	2
20/08/2022	Unknown	54	1.5	3	Male	1	1
24/08/2022	Inverichnie	64	2.3	5	Male	2	1
31/08/2022	Inverichnie	52	1.4	3	Male	1	1
09/09/2022	Inverichnie	54	1.3	3	Male	1	1
09/09/2022	Inverichnie	63	2.2	5	Male	1	1
12/09/2022	Inverichnie	56	1.6	4	Male	Unreadable	1
14/09/2022	Inverichnie	65	2.7	6	Male	Unreadable	1
20/09/2022	Inverichnie	75	4.5	10	Female	2	2
28/09/2022	Inverichnie	50	1.5	3	Male	Unreadable	1

Education and Community Outreach

Newsletters and Social Media

Two editions of the Deveron Flyer were produced during 2022/23 and distributed to keep all members and interested parties updated on the work of the RDevDSFB & DBIT and current fisheries news. The website of the RDevDSFB & DBIT (www.deveron.org) was updated regularly with latest board meeting minutes, news, and announcements. The Trust social media has grown considerably and platforms such as Twitter (@DBIRCT), Instagram (river_deveron) and Facebook (DeveronBogielsla) were updated regularly by the DBIT, with latest local and national news, angling catches and opportunities, and local conservation initiatives. Summary below:

- Instagram: 0 (Oct 2018) to 1,885 (June 2023) followers
- Facebook: 902 (Oct 2018) to 2,614 (June 2023) followers
- Twitter: 934 (Oct 2018) to 1,366 (June 2023) followers

The McConnell Major Contribution Award - Mr Harvey Grant

The McConnell Major Contribution Award was successfully launched in December 2020. The award commissioned by Mr. Robert McConnell (Hon. Membership Secretary, Retd.) and supported by the Trustees of the Deveron, Bogie and Isla Rivers Charitable Trust, recognises major contributions to our Trust and River and is open to all Volunteers, Supporters, Employees, Partners and Professionals.

The Trustees were delighted to announce Mr Harvey Grant as the 2022 winner. Harvey has supported visiting and local anglers to have memorable trips to Deveronside year after year and assisted with many river management and restoration projects. The trophy was duly presented to Harvey by actor and angler Robson Green (pictured right).

Visit to river Deveron from Mairi Gougeon, Cabinet Secretary for Rural Affairs and Islands

During August 2022 the RDevDSFB and DBIT welcomed Mairi Gougeon, Cabinet Secretary for Rural Affairs and Islands to the river Deveron (pictured right). We were pleased to highlight the newly installed fish counter (ARIS Sonar) and pit tag arrays (detectors) funded by Scottish Government.

We also took the opportunity to discuss with the Cabinet Secretary the worrying demise of Atlantic Salmon in the river Deveron and nationwide. We particularly highlighted local issues such as water quality (diffuse pollution, water quantity, water temperature) and predation on adult and juvenile salmon.



Sundown on the Deveron 2022 sponsored by BOWLTS Chartered Surveyors

The DBIT held a dinner auction at the Banff Springs Hotel (above) on the 16th of September. The evening proved to be very successful raising £11,600. A huge thank you to all donors, sponsors and guests.



Season Opening and the Morison Trophy

On the 11th February our special guests Jim Murray and Sarah Parish presented the Morison Trophy and officially opened the salmon season. Jim Murray is an actor and avid angler who is passionate about wild Atlantic salmon and is an ambassador for the Atlantic Salmon Trust. Sarah Parish is an actress and along with husband Jim founded the hugely successful Murray Parish Trust which is dedicated to the advancement of paediatric emergency medicine across the South of England.

Mr Richard Breakell, winner of the Morison Trophy for 2022 made the first cast of the season. Mr Breakell secured the trophy by landing a 23lbs salmon from Ardmiddle. Thanks goes to Henderson's Country Sports (Turrieff) for sponsoring the salmon rod presented to Richard for carefully releasing the winning salmon.



