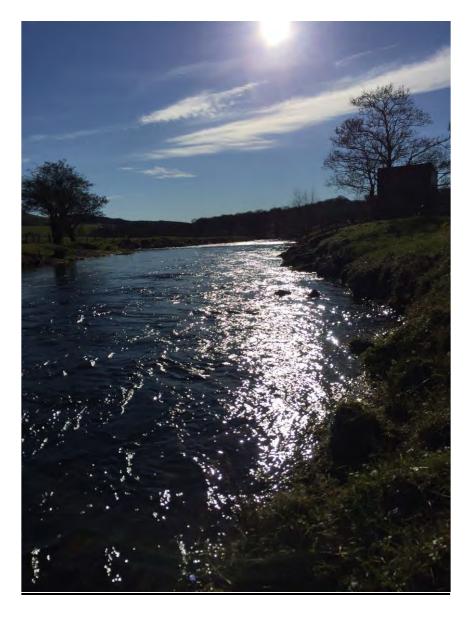


ANNUAL REPORT 2022



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1. River Doon District Salmon Fishery Board Members

Chair: Alan Macdonald Doonside Estate

Board Members: Mark Colman Smithston Fishing Club

David Cosh Doonfoot Fishings Lawrence Dalgleish Blackhill, Rozelle

Martin Donachy Woodlands
Carlos Van Heddegem Holms Fishing

Peter Kennerley Auchendrane House

Iain Campbell Smithston Fishing Club (resigned)

Peter Kennedy Doonholm House (retired)

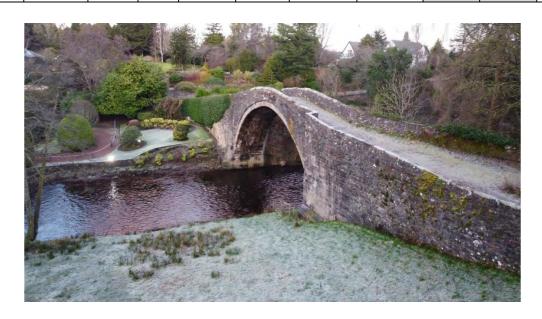
Co-opted Member: Stuart Dorward Salmon Anglers Representative

Associate: Stuart Brabbs Ayrshire Rivers Trust

Clerk: Iain K Clark Gilson Gray LLP, Glasgow

2. River Doon DSFB Members' Attendance

Date	Alan Macdonald	Mark Colman	David Cosh	Lawrence Dalgleish	Martin Donachy	Carlos Van Heddegem	Peter Kennerley	Peter Kennedy	lain Campbell	Stuart Dorward
31/03/22	✓	✓	✓	Apology	✓	✓	√			
28/04/22	✓	Apology	√	Apology	✓	Apology	√		Apology	
15/06/22	✓	Apology	✓	✓	✓	✓	✓			
06/12/22	√	✓	✓	✓	✓	√	✓			
16/02/23	✓	Apology	✓	✓	✓	✓	✓			
23/03/23	✓	✓	✓	✓	✓	✓	✓			✓



3. Report from the Chair

The Scottish Government's Wild Salmon Strategy launched last year includes a graph highlighting the reduction in the number of salmon returns to Scottish rivers between 1970 and 2020. I would encourage anybody with an interest in salmon to study this and indeed to read the whole of the Strategy. The graph is stark in its clarity, particularly when you consider all the measures taken over the same period in an effort to reverse this trend.

That salmon are in worrying decline is beyond doubt. Catch returns for 2022 season was 332, down from 498 salmon the previous year.

The River Doon continues to be a Category 2 river although the Board and Ayrshire Rivers Trust both have the view that the River Doon should be a Category 3 river. Notwithstanding the fact that Category 2 allows for killing of wild salmon, our returns have been extremely positive in terms of catch and release and I would urge all anglers to continue this trend.

Whilst the river continues to receive our daily compensation from Drax, there was little rain at the early summer period, which perhaps resulted in the lower numbers of salmon being caught.

The Board continues to work with Ayrshire Rivers Trust towards river improvements and two key projects under consideration are the Chapleton Burn restoration option and also the Doon Fencing initiatives, both of which will be fully discussed at the Annual Meeting of Qualified Proprietors and Annual Public Meeting.

We were again successful in obtaining a licence from Scottish National Heritage to shoot piscivorous birds that continue to be problematic on the river. My thanks to David Cosh for coordinating this and also to Carlos Van Heddegem and all the other volunteers who submitted their gun licences to me.

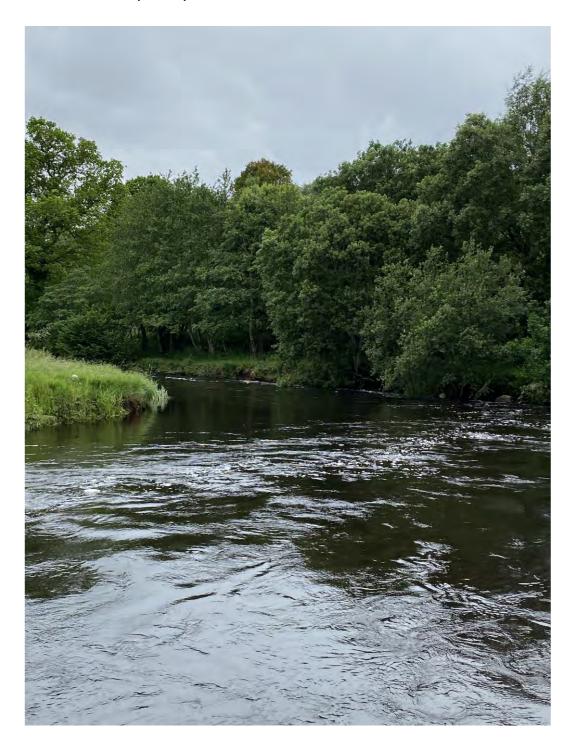
Over the past year we have had a positive impact from Alan Shannon, the River Watch Co-ordinator and also Alan McDowall, River Patrol Co-ordinator, who have both been working towards the reduction of poaching on the river and particularly at the back end of the season.

Board funds are a key issue. From 2010, with a river value assessment of £77,576 at a rate of 40 pence, contributed a figure of £31,030 to the Board. Compare this to 2022, with an assessment of £60,090 and a rate of 30 pence, this reflects in a maximum figure of £18,027 to the Board.

Ayrshire Valuation Joint Board have started work on the revaluation for each of the riparian owners' interests and it is the intention of the Board to liaise with them to ensure a fair outcome is achieved in respect of this valuation.

Can I conclude with a personal thanks to all our Members for their hard work and commitment. We have made some real progress over the last 12 months, but there remains much to be done.

Alan Macdonald, Chair, River Doon DSFB



4. Statutory Remit

The River Doon District Salmon Fishery Board was established under the 1862 and 1868 Salmon Fisheries legislation, as subsequently amended in the Salmon Act 1986 and the Salmon Conservation (Scotland) Act 2001. This legislation was later amalgamated under the Salmon and Freshwater Fisheries (Consolidation) (Scotland) Act 2003 ("the 2003 Act"), which has subsequently been amended by the Aquaculture and Fisheries (Scotland) Acts 2007 and 2013.

The River Doon District Salmon Fishery Board is empowered under Part 3 of the 2003 Act to manage the protection, enhancement and conservation of the Atlantic salmon and sea trout stocks in the River Doon. It also has a duty to ensure the general protection and improvement of the fisheries within their district.

(a) Aims of The Board

- Provide fishery protection.
- Police the purchase and sale of illegally caught and unseasonable fish.
- Ensure fish passage over obstructions to migrations.
- Protect juvenile fish and spawning redds.
- Reverse the trend in the decline of adult Atlantic salmon by implementing policies that safeguard and enhance the natural spawning stock.
- Conduct habitat, population and migration assessments to guide management strategies.
- Encourage good conservation policies to stop over exploitation of salmon.
- Conserve and establish sustainable fisheries for the River Doon.
- Extend fishery awareness.

(b) The Catchment Area

The head waters of the River Doon are the burns and streams feeding Loch Doon from the north edge of the Galloway Forest Park. The river is just over 63 kilometres long (including the Loch) and flows north-west, close to the town of Dalmellington, through the villages of Patna and Dalrymple before entering the Firth of Clyde just south of Ayr.

The loch has been dammed to supply and store water for the Galloway Hydroelectric power. There is a net loss of water to the system although there is a compensation flow agreement which maintains water quality and flow levels throughout the year.

The river has a catchment area of 324 square kilometres. The main land uses are rough grassland, improved grassland and woodland, the majority of which consists of conifer plantations. The only significant industry is open cast coal mining in the vicinity of Dalmellington.

The geology of the Doon catchment varies from the granite headwater hills to the limestone coal measures in the middle reaches. Water chemistry

mirrors the geology ranging from low productivity and intermittent acidic conditions in the upper tributaries to the highly productive, alkaline tributaries downstream of Dalmellington.

(c) Key Features

- The source of the Doon is Loch Enoch, high up in the Galloway Hills at an altitude of 500m.
- Loch Doon supports the only native population of Arctic Charr in the south west of Scotland. This population is considered to be under threat due to issues such as acidification, climate change and the introduction of alien species. Sentinel populations of Doon charr have been established in two other lochs in the south of Scotland to provide a pool of genetic material as insurance for the loss of the Doon population.
- The River Doon itself starts at the outlet of Loch Doon. The compensation flow of 45 million gallons/day was agreed as part of the Galloway Water Power Act in 1935.
- Below Loch Doon the river cascades down through Ness Glen, a spectacular gorge, dropping 130 feet in less than one mile.
- Although there are several small to medium sized sewage treatment works discharging into the river the relatively high flows in the Doon provide sufficient dilution to maintain water quality
- The Doon catchment is relatively narrow and there are few large tributaries below Loch Doon. The most significant of these are the Muck Water, Cummock Burn, Dunaskin Burn and Culroy Burn.
- Common fish species include salmon, brown and sea trout, arctic charr, stone loach, minnows, sticklebacks, eels, lampreys, pike and perch.
- Apart from Loch Doon there are several large stillwaters in the catchment, including Bogton Loch and Martnaham Loch. These lochs provide excellent habitat for pike and perch.
- The Doon was historically renowned for its pearl mussel fishery. There is still a remnant population present in the river although there is little evidence of recent successful spawning.
- The main stem of the Doon has an abundant population of Saucer bugs Aphelocheirus aestivalis. Saucer bugs, which require high quality water, are only found in 5 or 6 rivers in Scotland.
- There are a number of Sites of Special Scientific Interest with in the catchment e.g. Loch Doon, Ness Glen, Bogton Moss and Dalmellington Moss.



