Status of juvenile Wild Atlantic Salmon in Wester Ross, Northwest Scotland

Report following 2025 field season






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Wester Ross Fisheries Trust, February 2026

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Summary of information for salmon rivers within the area of the Wester Ross Area Salmon Fishery Board (plus River Carron) as at January 2026

compiled by Peter Cunningham, Wester Ross Fisheries Trust Biologist

River system	Estimated potential annual smolt output[1.]	Proposed conservation grade 2026[2.]	Genetic status 2021[3.]	River system	Sub-catchment	Juvenile fish survey - number of sites surveyed by WRFT in 2025				Comments & Actions needed
						WRASFB	Contract	Other	Status[4.]	
Kanaird	10500	1	mod	**Kanaird**	mainstem		4		mod	**Langwell falls!** Sea lice
				Kanaird	Runie		2		good?	Sea lice
Ullapool	9700	2	good	**Ullapool**	below loch		1		good?	Sea lice
				Ullapool	above loch		6		good?	Catchment sediment management. Sea lice
Lael	1500			**Lael**			1		mod	Bank collapse. Sea lice
Broom	6900	1		**Broom**			4		good?	Sea lice
Dundonnell	3100	3	mod	**Dundonnell**		7			good	
Gruinard	19700	2	good	**Gruinard**	mainstem		6		good?	Impoverished (not enough food . . .)
				Gruinard	ab've L n' Sealga		4 (2024)		good?	Riparian habitat! Impoversished
Little Gruinard	14600	3		**Little Gruinard**	mainstem					to survey in 2026
(SAC)				Little Gruinard	above Fionn L.					to survey in 2026
Allt Beith	800			**Allt Beith**		3			good	below fish ladder
Tournaig	600			**Tournaig**			4		poor	no spawning above first falls in 2024
Ewe	49800	2		**Ewe**	Lower Tollie burn	2			good?	
				Ewe	Kernsary	6			good	
			good	Ewe	L. Maree burns	7			mod	Grudie River good
			good	Ewe	Kin'ewe & L. Bruachaig	3			good?	**Kinlochewe septic tank?**
				Ewe	Bruachaig upper	2			threatened	parr but no fry above lower falls in 2025
				Ewe	Docherty Burn			4	mod	sediment redeposition
			mod	Ewe	A' Ghairbhe	3			good?	
				Ewe	Coulin			3	good?	Riparian habitat. Impoverished.
Sguod	500			**Sguod**		5			mod	sal fry in two burns flowing into loch
Sand	500			**Sand**		5			threatened	no salmon fry found in 2025
Kerry	4000	3	good	**Kerry**						to survey in 2026
Badachro	3600	3		**Badachro**		3			good?	Sea lice
Torridon	8300	3	good	**Torridon**			7		mod	Riparian habitat. **Sea lice!**
Balgy	5400	3	poor	**Balgy**			5		threatened*	*above Loch Damh. Farm escapes. **Sea lice!**
Cuaig	1600			**Cuaig**		1			extirpated	No juvenile salmon for 10+ years. Sea lice
Applecross	4200	3		**Applecross**		4			poor?	Stocked. Sea lice
(Carron)	(25000)	3		**(upper Carron trib.)**			4 (2024)		poor (2024)	Stocked. **Sea lice!**

Sources / notes:

1. Potential smolt output estimates from habitat based calcualtions in WRFT Fisheries Management Plans etc.
2. Scottish Government Conservation grading https://www.gov.scot/publications/salmon-fishing-proposed-river-gradings-for-2026-season/pages/overview/
3. From Gilby et al 2021 National assessment of influence of farmed salmon escapes to genetic integrity (based on samples collected by WRFT in 2018)
4. Juvenile fish status based on WRFT e-fishing survey 2024 & 2025 results and other considerations (e.g. growth rates)

Colour shading for juvenile fish status is subjective and goes from green for 'good' to pink for 'poor', then 'red' for threatenned. See text for further explanation.

Summary

This report provides a summary of the results of a survey of juvenile salmon in the Wester Ross area in July – November 2025 (with some data from 2024 also referred to). Over 100 sites were surveyed in 15 river systems during this period using specially designed electro-fishing equipment.

Healthy numbers of juvenile salmon were recorded in major rivers flowing into the Wester Ross Marine Protected Area [WR MPA] including the rivers Kanaird (Canaird), Ullapool, Broom, Dundonnell, Gruinard and Ewe. Healthy numbers of juvenile salmon were also recorded in the Badachro River. In contrast, to the south of Loch Gairloch (rivers Torridon, Balgy and Applecross), wild salmon populations remain fragile. No sites were surveyed in the Little Gruinard River or in the River Kerry in 2025.

There was evidence of contraction in the range of Atlantic salmon within parts of Wester Ross.