Good Governance

The RDevDSFB is established by Salmon Fisheries legislation consolidated by the Salmon and Freshwater Fisheries Consolidation (Scotland) Act 2003 which from 16th September 2013 was amended by the Aquaculture and Fisheries (Scotland) Act 2013. The Aquaculture and Fisheries (Scotland) Act 2007 also applies. The Board is empowered under the legislation to take such action as it considers expedient for the protection, enhancement and conservation of Atlantic Salmon and Sea Trout stocks and their fisheries. The Deveron Catchment area covers 1,266 km² and the length of the river system is 96 km.

The coastline along the Moray Firth extends from Cowhythe Point to the Water of Philorth and 3 nautical miles out to sea. There are 53 rod fisheries within the main stream of the Deveron and Netting Stations (currently not in use) at ex adverso Auchmeddan Estate and in the Sea, Aberdour (per Lands Valuation Roll).

The Aquaculture and Fisheries (Scotland) Act 2013 consists of several parts, the second of which relates to salmon and freshwater fisheries. The emphasis is on the duty of Boards to be open, transparent and accountable. This includes:

- a duty to publish and copy to Scottish Ministers the Annual Report and audited accounts;
- a duty to hold a minimum of one public meeting, with all Board or other meetings held in public unless there is a good reason for them to be held in private;
- a duty to deal with complaints and to maintain and keep procedures under review;
- a duty to maintain a register and declaration of relevant financial interests of Board Members and to review these at Board Meetings.

The RDevDSFB's Complaints' Procedure and Registration and Declaration of relevant financial interests are dealt with later in this report.