5. Summary of the Work done by the Board

(a) Report from the Clerk to the Board

A summary of the work done in the 2022/2023 season is noted below:

- 1. Maintaining and updating the Board's records with changes of ownership and tenancy.
- 2. Dealing with the renewal of the Board's Registration as a data controller to process personal data with the Information Commissioner's Office under General Data Protection Regulation (GDPR) and the Data Protection Act 2018.
- 3. Extensive correspondence and various calls with various Riparian Owners, former Owners and New Owners, regarding outstanding Fishery Assessments; and preparing and updating a detailed Fishery Assessment Spreadsheet (on an almost daily basis) to update the Board's records, as payments were made, queries made and answered; and reporting to the Board.
- 4. Calls and correspondence with Senior Valuer at Ayrshire Valuation Joint Board to obtain Valuation Roll Extracts; and then liaising with her over months; and then submitting updated records to have the Valuation Roll updated to reflect the updating of the Board's records
- 5. Letters to Riparian Owners and Tenants enclosing Fishery Assessment Notices 2022/2023, and Reminders and Second Reminders
- 6. Detailed analysis of previous Assessment Rates and preparation of Reports for Board re Proposed Fishery Assessments Rates
- 7. Processing, and accounting for the payments of Fishery Assessments and Fishery Assessment Arrears and making payment of expenditure approved by the Board.
- 8. Review of financial position/Preparation of Finance Updates for Board
- 9. Correspondence with Azets regarding the preparation of the Draft Accounts to 31 December 2022 and associated Corporation Tax Return
- 10. Issuing Calling Notices, collating and issuing Board packs, taking and extending Minutes for Board Meetings, including publication on the Board's Website and liaising with Ayrshire Rivers Trust and Fisheries Management Scotland for publication on their websites
- 11. Updating the Board's Angling Code of Practice, as directed by the Board, and in liaison with Stuart Brabbs of Ayrshire Rivers Trust; and sending this to the Riparian Owners, Clubs and Associations; and publishing on the Board's Website.
- 12. Liaising with various Board Members, Stuart Brabbs of Ayrshire Rivers Trust and Fisheries Management Scotland, in order to draft, revise and submit responses to various Consultations (see below)

- 13. Calls, correspondence and virtual meetings with Fisheries Management Scotland, and SEPA, supported by Stuart Brabbs of Ayrshire Rivers Trust, regarding a number of matters, including SEPA Sea Lice Framework Consultation.
- 14. Attending the River Carron Conservation Association Reception re Wild Atlantic Salmon Conservation on 31 May 2022.
- 15. Helping to establish the River Doon River Watch Scheme; drafting Self-Employed Contracts for River Watch Coordinator and River Patrol Coordinator; arranging publicity in various online and print press (see below); liaising regularly with both individuals, Police Scotland, and Martin Donachy, Board Member; and reporting to Board, as required.
- 16. Implementing obligations of the Board in compliance with agreed Good Governance Policies.
- 17. Making regular changes and updates to the Board's Website (www.doonfishing.co.uk)
- 18. Calls and correspondence with Drax Galloway Hydros, Scottish Environment Protection Agency and ART regarding works at Loch Doon Dam; and arranging freshets as part of water compensation agreement, when required.
- 19. Receiving and sending all correspondence for the Board.
- 20. Providing general advice and support to the Board, as required, including consideration of matters relating to Assessments, promotion of the Board's Code of Practice; and liaising with other clubs, associations and other organisations, as appropriate.
- 21. Drafting new Annual Catch Return Forms, and sending letters to Riparian Owners, Clubs and Associations enclosing new Annual Catch Return Forms, sending reminders; and liaising with David Cosh, Recorder and Board Member, and Stuart Brabbs of Ayrshire Rivers Trust, collating Annual Catch Returns, updating the Board's records, and preparing summary spreadsheet for inclusion in Annual Report.
- 22. Developing and circulating a new *Welcome Pack* to all New Riparian Owners (and previously circulated to all existing Owners, Tenants, Clubs and Associations). The documents have also been uploaded to the Board's Website on the "About Us" page, for easy download:
 - i. River Doon DSFB Code of Practice updated at 3 December 2021
 - ii. FMS A Guide to Best Practice in Catch-and-Release
 - iii. ART Invasive Weeds Information 30.06.21
 - iv. FMS Wanted Poster 03.06.21
 - v. FMS Guidance re Farmed Salmon 08.06.20
 - vi. FMS Guidance re Pink-salmon 19.05.21
 - vii. River Doon Gyrodactylus salaris Declaration Form 29.06.21
 - viii. River Doon River Watch Scheme Leaflet 05.10.22
 - ix. River Watch Scheme Poster (final)
- 23. Preparation of the Draft Annual Report, including drafting and collation of reports from various Board Members and other contributors.

(b) Report on Fishery Assessments

The Clerk to the Board has prepared detailed Reports to the Board for their consideration. A summary of the key points to note from the Board's reasoning and decisions is below.

i. Introduction

The Board has the power under section 44 of the Salmon and Freshwater Fisheries (Consolidation) (Scotland) Act 2003 Act to impose Fishery Assessments, which are "...assessed at such uniform rate as is determined for all fisheries in the district by the board and shall be exigible according to the valuation of a fishery as entered in the valuation roll."

Therefore, the Board requires, each year, to determine the rate at which Fishery Assessments are assessed and issue Fishery Assessment Notices for payment by the Riparian Owners/Tenants. Ultimately, responsibility for payment rests with the Riparian Owners for the relevant year (which for these purposes, runs from 1 April to 31 March).

ii. Updating of the Board's Records regarding Ownership/Tenancies

It is critical that the Board's records are fully up to date, to ensure that the correct persons receive the Assessments, as well as other information issued by the Board.

Following the previous extensive work undertaken to comprehensively update the current Fishery Assessment List; the Clerk has continued to liaise with the Senior Valuer at Ayrshire Valuation Joint Board to ensure that the Valuation Roll is updated in accordance with the Board's Records.

On many occasions this process was hampered by out of date information. A number of sales and transfers of ownership of land, associated Riparian Owners' rights and tenancies had not been notified to the River Doon DSFB or to the Ayrshire Valuation Joint Board.

Could all Riparian Owners, Tenants, Clubs and Associations PLEASE notify us timeously of any change of ownership or tenancy, together with the date of transfer and any payment arrangements e.g. to apportion payment of Fishery Assessments. This will help us maintain accurate records and ensure that Fishery Assessments are sent to the correct persons.

Please also provide your email address and telephone contact numbers, which will aid more efficient communication with the Board generally (and help to keep costs down for the Board).

iii. Previous Fishery Assessment Rates – 2015 to 2022

In fixing the Annual Rate for Fishery Assessments, the Board considered matters in the context of previous decisions fixing the Rates of Fishery Assessment and the associated reasoning, summarised as follows:

<u>Year</u>	Value of River	<u>Rate</u>	Value from Assessments	Comments/Reasoning
2015/2016	£68,250.00	None	£0.00	Scottish Government uncertainty re whether Boards to continue
2016/2017	£68,250.00	15p	£10,237.50	Low Assessment rate agreed
2017/2018	£62,090.00	25p	£15,522.50	River Value reduced by £6,169.00 after Re-Valuation
2018/2019	£61,240.00	35p	£21,434.00	More realistic rate – issued 1 May 2018
2019/2020	£61,040.00	25p	£15,260.00	River Value reduced by £200 following successful Appeals
				Rate reduced by 10p - falling salmon catches and other salmon fishing issues
2020/2021	£60,090.00	15p	£9,013.50	Rate further reduced by 10p – poor season, COVID-19 etc
				 N.B. not issued until 15/12/20 (after fishing season ended) – affected cashflow
2021/2022	£60,090.00	30p	£18,027.00	Minimum recommended amount providing some small reserves
2022/2023	£60,090.00	30p	£18,027.00	Minimum recommended amount providing some small reserves and putting the Board in a position to carry out additional work

iv. Fishery Assessment Rate for 2023/2024

The Board was aware that COVID-19 caused problems for everyone, including the fishing community. As a consequence of lockdown, falling catch numbers, lack of fishing effort and the fact that some clubs had been struggling, the Board took account of their decision in the previous year (2020/2021), for one year only, to set the Fishery Assessment Rate at a much reduced rate of 15 pence. It subsequently fixed the rate for 2022/2023 at 30 pence.

At its meeting on 6 December 2022, the Board provisionally fixed the Assessment Rate for 2023/2024 at 30 pence per £, but subject to review of the new Valuation Roll from Ayrshire Valuation Joint Board (AVJB). Upon review of the new Valuation Roll from AVJB with effect from 1 April 2023, the Board unanimously decided on 13 April 2023, to increase the rate to 38 pence per £.

This was to reflect the increase in cost of living, affecting all sectors. To put this in context: since the rate of 35p was fixed for 2018/2019, the RPI increased from 285.10 to 364.50 i.e. 27.85%, whereas the

increased rate from 35p in April 2019 to 38p in April 2023 for Season 2023/2024 increases the Rate only 8.57% across that period.

For the reasons noted above) the Board has fixed Assessment Rates lower than the increases in RPI over the last few years. However, the Board requires to secure sufficient funds from Fishery Assessments to cover necessary expenditure to meet the Board's statutory obligations for the purpose of the protection or improvement of the fisheries within the River Doon Catchment Area; and monies to help fund projects on the river, whilst also providing for some degree of contingency.

v. Report on Fishery Assessments outstanding at 31 December 2022

Following a complete overhaul of the record-keeping; and development of a new system of issuing, engathering and monitoring Fishery Assessments and Arrears of Assessments (some of them outstanding for several years), with the exception of two beats where ownership is unclear, the Board has made 100% recovery as follows:

SUMMARY POSITION AT 31 DECEMBER 2022								
RECOVERED % TOTAL								
BY GGLLP	RECOVERED	OUTSTANDING						
£913.50	100.0%	£0.00	Arrears					
£17,082.00	100.0%	£0.00	2022/2023					
£17,995.50	100.0%	£0.00	TOTAL					

This is a significant improvement on the cash flow from previous years. However, it is fair to say that this recovery was made, in some cases, after one or two reminders having to be sent.

(c) Consultation Responses

The Board considers that it is an important part of its role to respond appropriately to Consultations from Scottish Government, the Scottish Environment Protection Agency (SEPA) and other organisations.

During 2022, Responses to Consultations were made on behalf of the River Doon Salmon Fishery Board as follows:

- i. On 14 March 2022, with assistance from Ayrshire Rivers Trust ("ART"), and liaising with Fisheries Management Scotland and others (over several weeks, including attending Workshops and reviewing various drafts from a variety of organisations), the Clerk submitted a detailed response, on behalf of the Board, to the SEPA Sea Lice Framework Consultation.
- ii. On 9 September 2022, the Clerk submitted a Response on behalf of the Board, to Scottish Government re the Consultation on Salmon Fishing: Proposed River Gradings for 2023 season.

(d) Good Governance

i. <u>Introduction</u>:

The Aquaculture and Fisheries (Scotland) Act 2013 requires all District Salmon Fishery Boards to operate in an open, transparent and accountable manner.