In 2024, no juvenile salmon were recorded in the Cuaig River (near Applecross). In 2025, salmon fry (young of the year) were not found in the upper River Kanaird above the Langwell falls; in the Allt na Coille (Tournaig) above the lower falls, in the River Bruachaig above the lower falls; in large parts of the River Balgy headwaters; in the Sand River (near Gairloch). This follows the lowest reported rod catch of salmon in the Wester Ross area on record in 2024. In previous years, juvenile salmon have been recorded in all these streams.

In contrast, in November 2024 salmon fry were found in the headwaters of the Abhainn Loch an Nid at the top of the Gruinard River system, a good result.

Our results generally concur with the Scottish Government's proposed conservation gradings (based on reported rod catches) of salmon rivers for 2026 (see: Summary information on preceding page). They also support the contention that wild salmon populations, especially those in the south of the area associated with post-smolt migration routes that pass through Loch Torridon and the Inner Sound between Raasay and the Scottish mainland, are particularly vulnerable to high cumulative emissions of larval sea lice from nearby salmon farms. The nearest salmon farms to this migration route are in the east of Skye, Loch Kishorn, Loch Carron and Loch Torridon, where sea lice need to be more tightly controlled. It is in these areas that wild salmon populations are at greatest threat of being damaged further or being lost in terms of retaining any river-specific genetic adaptations.

The upper Bruachaig River (River Ewe headwaters) remains the largest area of freshwater habitat within the Wester Ross area where juvenile salmon production could be much higher than it has been in recent years. Other river systems where actions are needed to support wild salmon populations include parts of the rivers Kanaird, Torridon, Balgy and Applecross.

The production of wild salmon smolts from some rivers could be higher with greater attention to the protection and restoration of riparian habitat (e.g. alder and other riverside trees), revival of vegetation and biodiversity within catchment areas including restoration of fertility (e.g. addressing phosphorus deficits) at ecosystem scale. Some landowners are taking remedial actions to restore or enhance riparian woodlands (e.g. Torridon and Balgy river catchment areas) and there are plans for riparian woodland restoration projects along several other stream systems to provide shade and restore habitat and enhance nutrition for juvenile salmon.

Electro-fishing surveys were carried out under contract for hydropower schemes, to inform Environment Management Plans [EMPs] for local salmon farms, as part of the Salmon Stream Nutrient Restoration pilot project (funded by HIEF), or were supported by the Wester Ross Area Salmon Fishery Board [WRASFB].

Thank you to all funders and to many estates and other helpers for their support in 2024 and 2025.

1. Introduction

The Atlantic Salmon (*Salmo salar*) has been in continued decline across much of its range.

In 2025, the Scottish Government assessed 146 salmon 'stocks' in Scotland and found significant patterns of decline in 63 stocks, including many river systems in south Wester Ross (Balgy, Applecross, Carron, Ling, Elchaig, Glenelg rivers) which were already of poor conservation status before 2011.

Wild salmon populations are subject to many pressures that affect survival. These include weather-related events in freshwater and changes in the distribution of food at sea including those associated with climate change. Losses of salmon to illegal, unreported or unmanaged fishing activity at sea are unknown.

In Ireland, Norway and in much of the west of Scotland, pressures associated with open cage salmon farming are a major concern. The Status of wild salmon in Norway 2025 report states that the biggest human induced threats to wild salmon populations, which were at an all-time low in 2024, were salmon farming and climate change. 'Salmon lice pose the greatest threat, and there is a risk of worsening conditions due to insufficient measures.' The threat to populations of wild salmon from open cage salmon farming around Wester Ross was highlighted in the Status of Salmon in Wester Ross 2021 report. Since then, high numbers of sea lice have been recorded on sea trout sampled at Gairloch, Applecross and at the mouth of the River Kanaird in several years including 2025, demonstrating continued high sea lice infestation pressure in nearby coastal waters.

Wester Ross retains some of the most important wild Atlantic salmon river systems in the northwest mainland of Scotland in terms of the overall size of the accessible 'wetted area' and the diversity of freshwater habitats for salmon. These include the Little Gruinard River (including the Fionn Loch), a Special Area of Conservation [SAC] for Atlantic salmon, formerly protected by European Union legislation; the big Gruinard River system (including Loch na Sealga); and the River Ewe system (including Loch Maree) all of which flow into the Wester Ross Marine Protected Area.

As wild salmon numbers fall, the need to monitor and to protect remaining relatively heathy populations of wild salmon in Wester Ross becomes even greater.

Since the year 2000, juvenile salmon ('fry' and 'parr') have been found in over 20 river or stream systems within the Wester Ross Area Salmon Fishery Board [WRASFB] area which extends from the River Kanaird in the north to the Applecross River in the south. Of these, twelve of the larger rivers have supported a rod fishery (rivers Kanaird (Canaird), Ullapool, Broom, Dundonnell, Gruinard, Little Gruinard, Ewe, Kerry, Badachro, Torridon, Balgy, Applecross). Further background information on each of these river systems can be found in the Wester Ross Fisheries Management Plan 2009.

