



www.deveron.org



DEVERON
BOGIE
& ISLA

The River Deveron District
Salmon Fishery Board

The Deveron, Bogie
and Isla Rivers
Charitable Trust

Annual Report and Accounts 2021/22





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

Contents



DeveronBogiesla



@DBIRCT



river_deveron

FRONT COVER:
Bridge of Alvah
by Marcus Walters
Inside cover: Huntly Fishings

05 Supporters and Funding - Officials and Staff

06 Chairman's Report

10 Deveron Salmon

11 Deveron Sea Trout

12 Deveron District - 2021 Catches

13 Conservation Code and Statutory Regulations

14 Management Report

22 Angler's map of the River Deveron
and 2022/23 Priorities

24 Research and Monitoring

38 Education and Community Outreach



42 Good Governance

44 The Deveron, Bogie and Isla Rivers
Charitable Trust accounts

48 The River Deveron District
Salmon Fishery Board accounts

50 Deveron Angling Code for
Salmon and Trout 2022



Deveron Annual Report 2021/22





Home & dry
HANG THE BUG OUT TO DRY

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



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 2021/22.

The RDevDSFB and DBIT would like to thank the following:

Aberdeenshire Council
Bowlts Chartered Surveyors
Chivas Regal
DBIT members
Fisheries Management Scotland
Henderson's Country Sports
Heritage Lottery Fund
John Dewar & Sons
Longcliffe Quarries
Loop Tackle Design
Marine Scotland Science
NatureScot
The Atlantic Salmon Trust
Turriff 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 Gillies 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
 C. R. Marsden, M. C. R. Marsden, R. Copland

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

The Deveron, Bogie and Isla Rivers Charitable Trust

Honorary Life President Prof D. W. Mackay OBE

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	R. Baker
Clerk and Administrator	S. Roebuck, BA MICB
Field Assistant	C. Grant



















Chairman's Report

Andrew Allwood, Chairman of the RDevDSFB

The burning question in most of our minds is, why are there declining numbers of fish in our rivers? Or maybe the question should be why are they not returning to the river? There seem as many opinions as there are scales on a fish. Many of these thoughts will have truth and maybe a combination of a good few of them are part of the reason. Despite intensive research and effort the answer to the problem seems to be as elusive as ever. For a good many of us fishing is an integral part of our lives and to see so little evidence of fish in the river whether they are caught or not is agonising.

At least the covid restrictions are a thing of the past. Therefore it was surprising and worrying that last year's fishing effort produced fewer fish than during covid riddled 2020. In 2020, 1,483 salmon and 260 sea trout were caught compared to only 902 salmon and 280 sea trout in 2021. This significant level of decline is leading us to consider how much the river is in crisis and how as a Board we can tackle the problem. The water last year was abundant in the spring and then not enough in the summer, it was only with the approach of autumn that things really got going, so fishing conditions were not ideal, but when are they throughout the whole season?

We must not allow ourselves to sink into the Slough of Despond. The spring of 2021 saw 74% of all tagged smolts make it out to sea with a good height of water in the river, let us pray they thrive and return. The disastrous drought of 2018 allowed less than 10% of tagged smolts to make it through the Banff bay.

'The water last year was abundant in the spring and then there was not enough in the summer - it was only with the approach of autumn that things really got going.'

Over the year much work has been done on the river, the plan to restore the habitat on the main tributaries has begun and we are very grateful to many proprietors and landowners in their willingness to play a part.

Along with the Atlantic Salmon Trust and Marine Scotland Science we have installed very sophisticated equipment to monitor the numbers of fish going out to sea and intriguingly the ability to detect those fish if they return from their long journey. We are very grateful for the scientific and financial support of these two bodies as well as the many volunteers and donors for belief in the River Deveron catchment to give us a better insight into what is going on.

We are as ever very grateful for all the work done by the Trust team in catching up from the postponed work of the previous year and getting on with the routine of controlling invasive species, predators and poachers. Karen Müller is completing her SIS1 contract and we are hoping this contract will be renewed. It has been so beneficial to the river system. Karen has worked selflessly along with many volunteers to keep controlling invasive species. A heartfelt thanks to her and all the unsung heroes for the work done.

The next batch of our unique River Deveron Gin is in the making, please can you support us by buying some bottles? A new label has been created by our local artist Bryan Angus depicting another scene on the river. As the proof is 41% it's bound to be a hit! Any hesitation as to the quality can be dispelled if you can join us at our auction dinner, 16th September in Banff, you would be most welcome and have



The Deveron at Rothiemay

a chance to sample and meet friends. Where else can you taste gin made with botanicals picked from the very place depicted on the label? All the proceeds go towards the Trust to support their hard work.

My fellow colleagues on the Board are united in our priority to continue to try to put more fish into the river in a natural way and also persuade the government to allow us to control predators more effectively. Now at last we have the opportunity with new instrumentation to measure this effort in a scientific manner both for fish leaving and also on the return. Let us hope the data will start to show an upturn soon.

We should not forget the thrill of seeing a fish rise and the countless unique experiences we all have when on the river. They are the vital sense of memories which make life worthwhile. We must preserve these opportunities for those who follow.



Banff Bridge

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 dropping again in 2021.

Catch and release records began in 1994 and the practice has increased from 22% of salmon returned in 1994 to 94% returned in 2021. 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 but some COVID-19 travel restrictions were still in place, so effort was again reduced.

The River Deveron Summer (June-Aug) and Autumn (Sep-Oct) Rod & Line catches showed a very different trend (Figure 3), steadily increasing until the late 2000s but then fell away steeply to a record low in 2018 before improving in 2019 & 2020 and then dropping again in 2021.

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.**

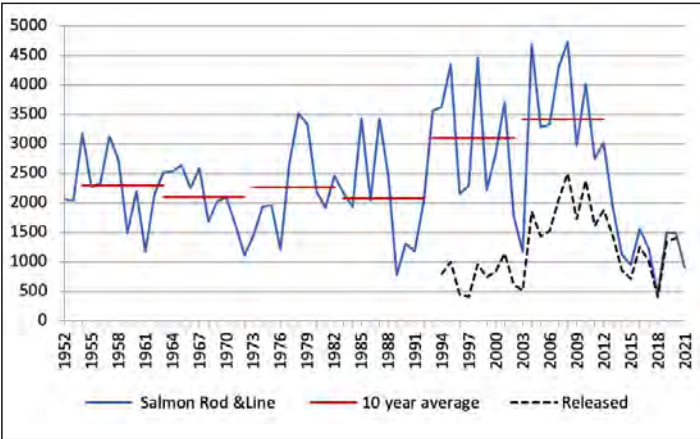


Figure 1

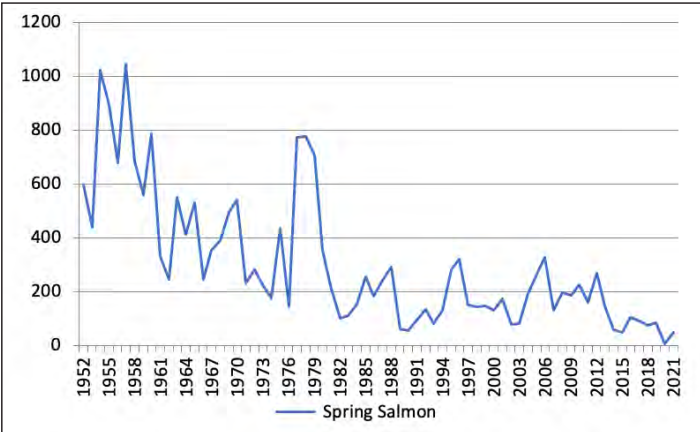


Figure 2

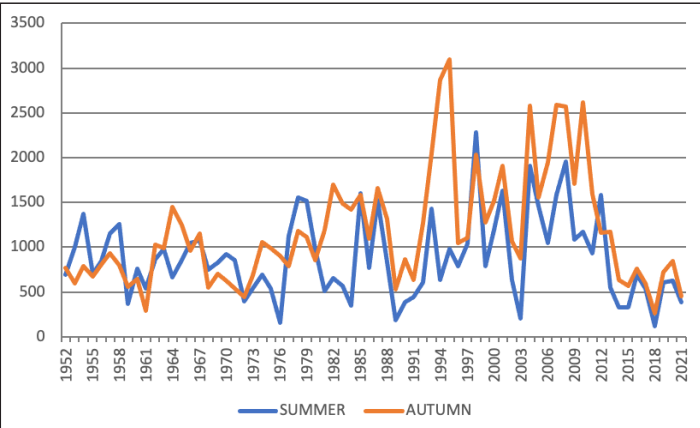
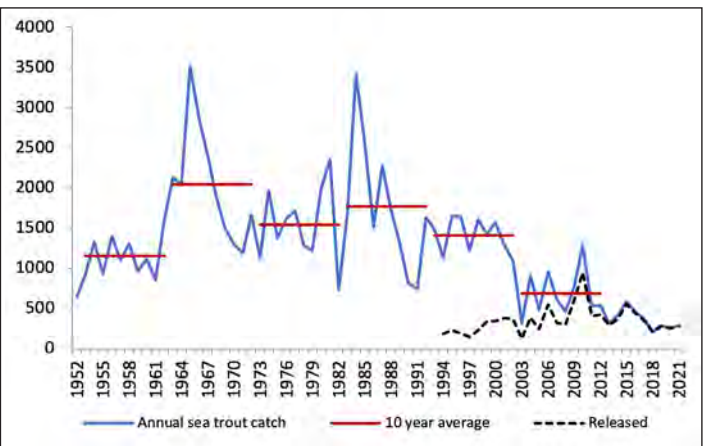


Figure 3

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 2013-2021 to 372. 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 97% of the total sea trout catch in 2021. 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.



Deveron District - 2021 Catches

Rod and line

The 2021 salmon and grilse rod catch of 902 was significantly lower than the 1483 caught in 2020 despite most COVID-19 restrictions being eased and angling effort returning close to pre-covid levels. The total catch was well below the long-term average of 2384 salmon per annum (1952-2020). Of the 902 salmon and grilse caught, 94% were returned. Spring salmon catches were still very low with only 47 spring salmon caught compared to 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 280 sea trout but is well below the long-term average (1952-2020) of 1298, of which 97% were returned.

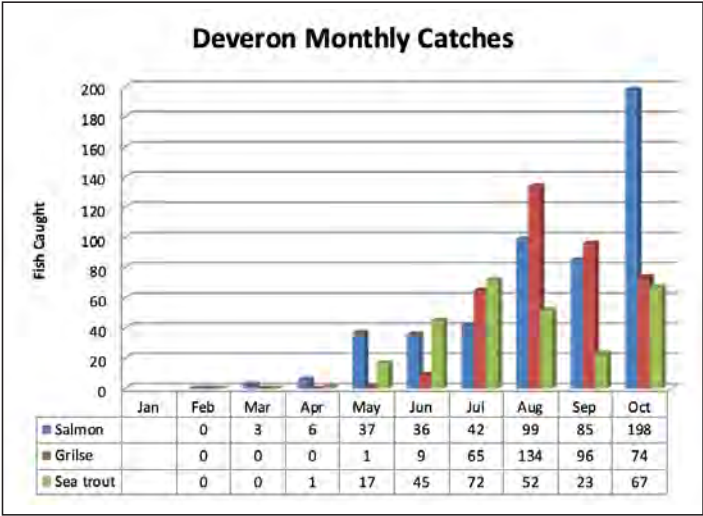


Figure 5: Rod & Line Monthly Catches 2021



Salmon caught at Upper Netherdale

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 came into force on 9th January 2015 and 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 during 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 2022 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 & 2021. 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 2022 season.