The River Doon DSFB has prepared this Annual Report in compliance with the Guidance on Good Governance Obligations:

- Section 44 (1) requires preparation of an Annual Report and a Statement of Accounts (which shall be audited) relating to the activities of the Board. The report and accounts are to be considered by an Annual Meeting of Qualified Proprietors.
- Section 44 (1A) requires the Clerk of the Board to arrange for the final Annual Report and Audited Accounts to be published and a copy of these to be sent to Scottish Ministers. Publication is to take place as soon as practicable after the Annual Meeting of Qualified Proprietors.
- Section 44 (1B) defines the final Annual Report and Audited Accounts as those submitted for consideration at the Annual Meeting of Qualified Proprietors or, if they are revised following that meeting, the revised versions.
- Section 46A requires that the Annual Report contains specific information: a summary of the activity carried out by the Board under their statutory functions in the reporting year; a summary of the proposed activity of the Board for the year to come; information on complaints made to the Board during the reporting period (their number, a statement of the nature of each and how it was disposed of); and a statement of how the Board has complied with the good governance requirements of the Freshwater Fisheries (Consolidation) (Scotland) Act 2003 ("the 2003 Act") during the course of the reporting year and how they propose to comply in the year to come.

ii. Statement of Compliance:

The River Doon DSFB has introduced policies and documents, as detailed below, in order to comply with the good governance requirements of the 2003 Act. As part of this the River Doon DSFB voluntarily adheres to the Scottish Government's District Salmon Fishery Boards Guidance on Good Governance Obligations (August 2013) and proposes to continue to comply in the year to come in the same way.

In particular, the River Doon DSFB has operated as follows:

Meetings Protocol

- The Board's Protocol on Meetings is published on the Board's website at: http://www.doonfishing.co.uk/about-us/
- Meetings of the Board were held on 17 February 2022, 31 March 2022, 28 April 2022, 15 June 2022, 6 December 2022 and 16 February 2023. These meetings were publicised on the Board's Website, and through the Websites of Ayrshire Rivers Trust and Fisheries Management Scotland.
- 14 members of the public attended Board Meetings in 2022
- The minutes from these meetings can be viewed on the Board's Website at: http://www.doonfishing.co.uk/about-us/
- The Annual Meeting of Qualified Proprietors took place on 23 March 2023 at the Western House Hotel, 66 Craigie Road, AYR KA8 0HA.
- This meeting was publicised on the Board's Website, and through the Websites of Ayrshire Rivers Trust and Fisheries Management Scotland. A copy of the notice was also sent to the Scotlish Government on 2 March 2023. 10 members of the public chose to attend. The minutes from this meeting can be viewed at http://www.doonfishing.co.uk/about-us/
- The Annual Public Meeting is due to take place on 20 April 2023 at the Western House Hotel, 66 Craigie Road, AYR KA8 0HA.
- This meeting was publicised on the Board's Website, and through the Websites of Ayrshire Rivers Trust and Fisheries Management Scotland. A copy of the notice was also sent to the Scotlish Government on 2 April 2023.
- The minutes from this meeting will be published on the Board's Website at http://www.doonfishing.co.uk/about-us/

Declaration of Members' Interests

- The Board's Policy on Members' Interest is published on the Board's Website at: http://www.doonfishing.co.uk/about-us/
- The Register of Members' Interests and Declarations are retained by the Clerk to the Board and can be viewed on a written request to the Clerk
- We have included a standing item at each Board meeting inviting Board members to declare new/amend existing interests and all such instances are recorded in the minutes of these meetings.

o Complaints Policy

- The Board has set up and maintains a Complaints Procedure, which can be viewed on the Board's Website at: http://www.doonfishing.co.uk/about-us/
- The procedure is reviewed annually. It was recently updated to reflect the new Scottish Government Good Governance email address for sending documents to the Scottish Ministers.
- There have been no formal complaints during 2022.

o Annual Report and Audited Statement of Accounts

- This Annual Report will be published on the Board's Website at: http://www.doonfishing.co.uk/about-us/
- The Audited Statement of Accounts will be published on the Board's Website at: http://www.doonfishing.co.uk/about-us/
- The previous Audited Statements of Accounts have also been published on the Board's Website at: http://www.doonfishing.co.uk/about-us/

o Reporting to Scottish Government

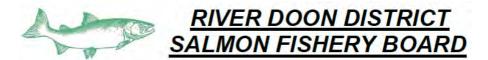
Since these procedures have been introduced by the Board, all required reporting has been made to the Scottish Ministers using the following address: DSFBGoodGovernance@gov.scot



(e) Code of Practice

During 2021, the Board has reviewed and revised the Code of Practice, particularly to reflect its promotion of 100% catch-and-release throughout the season, to support conservation measures in the wild stock of salmon in our river.

The current Code of Practice (approved on 3 December 2021) is as follows:



Clerk to the Board: Iain K Clark, LLB (Hons), Dip LP, NP c/o Gilson Gray LLP, 160 West George Street, Glasgow G2 2HQ Direct: +44 (0)141 530 2025 Mobile: +44 (0)7908 022 304 Email: RiverDoonDSFB@gilsongray.co.uk

Website: www.doonfishing.co.uk

The River Doon District Salmon Fishery Board has produced this Code to conserve our fish stocks for now and the future.

1. Mandatory by Law:

- (a) For the River Doon, the Salmon & Sea Trout Season is from 11 February to 31 October inclusive. The Brown Trout Season is from 15 March to 6 October inclusive.
- (b) It is a criminal offence to retain a salmon or grilse before 1 April, so they <u>must</u> be returned
- (c) It is a criminal offence to kill a coloured/gravid salmon.
- (d) All salmon, grilse or sea trout caught must be recorded in your catch returns.
- The Board <u>strongly urges</u> Anglers to adopt a 100% catch-and-release culture throughout the season, to support conservation measures in the wild stock of salmon in our river. Therefore, we are asking Anglers not to kill <u>ANY</u> salmon or grilse.
- 3. *Gyrodactylus Salaris* Declaration Forms must be signed by Anglers before fishing.

4. The Board recommends:

- (a) On any spinning lure, only one treble hook should be used.
- (b) The use of barbless or crushed barbed hooks, so Anglers can return fish without unnecessary damage.

- (c) Against worm fishing for salmon. However, where worm fishing takes place, please use circle hooks, so Anglers can return fish without unnecessary damage.
- (d) Against the use of prawn, shrimp, or any organic baits at any time.
- (e) Try to minimise out of water and handling times. When returning fish, please be gentle and do not lift fish by the tail or gills. Always use both hands under the belly of the fish, facing upstream until sufficiently recovered.

5. Farmed Salmon / Pink (Pacific) Salmon

If you capture a farmed salmon or pink (pacific) salmon, it should be humanely killed and the Board informed on the above contact details. Scale samples (in the case of pink salmon, the whole salmon) should be taken and sent to Ayrshire Rivers Trust. The capture should also be reported on the Fisheries Management Scotland (FMS) Website Reporting tool at:

https://survey123.arcgis.com/share/1b8632f1d06c48c89bbac8901d084346

FMS Guidance on identifying farmed salmon can be found at:

http://fms.scot/wp-content/uploads/2020/09/200908-Aqua-Guidance-for-Anglers.pdf

Ayrshire Rivers Trust's video:

https://www.youtube.com/watch?v=WwKwPv1yGBM&t=271s

FMS Guidance on identifying Pink (Pacific) Salmon can be found at:

http://fms.scot/wp-content/uploads/2021/05/210519-INNS-Statement-Pink-salmon.pdf

6. <u>Giant Hogwood /Japanese Knotweed / Himalayan Balsam</u>

See Ayrshire Rivers Trust leaflet at:

http://www.doonfishing.co.uk/wp-content/uploads/2022/01/ART-Invasive-Weeds-Information-30.06.21.pdf

7. Be aware of safety on and around the River. Anglers approach the River at their own risk.

The Board recognises that observance of the Code is voluntary but expects that responsible Anglers will observe it as far as possible.

Please spread the word on this Code of Practice. Your Board are investing in the future so that we all can continue to enjoy the sport on the River.

Approved by River Doon District Salmon Fishery Board: 3 December 2021











Ayrshire Rivers Trust Braeside, Burnbrae Lodge, Mauchline. KA5 5HE

Ayrshire Rivers Trust report for the River Doon District Salmon Fishery Board Proprietors Meeting 23rd March 2023

Reported to the Board in December 2022:

Marine Scotland Science (MSS) Catch data

The latest MSS official catch returns for the Doon were published on the 1st June. The total reported catch to Scottish Government over the last 5 years (2017 - 2021 inclusive) is provided below. The 5-year average for the River Doon rod catch is 316 salmon.

Salmon

The national 2021 reported rod catch of salmon (35,693) is the lowest since records began, and 75% of the previous five-year average. Catches have decreased from a high in 2010 and the 2021 records are consistent with a general pattern of decline in numbers of wild salmon returning to Scotland. The Doon contributed 1.25% (446) of the total official Scottish catch in 2021.

Of all Solway and west coast rivers, the Doon produced more salmon than any other. It was only beaten by the 13 east and north coast rivers.

In an Ayrshire context, the Doon produced 49.5% of the total Ayrshire catch across 6 catchments in 2021. The compensation flow from Loch Doon Dam possibly encouraged increased angling effort and in turn produced better catches than on other local rivers which all suffered extreme drought conditions until late in September.



Electrofishing Report

The 2022 electrofishing report attached was circulated to Board members ahead of the December Board meeting. The results are indicative of spawning during the 2021/222 season.

Angling returns for the 2021 season were encouraging, particularly as last summer was dominated by prolonged drought that affected all Ayrshire and most west coast rivers. The MSS Doon catch data revealed that the river was the most productive west coast fishery in 2021 (including the Solway rivers) with 446 salmon reported.

The electrofishing data presented in the report is an assessment of spawning success and survival to the point of survey (July 2022) following this encouraging season. Disappointingly, results were not as encouraging as the rod catch may have suggested they might be. The potential reasons for this are discussed within the report.











Reported to the Board in February 2023:



There is little to report for the Doon over this winter period which is typical for the time of year. No detailed assessment can be made of spawning success until later in the season and ART will deliver the routine surveys in order to assess this in due course. However, despite constant high water, ART staff did observe salmon spawning in traditional upper river sites near Waterside.

We checked for signs on the Brockloch gravel beds that we cleaned at the back end but didn't see anything but of course the high water may have obscured visibility.

Drumgrange and Kiers AC and upper river tree planting

Club members have been active planting trees where they have permission from landowners and have managed to secure trees and guards from their own sources. Unfortunately, there doesn't appear to be agreements between club members over this and deliberate attempts have been made to uproot some of the trees planted.

ART have been approached by a member of the Club committee and we have offered to meet with them to provide guidance, support and our time to help with some bank stabilisation and education for their members as to why these approached should be implemented. Unwillingness to accept change has previously been a problem for some club members and it is essential that the committee manages to convey the justification for change to their members if any worthwhile improvements are to be made on the main river. Hopefully the club and ART can achieve some progress with this.

Chapelton Burn (restoration options)

ART met with CBEC staff to discuss the commissioning of the Morphology and restoration options report that we secured agreement from the DSFB to fund (circa £3000). It became clear during the meeting that ART would hold off from instructing CBEC to proceed until we revisited several hesitant landowners whose support would be required should any worthwhile progress be achieved.