This report provides a river-by-river assessment of the status of wild salmon for the rivers of the Wester Ross area, as at the end of 2025, using the best available information.

Results from the WRFT electrofishing survey during 2024 and 2025 are summarised together with information from other sources, including reported rod catches and the Scottish Government's proposed conservation gradings for rivers within the Wester Ross area for 2026 (these are based on reported rod catches of adult salmon in earlier years).

This report has been produced with support from the Wester Ross Area Salmon Fisheries Board.

Please note that all pictures of fish in this report are of lightly sedated fish that were returned to the water after recovering grom aesthetic.

2. Juvenile fish survey

2.1 Introduction

Electro-fishing using purpose designed equipment provides the means for monitoring the distribution and relative abundance of juvenile fish. The equipment and protocols used are designed so that all the fish that are captured during a survey can be returned unharmed to where they came from following a period of recovery. Using this method, since 2020, juvenile salmon have been recorded within 20 river or small stream systems within the Wester Ross Area Salmon Fishery Board area (rivers Kanaird to Applecross).

The main aim of the WRFT juvenile fish survey in 2025 was to revisit as many of the salmon rivers within the Wester Ross area as possible to assess the distribution and abundance of juvenile salmon. Juvenile trout, eels and other fish species were also recorded; however, site selection was usually focussed on learning about salmon. Some of the sites were surveyed with funding provided by fish farm companies and hydropower companies to fulfil monitoring contracts. Highlands and Islands Environment Foundation provided a grant towards the Salmon Stream Nutrient Restoration Pilot Project which included electro-fishing surveys. To maintain our own information base for local conservation and fisheries management purposes, additional sites were surveyed in many rivers. This was possible only through the support of river proprietors, estate staff and the Wester Ross Area Salmon Fishery Board.

Surveys were carried out by the WRFT electro-fishing team of Peter Cunningham and Nic Butler (both SFCC qualified) with assistance from Nicky Middleton-Jones. Water levels were variable so far as being able to gain useful information; some rivers were fished when water levels were higher than usual, so for some rivers our results underestimate numbers of fish present compared to previous years. By the end of the field season (July to end November) over 100 sites had been surveyed in 15 different river or coastal stream systems.

Further background information and summaries of the results of juvenile fish surveys in earlier years can be found in the Status of Salmon in Wester Ross 2021 report; Juvenile salmon production and nutrition in Wester Ross 2023 and other reports on the WRFT website.

Scottish Fisheries Coordination Centre [SFCC] officer, Sean Robertson, helping Nic Butler and Nicky Middleton-Jones with processing bucket of juvenile fish by the Talladale River (near Loch Maree), 26th August 2025.

Thank you very much to Sean and to the SFCC for many years of support for Wester Ross Fisheries Trust.

2.2 Results

Overview

Some of the main findings were as follows:

- Juvenile salmon of wild origin remain widely distributed within the major salmon rivers of the Wester Ross area.
- High densities of juvenile salmon were recorded at some sites within the rivers Kanaird, Dundonnell, Gruinard, Ewe system, and Badachro.
- However, salmon fry were missing from some sites in the River Balgy, the Cuaig River and the Applecross River, and above complex waterfalls in the upper River Kanaird and Bruachaig River (Ewe system). No salmon fry were found in the Sand River.
- Large salmon parr (>130mm in length) were found in the River Balgy associated with nutrient enrichment and enhanced feeding opportunities, and above a waterfall in the River Kanaird where they were present at very low densities.
- As in previous years, relatively high densities of small salmon fry were found at some 'core' nursery sites in the big Gruinard River, Coulin River (Ewe headwaters), Torridon river. At these locations there is very little food for the wee fish especially during the latter part of the summer; mortality may be high during winters months.

River by river summaries

Results in terms of fish numbers at respective sites are expressed as numbers of fish per unit fishing time (Catch per Unit Effort [CPUE]) or numbers of fish per unit area or minimum density estimates [numbers of fish per 100m^2]. Figure 1 shows the relationship between the area fished and the time fished for sites surveyed by the WRFT electrofishing team led by Peter Cunningham in 2021. Conveniently, the team fished at a fairly consistent rate of covering close to 10 m^2 per minute. Thus, for example, a catch rate of 1 fish per minute is usually close to a minimum density of 10 fish per 100m^2. Three-run (fully quantitative) electro-fishing surveys have indicated that actual fish densities are typically around 50% - 100% higher than the minimum fish densities recorded in the one-run surveys reported here.