River Deveron: Grade 2



Summary Table

Eggs required (m ²) ^a	Area (m ²) ^a	Total egg requirement ^a	Percentage chance meeting requirement						Grade
			2016	2017	2018	2019	2020	Overall	
2.98	3,474,900	10,355,355	87.37	83.97	44.89	77.18	82.37	75.16	2

^a Figures presented are median values

Category	Probability of Meeting CL	Advice
1	At least 80%	Exploitation is sustainable therefore no additional management action is currently required. This recognises the effectiveness of existing non-statutory local management interventions.
2	60-80%	Management action is necessary to reduce exploitation: catch and release should be promoted strongly in the first instance. The need for mandatory catch and release will be reviewed annually.
3	Less than 60%	Exploitation is unsustainable therefore management actions required to reduce exploitation for 1 year i.e. mandatory catch and release (all methods).

Source: Marine Scotland

Management Report

Moray Firth Seal Management Plan

The Moray Firth Seal Management Plan (MFSMP) continued in 2020/21.

Since 2013, the Spey Fishery Board (SFB) has coordinated the Plan's licence application. A 12-month licence was successfully granted for 2020/21. The licence again permitted the shooting of 18 Grey seals and 0 Common seals within the plans geographic area between 1st Feb 2020 and the 31st of January 2021. Nominated and qualified marksmen carried out the licence conditions on behalf of the plan's partners.

There has recently been a significant review of the Seal Licensing process by Scottish Government. The Moray Firth Seal Licence and Management plan is no longer in operation. The DBIT submitted (on behalf of the RDevDSFB) a new licence application for the Deveron on the 15/02/22 which was rejected by Marine Scotland - Licensing Operations Team. The Trust submitted an appeal on 11th of July 2022 and are currently awaiting a final decision.

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 2021 the RDevDSFB Water Bailiffs continued to carry out patrols and work closely with Police Scotland as part of Operation Wingspan. During the evening of the 5th of July, in a joint operation with Police Scotland, four males were stopped and searched, and their fishing gear confiscated after being previously observed fishing illegally on the Wrack beat. The four males were later charged by Police Scotland and a report sent to the procurator fiscal. Three males were also charged with fishing illegally on the Banff and Macduff AA on the evening of 8th of July. The Spey DSFB patrol boat conducted a coastal patrol of the RDevDSFB coastal area during July. No illegal nets were found.

Pink Salmon

A Pink salmon (*O. gorbuscha*) was captured on the lower river Deveron on 7th of July and humanely dispatched.

The Alaskan pink salmon fishery catch was up by 21% compared to 2019. This is relevant in the context of the increased numbers of pink salmon reported in Scotland. During 2021, Pink salmon were recorded all down the East coast of Scotland and even in the Western Isles. More than 60 000 invasive Pink salmon were caught by harpoon, trap, and netting and removed in Norwegian rivers in 2021. Largest numbers were recorded in the north, but catches logged along the entire coastline.



Pink Salmon caught on the Deveron

Pollution Incidents

There were two pollution incidents investigated within the catchment during 2021.

- Our team and a SEPA Officer attended a report of fuel in the Deveron mainstem at Eden. This was subsequently traced back to a farmer's mobile diesel bowser on small burn / lade that joins the river at Scatterty. SEPA issued a warning and suggested immediate remedial



- measures to be undertaken.
- While undertaking the King Edward Burn habitat walkover survey, sewage fungus was observed for a considerable length of the Craigston burn. The owner of a pipe which was the source of the pollution was contacted and has confirmed a failed filtration system. A remedial solution was put in place and the system replaced.

Working with Rivers Training Placement Scheme

We welcomed Russ Baker to our Team in March 2022. Russ joined as a Field Officer for 3 months under the Working with Rivers Training Placement Scheme. The placement scheme offered Russ the opportunity to work with and support our existing team across a range of activities, providing development of skills in river and catchment management.

Working with Rivers was delivered by NatureScot, with National Transition Training Fund support from Skills Development Scotland

Lower Tributaries Project - King Edward

Trex Ecology completed a habitat walkover survey of the King Edward during spring 2021 and produced an excellent detailed report on the issues facing this tributary and highlighted some potential restorative actions. A summary of the key pressures and potential solutions is briefly summarised below:

- Intensive agriculture has exacerbated the historic channel modifications on the Burn of King Edward sub catchment.
- This has led to increases in stream power, vertical incision, and loss of wetted channel area and habitats.
- It has also caused extensive fine sediment impacts on lower, potentially more productive habitats.
- There are numerous potential options available which could enhance fish productivity within the system, and these options can be designed in such a way as to also improve better available habitats within the system.
- Many of these options can be aligned with desired improvements for land management and regulatory objectives, resulting in multiple benefits for stakeholders.

Priority sections for restoration has now been identified from field visits. Planned work includes the removal of or modification of a large weir near Mill of Eden situated in the lower end of the tributary. We are now in the process of obtaining landowner support/permissions and costings for work to proceed. This information will then be used to apply for project funding.

Fish Eating Birds

The RDevDSFB continue to monitor the number of fish-eating birds on the river Deveron by conducting a walked count from Huntly to Banff using the DBIT staff, ghillies and beat owners. The count helps us to 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, from October 2020 the count was conducted monthly to improve our understanding of predator numbers and their potential impact throughout the entire year and not just during the smolt run. The graph below shows the number of Goosanders and Cormorants counted each month from October 2020 to December 2021. The average counts from the previous March and April counts (2010-2019) are shown by the triangles for both Goosander and Cormorant.

The monthly Goosander counts have illustrated that they are present on the river all year round with

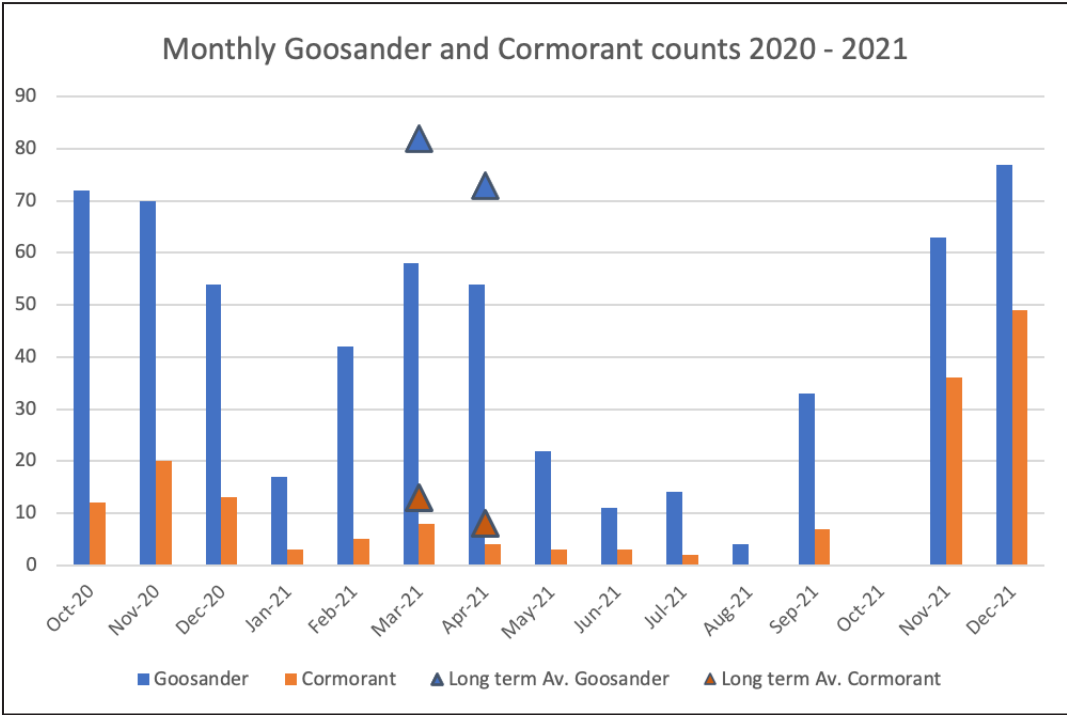


Figure 6: Monthly counts of Goosander and Cormorant between Huntly and Banff 2020-21 as compared to historical average counts for March and April (2010-2020).

the highest numbers present during the autumn and winter months (October - December) and then an increase in March and April coinciding with 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 was an unprecedented number of Cormorants seen as far upstream as Huntly during November and December 2021. 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 2021 in March and April are still below the long-term average numbers of Cormorants and Goosanders counted during 2010-2020.

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 DBIT 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 DBIT. 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 DBIT 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 Glenkeith 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

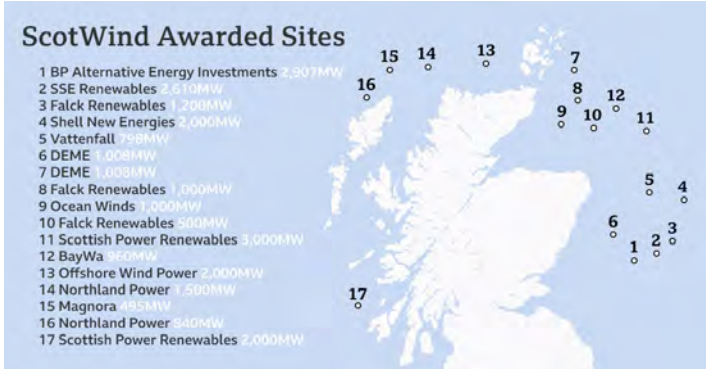
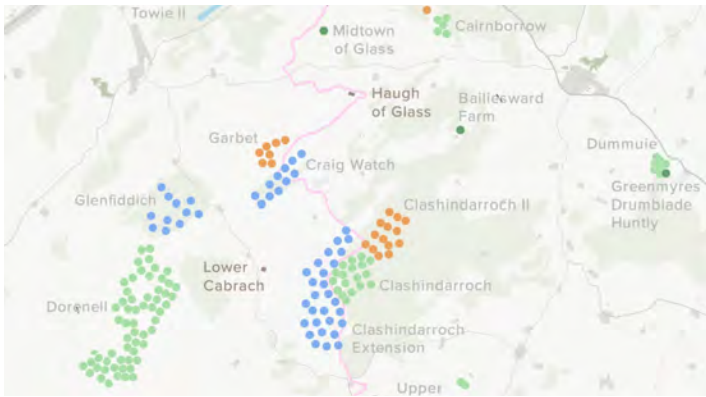
Keith as poor. Chivas have now been issued with a letter by SEPA informing them that they have a legal requirement to install fish passage on the Glen Keith weir by 2024, in order to demonstrate the ecological improvement to achieve Good Status for fish ecology and fish barrier assessment by 2027.

