

# **AFT Biologist's Report – Director's Meeting 4th November 2024**

## **AFT Development & Public relations**

Argyll Fisheries Trust is currently undertaking both government and privately funded projects and contracts in 2024-25 (reported separately below).

The headlines for the development of the AFT organisation are:

- The Trust's team continues to be developed: AK and AMS attended SFCC Freshwater Pearl Mussel Survey training course in August.
- GA (& AR online) attended the Conservation Aquaculture Workshop at Stirling Uni.
- AK supported FMS in hosting a visit by Finlay Carson MSP (Rural affairs and Islands Committee) at the River Ruel Habitat work site as part of the follow up to the salmon farming inquiry.
- AFT hosted the BBC Landward programme at the River Ruel Habitat work site. The show featuring AFT will be shown on BBC Scotland at 8.30 PM on the 26<sup>th</sup> of September.
- AFT staff will attend an FMS fish health workshop on the 12<sup>th</sup> of November 2024.

## **National Projects**

**West Coast Tracking Project (AST/FMS)** – AK was a co-author of a paper published in the Journal of Fish Biology that summarises the findings of the WCTP (2021-23). The article: 'Determinants of riverine migration success by Atlantic salmon smolt from rivers across the UK and Ireland' can be found at <https://onlinelibrary.wiley.com/doi/10.1111/jfb.15884>

**Sweep Netting 2024 (Marine Directorate / FMS)** – AFT undertook sweep netting and analysis of sea lice burdens of sea trout at Loch Riddon. The work was funded by Scot. Gov. via FMS, which will be the last year of support before monitoring is merged into the Sea Lice Risk Assessment Framework (at sites yet to be determined). [AK will discuss uptake of the monitoring of this site with Bakkafrost Scotland Ltd / SEPA.](#)

**Adult salmon sampling programme (ASSESS – Marine Scotland)** - following work carried out in 2021-23 for Marine Directorate's ASSESS project, AFT have collected 30 scale samples from adult salmon caught in the River Awe in 2024 (June-Sept.). Mark Shone is also collecting samples from the R. Etive. The project income is expected to be £7,500. More information can be found here: <https://www.gov.scot/policies/salmon-and-recreational-fisheries/conservation/>.

**Scottish River Temperature Monitoring Network (SRTMN – Marine Scotland)** - AFT continues to contribute water temperature data to the national picture through our network of temperature recording tags deployed in the Add, Carradale and Awe catchments. The project was not funded in 2023-24. AKW will progress with FMS. AFT also contributes data collected in the Awe catchment as part of the Awe catchment project. More information can be found here <https://www.gov.scot/publications/scotland-river-temperature-monitoring-network-srtmn/>

**Saprolegnia Project (FMS – Aberdeen University)** – GA & RJ are collecting bi-weekly water samples from River Awe and River Orchy as part of this unfunded project to assess the type and distribution of this emerging threat to fish health. [An invoice \(11/09/24\) for further support of the project \(£871\) has been received.](#)

**Pink Salmon eDNA sampling (FMS)** – GA & RJ have collecting eDNA samples from River Awe and River Orchy as part of a national monitoring programme for the monitoring of pink salmon in Scotland. [No income is expected from the project.](#)

## **Catchment Projects**

**Awe & Etive Catchment Studies (ADRIA)** - An existing AFT fieldwork programme on the River Awe & Etive catchments aim to improve the salmon. The focus (2022-23-24) has been focused on improving the passage of smolts to sea and developing an Awe Fisheries District management plan. The work programme for 2023 is complete and work on the 2024 is underway:

Awe Barrage Smolt Tracking Project - Following a pilot study to assess downstream fish passage at the Awe barrage in 2022 & 23, AFT tagged and released a further 96 smolts with acoustic tags with the aim of understanding their behaviour in Loch Awe, the Awe barrage and the River Awe in April & May 2024. A report on the summary results (2021-23) was provided to ADRIA and SSE in spring 2024.