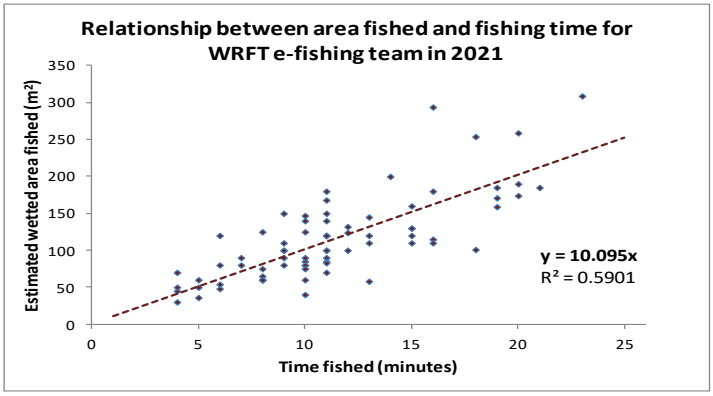


Figure 1. Relationship between the area fished and the fishing time for electro-fishing sites surveyed by the WRFT electro-fishing team in 2021.

The distribution and relative abundance of salmon fry and salmon parr in 2025 (2024 for some rivers) is shown in Figure 2 (a) and Figure 2 (b). Note that these maps present relative abundance as numbers of fish caught per minute (so catch per unit effort, CPUE). Note that the area of each survey site was also estimated to enable minimum estimates of fish density (numbers of fish per square metre).

The following river by river summaries are in order from north to south through the area. When the river level was higher than usual at the time of survey, our results may underestimate fish abundance. Where this may be the case, comment is made in the accompanying text.

Figure 2a. Recorded distribution and relative abundance of salmon fry at sites surveyed within the Wester Ross area in 2025 (and 2024 for Gruinard River headwaters and Cuaig River).