Chivas have commissioned 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 2022. 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 final works. Build cost is projected between £80-150k.

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 status.

- **Aultmore** - Vatenfall - 16 turbines - 96MW - Originally consented in 2013 this project is currently undergoing a redesign to allow for new larger turbines. Currently in scoping stage.
- **Clashindarroch 2** - Vatenfall - 14 turbines - 77MW - Has gone to Public Enquiry with a decision due soon.
- **Clashindarroch Extension** - Clashindarroch Windfarm Extension Ltd - 28 turbines - 168MW - Currently undergoing scoping
- **Craig Watch** - Statkraft - 11 turbines - 72.6MW . Currently undergoing preplanning before being submitted to Scottish Government.
- **Garbet Hill** - Energiekontor - 7 turbines 46.2MW - Referred to Scottish Government.



There is also an increasingly rapid expansion of offshore windfarms at sea. The BOWL site is fully operational in the Moray Firth with the Moray East project having also begun operation and the Moray West site consented with construction yet to begin.

- **BOWL** - 84 turbines - fully operational
- **Moray East** - 100 turbines - begun production
- **Moray West** - 85 turbines - consented- construction not begun

Following the ScotWind Leasing Auction in January 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.

Source: Crown Estate Scotland

www.bbc.co.uk/news/uk-scotland-scotland-business-60002110





Marnoch Lodge

Invasive Non-Native Species & Biosecurity Programme

The Scottish Invasive Species Initiative (SISI) project started in March 2018, funded by the Heritage Lottery Fund and NatureScot. The project has completed its fourth year and has received confirmation of extension to end of March 2023.

Project Officer Karen Müller and Seasonal Project Officer Russell Baker 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. All in all, land managers and volunteers spent 532.5 hours controlling giant hogweed.

An outdoor, in-person educational visit to Banff Primary School, as well as several virtual talks and webinars were held - often reaching a much wider audience than previously.



Hogweed control continues

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 third year. We are continuously monitoring our progress and adjusting the grazing pressure, in partnership with the University of Aberdeen, and the interim results are promising. Over the next few years, we hope to see a big change in the volume of hogweed - we will be publishing a best practice guidance document for land managers and holding open days on site in 2022, sharing our findings and recommendations with anyone who would like to consider using sheep grazing to control giant hogweed.

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 2021, with COVID-19 restrictions easing, we managed to head out with volunteers to clear our priority areas of balsam again. Land managers and volunteers spent a total of 55 hours clearing Himalayan balsam from the riverbank.

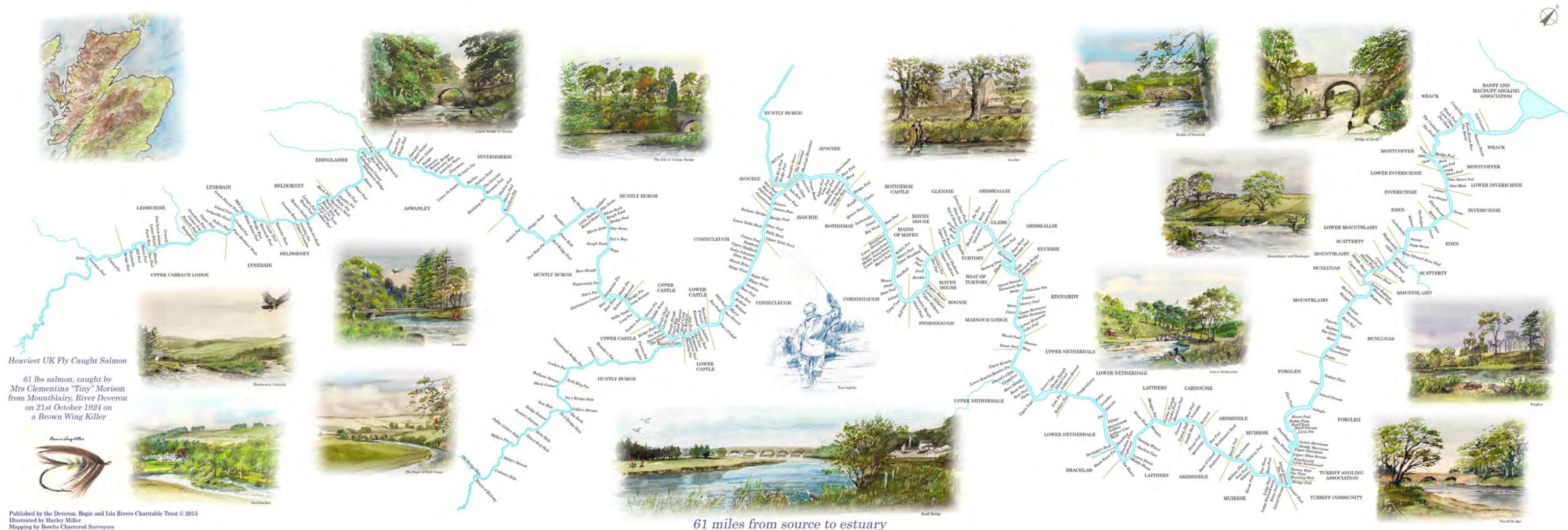
Japanese knotweed control was once again completed in 2021 and previously infested areas showed much improvement from 2018 when the SISI project began. Land managers and volunteers only having to spend 7 hours controlling Japanese knotweed in 2021.

American Mink monitoring and trapping efforts have continued and increased, with 10 mink caught over the last year. Over the past three 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 2022 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 - get in touch if you are interested.

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

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



2022/23 PRIORITIES

- Launch Project Deveron - a new collaboration with the Atlantic Salmon Trust and Marine Scotland Science (Scottish Government). The project includes the installation of a new ARIS Sonar (fish counter) and 3 new pit tag arrays (detectors).
- Continue to collaborate with the Atlantic Salmon Trust (AST) on the The Missing Salmon Project (Tag 100 salmon smolts).
- Continue Smolt Shepherding Programme to maximise number of smolts successfully entering the sea.
- Improve Fish Passage - Glenkeith Weir (Isla) and Mill of King Edward Weir (King Edward)
- Continue Invasive Non-Native species control through the Scottish Invasive Species Initiative (SISI) Project.
- Sundown on the Deveron - 16th Sep 2022 (Fundraiser).



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

Water quality and diffuse pollution - *Extract from SEPA update*

DBIT representatives now meet with the SEPA Rural Land Unit on a regular basis to discuss ongoing water issue concerns in the Deveron. This is a good opportunity to share information and discuss concerns and maintain good lines of communication.

SEPA continues to recover from the Cyber-attack of Christmas 2021 and progress is being made in receiving some key data, but also moving forward with new data sets and methods of working.

SEPA is committed via the RBMP to deliver the Diffuse Pollution Priority Catchment work, which still involves visiting farmers and land-managers throughout a river catchment and assessing for compliance and encouraging beyond compliance activities.

SEPA Officers in the Deveron and Bogie catchments have been working with representatives from SAC to use their experiences in the catchment to produce new and updated guidance which is aimed to guide farmers and land managers to reach compliance. New guidance and links to regulatory document can be found at the Farming and Water Scotland website. (www.farmingandwaterscotland.org).

Additional resource has also been developed with the Farm Advisory Service (FAS) and an excellent reference tool has been produced and published Pesticide Management | Helping farmers in Scotland | Farm Advisory Service (fas.scot)

To assist with the delivery of the Priority Catchment work, SEPA routinely monitors the rivers in the Deveron catchment to assess ecological condition. As part of a review of the catchment data, on the back of the release and analysis of the James Hutton Institute monitoring we commissioned, SEPA science concluded that, “the macroinvertebrate monitoring carried out in fifteen rivers within the catchment indicated only one river downgraded to moderate status and there is no evidence that this is due to toxic chemicals”. The low-level chemical detections, be they still concerning, reported by the James Hutton Institute shows no evidence to suggest that these are affecting the ecology in the Deveron. However, despite this, officers on the ground will be adding additional questions to their inspection to cover issues relating to the use of “spot-on” products for the control of parasites on sheep and investigate the use and disposal of liquid in footbaths and other ancillary chemical use. As ever, any pollution incidents will be followed up and investigated. The comments and concerns raised by the DBIT will assist in the development of SEPAs national monitoring program to improve our understanding of risk from chemicals.

James Hutton Institute (JHI) water monitoring report (extract)

by Zulin Zhang, Marc Stutter, July 2021

What was done and why?

In response to concerns about possible trace organic chemicals in the river Deveron a small investigative program was developed for, and with, the Deveron Bogie and Isla Rivers Charitable Trust. This started with a one-off sample and expanded to a spatial coverage of three, then latterly nine sites. Water samples were collected from the River Deveron from 2018 to 2020 for the organic micropollutants analysis with pesticide findings being the subject of this short report. Samples were collected by Deveron Fisheries staff and transferred for analysis to JHI at Aberdeen. Pesticide



The Deveron at Glennie

concentrations were determined following solvent extraction from a bulk water sample then analysed by mass spectrometry using established methods (see full report). The results for water samples were reported in terms of their concentrations in the original water samples (e.g. ng/l).

Overall summary and recommendations

In summary, the results of this work showed the detection of 9 pesticides in the River Deveron of Scotland. Overall, the individual or total concentrations of monitored pesticide are within EU permitted concentration values. However, environmental risk assessments against published data on predicted no effect concentrations found medium to high risk to aquatic organisms posed by three chemicals (cypermethrin, chlorpyrifos and permethrin), which suggested the potential threat by these chemicals in the catchment. One set of high concentration data especially for cypermethrin (Oct-18 during high flow, ubiquitously across three sites) led to concern, discussion with the regulator SEPA and an expansion of the sampling sites. However, such high values did not occur again in the wider samples on several subsequent dates of sampling. However, the monitoring data for this work is limited (see report) and caution is needed when making inference about long-term trends in pesticide concentrations.

This limited study focusing only on concentrations in river water found high variation in time for some pesticide concentrations in the River Deveron. This may be expected considering the complex source-transport-receptor processes for pesticides and mechanisms by which currently and historically used chemicals exchange are stored and remobilized in and between environmental compartments (soils, sediments, waters), mediated by storms and other triggers. It would require a more comprehensive investigation of soils, sediments and waters with specific spatial usage information to better understand the mechanisms (e.g. sources, trend and ecological risk) for the environmental occurrence of these chemicals in the catchment.

The invertebrate fauna of the River Deveron

Analysis of data over a 38-year period

by Craig Macadam (Buglife)

Craig Macadam from Buglife was commissioned by the RDevDSFB to review historical invertebrate data from the Deveron catchment. The data for the Deveron study was sourced from the SEPA database. There were 451 spring sampling events from 30 sites covering the period from 1981 to 2018. The study used this data to look at trends and potential pressures on invertebrates. The analysis used shows trends over time for different locations and compares different sites across the catchment. This gives a broad overview of conditions across the catchment. The study has been able to make a few preliminary comments (summary below) but we will continue to work with Mr Macadam on a more full report to help us assess these pressures and their potential impacts. Where deemed necessary the Trust will follow up with our own new invertebrate surveys.