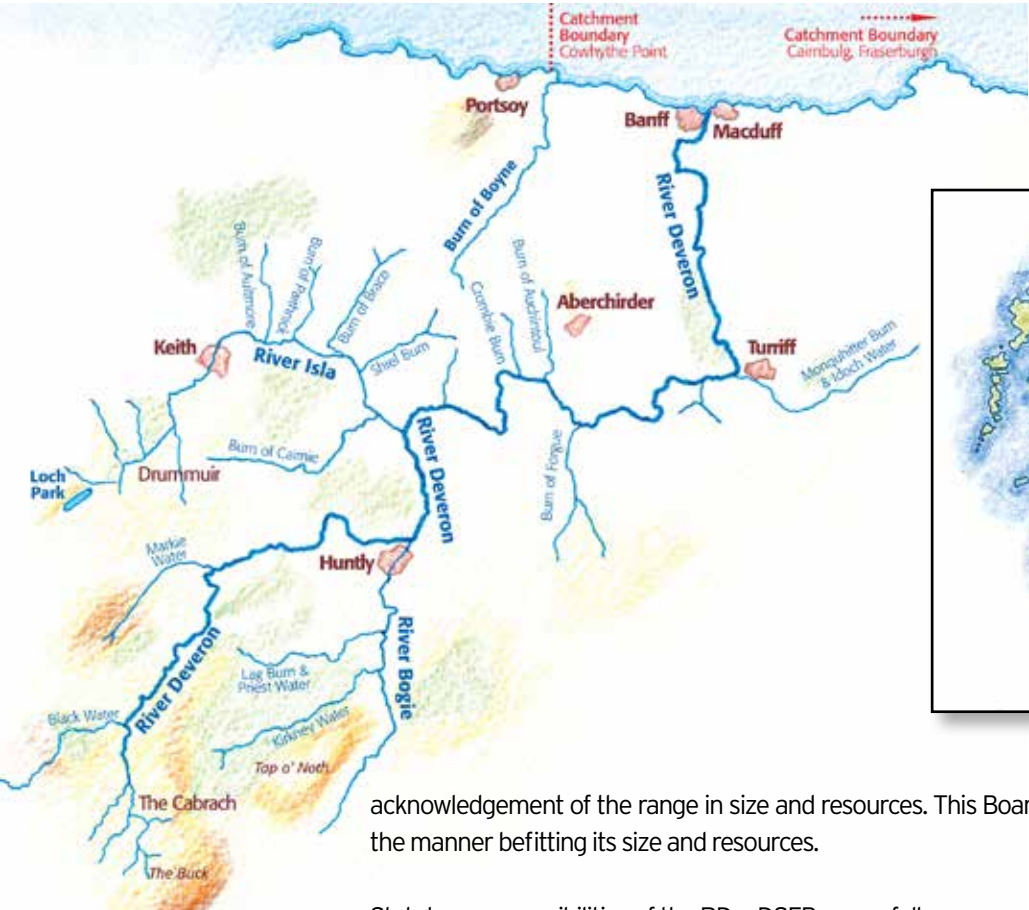
Meetings

Since the 2013 Act came into force meetings of the RDevDSFB are open to the public and the date, place and time of each meeting together with the likely agenda are published on www.deveron.org at least twenty-one days before the date of the meeting.

The statutory Annual Meeting of Qualified Proprietors has, in accordance with Board policy over many years, been a Public Meeting although not publicised as such in the manner which is now required by the 2013 Act. Qualified Proprietors were advised to publicise the meetings which were well attended by ghillies, employees and generally members of the public, in particular anglers.

The Annual Meeting of Qualified Proprietors 2023 will incorporate a public meeting although further meetings will be held in open session and advertised on www.deveron.org. In the case of the Annual Meetings also in local newspapers to enable anglers and members of the public to attend and, at the Annual Meetings, to encourage participation (questions, comments, etc.). Board Members, the River Bailiffs and the Clerk make this information available to tenants, ghillies, employees, managers, Angling Associations, letting agents, a Tackle Shop and members of the public by personal contact.

It should be noted from the Guidance on Good Governance Obligations issued by the Scottish Government, that it is not the intention that the obligations imposed by the 2003 and 2013 Acts seek to micromanage the business of Boards – the provisions provide flexibility in terms of delivery and



acknowledgement of the range in size and resources. This Board complies with the latest legislation in the manner befitting its size and resources.

Statutory responsibilities of the RDevDSFB are as follows:

- fisheries protection (Bailiffs in co-operation with Police);
- confirm the salmon and sea trout rod fisheries season - 11th February to 31st October;
- ensure fishery closed times - midnight Saturday - midnight Sunday - are complied with (Bailiffs and Police);
- deal with the purchase and sale of illegally caught or unseasonable fish;
- ensure the free passage of fish, e.g., over obstructions, etc. (to knowingly prevent free passage is a criminal offence);
- protect spawning redds and juvenile fish (Bailiffs and Police);
- regulate the introduction of adults, juveniles and ova.

Note: Details of the RDevDSFB's powers and duties are also published on the website

Complaints Procedure

The Aquaculture and Fisheries (Scotland) Act 2013 amended the 2003 Act regarding openness and accountability. The 2013 Act, therefore, requires a Fishery Board 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 the Act or any other enactment.

The RDevDSFB complaints procedure can be found at www.deveron.org/wb/media/pdfs/Complaints_Procedure_2013.pdf

Register of Board Members' Interests

Board Members have completed and signed declarations of relevant financial interests. These are recorded with the Clerk and available to inspect on reasonable notice at her office. This has been so intimated on www.deveron.org. The register is reviewed at each Board Meeting and a permanent item is on the agenda. Members are required to declare any change from the previous meeting.