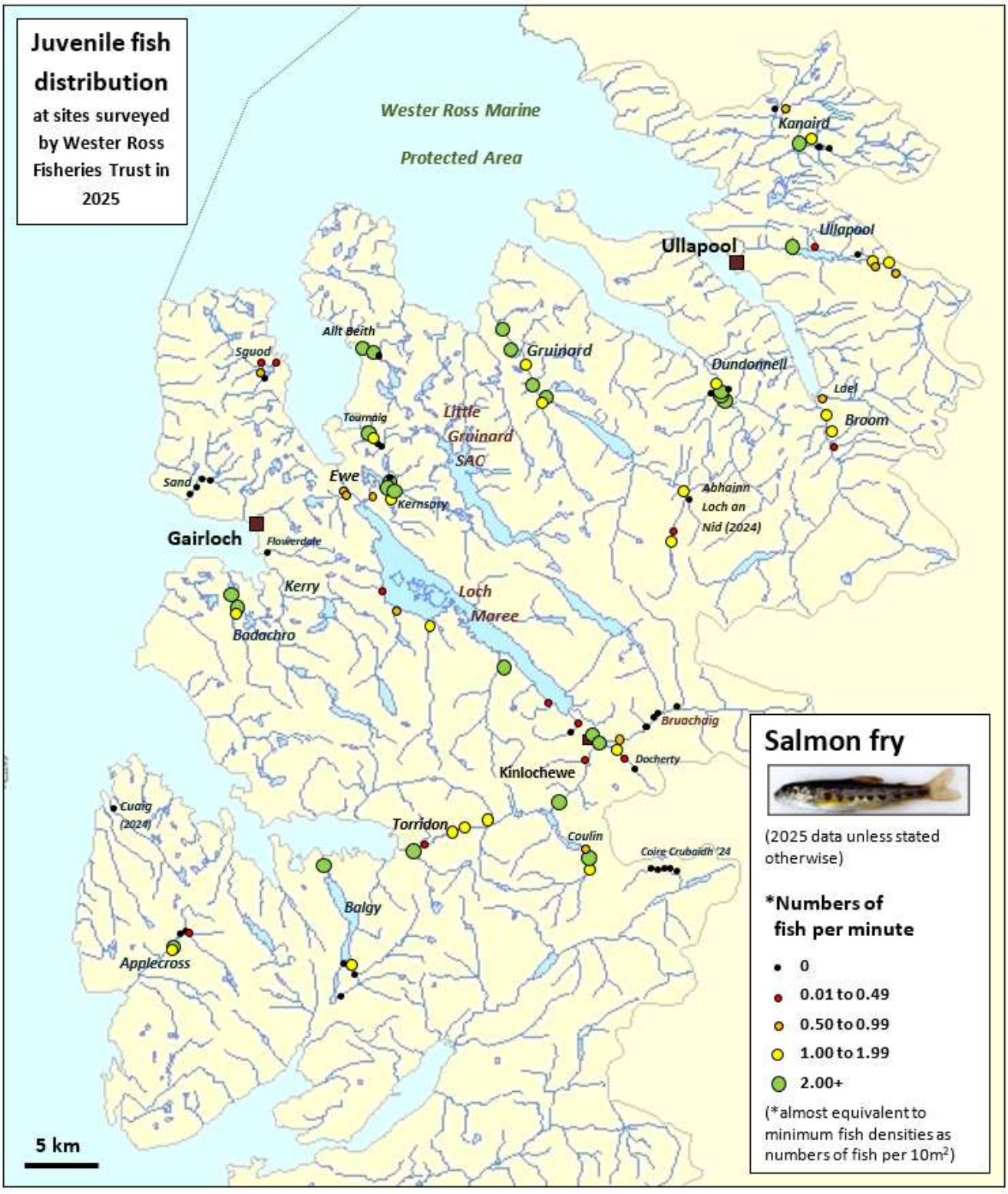
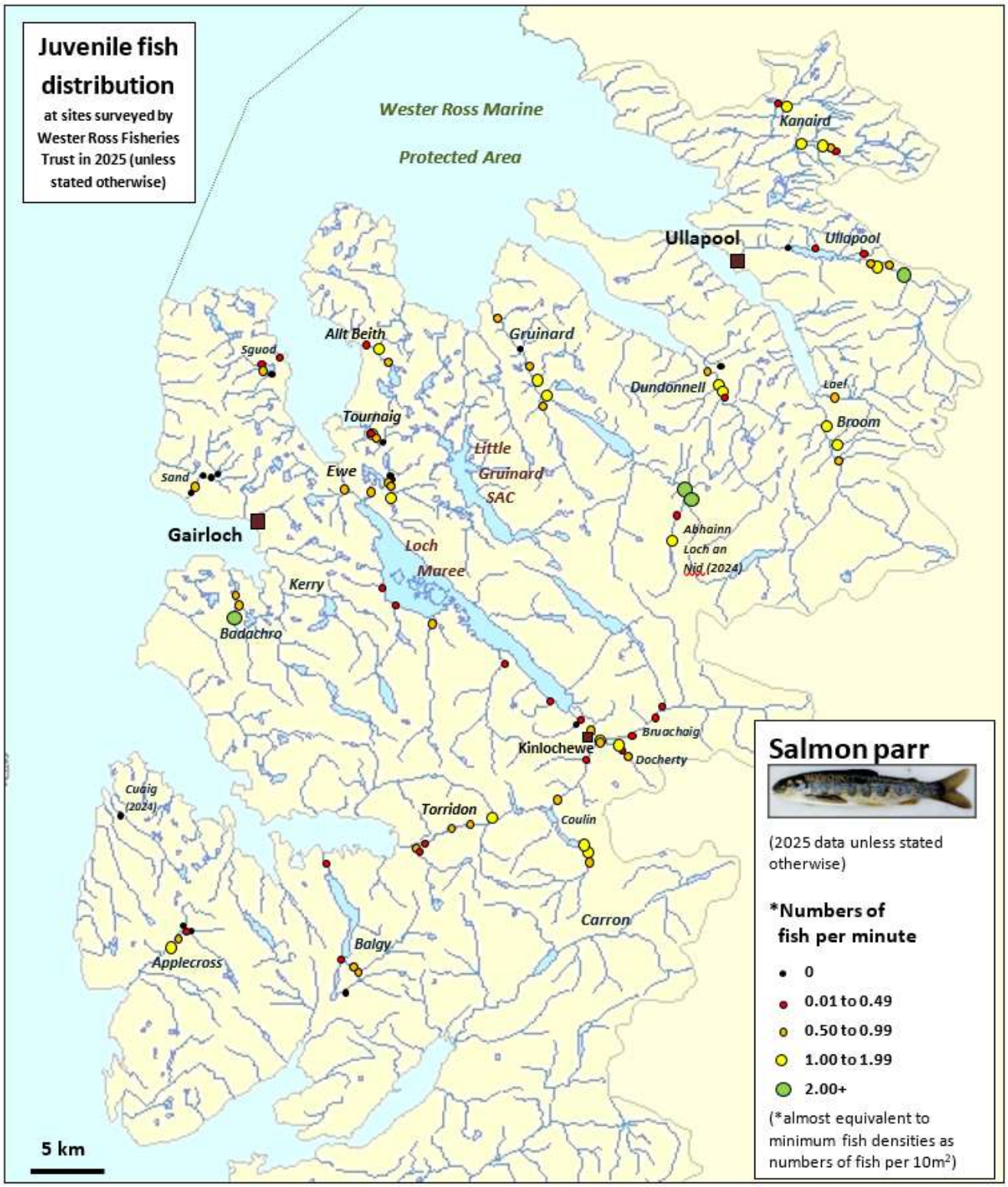


Figure 2b. Recorded distribution and relative abundance of salmon parr at sites surveyed within the Wester Ross area in 2025 (and 2024 for Gruinard River headwaters and Cuaig River).



River Kanaird (Canaird)

Sites were surveyed in both the upper River Kanaird and the upper River Runie on 28th August 2025. Water levels were very low.

Four sites were surveyed in the upper River Kanaird; two sites above and two sites below the Langwell falls as part of a contract for DHG Hydro in fulfillment of the CAR license for the Langwell Hydro scheme. Large salmon parr (age 1+) but no salmon fry were found above the Langwell falls.