Summary

This study has analysed the results of invertebrate sampling at sites in the Deveron, Isla and Bogie catchments. The data was sourced from the Scottish Environment Protection Agency (SEPA) and covers a 38-year period between 1981 and 2018. It is not complete however, with no sites having samples for each of the 38 years, and some sites having only a single sample in this time period. A number of biotic indices were calculated from the data which describe the water quality and conditions across the Deveron, Bogie and Isla catchments:

- Organic enrichment is indicated in the Arkland Burn, Monquhitter, Burn, Shiel Burn, Cowie Burn and Paithnick Burn.
- There is some evidence of lower flows influencing the composition of the invertebrate population in the Arkland Burn, Braco Burn, Cowie Burn, Paithnick Burn, Keithny Burn and the Deveron at Cabrach. Linked to this, sedimentation of the riverbed is indicated in the Arkland Burn, Cowie Burn and Paithnick Burn.
- The Aultmore Burn, Black Water and Rosy Burn all have scores suggesting potential acidification of the watercourses. The trends for the River Bogie upstream of Gartly and Monquhitter Burn suggest ongoing increases in acidification in these watercourses.

The SPEAR score was used to investigate potential pesticide contamination. The results from the river Bogie are generally lower than those of the Deveron and Isla. Of the smaller tributaries the Arkland Burn, Burn of King Edward, and Cowie Burn all have decreasing SPEAR scores possibly indicating ongoing pesticide pollution in these watercourses.

Project Deveron

Project Deveron is a joint project between the DBIT, The Atlantic Salmon Trust and Marine Scotland Science with the ambitious aim of making the Deveron a fully 'Instrumented' indicator river. This groundbreaking project will see significant investment in equipment with the aim of monitoring smolts leaving the river and the subsequent counting of returning adults. This will not only provide a full annual river count but also an estimate of marine survival. The project got underway in September when the capital funding was secured by Marine Scotland Science for an ARIS (acoustic counter) and a PIT tag array setup to a value of £210,000. Marine Scotland will retain ownership of the equipment and AST will provide financial support to assist with the operation.

The ARIS counter will be installed in 2022, initially at a trial site in the lower river before tests are completed and the infrastructure built to install the equipment for the long term. This will provide a full river count for Atlantic Salmon and Sea Trout entering the river Deveron and will be invaluable in monitoring our stocks, catch rates and informing management measures. Alongside the new counter a series of BIOMARK pit tag arrays are to be installed in the Allt Deveron and at Avochie Estate in 2022. These arrays will detect any fish tagged with a PIT tag and will 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 for smolt tagging; the tags are passive so they do not have a battery which means they will work forever; they are much smaller so can be inserted with minimal stress to the fish and they are far cheaper so many more fish can be tagged. Up to 2000 salmon parr will be tagged each Autumn from the Allt Deveron and Blackwater and their progress downstream will then be logged on the Cabrach and Avochie arrays before they head to sea each spring. If and when they return 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.



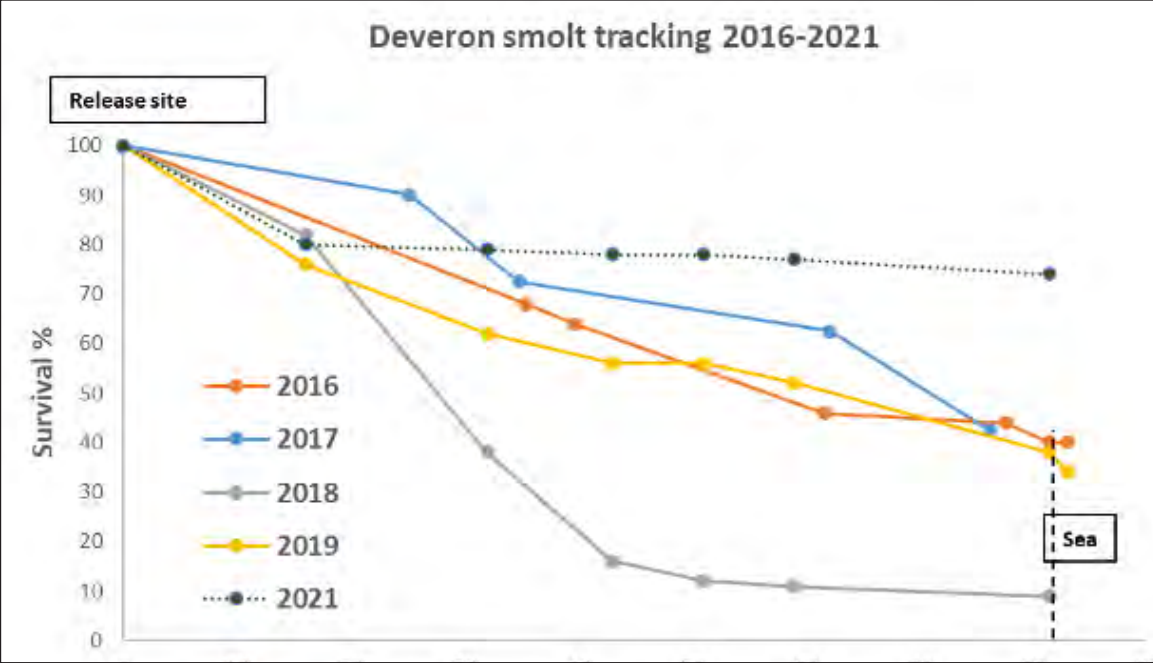
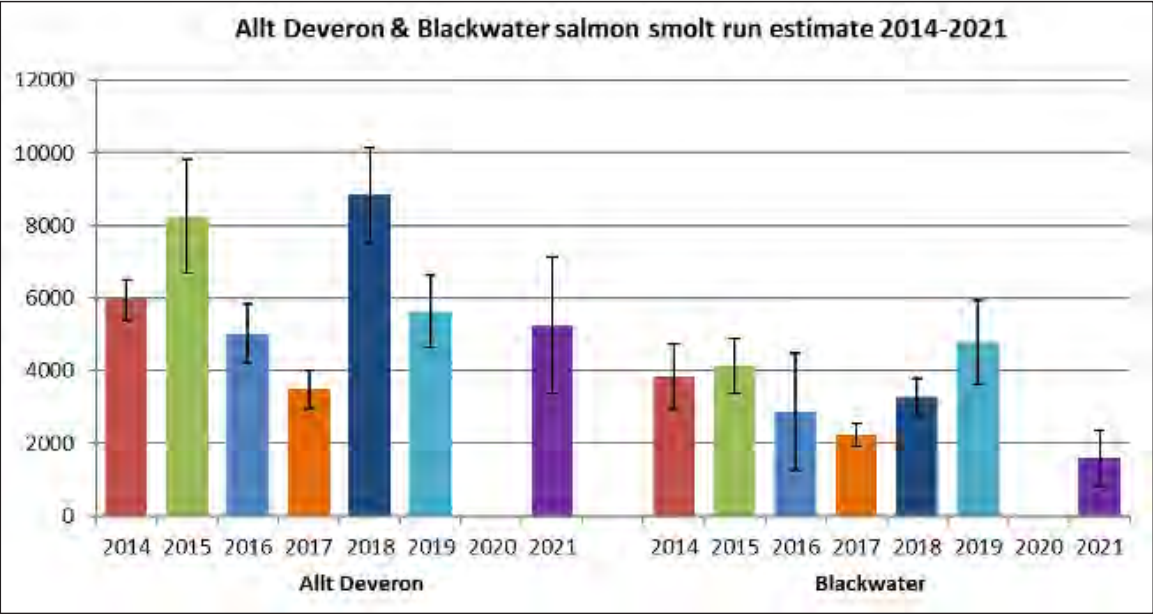
Karen Müller and Marcus
Waters Smolt Tagging

Smolt Monitoring

In March 2021 two Rotary Screw Traps (RSTs) were deployed again on the Allt Deveron and the Blackwater for the final year of EDF Dorenell Windfarm Monitoring Contract (deferred from 2020) and to catch smolts for tagging as part of the Missing Salmon Project.

Smolt run estimates

The estimated smolt run for the Alt Deveron was 5219 (+/- 1856) which is very much in line with previous years (2014-2019) although the confidence limits are quite wide due to low numbers of marked recaptures. The Blackwater estimate was very low at 1389 smolts which is likely to be due to



poor spawning success in 2018, which resulted in low fry numbers observed during electrofishing in 2019 and very low parr numbers seen in 2020 electrofishing. However, the reduced competition did mean the smolts from the Blackwater were larger and as a result a significant proportion of smolts were tagged from the Blackwater trap. There is good evidence that larger smolts have better marine survival and higher chance of returning as adults.

The Moray Firth Smolt Tracking Project

In 2021 our own team conducted the tagging of 100 salmon smolts from the Allt Deveron and Blackwater traps. Of the 100 tagged salmon smolts from the Blackwater and Allt Deveron, 74% were recorded passing the receivers situated a short distance upstream of Banff bridge and were assumed to have made it safely to sea. This is significantly higher than any of the previous smolt tagging years (2016 = 40%; 2017 = 42.5%; 2018 = 9%; 2019 = 38%) and is likely due to the consistent high water from the end of April into May that will have helped smolts on their way downstream and to evade predators.