ART have met with several landowners, some more supportive than others. We will complete this process and assess the feasibility of progressing with project development before instructing CBEC to Continue. While this may appear hesitant, it is essential we have landowners 'buy in' before continuing.



Doon Fencing Initiative

The Board has agreed to provide Grants worth up to £10,000 towards a 50% share of the costs with Riparian Owners, working in partnership with ART, who will identify, organise, project manage all aspects, sign off and report to the DSFB. ART provided a verbal update at the meeting on how advanced each individual fencing project is and when we may expect new fencing to be erected.

Stuart Brabbs, Trust Manager, Ayrshire Rivers Trust





River Doon catchment

Electrofishing Fish Survey

2022



A single salmon fry recorded in the Garpel Burn above Loch Doon Dam.

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1. Introduction

The Ayrshire Rivers Trust (ART) was formed in 2000 to provide a source of local fisheries management and biological expertise in Ayrshire. The River Doon DSFB contributes funding to ART each year and in return receives management advice and survey work. A major part of the survey work involves examining the distribution and density of fish populations through electrofishing at a network of sites throughout the Doon catchment. The sites visited in 2022 by ART were examined both as part of a long-term monitoring strategy, investigate stocking success and to address specific issues arising over the previous year.

The aims of the 2022 electrofishing survey were:

- To examine salmon fry production in the main stems of the River Doon,
- To monitor changes in fish density elsewhere in the catchment, in both good and poor quality sites, as part of a long-term monitoring strategy,
- To collect water quality data at electrofishing sites,
- To provide the Doon DSFB with the information from these surveys.

1.1 Salmonid fish and fisheries

Migratory salmonids; Atlantic salmon (*Salmo salar*) and trout (*Salmo trutta*) and other native fish populations commonly use freshwater habitats for breeding and development of early life-stages. Typically, juvenile salmon and trout spend between one and three years in freshwater before migrating to sea as smolts. Salmon may spend between one and three years in the Atlantic Ocean before returning as mature fish to spawn within their natal river, at or close to their original hatching site. Sea trout differ from salmon in that they are part of a resident brown trout population and migratory forms are made up of a high proportion of females. Sea trout may spend less time at sea and unlike salmon, remain in nearby inshore marine waters to feed. The use of both marine and freshwater habitats during their life-cycle makes migratory salmonid populations vulnerable to deterioration or loss, from or in a wide range of habitats.

Isolated resident brown trout populations may also be present upstream of waterfall barriers that prevent access from the sea. These populations form an important part of a functional ecosystem and are likely to contribute to downstream populations through migration.

1.2 Biodiversity

Other than Atlantic salmon and brown trout, native fish such as lamprey (*Lampetra spp.*), stickleback (*Gasterosteus aculeatus*) and European eel (*Anguilla anguilla*) also utilise freshwater habitats. Fish and freshwater habitats also support a range of other native flora and fauna and consequently mitigation to protect water resources for such species is likely to benefit a range of other biodiversity and conservation objectives.

2. Methods

2.1 Data recording

ART is a full member of the Scottish Fisheries Coordination Centre (SFCC), which is an association of Scottish fisheries management organisations including Fisheries Management Scotland (FMS), Marine Science Scotland based in Pitlochry, and District Salmon Fishery Boards. The SFCC has, in partnership, agreed on a common methodology for data collecting and recording and has developed a database for entering and storing data in an agreed format. The SFCC also provides electrofishing training to its members, and ART's biologists have attended and passed electrofishing training courses organised by SFCC. Wherever possible, ART's surveys are therefore carried out to the standards required by the SFCC and data are recorded using this format.

2.2 Techniques

Fish populations at each site were assessed using electrofishing. This is a widely used technique to examine freshwater fish communities. The method uses electricity to attract and stun fish, which allows operators to remove them from the water. The fish are transferred to a holding container until they have recovered and then anaesthetised using a mild solution of MS222 (Tricaine Methane Sulphonate). Each individual is then identified, measured and returned unharmed to the area from which they were captured. Battery powered backpack equipment (Hans Grassl model IG600) was used at all sites. Smooth direct current was used at all sites, to maximise catch efficiency, while minimising potential damage to fish and other wildlife.

Two different techniques were used to relate the number of fish caught to actual fish densities: stream-area delimited and time-delimited surveys. In smaller watercourses, it was possible to cover the entire survey area accurately, and the number of fish captured could, therefore, be related to the wetted area of the site. However, for the larger main stem sites, the full area of the river could not be electrofished effectively. In these cases, the ART survey followed existing guidelines, and carefully timed the electrofishing runs to obtain a figure for fry caught per minute.

2.3 Timed surveys

Biologists are increasingly finding that timed surveys are an effective and efficient way of examining fish production, particularly in larger watercourses. While timed fishing does not provide an absolute value for fish densities, it can be extremely useful in comparing different parts of a catchment or wider area, provided that catch efficiency does not change between sites. This potential source of error can be minimised by ensuring that an identical protocol is followed at every site and by using a standard team of fully trained personnel. However, it is recognised that inter site variables may skew results and interpretation of the results requires care.

Sites with suitable salmon fry habitat representative of the range of habitats found across the River Doon main stem were surveyed. It is particularly important to examine these habitats because in many rivers the majority of salmon spawning and juvenile production is likely to take place in the main stem of a river, rather than smaller side tributaries. Restricting electrofishing surveys to smaller watercourses, using area based surveys, may, therefore, fail to identify important factors affecting salmon populations.

Shallow run and riffle areas were targeted, preferably with a maximum depth of 30 cm. Electrofishing runs were timed, with a single 5-minute run being carried out at each site, all within typical fry habitat. The timer was started at the beginning of each run and only counted when the anode was switched on in the water, meaning that the 5-minute period covered only the time spent truly fishing. The electrofishing operators proceeded in an upstream direction throughout, working in a zigzag pattern to avoid covering the same area twice and staying in shallow areas suitable for fry production. In some cases this meant that the whole channel

width was not covered, however, because the fish numbers were to be related to time, rather than area, this could be accounted for.

2.4 Density surveys

For the density surveys, the survey sweep began at the downstream end of the section and moved back and forwards across the channel so that every part of the bed was covered. The type of net used depended on the survey type – for timed surveys a banner net was used to ensure no stunned fry were carried downstream past the operator. However, for density surveys hand nets were generally found to be more effective and soley used.

Salmon and trout were separated into year classes on the basis of length frequency histograms. As fish grow at very different rates between sites, this was repeated for each site individually. Age classifications can be checked by examining the number of annual rings on scales taken from. Fish densities were then separated into fry and parr for the presentation of results. Fry refers to fish less than one year old resulting from spawning at the end of the previous year and parr to older fish.

At most sites, a one run, semi-quantitative protocol was used. While this method does not provide accurate information on absolute fish densities, it is commonly used as a relative comparison between sites or at the same site between years. This method was also chosen as it allows a greater number of sites to be visited. At the Garpel burn one absence/presence electrofishing survey was carried out due to deteriorating weather conditions.

2.5 Water Quality sampling

Water quality parameters were recorded using handheld multi-parameter field sampling meters. Samples were assessed prior to electrofishing, informing the team leader of variables such as electrical conductivity, temperature, and pH that may affect the operation of the electrofishing equipment. The meter was calibrated at regular intervals throughout the sampling season using buffer solutions of pH 4.0, 7.0 and 10.0. Notes relating to water quality and clarity were recorded at all area-delimited survey sites and where necessary, were reviewed when analysing the results.

3. Results Classification

3.1 Timed sites

In order that the results from one river or site can be compared easily with others, a classification scheme has been established. The results from all the timed-electrofishing sites surveyed across Ayrshire from 2018 to 2022 were collated and the total salmon fry densities figures were ranked and split into 20% divisions, excluding sites where no fry were recorded. The groups were then assigned a classification indicating the relative number of salmon fry caught per minute. The timed results classification score was revised this year to include the five year average scores, with the 2017 results dropping out to be replaced by the 2022 results.

Table 1: 2018-2022	Ayrshire timed	sites salmon f	ry classification
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Salmon fry breakpoints (No/min)	Classification
0.0	Absent
0 – 2.3	E – Very poor
>2.4 – 7.6	D - Poor
>7.7 – 12.8	C - Moderate
>13 – 20.8	B - Good
>20.8	A - Excellent

If salmon fry are absent this often indicates that salmon cannot access this area, or there are other serious problems preventing survival.

3.2 Density sites

The results from surveys where fish densities are obtained are now classified according to the SFCC Scottish national classification scheme which was derived using data from over 1600 Scottish sites covering the period 1997-2002 (*Godfrey, 2005*). This allows ART and the reader to interpret local fish populations in a Scotlandwide context. The national classes should be periodically revised as fish populations will inevitably change over time, even on a national scale.

Table 2: SFCC classification salmon fry and parr density breakpoints

Salmon fry (No/100m²)	Classification	Salmon parr (No/100m²)
0.0	Absent	0.0
<4.7	E – Very poor	<2.6
4.7 -<10.3	D - Poor	2.6 -<5.1
10.3 - <20.3	C - Moderate	5.1 - <9.1
20.3 - <42.1	B - Good	9.1 - <15.8
>42.1	A - Excellent	>15.8

Table 3: SFCC classification trout fry and parr density breakpoints

Trout fry (No/100m2)	Classification	Trout parr (No/100m2)
0.0	Absent	0.0
<2.5	E – Very poor	<1.6
2.5 -<5.3	D - Poor	1.6 -<3.1
5.3 - <12.4	C - Moderate	3.1 - <5.6
12.4 - <30.3	B - Good	5.6 - <10.4
>30.3	A - Excellent	>10.4

3.3 Electrofishing survey limitations

Electrofishing is a common means of obtaining data on juvenile salmonid populations (SEERAD 2007); however, it is only effective in shallow streams.

The survey sites chosen were selected to be representative of the general habitat type present within each sub-catchment and to include a range of flow and substrate types. The SFCC protocol recommends that the minimum survey length is six times the mean channel width at the site, with a minimum of 20m length (SFCC, 2007). If the site selected is representative of the local habitat the survey should provide a robust estimate of local fish populations. However, it is possible that if fish populations are low or have a clumped distribution, the data from an electrofishing site may not adequately sample the full range of fish species present in that area.

It is usually impossible to capture all the fish present within a site, therefore depletion sampling, where fish are removed from a site in a series of successive electrofishing runs, are used to provide an estimate of the total fish population present. The rate of decline in each run and the total number of fish captured are used to estimate fish stocks. However, if fish numbers are low (less than 40 per site) the confidence limits will be wide and the depletion estimates will be unreliable (Schnute, 1983). In this case, first run minimum densities per 100m2 are used.

It is considered that it is impossible to prove the absence of fish by electrofishing, therefore, whilst the failure to capture fish at a site may indicate that the population is low, it cannot be assumed that fish are necessarily absent. Similarly the absence of individual species from electrofishing results should not be assumed to be indicative of the overall status of the species as many factors may contribute to the results.