AK has engaged with SSE / AST / GU / Drax to develop a continuation of the project that is aimed at understanding the specifics of the influence of environmental conditions and operation of renewable energy schemes on smolt migration over 3 years (2024-26). £35K has been provided by SSE for acoustic tags and other funds are being sought (Estimated total £60K). 20+ Deep water receivers were loaned to AFT by AST in 2024. GU have provided licensing & technical support. All 13 tags for ferox trout have been deployed which will help inform us of any conflicts with their autumn spawning migration at the barrage (tags funded by LAIA). [AFT plans to retrieve the receivers, analyse data and provide a report to project partners in winter 2024-25.](#)

Acoustic Deterrent devices (seal scaring) – AFT have been supplied with two ADD for use in Argyll through a project bid to Marine Fund Scotland administered by FMS. One ADD has been used at the Awe barrage where seals have been a persistent problem in late Summer 2024. [AK to seek information on ownership / insurance with FMS.](#)

Awe Fishery Management Plan 2024-2028 - AK issued new FMP for the Awe Fishery District in mid-March 2024. The plan covers the main themes of stock conservation / repopulation and Habitat restoration. Initial meetings of AFT/ADRIA and landowners to discuss options for implementing sub-catchment scale habitat management/restoration plans are underway. [AK has provided a report on the habitat & fish populations to Blackmount Estate and will provide further support to develop a riparian tree planting scheme in 2024-25. This project may utilise funds from the funding agreement between Argyll DSFB & Mowi Scotland as part of the Loch Awe EMP \(to be agreed\).](#)

## **River Ruel habitat improvement –**

Fish habitat improvement works in the upper river Ruel over the past 5 years will be continued in 2024. The work has introduced Coarse woody debris into the river and green bank revetment (GBR) to increase the cover for fish, increase scour of riverbed substrates and protecting banks from erosion. AFT provided support to RRIA to successfully apply for additional funds in 2024 (£10K) from the Salmon Scotland Wild Fisheries Fund (WFF) to bring the total project fund to circa £20K including funding from SSE and Cruach Mor Wind Farm. [Work in 2024 was started \(19/08/24\) but high river flows meant the work has been postponed until later in the autumn.](#)

Ruel salmon 'Living Gene Bank' seeks to evaluate new techniques of utilising hatcheries to maintain genetic diversity in declining salmon populations. A proposal to begin the partnership with Otter Ferry Sea Fish Ltd to on grow wild parr to mature adult (to act as a source of fertilised eggs / release of mature adults) was accepted by the WFF (£50K). AK provided a detailed proposal to secure licensing by Marine Directorate. AFT has collected 150 salmon parr from the river which form the basis of the living gene bank and potentially will be used to provide hatchery support to the salmon population in future years. All aspects of the project will be informed by genetic information and guidance from Marine Directorate.

### **Loch Lomond & Trossachs National Park –**

Fish habitat improvement - AFT has applied to the Loch Lomond & Trossachs National Park authority (LLNPA) for funding projects in the park area in 2024. AFT await confirmation of funding for larger fish habitat improvement projects in the Goil and Eachaig catchments (Given recent government announcements, these applications are unlikely to be granted in full):

River Goil habitat improvement - AFT seek to continue the programme of GBR & fencing work in 2024 (£32K). <https://www.lochlomond-trossachs.org/park-authority/what-we-do/conservation/land-management/our-work-in-action/river-goil-green-revetment-project-supporting-salmon-nature-based-solutions/>

River Eachaig habitat improvement - Following the completion of the GBR work in 2022/23, AFT successfully supported the R. Eachaig Fishing Syndicate for a funding application to WFF (£20K) and await the outcome of our LLNPA application (£57.5K) for an expanded work plan in 2024.

Invasive plant control – A contribution agreement for funding work to control of invasive plants has been agreed for the Lettermay Burn, River Goil and River Eachaig in 2024-25 utilising professional contractors (£12K).

**River Creran** - AFT are undertaking further juvenile fish surveys in the Creran catchment to evaluate the outcomes of the experimental hatchery support programme in 2024. AFT planted eggs derived from the project in spring 2024 into the upper river and has planted additional nutrients (fish pellets) in the second year to assess survival and growth of fry at improved and unimproved sites. Fieldwork has been completed which will be reported before year end 2024-25. This work is supported by a donation from David Stewart via CAF America (£4.0K per year).

**Loch Fyne Rivers** - AFT have completed the fieldwork for the bi-annual juvenile fish monitoring in Loch Fyne rivers in 2024. A report will be issued in autumn / winter 2024. AFT has also invested time in developing a potential 'Riverwoods' project in upper Glen Fyne. This potential project will be progressed further in 2024-25.