In contrast, moderate to high numbers of salmon fry and salmon parr were recorded at the two sites below the Langwell falls, as in previous years. At both lower sites, juvenile fish occurrence was judged to be close to the carrying capacity of respective areas of habitat with fish growth (and sizes) corresponding to density dependent feeding opportunities.

The Langwell falls were modified historically so are an unnatural feature (Figure 3). Further minor modifications would enable adult salmon to more easily access a wetted area of 10,000m^2 – 15,000 m^2 of mostly good salmon parr habitat capable of producing >1000 wild salmon smolts each year; there are now plans to review options for easing passage.

Figure 3. Langwell falls, River Kanaird on 1st September 2021, suggesting minor modifications required to ease passage to enable adult salmon to more easily access a large area of good nursery habitat above the falls. Following several years of monitoring wild fish above and below these falls, SEPA are now (in 2026) keen to help to find a solution to ease passage for salmon over these falls.

Two sites were surveyed in the headwaters of the River Runie, the other main tributary of the River Kanaird. Salmon fry were recorded at moderate CPUE in the larger tributary, Allt Liath Doire, but not above a small waterfall in the smaller Lochan Dubha burn. Salmon parr were present at both sites. Many juvenile trout and minnows were recorded at the Lochan Dubha burn site.

Data from the juvenile fish survey of the Kanaird also contributed to the Ardmair Salmon Farm Environment Management Plan [EMP] wild fish monitoring contract for 2025.

River Kanaird (Canaird), 28th August 2025. All fish pictured in this report were photographed when under light sedation prior to recovery and their return to the river. The survey was supported by DHG hydro.

Kan 1b (top site by Glen Cottage, above Langwell falls) Low densities of large salmon parr here (right), no salmon fry.


Kan 2 (500m, upstream from Langwell falls) Salmon parr and trout x salmon hybrids were recorded here (right), but no salmon fry.


Kan 3 (left) and Kan 4 (right), both downstream from the Langwell falls. Salmon fry and salmon parr were much more abundant here than at sites above the falls. The man-made stream channel at the lower site (Kan4) has changed following deposition of much sediment (mostly pebble- and cobble-sized) within the past two years. Removal of some of this sediment, which could possibly be put to several uses, would help to reduce amount of seepage through the man-made riverbanks into nearby fields.


Ullapool River

Seven sites were surveyed in the upper part of the Ullapool River system on 10th September 2025. Salmon fry were recorded at low to moderate CPUE in the Rhidorroch River. At the site by East Rhidorroch, salmon parr were recorded at high CPUE and more numerous than salmon fry. The river level was unusually low and fish may have been more crowded together than usual.

Young alder along the Rhidorroch River by East Rhidorroch following woodland protection and restoration by the estate. Salmon parr were recorded here at high CPUE on 10th September 2025; many of them were in good condition. Salmon fry numbers were lower at this site than in some previous years, perhaps partly due to continued instability of the streambed.

Site UPL3 in the tributary, Allt Coire Cronais (below, left), salmon fry were outnumbered by trout fry (right). Salmon parr were recorded at moderate CPUE and at an estimated minimum density of just below 0.2 fish / m^2.

At the outflow of Loch Achall at the top of the Ullapool River (*shown below*), salmon fry were recorded at moderate CPUE. No salmon parr were recorded at this site; the river level was noted as being very low; the salmon parr which typically grow quickly here may have moved away into deeper water?

River Broom and River Lael

Four sites were surveyed in the River Broom catchment on 3rd September 2025. Water levels were higher than anticipated on the mainstem River Broom (due to hydropower operation) and electrofishing was possible only along the sides of the river. Salmon fry and parr were present at both main river sites surveyed, though hard to catch. Numbers of juvenile salmon recorded at these sites therefore underestimate numbers present compared to previous years. The regulation of flows by upstream hydropower schemes (perhaps especially the 2MW Loch a' Bhraoin hydropower scheme which became operational in 2020) may be helping to mitigate extreme high and low flows in the mainstem River Broom; this should be monitored.

River Broom efish site by Achindrean bridge, with selection of juvenile salmon and a trout fry recorded here in difficult fishing conditions.

Salmon fry were also recorded in the tributary, Allt a' Braighe; and at a site in the River Lael where salmon parr were also present. At both sites, the stream channel had been much modified within the past four years by movement and resettling of stones along the riverbed, including boulders; associated with stream bank undercutting and collapse during large spate flows.

Unstable rivers: Allt a'Braighe (left) and River Lael just upstream from fish survey site (right), note eroding riverbank from which much sediment enters the river.

The River Broom and Lael provide important habitat for wild salmon. Side-streams also provide useful spawning habitat for sea trout. There are opportunities for further protection and enhancement of stream and riparian habitats for wild fish populations and associated wildlife as well as helping to support local fisheries and wildlife.

Juvenile fish surveys of the Ullapool River and River Broom in 2025 formed a part of the Ardmair Salmon Farm Environment Management Plan [EMP] wild fish monitoring contract for 2025.