4. Results

4.1 Timed Electrofishing Sites

In total, ART examined 10 timed sites in 2022 in the Doon catchment. Habitat quality at all sites was considered to be suitable for salmon fry. The 2022 results are shown in Table 4 and bar graph in Figure 1. A summary of the results from 2003 to 2011 are displayed in Table 5 and results from 2012 to 2022 are shown in Table 6. The mean results in 2022 were 14.6 fry/minute, which is lower than 2021's mean results of 17.9 but above the 10-year average of 13.8 fry/minute (Figure 1).

Salmon fry were recorded at all sites with the highest results recorded at Craigengillan (site TDM27). Good results were also recorded at Holms, Monkwood and upstream of Dalrymple.

Table 4: Results from the Doon catchment salmon fry timed surveys 2022

*Codes for other species are: Tr = Brown trout, SL = Stone loach, M = Minnow, E = Eel, L = Lamprey SFCC Classification codes: A – Absent; E – Very poor; D – Poor; C – Moderate; B – Good; A - Excellent

Site	Location	Grid Ref E, N	Date	Salmon fry/ minute	SFCC Classification	Other species*
TDM9	Riffle at top of Swallow Braes	232650, 618855	28/07/22	0.4	E	Sa parr, E, M
TDM4	Doonholm, d/s Garden Pool.	233658, 617467	28/07/22	10.2	С	Sa parr, E, SL
TDM25	Auchendrane weir, side channel	233552, 615218	28/07/22	3.4	D	Tr, E, M, SL
TDM23	Monkwood, u/s Lemon Pots	233829, 613185	28/07/22	16.6	В	Sa parr
TDM8	Holms, riffle below Burn Pool	235150, 613680	28/07/22	16.4	В	Tr, Sa Parr, SL
TDM13	Upstream Dalrymple	236700, 614100	28/07/22	13	В	Sa parr, Tr, E
TDM15	Upstream Skeldon Bridge	238075, 613800	28/07/22	8.6	С	E
TDM20	Smithston, u/s Rabbie's Pool	240920, 612660	28/07/22	10.6	С	Tr, Sa Parr, E
TDM24	Craigengillan, d/s Ness Glen	247768, 603049	28/07/22	29.4	А	Sa parr, E, M
TDM27	Craigengillan, d/s Stone Bridge	247856, 603391	28/07/22	37	А	Sa parr, Tr, SL

Timed electrofishing results for the River Doon

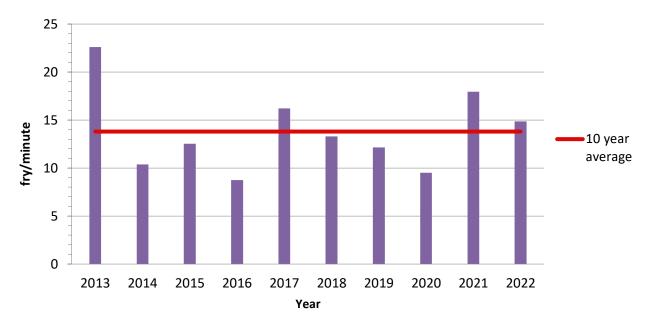


Figure 1: Comparison of electrofishing results over 10 years. The 10-year average from 2013-2022 is 13.8 salmon fry/minute

Table 5: Colour coded Salmon fry/min 2003 to 2011

(Black = Absent, Red = Very poor, Orange = Poor, Yellow = Moderate, Light Green = Good, Dark Green = Excellent)

	River Doon Main stem timed electrofishing results 2003-2011									
SITE	LOCATION	2003	2004	2005	2006	2007	2008	2009	2010	2011
TDM9	Top of Swallow Braes	4.9			7.2	5.4	18.2	12	23.4	25
TDM4	Doonholm, d/s Garden Pool	8.2		6.6	9.6	4	18.4	18.6	8.6	13.6
TDM25	Auchendrane Weir, side channel									12.2
TDM23	Monkwood, u/s Lemon Pots								17.6	15.6
TDM8	Holms, wide weedy riffle			10.6	15	4	9.8	18.6	8	12.8
TDM13	u/s Dalrymple				8.6	6.6	11	7.8	7.4	14.2
TDM15	Torr Bridge Skeldon				10.8	7.2	8.6	14.4	8.4	12.4
TDM20	Smithston, u/s Rabbie's Pool						9.8	7	6.4	7
TDM27	Craigengillan, d/s of stone bridge									
TDM24	Craigengillan								6.8	9.6
MEAN		6.6		8.6	10.2	5.4	12.6	13.1	10.8	13.6

Table 6: Colour coded Salmon fry/min 2012 to 2022

(Black = Absent, Red = Very poor, Orange = Poor, Yellow = Moderate, Light Green = Good, Dark Green = Excellent)

River Doon Main stem timed electrofishing results 2012-2022												
SITE	LOCATION	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
TDM9	Top of Swallow Braes	16.8	23.6	11.2	1.4	3	4	7.4	3	3	6.2	0.4
TDM4	Doonholm, d/s Garden Pool	5	31	7.6	2.4	0	19.2	9.6	7.6	15.8	19.6	10.2
TDM25	Auchendrane Weir, side channel		20.4	11.2		0.8	4	7.3	2.6	7.6	10.2	3.4
TDM23	Monkwood, u/s Lemon Pots	4	45.2	10.4	5.8	2		9.2	20.2	16.2	19.6	16.6
TDM8	Holms, wide weedy riffle	7.4	20.4	9.6	13.2	4.6	17.4	19.8	20	8	19.2	16.4
TDM13	u/s Dalrymple	9.8	27.8	8	16.4	7.6	10.2	13.6	14.2	12.2	12	13
TDM15	Torr Bridge Skeldon	7.8	9.2	4	1.4	1.4	5.8	13.8	5.6	7.6	4	8.6
TDM20	Smithston, u/s Rabbie's Pool	12.6	14.6	12.2	13	0.8	8.8	8	9.8	5.6	5.2	10.6
TDM27	Craigengillan, d/s of stone bridge					38.4	53.3	23.4	20		39	29.4
TDM24	Craigengillan	28.2	11.2	19.2	46.6	28.8	23.2	20.8	18.6		44.4	37
MEAN		11.5	22.6	10.4	12.5	8.7	16.2	13.3	12.2	9.5	17.9	14.6

Table 7: Comparison of timed results for Ayrshire DSFB river catchments during 2022 fry/min

River Stinchar Results

Site	2022
TSM18	6
TSM17	10.8
TSM15	13.2
TSM3	13
Lower Stinchar Average	10.75
TSM4	7.2
TSM6	22.4
TSM11	14.4
TSM7	18.4
TSM16	13.4
Upper Stinchar Average	15.16
Overall Stinchar	
Average	13.2

River Doon Results

Site	2022
TDM9	0.4
TDM4	10.2
TDM25	3.4
TDM23	16.6
TDM8	16.4
Lower Doon Average	9.4
TDM13	13
TDM15	8.6
TDM20	10.6
TDM27	29.4
TDM24	37
Upper Doon Average	19.72
Overall Doon	
Average	14.6

River Ayr Results

Site	2022
TAM4a	0.2
TAM14	0.6
TAM15	6
TAM11	1.6
TAM13	1.4
TAM3	0.2
Lower Ayr Average	1.7
TAM16	17.8
TAM9	6.4
TAM1	5.6
TAM18	23.4
Upper Ayr Average	13.3
TAL2	16.6
TAL7	10
TAL15	0.4
TAL18	15
TAL6	1.6
Lugar Average	8.7
Overall Ayr Average	7.1

Water of Girvan Results

Site	2022
TGM13	0.6
TGM14	0
TGM20	4
TGM11	5
TGM17	13.6
Lower Girvan Average	4.6
TGM15	38.4
TGM3/3a	32.6
TGM18	27
TGM8	17.2
Upper Girvan Average	28.8
Overall Girvan Average	14.3

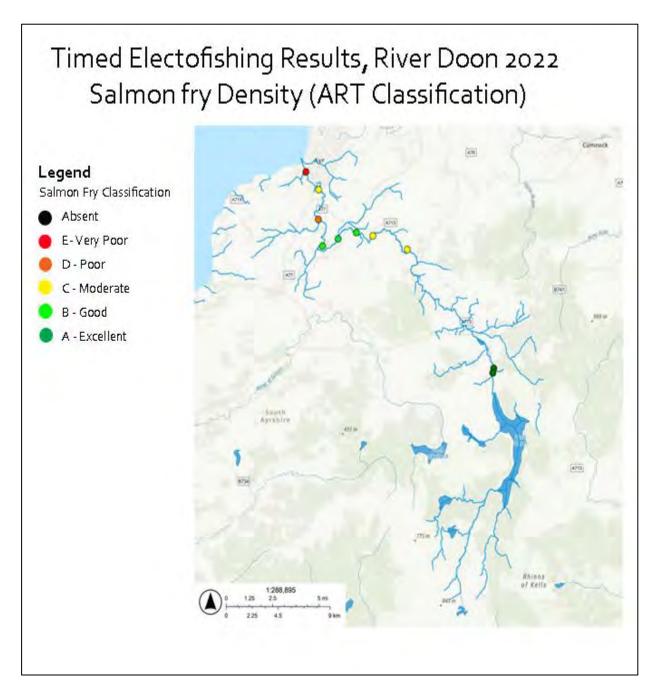


Figure 2: Doon timed salmon fry survey results 2022

4.2 Quantitative sites

A total of 16 tributary sites were surveyed in 2022. The first run minimum estimate data from each site are shown in Table 7. The sites are ordered in an upstream direction from furthest downstream site at Culroy Burn to the furthest upstream site at Garpel Burn. One of the surveys carried out on the Garpel Burn was a presence/absence survey due to deteriorating weather conditions (Table 9). Sites on the Linn water, Cummock Water and Muck Water were surveyed for the South Kyle windfarm and the SWS pylon line.