Top: Salmon smolt and Parr
Left: Smolt trapping

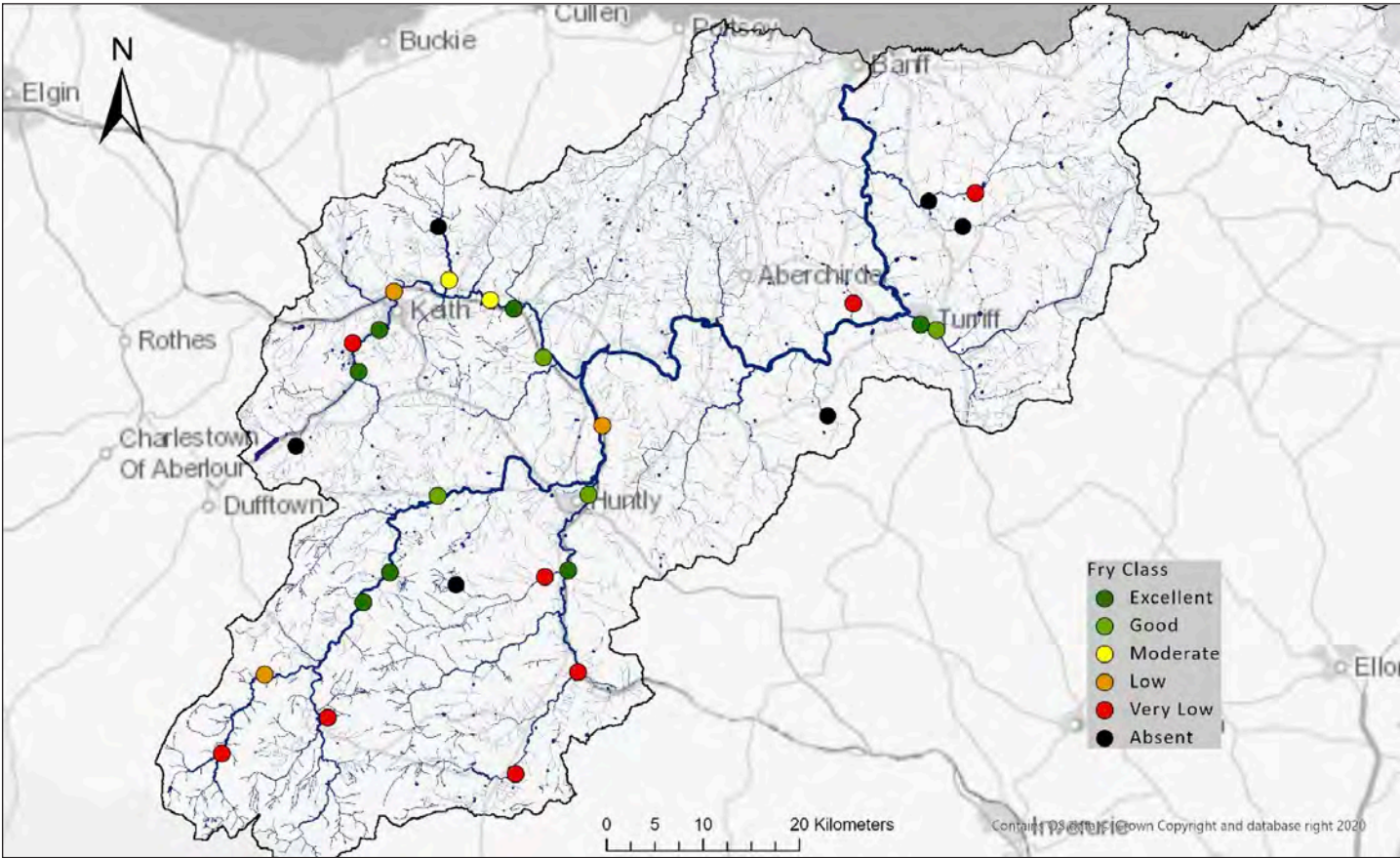


Electrofishing Surveys - 2021

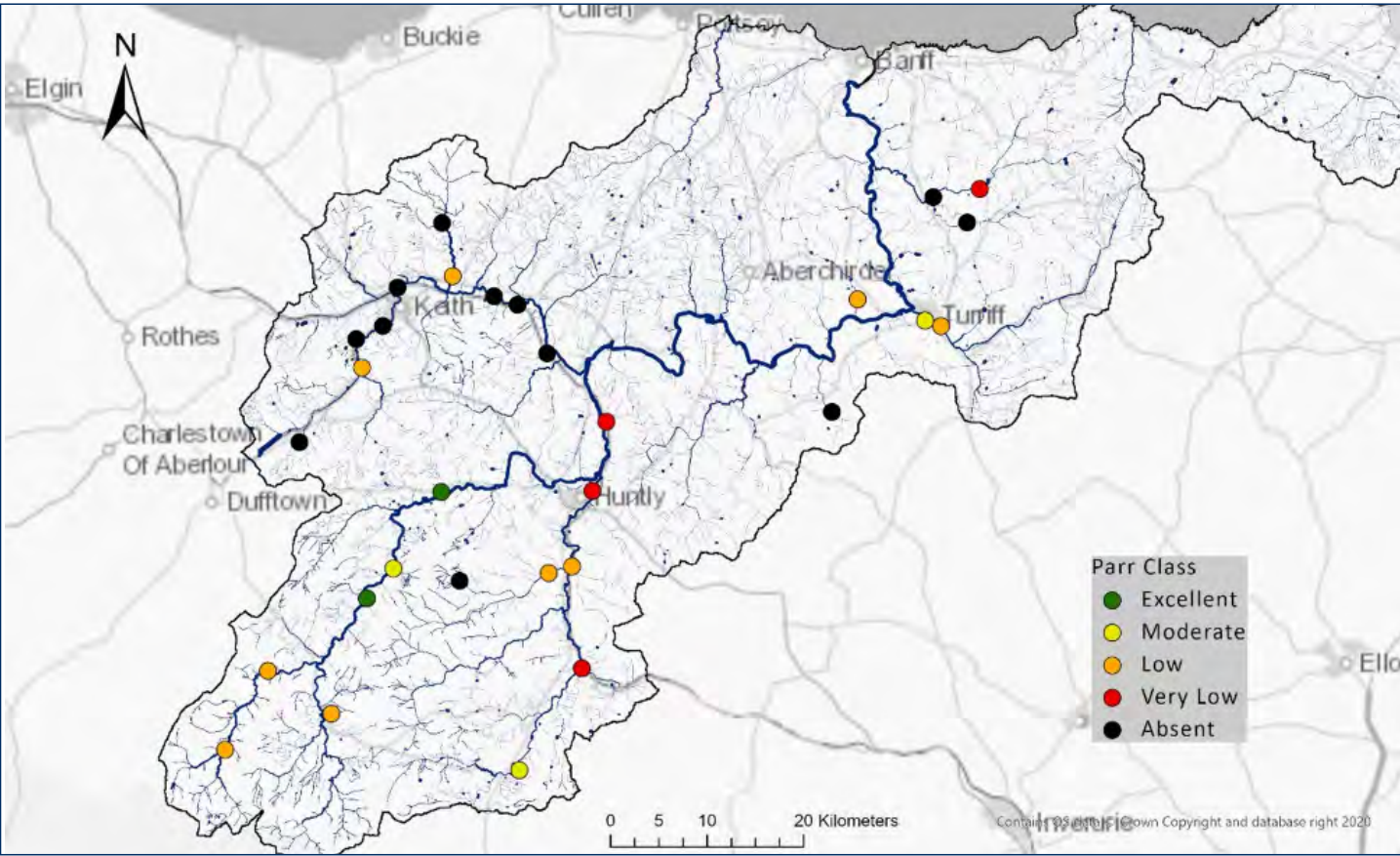
Thirty quantitative electrofishing sites were conducted in August for the National Electrofishing Program for Scotland (NEPS) funded by the Scottish Government. There was an encouraging distribution of salmon across the catchment with salmon present at 24 of the thirty sites. However, further analysis revealed that although the fry numbers were generally quite encouraging the parr numbers were not so good. Marine Scotland Science (MSS) have not yet completed their analysis of the results which will assess densities against a modelled baseline. In the absence of the MSS assessment, we analysed the results using the SFCC classification scheme that classifies fry and parr densities according to a five-point scale. Using the SFCC scale the salmon fry results were classified as follows: 7 sites excellent, 4 sites good, 2 moderate, 3 low, 8 very low and 6 absent. The salmon parr densities were generally lower than would be expected and can be summarised as follows: two sites were excellent, 3 moderate, 9 low, 4 very low and 12 absent. (See graphs opposite.) Improved fry numbers reflect the better run of salmon seen in 2020 and the resulting good recruitment. Many of these sites were in very small burns and less than optimal habitat for salmon parr but none the less, parr numbers were lower than expected.

Electrofishing is also used for routine fisheries management in the catchment to protect Deveron fish populations. This includes surveys for to inform and respond to Environmental Impact Assessments for commercial developments that may have an impact on the freshwater environment and fish populations. DBIT also routinely conducts fish rescues to remove fish from sections of river that need to be dried out to allow in river works. In September 2021, a 50m section of the Mill of Syde (Bogie) needed to be dried out to allow essential railway bridge footing repair by the contractor Amco Giffen. Despite it only being a small burn, this work is vital as over 150 fish were removed, including: salmon fry and parr, adult trout and juveniles as well as eels and stickleback. It always surprises us how productive these small burns and ditches can be!

Top: Mill of Syde fish rescue
Inset: Marcus Walters data recording



Deveron Electrofishing Salmon Fry Classification 2021



Deveron Electrofishing Salmon Parr Classification 2021

Atlantic Salmon ‘eyes and ears’ feasibility study final report

Prepared by Anna M. Sturrock (University of Essex)
for the Atlantic Salmon Trust
on 24th February 2022.

Background

Atlantic salmon are an iconic, high profile fish that are experiencing unprecedented declines. Elevated mortality during early marine residence appears to be the primary cause for the decline, but the extent to which different early life history decisions or sublethal stressors experienced during freshwater rearing influences marine survival (‘carryover effects’) is poorly understood [1]. For example, shifts in emigration timing related to climate and freshwater habitat change could result in smolts being mismatched with peak prey production in the ocean and/or physiological stress caused by reduced water quality, habitat loss, and/or warmer river conditions could have significant impacts on survival at future life stages [1].

Currently there are large knowledge gaps regarding the habitat use, growth and survival of fry and parr life stages given that they are too small to tag. However, all animals are already equipped with their own intrinsic ‘sensors’ that record a wealth of information about the environment as they grow. By analyzing natural chemical tracers and growth increments in tissues that grow continuously over the fish’s life (akin to tree rings), it is possible to gain unique insights into the lifetime health, diet, movement and habitat needs of individual fish. The main tissues used for such reconstructions in teleost fish include scales, ear stones (otoliths) and – more recently – eye lenses [2, 3]. While scales have important advantages (e.g. they can be sampled non-lethally and there are existing long-term archives), otoliths and eye lenses should provide higher spatial and temporal resolution for reconstructing individual movement, growth and diet histories. These markers may also improve our ability to track “Index Populations” [4] and to use changes in trait distribution among sampling points to reveal patterns in selective mortality.

Objectives

The primary objectives of this pilot study were to :

- 1. Set up a kelt head sampling programme in Scotland, Ireland (Burrishole) and England (Frome).
- 2. Devise a standard operating procedure for head dissections and sample archiving.
- 3. Generate pilot eye lens isotope data to assess whether lens chemistry could provide useful information to support conservation and management (e.g. natal assignment, habitat use and migration phenology).
- 4. Use this pilot to help seed larger funding bids and plan future sampling strategies.

Approach

The utility of using eye lenses to reconstruct individual diet histories and habitat use was explored by measuring isotope ratios $\delta^{13}C$, $\delta^{15}N$ and $\delta^{34}S$ in individual eye lens layers from Atlantic salmon kelts. The isotopic measurements in the layers deposited immediately after yolk sac absorbance were isolated and compared among populations to explore whether these tracers could be used as provenance markers (alone or in combination with genetic markers). Comparisons between wild and farmed salmon natal values were also conducted to assess whether this approach could be used to identify escapees and ensure that growth and trophic reconstructions are performed on wild fish only.



Results

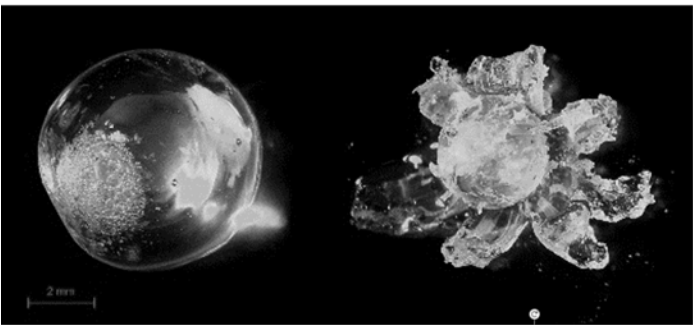
1. Sampling In collaboration with the Atlantic Salmon Trust, we requested the heads from kelts (i.e. the ‘ultimate survivors’) to be sampled in autumn/winter 2020. Thanks to the efforts of a lot of people, 168 adult heads were sampled in 2020, from MOWI salmon farms, the River Deveron, Spey, Conon, Ness, Okyl, Carron, Shin in Scotland, the River Frome in England, and Burrishoole River in Ireland (Fig. 1).