Dundonnell River

The Dundonnell River is like a slightly smaller version of the River Broom without the flow regulation associated with hydropower generation. Both rivers flow between tree-lined banks; both rivers have had problems with streambed instability over many years. Seven sites were surveyed in the Dundonnell system on 24th September 2025. Salmon fry were recorded at high CPUE at three of the four main river sites. Salmon parr were less numerous than fry, perhaps partly due to slightly higher flow conditions on the day of survey than in some previous years at some sites. No juvenile salmon were found in the back channel near where the 'Cemetery burn' enters, water levels were very low here at the time of our survey and the flow may have been inadequate to maintain a wetted area of nursery habitat suitable for juvenile salmon earlier in the year; however a few juvenile trout were recorded here and there were sticklebacks in the weedy burn nearby. Overall, our results demonstrate the resilience of a wild salmon population in the Dundonnell River.

Site by the island above the road bridge. The current was a bit stronger than usual making fishing difficult here, so CPUE may underestimate fish numbers here compared to previous years. Salmon fry and parr from this site.


Salmon fry, parr and a stonefly larvae from site in the run above the March pool


Weedy stickleback habitat in the Cemetery Burn, and sticklebacks, 24th September 2025


Gruinard River

The Gruinard River has one of the largest wetted areas of any river system within the Wester Ross area and provides complex and varied freshwater habitats for wild juvenile salmon including Loch na Sealga and headwater streams.

On 6th November 2024, support was kindly provided by Gruinard Estate to enable a survey to be undertaken of headwater streams above Achneigie. The survey followed the stag stalking season, a time when estate staff were able to provide support. This is much later in the year than when e-fishing is usually undertaken, however we were fortunate to get a good weather window with suitable water temperatures and low water levels.

Care must be taken not to disturb spawning adult salmon or sea trout in November; so, the sites chosen for e-fishing were located away from potential spawning habitat and an initial check was carried out to make sure there were no signs of adult fish nearby.

Moderate to high numbers of salmon fry and parr were recorded at the top of the Abhainn Srath na Sealga. These fish were small for their age and rather thin, reflecting a near carrying capacity population of juvenile salmon (as many juvenile salmon as the river can support). At the second site in the small tributary burn below a waterfall (Eas Ban), there were no salmon fry. The high number of parr at this site may be associated with dispersal of juvenile salmon away from spawning areas in the bigger river further downstream.

Above a waterfall in the Abhainn Loch an Nid which is only occasionally passable to adult salmon, large salmon fry were recorded at very low CPUE. In surveys in previous years juvenile salmon have often been absent here. Salmon fry and salmon parr were found at the top site about 800m downstream from the falls below Loch an Nid. Two adult salmon were seen near spawning habitat about 400m below the falls; so good prospects of another year class of salmon in this headwater stream furthest from the sea in the Gruinard River system.

GRNC1 Abhainn Srath na Sealga, 6 Nov 2024.

GRNC4 near top of Abhainn Loch an Nid, 6 Nov 2024. Salmon fry and large parr

On 2nd September 2025, six sites were surveyed in the Gruinard River below Loch na Sealga. Conditions were adequate for our survey, except at a site in the Loch Ghuibsachain burn which was at a higher level than anticipated after a heavy rain. Salmon fry were recorded at high CPUE at five sites; parr at lower CPUE at most sites; the water was too deep and the current too strong to fish away from the bank at several sites so parr may have been under-recorded compared to previous years. As in previous years, salmon fry were largest at the top site about 1km downstream from the outflow of Loch na Seaga (47mm-65mm in length); and smallest at the lowest site (32mm-49mm) where there is little food for them.

It was encouraging to see patches of ground with young trees growing along riverbanks by the Gruinard River and around relict woodlands on valley sides (see Box 2.1). In future years, juvenile salmon production in the Gruinard River should benefit from the addition of tree debris including wind-blown leaves and twigs and other nutritious organic material. In conclusion, the Gruinard River still has high densities of small juvenile salmon.

However, there are many more little fish in the Gruinard River than the food supply can support to grow into smolts. This issue, which also affects salmon production in several other streams including the nearby Little Gruinard River (not surveyed in 2025), was discussed by Cunningham (2024a) and Cunningham (2024b) and prompted a salmon stream nutrient restoration pilot project in 2025 (see also Box 2.2).

Box 2.1 Regenerating woodlands by the Gruinard River?

On 2nd September 2025, several areas with young birch trees growing around existing patches of woodland were noted (*top three photos*). Near the riverbank, young alder trees were seen, which if able to grow up, can provide shade, rooty habitat and additional nourishment to support juvenile salmon production in the river. All good!






Allt Beith (Aultbea River)

This little river which flows into Loch Ewe has consistently supported a population of juvenile salmon. In some recent years, juvenile salmon have been found at the outflow of Loch a' Bhaid-luachraich (locally known as the 'goose loch') demonstrating that adult salmon have been able to ascend the old Drumchork fish ladder following repairs in the early 2000s.