Table 8: Doon catchment quantitative electrofishing sites 2022

Black = Absent, Red = Very poor, Orange = Poor, Yellow = Moderate, Light Green = Good, Dark Green = Excellent
*At least one fish caught but too few to run a minimum density estimate

Site		Gri	d Ref	Minimum estimates per 100m ²				
Code	Location	Easting	Northing	Salmon fry	Salmon parr	Trout fry	Trout parr	
DCU ₂	Culroy Burn d/s Minishant roadbridge	233200	614400	7.4	1.5	46.2	1.5	
DCH ₁	Chapelton Burn	232600	611900	0	О	О	1.3	
DBO ₃	Brockloch Burn near Maybole Bypass	232245	612451	0	3.1	7.3	5.2	
DCB6	Cummock Water at Chestnut tree	248225	606421	3.0	0	8.0	6.0	
DCB9	Cummnock burn	249922	606756	0	0	4.9	6.9	
DCB14	Cummock burn	245117	606552	0	О	3.1	0	
DCB10	Cummock Burn near SWS compound	251145	607460	0	0	0	5.6	
DCLN ₂	Linn Water	252854	607068	0	0*	0	0	
DCLN ₁	Linn Water	252174	607837	0	0	0	7	
DTR1	Trough burn	243696	608618	0	4.6	57.9	4.6	
DMD ₃	Mossdale Burn d/s Benbrack Burn confluence	250981	605587	0	0	5.1	13.2	
DMW8	Muck Water Armco barrier d/s culvert	251013	602152	103.9	10.3	34.2	9.1	
DMW5	Muck Water u/s Culvert	234666	614209	0	0	32.7	4.4	
DPN2	Polnaskie Burn	251604	600648	0	0	5.7	1.4	
DGA ₃	Lower end of Garpel Burn	248236	598597	0	0	12.5	1.3	

Table 9: Doon catchment absence/presence electrofishing sites 2022

	Location	Gri	d Ref	Presence/Absence				
Site Code		Easting	Northing	Salmon	Salmon	Trout	Trout	
			Northing	fry	parr	fry	parr	
DGA ₉	Garpel Burn u/s of smolt trap location – Absence/presence survey	248150	598523	Present	Absent	Present	Present	

5. Summary and Conclusions

- The mean timed results in 2022 were 14.6 fry/minute which is a reduction from 17.9 fry/minute in 2021. However, juvenile salmon production this year was above the ten-year average (13.8 fry/minute) and this reduction could be a result of natural fluctuations from year to year.
- Juvenile production in the upper catchment appears once again to be excellent and it is encouraging to see good results in the middle section of the river with Holms, Monkwood and Doonholm producing promising results.
- Of the quantitative surveys, the results from Muck Water (downstream of the road culvert) were very reassuring with salmon fry densities classed as excellent and salmon parr classed as good. Similarly, trout fry and parr were classed as excellent and good, respectively. Salmon are unable to reach the habitat upstream of this road culvert, ART have discussed the installation of baffles here. However, there is only around 500m of accessible habitat upstream of the culvert. There are greater priorities across the catchment than this culvert.
- The Brockloch burn failed to record any salmon fry and trout numbers were relatively low. At the time of the survey it was noted that the river substrate was compacted and the burn was suffering from silt inputs upstream. ART are actively working to identify the source and will seek funding to address the issues where possible. In the meantime, ART have trialled gravel cleaning at key spawning locations ahead of this year's spawning season and will closely monitor the success of this work.
- ART were encouraged to witness trout spawning in the newly reworked Brockloch river channel at the Maybole bypass in November 2022.
- The Cummock Burn results were less promising than in previous years, with a reduction in salmon fry and parr numbers. Elevated water levels at the time of the survey and surveying later in the season could explain this reduction however it may be prudent to continue monitoring this site to ensure there are no external factors/pressures impacting on this site.
- Six of the quantitative surveys (DCB10, DMW5, DCLN1, DCLN2, DMD3 and DPN2) were carried out above the upstream limit of salmon migration (due to natural or manmade barriers) and accounts for salmon being absent from these sites.
- In 2022, both salmon fry and parr were recorded in the Culroy burn whereas in 2021 no salmon fry were recorded. Trout fry densities continue to be exceptional indicating that habitat and water quality is excellent. Anecdotal evidence suggests that this burn was important for sea trout spawning and recent data indicates that the Culroy Burn is still producing sea trout smolts.
- Atlantic salmon fry were recorded in the Garpel Burn upstream of Loch Doon Dam during a presence/absence survey in 2022. This confirms that salmon successfully accessed and spawned over the winter of 2021/22. Anecdotal evidence from spring this year suggests that at least one adult salmon was caught in Loch Doon indicating that salmon continue to use the fish pass at Loch Doon Dam. ART are working with Drax to reinstate the function of the fish counter which will improve the resolution of salmon population information for Loch Doon and the tributaries that feed into it.
- These results should be read in conjunction with the River Doon Fishery Management Plan 2019-2024 for recommended management actions.

6. References

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Wentworth, C.K. (1922). A scale of grade and class terms for clastic sediments. Journal of Geology. 30:377-392.

(h) River Doon River Watch Scheme

Following discussions with various parties, the Board agreed to establish a River Watch Scheme with the aim of developing a shared ideal that all proprietors, angling clubs, permit holding anglers and others who use and enjoy the River Doon and its surroundings have a shared collective interest in acting as River Watchers in protecting wild salmon and other fauna.

To achieve this, a four pronged strategy has been identified and implemented:-

1. Targeted visible patrol by a self-employed River Patrol Coordinator of known poaching hotspots in the key months of August, September, October, November, December, January and February:

What CAN do	What CANNOT do
Carry out patrols of the river	
Approach persons checking permits etc	
Ask them to leave, if fishing illegally etc	Put them off the river
Report illicit activity to the Police	Detain/lay hands on persons
Work with Police - planned operations	Confiscate fishing equipment
Liaise with River Watcher Coordinator	
Liaise with Clerk to Board	
Give witness evidence, if called by PF	

- 2. Establishing a dedicated, publicly available phone number (07469 819 345) and dedicated email address - RiverDoon.RiverWatch@gmail.com - available throughout the year, through which interested parties (River Watchers) can pass on information and intelligence in respect of suspected poaching to a nominated self-employed River Watcher Coordinator, who will liaise with the River Patrol Coordinator, Police Scotland and the Clerk to the Board.
- 3. Ongoing liaison with the local Wildlife Crime Police Officer to develop intelligence on known and suspected illegal poaching and to inform local policing strategy and Wildlife Crime initiatives to address this.
- 4. Publicity of River Watch Scheme:
 - Letters to all Riparian Owners, Tenants, clubs and associations
 - River Doon DSFB Website
 - Attendance at Drumgrange & Keirs Salmon Fishing Competition
 - Warning Posters posted throughout the catchment area of the River Doon
 - Facebook by East Ayrshire Councillor, Drew Filson on 25 September 2022
 - Facebook by Ayrshire Daily News on 18 October 2022
 - Ayr Advertiser on 19 October 2022
 - Daily Record on 21 October 2022
 - Cumnock Chronicle on 22 October 2022
 - November 2022 issue of Alloway & Doonfoot's Going Out
 - 'Something Fishy' Article in Ayrshire Magazine January/February 2023 issue

Martin Donachy, River Doon DSFB Member & Iain K Clark, Clerk to the Board

River Watch Scheme Leaflet



The River Doon District Salmon Fishery Board and Police Scotland have combined forces in a new initiative – **the River Doon River Watch Scheme** – to combat illegal salmon poaching and other wildlife crime. The River Doon is home not only to the magnificent wild Atlantic Salmon, but also the rare Freshwater Mussel, bird species such as Kingfishers and Dippers, and a reviving Otter population. Our beautiful river is a treasure to be valued by all who live by and enjoy its wonderful wildlife.

REPORT SUSPICIOUS ACTIVITY

Call: 07469 819 345

Email: RiverDoon.RiverWatch@gmail.com

Call Police Scotland: 101

In recent years the anglers on the Doon have made a significant contribution to securing future stocks of wild salmon by releasing over 95% of all reported rod-caught salmon back to the river to continue their journey to the spawning grounds.



Left to right: Martin Donachy (River Doon DSFB Member), Alan McDowall (River Patrol Coordinator), PC Steven Prendergast (Wildlife Crime Officer), Alan Shannon (River Watch Coordinator), Iain K Clark (Clerk to River Doon DSFB)

However, unfortunately illegal poaching continues to pose a threat to these vulnerable salmon stocks.



The River Doon River Watch Scheme aims to enable not just anglers, but all who care about preserving the Salmon for future generations, a way to report any suspicious activity.



left to right: Alan Shannon (River Watch Coordinator), Martin Donachy (River Doon DSFB Member), Alan McDowall (River Patrol Coordinator), PC Steven Prendergast (Wildlife Crime Officer), Iain K Clark (Clerk to River Doon DSFB)

lain K Clark. Clerk to the River Doon DSFB said:

"As part of its role in managing the protection, enhancement and conservation of Atlantic Salmon, the Board have appointed a River Patrol Coordinator to patrol the River Doon and its tributaries, and a River Watch Coordinator, who will coordinate all reports received through a new confidential 24 hour hotline number and dedicated e-mail address established by the Board. Any suspicious activity reported will be shared with Police Scotland, who will respond. The Board hopes that all communities in the Doon Valley will support this new initiative."

As Wildlife Crime Officer, PC Steven Prendergast, emphasises, combatting wildlife crime is a key priority for Police Scotland.

All of us are potential River Watchers.

REPORT SUSPICIOUS ACTIVITY

Call: 07469 819 345

Email: RiverDoon.RiverWatch@gmail.com

Call Police Scotland: 101

i. Report by Alan Shannon, River Watch Coordinator

Since being appointed River Watch Coordinator I have been involved in setting up the dedicated 24hr hotline and email address. I have also erected signage at various points along the river with Alan McDowall. I have liaised with fellow anglers on the river about any issues they may have and promoted the initiative whenever possible.

At the Board's request, myself and Alan McDowall also attended an open salmon competition held in October by Drumgrange & Keirs Angling Club, as an opportunity to promote the River Watch Scheme. The competition was run with appropriate measures to ensure safe return of fish landed. On this day myself and Alan McDowall also carried out patrols on other beats.

The phone line and email have both been rather quiet. I hope that this can only mean there are little or no illegal activities happening on the river. That being said, I received a voicemail from an anonymous caller, who used quite colourful language claiming that "young boys were ripping salmon out the new brig at Patna". This incident was investigated and our conclusion was that this was a hoax.

Looking ahead to the new season, I will continue to promote the scheme as best I possibly can. Myself and Alan McDowall are planning patrols of the river in partnership with PC Prendergast, so I urge all anglers to please carry their permits / written permissions at all times when on the river.

We would also like to meet riparian owners etc who may wish to discuss any issues they may have that we can bring back to the Board.

Finally I'd like to wish all anglers on the Doon tight lines for season 2023.

Alan Shannon River Watch Coordinator



left to right: Martin Donachy (River Doon DSFB Member), Alan McDowall (River Patrol Coordinator), PC Steven Prendergast (Wildlife Crime Officer), Alan Shannon (River Watch Coordinator), Iain K Clark (Clerk to River Doon DSFB)

ii. Report by Alan McDowall, River Patrol Coordinator

Since August 2022 I have been carrying out duties in relation to the River Watch Scheme. This scheme was brought about in order to protect and hopefully increase fish stocks in the river. This in turn makes for a more enjoyable season for those fishing on their respective beats.





Over the 5 months I have carried out visual patrols on numerous occasions as well as dedicated patrols along with police to spawning areas. Signage has also been erected at locations with heavy footfall in an attempt to encourage members of the public to report suspicious activity.





More recently I carried out a joint patrol with South Ayrshire Police who were utilising their quad bikes. There is now a protocol in place with police for both South and East Ayrshire for the reporting of incidents. Any information passed by members can be either acted on if required or noted for intelligence purposes.

In addition, I have attended meetings of Ayrshire Partnership Against Rural Crime. These meetings are attended by numerous groups including Scottish Lands and Estates, National Farmers Union, Police, Scottish Water. One of their areas of concern is poaching and, should increased assistance be required, this group are in a position to assist.