2. Archiving protocol. To maximize opportunities for multi-purposing these samples, from every head the following samples were archived in a -20°C freezer:

- 2 x muscle plugs from neck (1 earmarked for radioisotope work at CEFAS, 2nd for archiving).
- Both eyes.
- 1 skin/scale sample.
- Eggs if available.
- Pectoral fin clip if available

Also the following samples have been archived dry:

- Scales - earmarked for growth analyses at (Nora Hanson at Marine Scotland).
- Sagittal otoliths - earmarked for metabolic rate analyses (Trueman), growth rate reconstructions (Sturrock), ocean temperature + foraging area reconstructions (Hanson), freshwater duration and within-FW movement patterns (Sturrock).



3. Initial data and images. Eye lenses from three kelts were extracted, delaminated (‘peeled’ - Fig. 2) from three sources: (1) MOWI salmon farm, (2) River Frome, (3) River Deveron. This was the first time that lenses of *Salmo salar* have been dissected or analyzed so we focused on individuals that were presumed to have different habitat and diet histories. Carbon, nitrogen and sulphur isotope ratios ($\delta^{13}C$, $\delta^{15}N$ and $\delta^{34}S$) were measured in each sequential layer at the University of Southampton. To achieve sufficient mass in the innermost layers that were created earliest in the fish’s life, layers had to be combined across eyes.

The main take home from this analysis is that the temporal resolution of ontogenetic isotopic records obtained from lenses is far greater than those achievable using scales, particularly during the early life stages, with 22-24 layers peeled from each eye from the two wild fish. Based on equivalent analyses performed on Pacific salmon [2], each layer likely equates to roughly 2-4 weeks of the fish’s life during early life stages, and ~3-6 month resolution after smoltification. Future efforts will be made to link eye diameter to fish size [3] and age. While only three fish, some general patterns were noted that are labeled on Figure 3 as A-C and described overleaf.



Figure 1.
2020 Kelt sampling sites

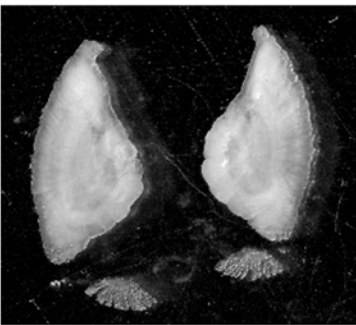
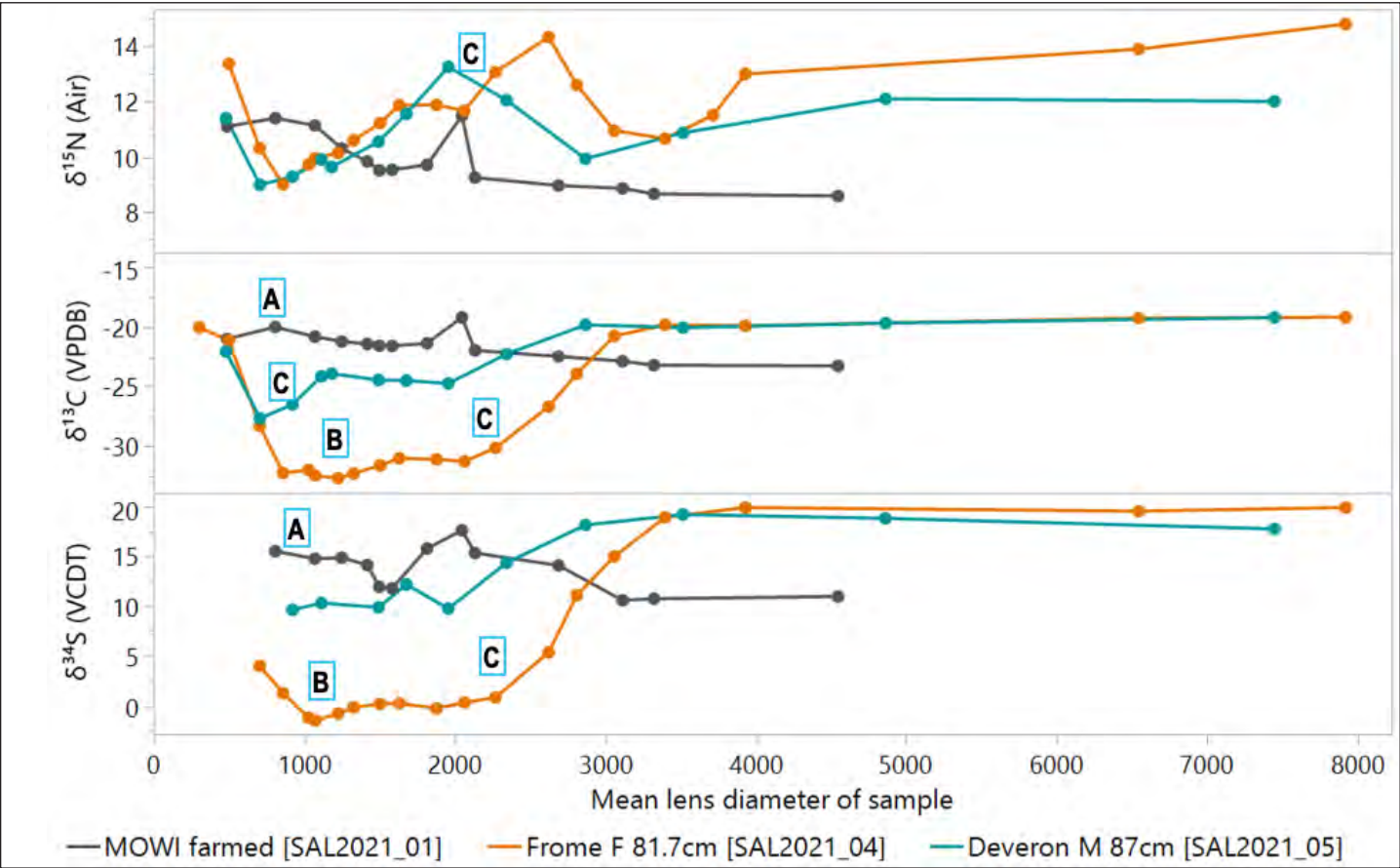


Figure 2. Salmon eye lens before & during delamination (left) and otolith pairs (right)



A. Farmed vs. wild. As hypothesized (based on the fact that hatchery feed typically includes marine-derived fish meal) the lens $\delta^{13}\text{C}$ and $\delta^{34}\text{S}$ values were higher in the farmed fish than the wild fish immediately after emergence (at a lens diameter of ~1000um; Fig. 3). This should allow us to identify and exclude any farmed escapees in future analyses, which is important when linking life history traits to conditions experienced in the natal stream.

B. Among-river differences in diet. While only one individual from each river, $\delta^{13}\text{C}$ and $\delta^{34}\text{S}$ values were clearly lower in the Frome than the Deveron (Fig. 3), reflecting differences in the chemosynthetic community and the base of the riverine food web. These data could inform us about dietary shifts among years, and population-specific patterns could potentially augment genetic-based natal assignments for fish sampled at sea.

C. Individual movements. The increases in $\delta^{13}\text{C}$ and $\delta^{34}\text{S}$ observed in both wild fish at a lens diameter of 2000-3000um show movement through increasing salinities on their way to the ocean. Interestingly, the slight increase in $\delta^{13}\text{C}$ in the Deveron fish at ~800um suggests that this individual moved from the spawning grounds to a different freshwater rearing site (and/or underwent a sharp diet shift) soon after emergence. Finally, the peaks and troughs in $\delta^{15}\text{N}$ observed in both wild fish during their emigration to and through the estuary suggest changes in water chemistry and/or shifts in diet (trophic level) during this important developmental stage.

The future

a) Set the stage for bigger project

In order to use these analyses to understand the mechanisms underpinning carryover effects from freshwater into the sea, it is important to replicate sampling through time, as the juvenile strategies that perform well in one year may perform poorly in another. This pilot study and the ongoing support of the AST and various river biologists played a critical role towards the PI securing a £1.7 million

Figure 3. Atlantic salmon eye lens $\delta^{15}\text{N}$, $\delta^{13}\text{C}$ and $\delta^{34}\text{S}$ values measured in sequential layers (indicated by increasing lens diameter) for three adult salmon: (1) a farmed fish from MOWI (grey), (2) an 82cm female from the River Frome (orange) and (3) an 87cm male from the River Deveron (green). Letters in boxes (A-C) are discussed in the main text above.



funding bid for a UKRI Future Leader Fellowship (2022-2029). This fellowship will fund the remaining 2020 sample analyses as well as future analyses.

b) Establishment of a network

Looking ahead it is important to establish a network for ongoing kelt collections. In 2021, the AST coordinated samples to be collected on the same rivers as 2020, but also the River Tweed and River Tyne. Once the isotopic analyses for 2020-21 samples have been completed, the data will be used to inform a more strategic sampling strategy (e.g. identifying key partners and index rivers).

c) Alternative sampling opportunities

A potential issue associated with the kelt sampling used in this project is that the location of the spawner could bias the results towards particular life history strategies. Ideally the entire watershed would be sampled for kelts in a systematic way, but this is often logistically impossible. Thus in the future, efforts will be made to explore options for less selective sampling designs (e.g. from nearshore fisheries and/or the Greenland fishery).

References

1. Russell, I.C., et al., *The influence of the freshwater environment and the biological characteristics of Atlantic salmon smolts on their subsequent marine survival*. ICES Journal of Marine Science, 2012. 69(9): p. 1563-73.
2. Bell-Tilcock, M., et al., *Advancing diet reconstruction in fish eye lenses*. Methods in Ecology and Evolution, 2021. 12(3): p. 449-457.
3. Quaeck-Davies, K., et al., *Teleost and elasmobranch eye lenses as a target for life-history stable isotope analyses*. PeerJ, 2018. 6: p. e4883-e4883.
4. Gilbey, J., et al. (2021). *The early marine distribution of Atlantic salmon in the North-east Atlantic: A genetically informed stock-specific synthesis*. Fish and Fisheries, 22, 1274- 1306.