The Deveron, Bogie and Isla Rivers

Charitable Trust accounts

Year ended 31st March 2023

STATEMENT OF FINANCIAL ACTIVITIES

	Unrestricted funds	Restricted funds	31.3.23 Total funds	31.3.22 Total funds
	£	£	£	£
INCOME AND ENDOWMENTS FROM				
Donations and legacies	75,070	49,743	124,813	129,806
Charitable activities				
Monitoring, contract and services	63,036	15,232	78,268	56,916
Other trading activities	32,889	-	32,889	9,487
Investment income	-	3,637	3,637	-
Total	170,995	68,612	239,607	196,209
EXPENDITURE ON				
Raising funds	16,702	-	16,702	8,551
Charitable activities				
Monitoring, contract and services	152,108	57,274	209,382	191,186
Other	895	-	895	770
Total	169,705	57,274	226,979	200,507
Net gain/(losses) on investments	-	(3,959)	(3,959)	14,846
NET INCOME	1,290	7,379	8,669	10,548
RECONCILIATION OF FUNDS				
Total funds brought forward	163,086	155,088	318,174	307,626
TOTAL FUNDS CARRIED FORWARD	164,376	162,467	326,843	318,174

BALANCE SHEET

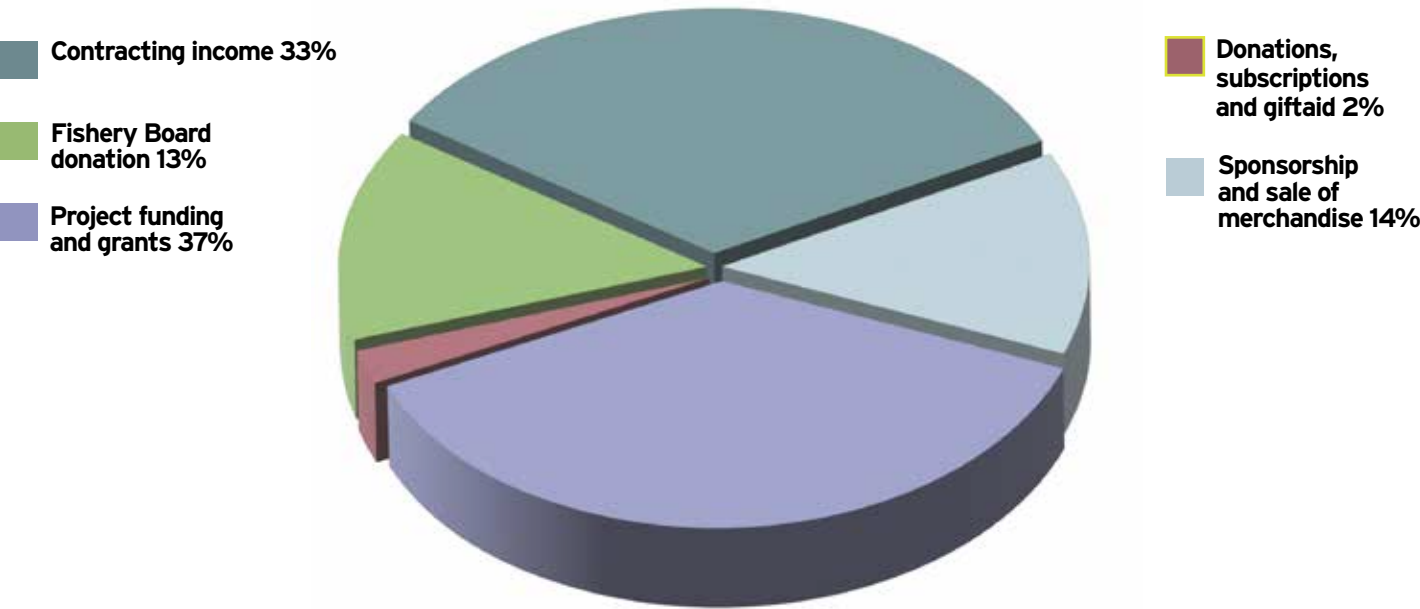
	Unrestricted funds	Restricted funds	31.3.23 Total funds	31.3.22 Total funds
	£	£	£	£
FIXED ASSETS				
Tangible assets	22,853	-	22,853	28,430
Investments	-	154,766	154,766	155,088
	22,853	154,766	177,619	183,518
CURRENT ASSETS				
Stocks	3,294	-	3,294	-
Debtors	13,736	-	13,736	15,509
Cash at Bank	129,644	7,701	137,345	127,258
	146,674	7,701	154,375	142,767
CREDITORS				
Amounts falling due within one year	(5,151)	-	(5,151)	(8,111)
NET CURRENT ASSETS	141,523	7,701	149,224	134,656
TOTAL ASSETS LESS CURRENT LIABILITIES	164,376	162,467	326,843	318,174
NET ASSETS	164,376	162,467	326,843	318,174
FUNDS				
Unrestricted funds			164,376	163,086
Restricted funds			162,467	155,088
TOTAL FUNDS			326,843	318,174