If you see suspicious activity contact:-

07469 819 345

RiverDoon.RiverWatch@gmail.com

Police Scotland: 101

River Patrol Coordinator: Alan McDowall

River Watch Coordinator: Alan Shannon

Clerk to the Board: RiverDoonDSFB@gilsongray.co.uk

Website: www.doonfishing.co.uk

The success of the River Watch Scheme depends on the input from those fishing the river reporting any suspicious activity as the protection of fish stocks benefits them. As I have said in my previous updates if any Board member, landowner or syndicate have any locations that would benefit from signage, then please advise the Board.

I hope you all have an enjoyable 2023 season.

Alan McDowall, River Patrol Coordinator

(i) Annual Catch Returns

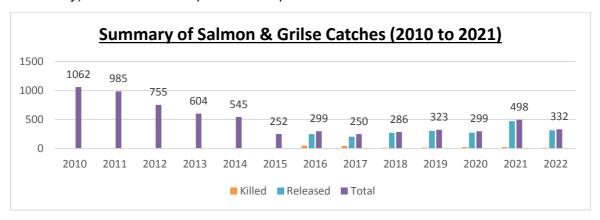
Summary of Data Collection

Following discussions within the Board, and in discussions with ART and others, the Board introduced a new style of Annual Catch Return Form, which was issued to the various Riparian Owners and Tenants on 27 October 2022. This was in addition to the statutory requirement upon all Riparian Owners to submit the full Rod and Catch Return Form to Marine Scotland.

• Number of Beats and Catch Returns Received

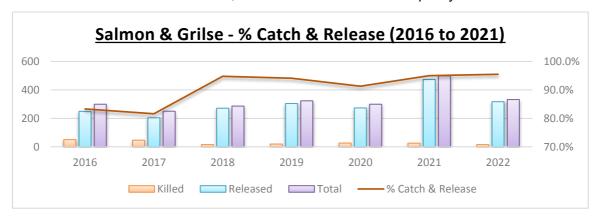
In total we have 49 beats on the River Doon. 4 of the beats do not currently make returns. 2 of those do not need to make returns, as they relate to the former coastal netting station and the mouth of the river. 2 are vacant or the ownership is unclear. 1 beat changed ownership mid-season and so no return was submitted. That leaves 44 beats who should submit an Annual Catch Return in 2022.

We received 95% of Annual Catch Returns this year (some after multiple reminders, admittedly). This is much improved from previous seasons.



Salmon Caught, Released and Killed

332 salmon or grilse were reported as caught. 317 were released and 15 killed. That is 95.5% Catch and Release, consistent with the Board's policy.



Salmon Rod Effort

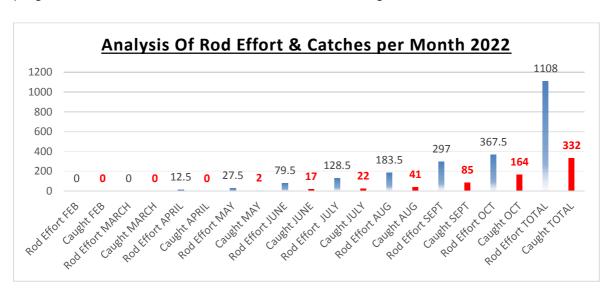
In terms of Salmon Rod Effort, 26 of the 37 (70%) Annual Catch Returns (covering the 44 beats being reported) reported on Rod Effort, with 10 of those reporting nil Rod Effort.

In terms of Rod Effort Days, the total sum reported was 1108 days. 332 salmon or grilse were caught during the 2022 season.

We encourage everyone to help us collect this very helpful data, as in future years we can prepare annual catches against Rod Effort; and then identify where problem areas in the river may exist; and prioritise those, as appropriate.

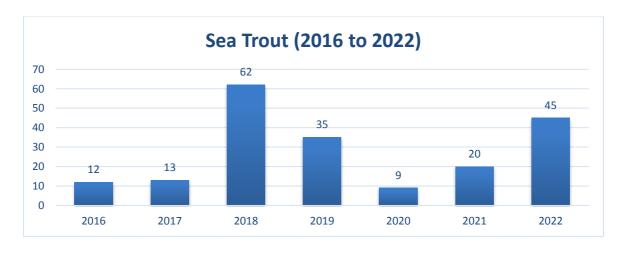
Monthly Salmon Rod Effort and Salmon Caught

Monthly Salmon Rod Effort was reported from April to November, increasing to the end of the season, with Salmon being caught from May to November, increasing as the season progressed, with the last two months of the season being the most successful.



Sea Trout

There was minimal reporting of Sea Trout caught (45 this season).



Summary conclusion

The numbers of salmon and grilse caught during the 2022 season held up by comparison with the 5 years, albeit quite a bit lower than the record numbers (at least within the last 5 years) experienced in 2021. They are still, comparatively, less than 50% of the numbers previously recorded 10 years ago.

Various reasons are attributed for these statistics. No clear conclusions can currently be drawn, but it is apparent that low water seems to be a factor as to when fish are caught during the season; and, compared to other local rivers, we appear to continue to benefit from the compensation flow from Loch Doon.

REPORTED CATCHES - RIVER DOON - 2010 TO 2022														
Year		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Salmon & Grilse	Released	n/a	n/a	n/a	n/a	n/a	n/a	249	204	271	304	273	473	317
	Killed	n/a	n/a	n/a	n/a	n/a	n/a	50	46	15	19	26	25	15
	Total	1062	985	755	604	545	252	299	250	286	323	299	498	332
	% Catch & Release	n/a	n/a	n/a	n/a	n/a	n/a	83.3%	81.6%	94.8%	94.1%	91.3%	95.0%	95.5%
Sea Trout		n/a	n/a	n/a	n/a	n/a	n/a	12	13	62	35	9	20	45

The Board continues to emphasise the importance of Catch-and-Release as part of its conservation policy, which is enshrined in the Board's Code of Practice:

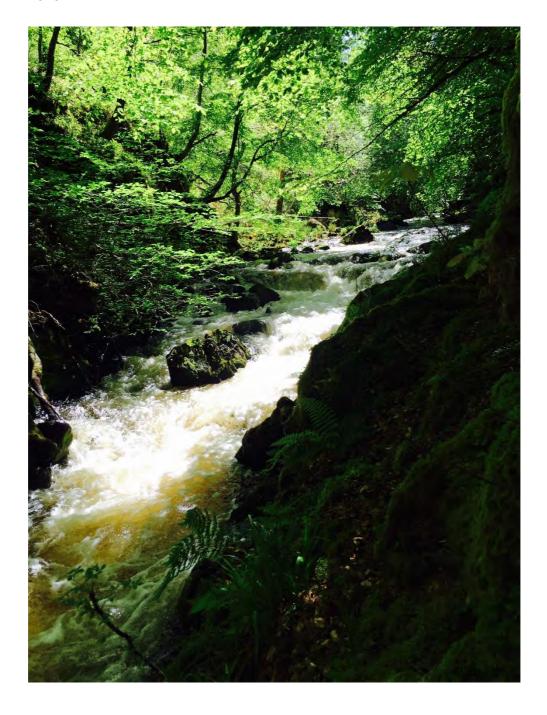
"The Board strongly urges Anglers to adopt a 100% catch-and-release culture throughout the season, to support conservation measures in the wild stock of salmon in our river. Therefore, we are asking Anglers not to kill ANY salmon or grilse."

We thank everyone for their assistance in continuing to gather accurate data, which helps the Board make assessments on projects to manage the protection, enhancement and conservation of Atlantic Salmon and Sea Trout stocks in the River Doon catchment.

lain K Clark, Clerk to the River Doon DSFB

(j) Audited Statement of Accounts

The Draft Audited Statement of Accounts to 31 December 2022 were produced for review and approved at the Annual Meeting of Qualified Proprietors on 23 March 2023.



FINANCIAL STATEMENTS

FOR THE YEAR ENDED 31 DECEMBER 2022

REPORT OF THE INDEPENDENT EXAMINERS

TO THE MEMBERS OF THE RIVER DOON DISTRICT SALMON FISHERY BOARD

We have examined the financial statements on pages 2 to 4.

In our opinion, the financial statements, which have been prepared on the basis of the accounting policies set out on page 4, are consistent with the records and vouchers of the Board for the year ended 31 December 2022 and of its surplus for the year then ended.

Azets 3 Wellington Square Ayr KA7 1EN

20 March 2023

INCOME AND EXPENDITURE STATEMENT

FOR THE YEAR ENDED 31 DECEMBER 2022

	Year to 31.12.22	Year to 31.12.21
INCOME	£	£
Assessments Bank and building society interest	17,867 	13,259 <u>97</u>
	<u>18,152</u>	<u>13,356</u>
EXPENDITURE		
Fisheries Management Scotland Ayrshire Rivers Trust annual contribution Clerk's fee (incl. stationery and postage) Accountancy fee River Watch Scheme Donation – Ayrshire Rivers Trust Brockloch Project Sundry Taxation	674 6,405 6,160 581 1,068 500 128 54	654 6,218 2,970 500 - - 99
	<u>15,570</u>	<u>10,459</u>
Surplus/(Deficit) for year	2,582	2,897
Surplus brought forward	<u>24,375</u>	<u>21,478</u>
Surplus carried forward	<u>26,957</u>	<u>24,375</u>

STATEMENT OF FUNDS ON HAND

AS AT 31 DECEMBER 2022

	As at 31.12.22	As at 31.12.21
	£	£
ASSETS		
Bank balance		1,678
Gilson Gray Deposit account	26,291	12,207
Debtors – unpaid assessments	_1,553	12,234
	27,844	26,119
LIABILITIES		
Accruals	(681)	(980)
Tax payable	(206)	(170)
Due to clerk		<u>(594)</u>
	<u>26,957</u>	<u>24,375</u>
Represented by:		
Retained surplus	<u>26,957</u>	24,375

2m

The financial statements were approved by the board on 23 March 2023.

Chairman

NOTES TO THE FINANCIAL STATEMENTS

FOR THE YEAR ENDED 31 DECEMBER 2022

1. ACCOUNTING POLICIES

- Except to the extent noted below, the financial statements include cash income and expenditure received and paid during the period.
- Liabilities and income outstanding at 31 December 2022 have been incorporated in the Financial Statements.

6. Future Work of the Board

The Board intends to carry out further work over the balance of 2023 and going forwards. In order to do so, there is a question of having the necessary funds to carry out work; and the priorities for such work.