National adult salmon sampling programme - 2021

Background

Last season the DBIT, along with local volunteers participated 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 the majority 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. 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 321 adult salmon were sampled during July-September 2021 across 18 different rivers including 25 salmon from the Deveron which are shown in Table 1 opposite



Table 1. Deveron Data from National Adult Salmon Sampling Programme

Date	Beat	Length (cm)	Weight (kg)	Sex	Freshwater Age	Sea Age	Weight (lbs)
27/07/2021	Inverichnie	58	2	Male	2	1	4
27/07/2021	Inverichnie	56.5	1.8	Female	2	1	4
28/07/2021	Inverichnie	57	1.7	Male	2	1	4
30/07/2021	Inverichnie	52	1.5	Female	2	1	3
30/07/2021	Inverichnie	52.5	1.5	Female			3
31/07/2021	Boat of Turtory	72	4.3	Male	2	2	9
31/07/2021	Boat of Turtory	76	5.2	Female	2	2	11
02/08/2021	Boat of Turtory	57	1.8	Male	2	1	4
09/08/2021	Boat of Turtory	54	1.71	Male	2	1	4
14/08/2021	Inverichnie	62	2.8	Male	2	1	6
14/08/2021	Inverichnie	64	2.9	Male	2	1	6
30/08/2021	Inverichnie	59	1.9	Male	2	1	4
03/09/2021	Inverichnie	52	1.4	Male	2	1	3
04/08/2021	Wrack	55	1.6	Female	3	1	4
17/08/2021	Wrack	57	2.5	Female	2	1	6
20/08/2021	Wrack	75	4.5	Unknown	2	1	10
24/08/2021	Inverichnie	81	5.6	Female	2	2	12
14/09/2021	Avochie	73	4.1	Female	2	2	9
16/07/2021	Netherdale	57.2	2.2	Male	2	1	5
20/07/2021	Forglen	63.5	2.3	Male	2	1	5
02/08/2021	Forglen	55.9	2.3	Male	2	1	5
03/08/2021	Forglen	61	1.9	Female	2	1	4
24/08/2021	Forglen	68.6	3.2	Female	2	2	7
15/09/2021	Forglen	56	1.9	Female	2	2	4
18/05/2021	Invericnie	76	4.5	Male	1	2	10

Salmon caught
at Inverichnie

Education and Community Outreach

Newsletters and Social Media

Two editions of the Deveron Flyer were produced during 2021/22 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 2,338 (March 2022) followers
- Facebook: 902 (Oct 2018) to 2,423 (March 2022) followers
- Twitter: 934 (Oct 2018) to 1,328 (March 2022) followers



The McConnell Major Contribution Award - Mr Robert Shields DL

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 Robert Shields as the 2021 winner and the trophy was duly presented by James Cruickshank (Trust Chairman) at the river opening ceremony. Mr Shields was the founding Chairman of the Trust in 2001 and has been integral to its success.

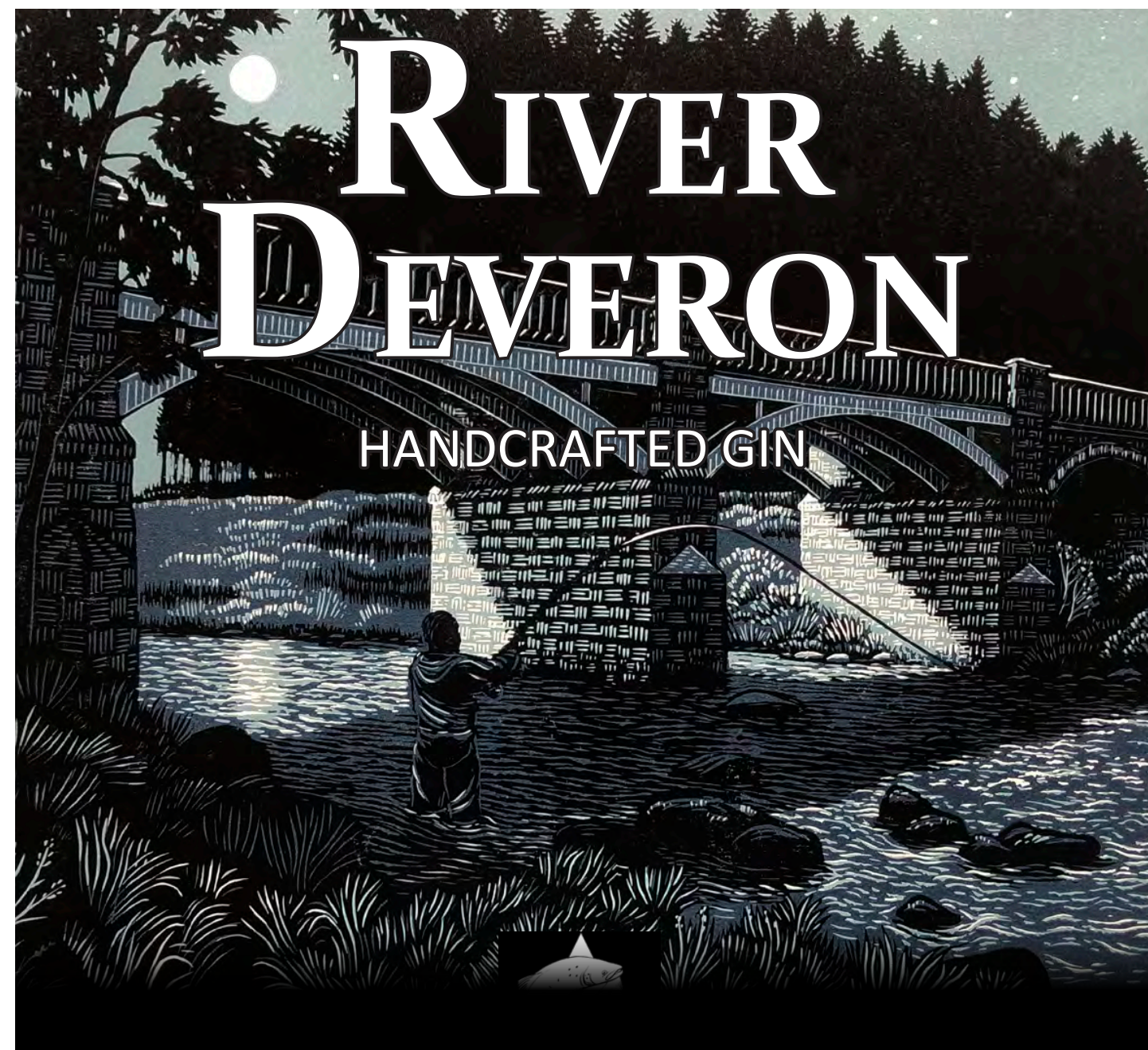
Season Opening and the Morison Trophy

Mr Andrew Allwood (RDevDSFB Chairman) officially opened the 2021 salmon season on the 11th Feb at Muireisk Fishing's. The opening of the salmon season was recorded and posted to all Trust social media channels. Due to Covid-19 restrictions we were unable to hold the usual larger ceremony at Turriff Angling Association. On the 5th of June 2021, the Morison trophy winner for 2020, Mr Michael McDonald was presented with the trophy by Andrew Allwood and a rod kindly donated by Henderson's Country Sports by Frank Henderson. Mr McDonald caught the winning Salmon at Forglen and was the 10th winner of the Morison Trophy. The Salmon was caught on the fly and witnessed at Forglen. The salmon was accurately measured at 112cm (44.09 inches) long with 62cm (24.4 inches) girth and was estimated at 35lbs by using length to weight formulae.





Salmon caught at the Wrack



RIVER DEVERON

HANDCRAFTED GIN



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

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.

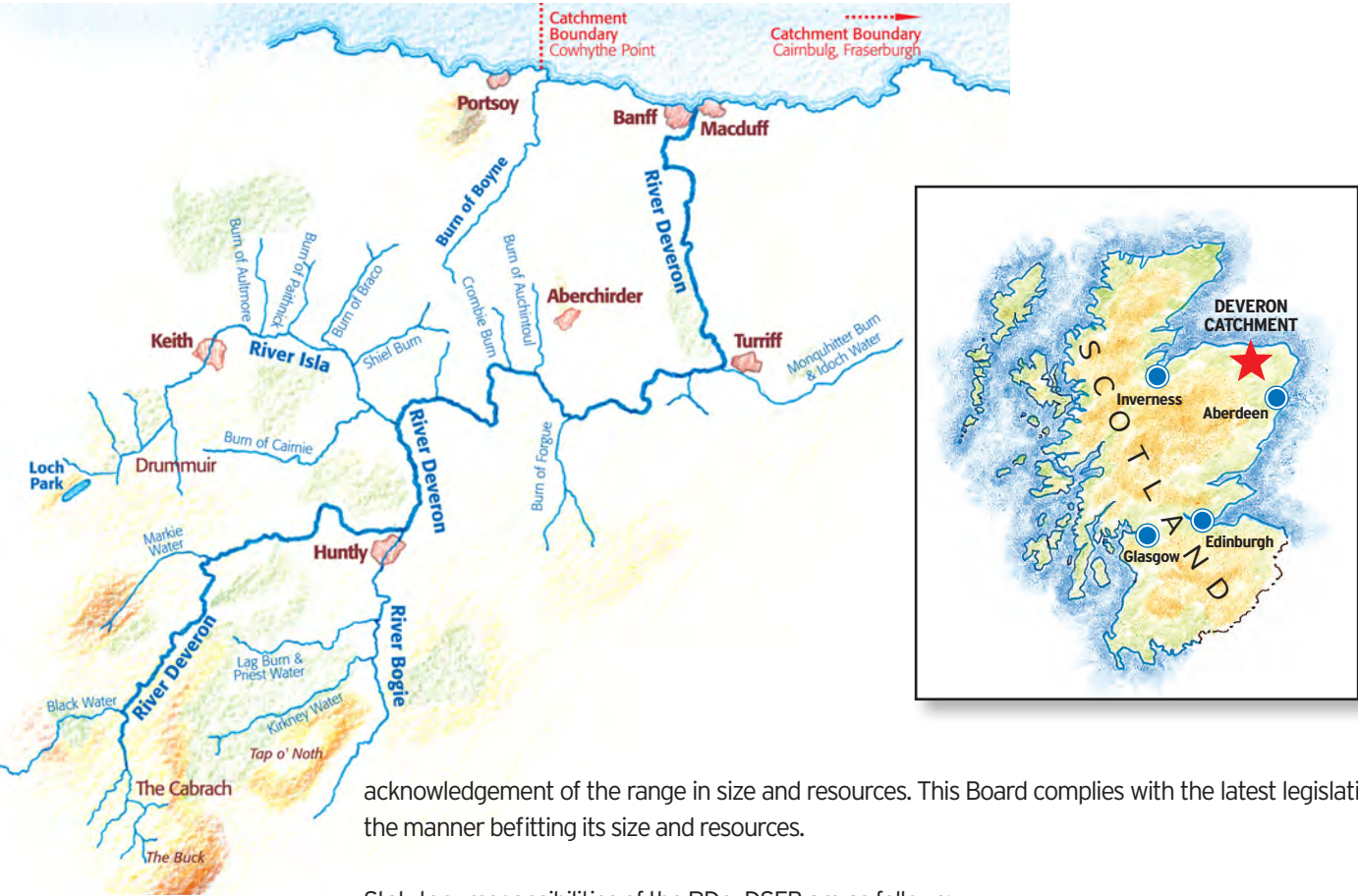
Meetings

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 2022 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 2022