These financial statements have been prepared in accordance with the Financial Reporting Standard for Smaller Entities (effective April 2008). The above figures have been approved by the Trustees and will be presented as such at the Annual General Meeting. These are extracts from the full financial statements. . A copy of the Trust's full Financial Statements, together with explanatory notes, will be published on its website (www.deveron.org) following the Annual General Meeting.

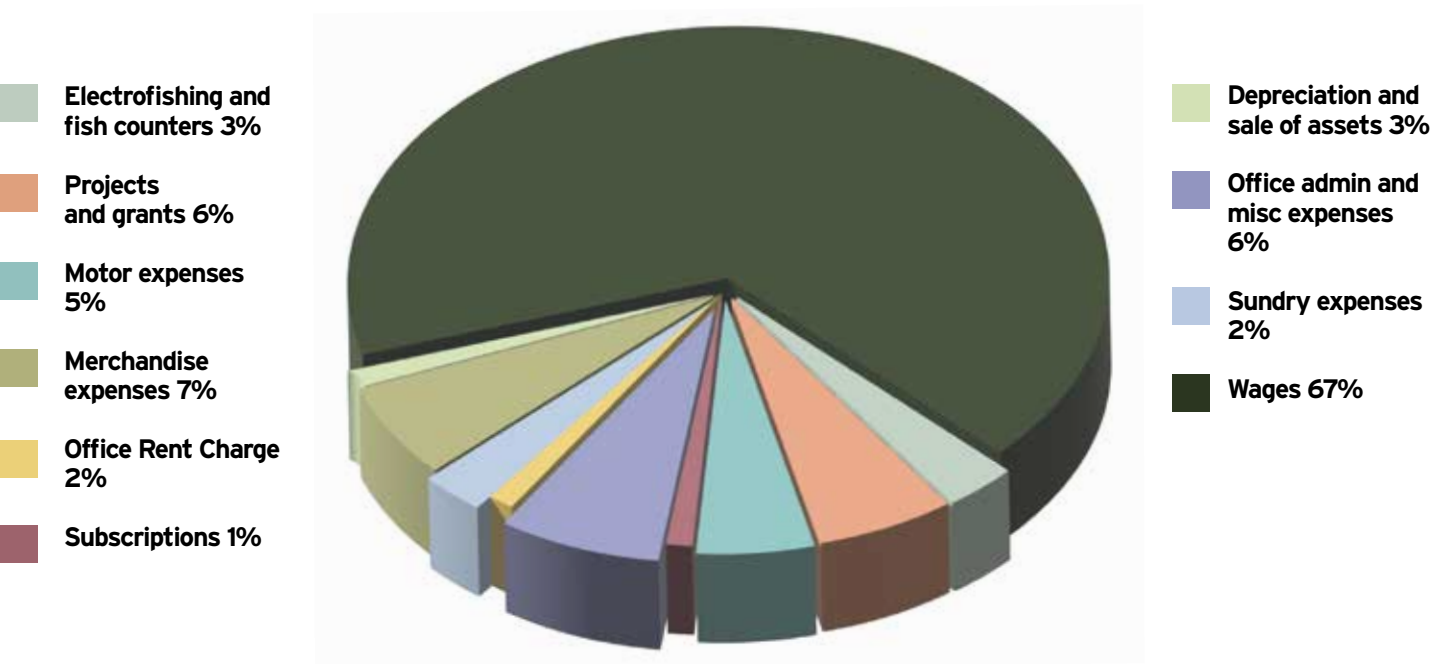
The Deveron, Bogie and Isla Rivers Charitable Trust accounts