(a) Report on Expected Budget

Summary of Financial Position of the Board at 17 April 2023

Current Balance of Funds held at 20 March 2023	£25,776.69		
LESS Expenditure to 17 April 2023:			
Gilson Gray LLP – Interim Fee for Clerk to the Board to 31/03/23 Fisheries Management Scotland – Annual Membership 23/24 Azets – Accountancy Charges for year ended 31 December 2022	-£ 1,200.00 -£ 723.00 -£ 580.80		
PLUS Interest on Funds on Deposit to 14 April 2023	+ £229.99		
Current Balance of Funds held on Deposit at 17 April 2023	£23,502.88		
LESS Estimated Regular Expenditure to 31 December 2023:			
Information Commissioner's Office – Annual Registration Fee HMRC – Corporation Tax for Year to 31 December 2022 Fee to Gilson Gray LLP – Advice re Disputed Riparian Rights Ayrshire Rivers Trust – Est Annual Affiliation Fee 23/24 Gilson Gray LLP – Interim Fee for Clerk to the Board to 30/06/23 Gilson Gray LLP – Interim Fee for Clerk to the Board to 30/09/23 CE Project Management – Web Hosting/Domain Renewal 2024 Gilson Gray LLP – Interim Fee for Clerk to the Board to 31/12/23 Total Estimated Regular Expenditure to 31 December 2023	-£ 40.00 -£ 54.15 -£ 600.00 -£ 6,450.00 -£ 1,200.00 -£ 1,200.00 -£ 1,200.00 -£ 1,200.00 -£ 1,200.00		
PLUS Estimated Income from Fishery Assessments 2023/2024	+ £18,000.00		
LESS Estimated Budgeted Expenditure to 31 December 2023: Fencing Grants Report from CBEC Expenditure on River Watch Scheme Total Estimated Regular Expenditure to 31 December 2023	- £10,000.00 - £ 3,000.00 - £ 1,200.00 - £14,200.00		
Estimated Remaining Credit Balance at 31 December 2023 circ	ca £16,499.73		
Recommended Reserves: Additional Budget available for spending 2023/2024:	£9,000.00 £7,500.00		

Recommendations from the Clerk to the Board:

The Board currently holds funds of £23,502.88 on deposit. For budgetary purposes, the balance of expected regular expenditure for the year to 31 December 2023 is approximately £10,803.15. That leaves an amount of approximately £12,699.73.

In addition, following the Board's fixing of the Assessments for 2023/2024, we anticipate additional income of around £18,000 in the year to 31 December 2023, if all Assessments are paid.

In addition, the Board already has additional budgetary commitments of approximately £14,200.

My recommendation to the Board is to retain a sum for Reserves sufficient to cover contingencies (and it is for the Board to determine what sum that might be, but I suggest a sum of £9,000 would be appropriate). That would mean that the Board could consider budgeting to spend perhaps £7,500 in the latter part of 2023/2024, on planned project works to be undertaken in conjunction with and, as recommended by Ayrshire Rivers Trust.

(b) Proposed Works for Discussion/Agreement



Ayrshire Rivers Trust Braeside, Burnbrae Lodge, Mauchline, KA5 5HE

Ayrshire Rivers Trust report for the River Doon District Salmon Fishery Board Proprietors Meeting 23rd March 2023

Working through priorities set within the DSFB's Fishery Management Plan has proved beneficial and allows the District Salmon Fishery Board's efforts and limited resources to be channelled towards making improvements where they are most needed and achievable.

In 2022, the DSFB agreed to release £10K of their reserves for fencing projects that would benefit water quality and/or habitat. The Trust has secured agreements with landowners that will shortly see two burns protected from livestock that impact on both instream habitat and water quality. These burns offer spawning potential for both trout and salmon but the habitat has been affected by silt arising from livestock driven erosion. Fencing allows better water margin management and should see productivity in these burns improve quickly as the habitat recovers. Planting trees within fenced areas further helps cool and shade fish habitat, particularly important as average temperatures rise through global warming.

With around 1300m of water margin fencing about to be installed, it is encouraging that the DSFB has agreed to continue with this initiative for 2023 and landowners in need of financial assistance for fencing are encouraged to speak to the Trust staff as grants of up to 50% are available towards the costs.

Elsewhere other funding is available through Forestry Grant Schemes and Agri Environmental Climate Scheme, although this fund will soon be replaced by a new initiative. ART can help with support and justification for such schemes.

Fencing is not required in all reaches and with most of the priority areas already addressed, we look to develop other approaches, as outlined below.

Restoring habitat and function

During the construction of the Maybole Bypass, the Brockloch Burn was realigned to make way for the north roundabout. ART were involved on the monitoring of impacts and restoration of this burn. The worked stretch has been completed and will naturalise and fully recover over time but we were aware of issues downstream that required improvements beyond the scope of the construction works.

As close partners with the DSFB, ART secured funding from the Sustainable Aquaculture Fund to improve habitat on the Brockloch Burn downstream of the bypass realignment. ART are working with landowners to improve spawning potential and habitat. Silt was cleaned from suitable spawning gravels last winter and new fencing is soon to be erected at no cost to the landowners. A wet woodland will also be protected with fencing to ensure expected impacts from climate change are minimised and new water troughs provided. For livestock watering

In all, ART secured around £17,000 of investment to improve this habitat by the end of 2023.

Since 2012, monitoring revealed that this burn produces a small number of salmon each year and almost uniquely for the Doon, some of these fish head to sea as S3 smolts (3 years old). Previous studies showed 25% of smolts head to sea as S1 and 75% as S2 (from those sampled). A S3 smolt is therefore rare in the Doon catchment and they deserve to be protected wherever possible as they may be genetically distinct from others in the catchment.

With new funding sources released by Government through their agencies, more effort is being targeted at restoration of the water environment and biodiversity. While there are no instant fixes to the crisis facing salmon in Scotland, it is encouraging that actions to address wider biodiversity losses and habitat issues will also improve prospects for Atlantic Salmon survival. ART are looking at ways in which these funding streams can be utilised to benefit the river and its ecology.

One such restoration project is currently being assessed by ART on the Red Burn (a.k.a. Grimmet Burn). This burn was historically straightened and restricted to field margins (pre 1850). There may be scope for substantially lengthening the course of the burn through realignment and new habitat creation. Its current course flows through marginal land alongside wetland. Should we be able to secure landowner agreements, this may be a beneficial project for the Board and Trust to develop with specialist morphological assessment essential. The board has already ringfenced £3000 towards this cost.

The development phase may also qualify for grant funding and ART are currently exploring this potential.



Figure 1: The Red Burn near Grimmet. This was straightened pre 1850. Marginal land may provide a suitable alternative route for the burn that may be agreeable with the landowner. A creative approach to realignment could substantially increase the habitat available for juvenile salmon and trout recruitment

Netherton Burn re alignment

The Netherton Burn was described as a 'capital burn' for spawning trout and fish and one that sea trout returned to in good numbers by James Hamilton (the Head Bailiff) in his report of 1856. Today, while the burn has much potential, it requires a degree of restoration and assistance if it is ever to become productive again.

While discussing the fencing requirements at Netherton Burn with the landowner, we also discussed land-slides on the upper burn that cause massive silt loading in the watercourse. These landslides and subsequent erosion may be livestock driven to some extent. Additionally, the burn has moved (as they do) and currently flows along the toe of a very steep and high bank causing erosion. The owner agreed that they should be stabilised but has no idea how to achieve this safely.

ART identified that historically the burn flowed on the opposite side of the valley floor where it caused no problems to land stability and thus could be realigned relatively easily, should SEPA agree. SEPA may or may not support such action although, we do consider this would be beneficial to restoring function and should increase fish populations in the burn by reducing fine sediment input. ART have developed a plan and are seeking grant funding for most of the costs but some match funding will be required. ART will apply to the Sustainable Aquaculture Fund next month, should SEPA broadly support this approach.



Figure 2: The landslide at Netherton Burn. The proposal includes realigning the burn across the valley floor (approx. location in red), re-joining the natural course downstream of the erosion. Livestock will be excluded from the entire area through new fencing supported by the DSFB.

Weirs

Another approach that may offer substantial benefit to salmon and trout migration is the breeching or removal of weirs on the river. Overwhelming evidence collected by fishery biologists around the country indicates that most weirs are highly detrimental to fish migration in one direction or another, or both. Within the Doon catchment, there are seven remaining weirs that are largely redundant. Weirs that serve no useful purpose should be considered for easement or removal or at least have improved migration routes provided.

ART will investigate options at these weirs in the coming months to assess their feasibility for improvement. Again, SEPA will be consulted and where feasible, grant funding sought.

While some weirs are passable by upstream migrating salmonids, their impact on downstream smolt migration may be less obvious. Research by the Atlantic Salmon Trust and Missing Salmon Alliance revealed that in some cases, 50% of in river smolt losses occur around weirs as their downstream passage is delayed rendering them vulnerable to predation by piscivorous birds and fish. The river upstream of Patna's two weirs is a known hot spot for pike and predator birds on the Doon and it may be possible these weirs contribute to elevated losses.

Any efforts to remove or alter weirs may be opposed and therefore it is by no means certain that progress can be made at any dam but the evidence indicates we should try. In river smolt losses should be prevented wherever possible as ultimately this is the first of many pressures that limit adult numbers returning to the river after their marine phase. As marine losses are so great, maximising smolt output is essential.

ART welcome discussion with the Board, anglers and owners on this subject and we will consult widely before making further recommendations.



Figure 3: Left: the lower Patna weir

Figure 4: Right: the upper Patna Weir



Figure 5: Water from the upper weir is backed up to these artificially stepped pools. Removing the centre sections of these dams may also be beneficial to smolts, adults and angling following easement of the weirs downstream but this will need to be determined through consultation with stakeholders.

Drumgrange Farm erosion near Patna

ART are looking to install green engineering in order to prevent further land loss near Drumgrange at Patna. This will be something we discuss further with the DSFB as costs and extent of the work become clear.

EDNA assessment Loch Doon

Drax Power and ART are negotiating a price for EDNA sampling at Loch Doon to investigate the species within the loch. ART previously assisted SEPA to deliver this some years ago however there is a constant threat that non-native species introductions occur in this location. In order to manage such threats and any introductions appropriately, EDNA sampling provides a relatively quick and cost-effective assessment on which to base any management action. This project will hopefully be delivered in the coming months once agreements are reached.

To conclude ART's report, we are encouraged by the Board's eagerness to improve the fishery by taking pragmatic and proactive approaches when addressing the issues. Of course, nothing ever happens quickly in fishery management, particularly due to the many constraints and regulations by which both Board and ART are bound however, we have made considerable progress to achieve the management plant's goals and will continue to do so as we progress in 2023 and beyond.

Stuart Brabbs, Trust Manager, Ayrshire Rivers Trust



7. Acknowledgements



RIVER DOON DISTRICT SALMON FISHERY BOARD

Thanks the following for their support in its work:



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Funders and partners:

- All River Doon District Salmon Proprietors and Tenants (48 Fisheries)
- Fishery Managers, Ghillies, Club and Association Committee Members
- Fisheries Management Scotland
- Accountants: Azets, Ayr
- Solicitors: Gilson Gray LLP, Glasgow
- Web hosting and Domain Renewal: CE Project Management
- Alan McDowall, River Watch River Patrol Coordinator
- · Alan Shannon, River Watch Coordinator
- All the River Watchers under the River Watch Scheme
- Police Scotland
- Scottish Environment Protection Agency
- South Ayrshire Council
- · Ayr Joint Valuation Board
- The many landowners who allow access and work to be undertaken
- And other volunteers who give up their time to support our efforts

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