**River Massan / River Eachaig Catchment Management Project** - AFT has undertaken surveys of fish habitat and invasive plants to inform a catchment plan and future projects in the lower Eachaig / Loch Eck catchment (see above). The report of the survey work has been completed (June 2024) which has been used to make funding applications to LLNP & WFF. This initial phase of the work is being supported by local riparian owners and fisheries (£3.1K). Outputs of the report will seek to focus management and attract funding into fish habitat improvement work and has also engaged SEPA into further discussion over potential initiatives to reduce the impact of commercial forestry on the River Massan and the wider Eachaig catchment.

## **Commercial Contracts 2024-25**

AFT is progressing with several commercial contracts related to aquaculture Environment Monitoring Plans (EMPs), Hydro and Windfarm EIAs. Contract descriptions and values are given (ex. VAT) below.

### **Aquaculture EMP contracts:**

Bakkefrost Scotland EMPs – Fieldwork and reporting has been completed on EMP contracts agreed with Bakkefrost Scotland for sea lice monitoring work at Loch Fyne (£7.33K), Loch na Keal (£7.63K), Lamlash (£7.55K) and Ardyne (£7.33K) in 2024. Invoices have been issued for the completed work. The freshwater component of the East Tarbet Bay (£11.36K) contract been completed and reporting is underway.

Mowi / Kames EMPs – The marine monitoring parts of EMP contracts for Mowi Scotland in 2024 have been completed, reported and invoices issued for Sea lice monitoring at Carradale (£9.33K) and Loch Etive (£7.33K). The fieldwork for freshwater surveys at Carradale (£9.3K) have also been completed, but not yet reported. Fieldwork for freshwater surveys for the Loch Etive EMP have been completed (£9.3K) and will be reported this winter.

The fieldwork for the marine fyke net surveys at Sound of Shuna (£14.3K) has been completed and freshwater surveys (£3.7K) planned for autumn 2024. Sub-contract work for Loch Lomond Fisheries Trust for sea lice monitoring work at the River Leven (£4.6K) has been completed and has been invoiced.

Scottish Sea Farms EMP – Fieldwork and reporting has been completed for lower Loch Linnhe EMP contracts for Scottish Sea Farms at Dunstaffnage and Loch Creran in 2024. An invoice has recently been issued (£16.8K).

### **Renewable Energy Contracts:**

Allt Teanga Hydro Survey - AFT has completed reporting of a fish habitat survey of fish habitat on Allt Teanga (tributary of the Coladoir River) inform an EIA for a run-of-river hydro scheme (£1.9K).

A83 Leacann fish removal (JML) – AFT has undertaken a fish removal at roadworks on the A83 in the Leacann Water to allow repairs to be undertake in May 2024 (£0.7K).

Cruach Glenamachrie Wind Farm (Fernoch) – AFT has completed a habitat & fish surveys and report for WSP at Fernoch (Allt Nanthais catchment) to inform an EIA for a new access road. A report and invoice have been issued (£4.6K).

Allt Eilidh Hydro (River Creran) – AFT has completed surveys of fish and fish habitat at the Allt Eilidh hydro scheme extension. A report and invoice will be issued by end of September (£5.3K).

Deucherer Wind Farm (Carradale Water) – AFT is currently undertaking surveys of fish and fish habitat at the Deucherere Wind Farm. A report and invoice will be issued by end of December (£12.7K).

Killean Wind Farm (Kintyre) – AFT has completed surveys of fish and fish habitat at Killean Wind farm site extension. A report and invoice have been issued (£4.8K).

Barachander Wind Farm (Kintyre) – AFT has completed surveys of fish and fish habitat at Barachander Wind farm site to inform the EIA. A report and invoice have been issued (£8.5K).

Allt a Ghariadh Hydro (Kinglas Water) –AFT has completed a survey of fish habitat at a tributary of the Kinglas Water to inform development. A report and invoice have been issued (£1.5K).

Loch Garbhaig (Wester Ross) – AFT has completed surveys of fish, fish habitat and eDNA sampling at Loch Garbhaig in Wester Ross to inform the expansion of an existing hydro scheme for Hydroplan Ltd. Reporting has been completed (£7.5K).

Barr Water Wind Farm (Kintyre) – AFT has agreed a contract with WSP to undertake surveys of fish and fish habitat at the Barr Water to inform the routing of a new road. Fieldwork has been completed and reporting is underway (£15K).

Carraigh Geal Wind Farm 2 (CGWF2) – A quote for fish and habitat survey work was provided to RPS (£18.9K). This project has been postponed until 2026.

A. Kettle-White (AFT Director of Operations)