STATEMENT OF FINANCIAL ACTIVITIES

	Unrestricted funds	Restricted funds	31.3.22 Total funds	31.3.21 Total funds
	£	£	£	£
INCOME FROM:				
Donations and legacies	83,681	46,125	129,806	100,487
Charitable activities	56,916	-	56,916	58,463
Other trading activities	9,487	-	9,487	10,788
Investments	-	-	-	3,462
Other income	-	-	-	-
Total income	150,084	46,125	196,209	173,200
EXPENDITURE ON:				
Raising funds	8,551	-	8,551	11,068
Charitable activities	145,061	46,125	191,186	172,212
Other	770	-	770	715
Total resources expanded	154,382	46,125	200,507	183,995
Net Income/(outgoing) resources	(4,298)	-	(4,298)	(10,795)
Other recognised gains and losses				
Revaluation of tangible fixed assets	-	14,846	14,846	15,669
Net movement in funds	(4,298)	14,648	10,548	4,874
Fund balances at 1st April 2021	167,384	140,242	307,626	302,752
TOTAL FUNDS CARRIED FORWARD	163,086	155,088	318,174	307,626

BALANCE SHEET

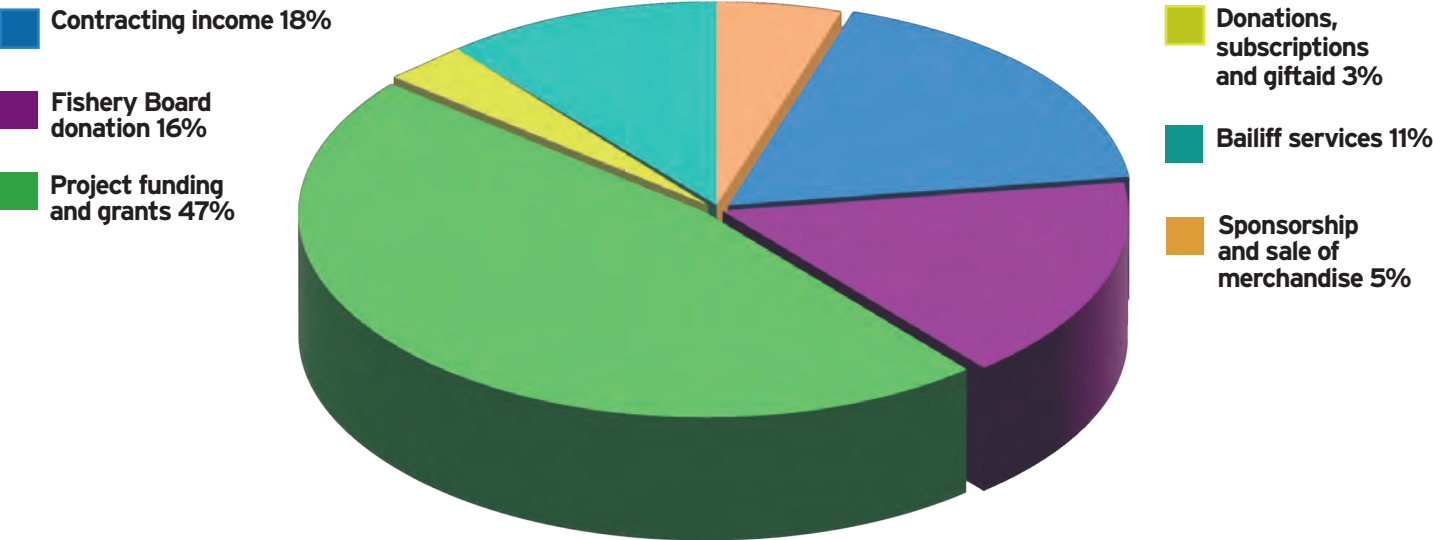
	31.3.22		31.3.21	
	£	£	£	£
FIXED ASSETS				
Property, plant and equipment		28,430		35,707
Investments		155,088		140,242
		183,518		175,949
CURRENT ASSETS				
Trade and other receivables	15,509		11,970	
Cash at bank	127,258		128,797	
	142,767		140,767	
Current liabilities	(8,111)		(9,090)	
		134,656		131,677
TOTAL ASSETS LESS CURRENT LIABILITIES		318,174		307,626
Income funds				
Restricted funds		155,088		140,242
Unrestricted funds				
Designated funds	15,752		21,603	
	147,334		145,781	
		163,086		167,384
TOTAL FUNDS		318,174		307,626

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.

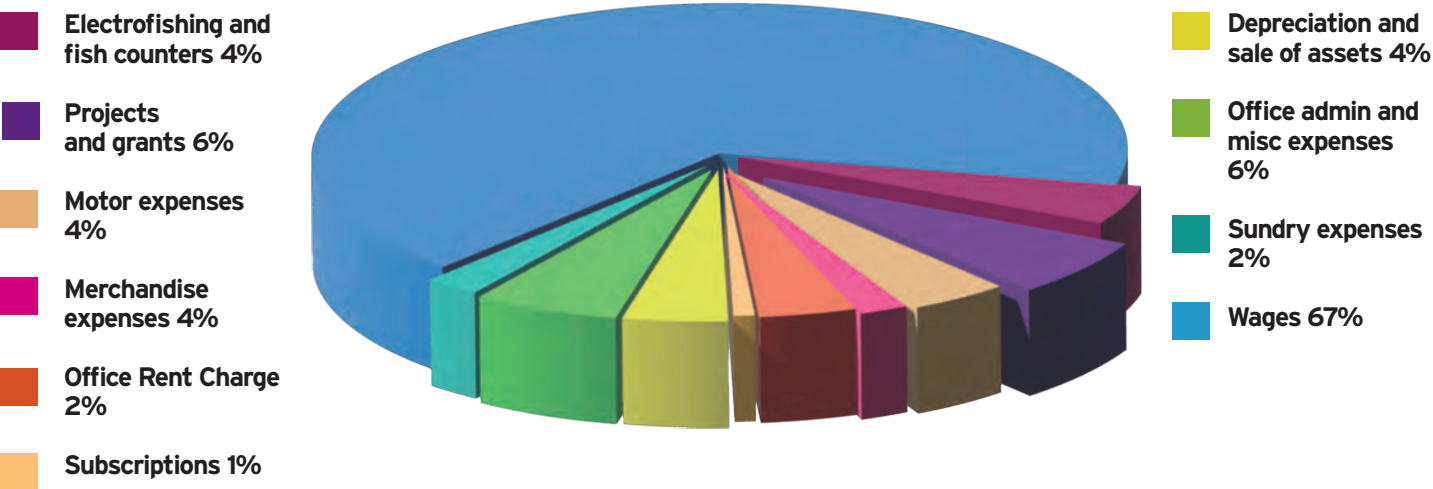
The Deveron, Bogie and Isla Rivers Charitable Trust accounts

Year ended 31st March 2022

Income April 2021 - March 2022



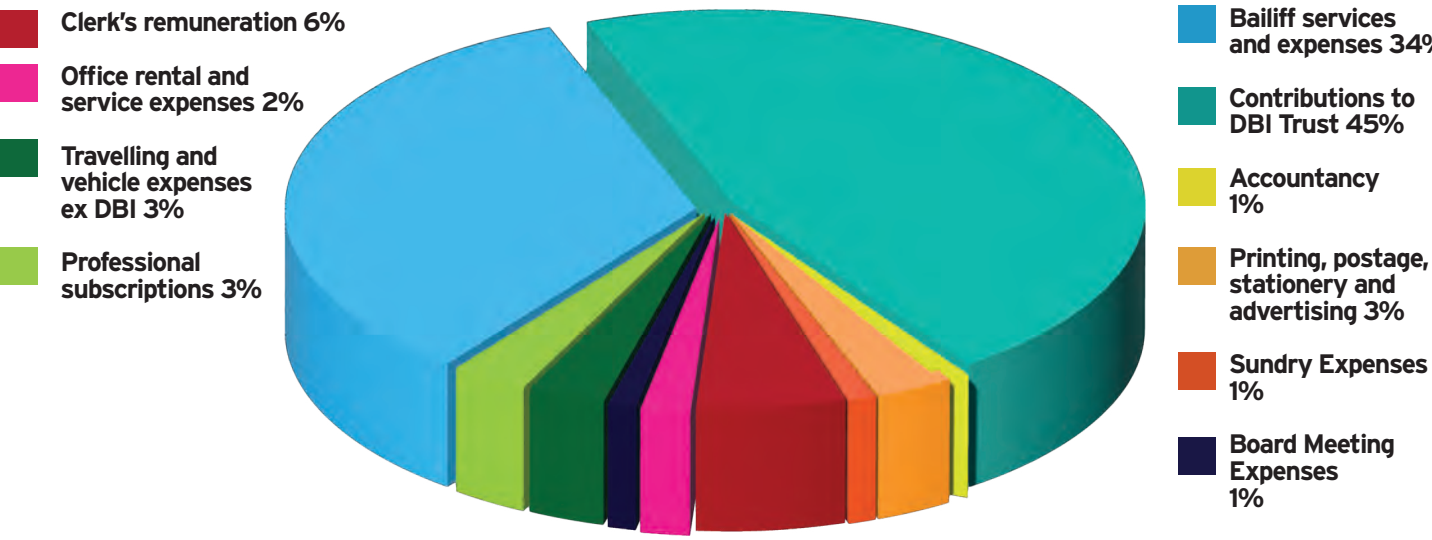
Expenditure April 2021 - March 2022



The River Deveron District Salmon Fishery Board accounts

Year ended 31st March 2022

Expenditure April 2021 - March 2022



The River Deveron District Salmon Fishery Board accounts

Year ended 31 March 2022

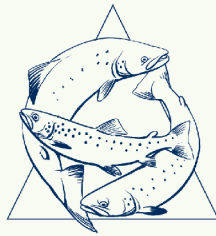
INCOME & EXPENDITURE

	2022	2021
INCOME		
Assessment Income (42p in £)	71,704	71,711
	<u>71,704</u>	<u>71,711</u>
EXPENDITURE		
Clerk's Remuneration	3,900	4,070
Office rental and service expenses	1,105	1,105
Board meeting expenses	580	-
Travelling and vehicle expenses ex DBI	2,198	2,529
Professional subscriptions	2296	2519
Bailiff services and expenses	23,066	22,725
Contribution to DBI Trust	31,500	31,500
Accountancy	716	658
Bad and Doubtful Debts	(1,175)	388
Postage, Printing, Stationery, Advertising and Telephones	2,352	1,975
Sundry expenses	971	3,187
	<u>67,509</u>	<u>70,656</u>
(DEFICIT)/SURPLUS ON GENERAL FUND	<u>4,195</u>	<u>1,055</u>

BALANCE SHEET

	2022	2021
	£	£
CURRENT ASSETS		
Cash and cash equivalents	41,076	38,241
	<u>41,076</u>	<u>38,241</u>
CURRENT LIABILITIES	<u>(760)</u>	<u>(2,120)</u>
NET CURRENT ASSETS	<u>40,316</u>	<u>36,121</u>
General Fund		
Balance brought forward	36,121	35,066
(Decrease)/Increase for the year	4,195	1,055
Total General Fund	<u>40,316</u>	<u>36,121</u>

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 2022

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
Avochie Stables
Avochie
Huntly
Aberdeenshire AB54 7YY
Tel: **01466 711 388**
email: **office@deveron.org**
www.deveron.org