Year ended 31st March 2023

Income April 2022 - March 2023



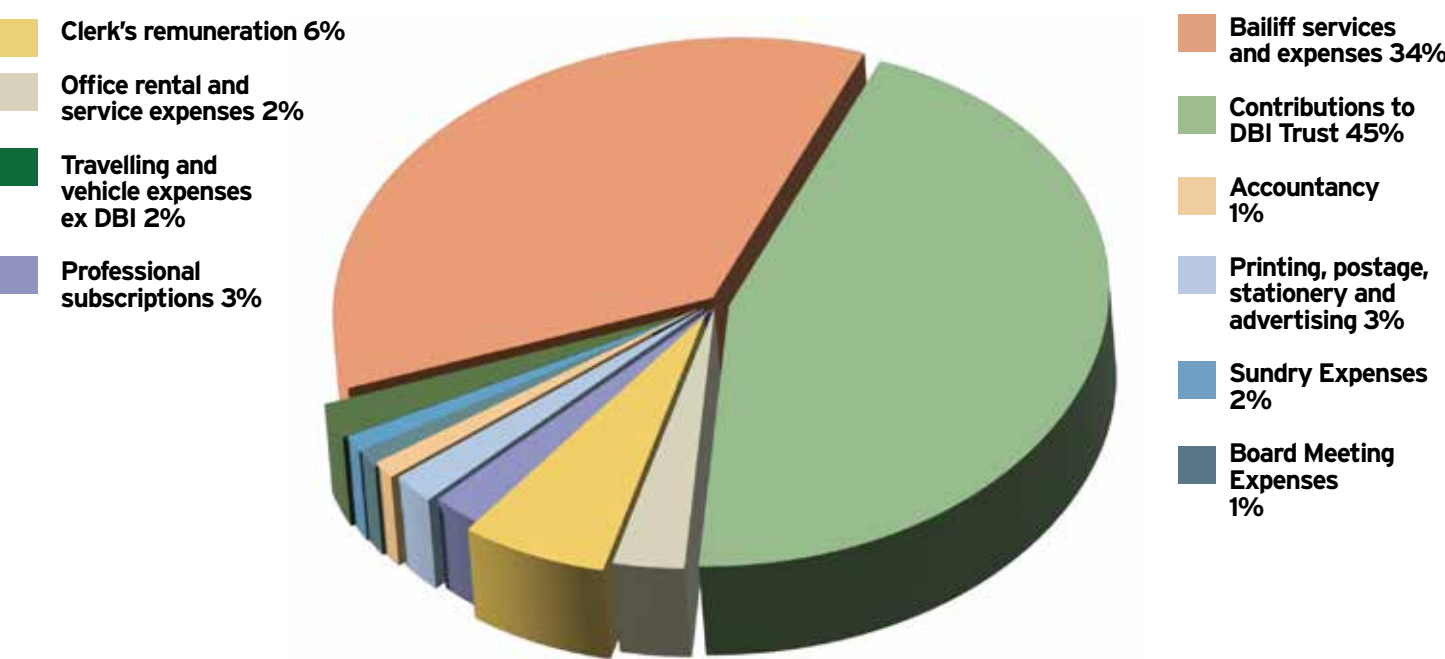
Expenditure April 2021 - March 2023



The River Deveron District Salmon Fishery Board accounts

Year ended 31st March 2023

Expenditure April 2022 - March 2023



The Deveron
at Lower Netherdale

The River Deveron District

Salmon Fishery Board accounts

INCOME & EXPENDITURE

Year ended 31 March 2023

	2023	2022
INCOME		
Assessment Income (42p in £)	71,707	71,703
	71,707	71,703
EXPENDITURE		
Clerk's Remuneration	3,890	3,900
Office rental and service expenses	1,105	1,105
Board meeting expenses	615	580
Travelling and vehicle expenses ex DBI	1,570	2,198
Professional subscriptions	2,296	2,296
Bailiff services and expenses	23,758	23,066
Contribution to DBI Trust	31,500	31,500
Accountancy	886	716
Bad and Doubtful Debts	389	(1,175)
Postage, Printing, Stationery, Advertising and Telephones	2,308	2,352
Sundry expenses	1,715	970
	70,032	67,508
(DEFICIT)/SURPLUS ON GENERAL FUND	1,675	4,195

BALANCE SHEET

	2023 £	2022 £
CURRENT ASSETS		
Cash at bank	42,880	41,076
CREDITORS		
Amounts falling due within one year	(890)	(760)
NET CURRENT ASSETS	41,990	40,316
TOTAL ASSETS LESS CURRENT LIABILITIES	41,990	40,316
NET ASSETS	41,990	40,316
FUNDS		
General funds	41,990	40,316
TOTAL FUNDS	41,990	40,316

These financial statements have been prepared in accordance with the Financial Reporting Standard for Smaller Entities (effective April 2008). The above figures have been approved by the Board and will be presented as such at the Annual Meeting. These are extracts from the full financial statements. A copy of the Board's full Financial Statements, together with explanatory notes, will be published on its website (www.deveron.org) following the Annual Meeting.



The River Deveron District Salmon Fishery Board
The Offices, The Stables, Avochie, Huntly, Aberdeenshire AB54 7YY Tel: 01466 711388

Deveron Angling Code for Salmon and Trout 2023

Your Board remains extremely concerned over fragile levels of fish stocks in the river and in particular spring salmon and sea trout. Anglers are asked, therefore, to observe the following statutory regulations and guidelines throughout the season:

SALMON & GRILSE

From 11th February to 31st May (Inclusive) all salmon to be returned

It is illegal to take any salmon (dead or alive) from 11th February to 31st March (inclusive) each year

The River Deveron District Salmon Fishery Board will donate one bottle of Scotch Whisky per angler, for safely returning a spring salmon between the 1st April and 31st May
(Follow set claim procedure and Call 01466 711 388 to claim - strictly over 18s only).

From 1st June to 31st October (Inclusive), weekly rods may retain one salmon or grilse per rod per day with a maximum of one per rod per week. Day rods to return all salmon.

Anglers are asked to observe the Board's aspiration that all hen fish, and any cock salmon over 10lbs be returned
Therefore, the Board requests that only male fish under 10lbs be retained.

SEA TROUT

All sea trout to be returned throughout the season

The guidance on sea trout will be in place until stocks recover to acceptable levels

BROWN TROUT

**From 15th March to 6th October (Inclusive), all Brown Trout under 10 inches in length to be returned.
No more than 2 brown trout per rod per week to be retained.**

It is illegal to fish without legal right or written permission from the beat owner or representative

It is illegal to kill unclean or unseasonable fish (baggots, gravid fish, kelts)

It is illegal to sell or buy wild salmon roe

It is illegal to attempt to deliberately foul-hook fish

Only knotless landing nets to be used - it is illegal to use gaffs or tailers

It is illegal to fish with prawns, shrimps or salmon roe throughout the catchment and throughout the year

Fishing for salmon and/or sea trout on a Sunday is prohibited

Spinning lures should have only one single set of hooks with a maximum sized 4 crimped or barbless

Anglers are reminded that it is illegal to sell rod-caught salmon or sea trout

Injured or damaged fish outwith the above limits must be handed to the proprietor

All farmed salmon and pink salmon (*Oncorhynchus gorboscha*) must be retained and notified to the RDevDSFB

All visiting anglers must read, act upon and sign a *Gyrodactylus salaris* declaration form immediately before fishing.
If disinfectant is required, please contact the DBIT or your beat Ghillie/Manager/Agent.





The Offices
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Avochie
Huntly
Aberdeenshire AB54 7YY
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email: **office@deveron.org**
www.deveron.org