On 23rd August 2025 three sites were surveyed in the Allt Beith, with help from the Aultbea River Guardians. Salmon fry were found at high CPUE by the steppingstones in the flats above the A832 and at a lower site just above the tide. Salmon parr were also present at both sites and at the top of the fish ladder.

Aultbea Riverfly 'Guardians' after finding many aquatic invertebrates and large salmon parr (right) at the top of the Drumchork fish ladder on 23rd August 2025.

High densities of salmon fry have been recorded most previous years by the steppingstones. This site is at the tail of a long, deep pool where adult salmon may be able to evade capture by otter and other predators prior to spawning. Below the main road (A832) salmon fry grow quickly; there is a corridor of well-wooded riparian habitat with many willow bushes. The river may be also nourished with seepage from some septic tanks.

Bucket of fish from just above the old clapper bridge at the top of the tide, and some of the large salmon fry recorded here (right).


The Allt Beith is a wonderful little river and has much potential to be further developed by the local community for greater amenity value, for wildlife, and as a place where local children can learn about nature and go fishing! Some of the older people living nearby have exciting stories of salmon and sea trout taken from the river in past years when salmon and sea trout were more plentiful!

Tournaig River

The Tournaig River is the next one to the west from the Allt Beith and is one of the smallest in the Wester Ross area to have supported juvenile salmon. Salmon can survive in the Tournaig system as after entering freshwater, they can swim upstream and into Loch nan Dailthean less than 1km from the sea when there is enough water in the river. There they can await rainfall in the autumn to be able to move out of the loch to spawning areas.

WRFT has operated an upstream-downstream fish trap to record smolts leaving the system and adult fish returning since 1999. In addition, each year since 2004 the WRFT electro-fishing team has carried out a survey of juvenile fish at sites in the Allt na Coille, the principle spawning stream above the loch.

On 15th October, four sites were surveyed in the Allt na Coille. Salmon fry were recorded at high CPUE at the lowest site, nearest Loch nan Dailthean. Salmon fry were also found at the next site just below the first falls. Salmon parr were present at the bottom three sites, but not above the 2nd falls.

It was a surprise to find salmon fry in 2025 as no adult salmon were recorded in the upstream trap at Tournaig in 2024! This is evidence that at high flows, adult salmon coming in from the sea are sometimes able to bypass the trap, perhaps by ascending the waterfall.

Nic Butler and Ben Rushbrooke, both looking rather pleased having won a bet after someone suggested that no salmon fry would be found at Tournaig in 2025! Many small trout and minnows were also recorded here.

In contrast to some other areas of Scotland, the harbour seal population around Wester Ross remains relatively stable. Until around 2010, a harbour seal was sometimes shot under license by trained marksmen in the Loch Ewe area to protect wild fish; seals learned to keep away from some areas. In more recent years, the number of harbour seals that haul out within 1km of the mouth of the Tournaig burn has risen.

Following recent advances in the development and use of acoustic seal scarers to protect wild fish, there may be opportunities to learn more about relationships between salmon numbers entering the little Tournaig system and harbour seals nearby.

(left) Eight harbour seals were seen in the mouth of the Tournaig burn on 27th January 2026, including the four in this picture.

Thank you to Tournaig Estate for support and permissions and to the Wild Fisheries Fund for support; and to Ben Rushbrooke of Tournaig Garden Cottage Nursery for operating the traps.

River Ewe system

The River Ewe – Loch Maree system is the largest freshwater system within the Wester Ross area, and often the most productive river system for rod catches of adult salmon within the WRFT area. Juvenile salmon have been found consistently within several sub-catchment areas and in tributaries which flow into Loch Maree.

In 2025, 32 sites were surveyed in the River Ewe system, including: in the Loch Kernsary catchment; in smaller rivers flowing into Loch Maree; in the Kinlochewe River, Bruachaig River, A' Ghairbhe and Coulin rivers, and in the Docherty burn.

In the Kernsary system on 17th September 2025, salmon fry were recorded at high CPUE at sites in both the Kernsary River and the Allt Innis a' Bhaird. However, no juvenile salmon were found above the waterfall in the Allt Innis a' Bhaird. Salmon parr were recorded at moderate CPUE at three of six sites. We watched skeins of pink-footed geese flying over. Overall, there was still a healthy population of juvenile salmon in Kernsary streams.

Lightly sedated juvenile salmon from the Innis a' Bhaird, by Kernsary, 17th September 2026



On 15th October, salmon fry were recorded at moderate CPUE at sites near the mouth of the Tollie Burn and in the Inveran River. Salmon parr were recorded at moderate CPUE in the Tollie Burn, and at low CPUE in the Inveran River where our site may have been too shallow for finding many parr so late in the field season.

On the west side of Loch Maree on (26/8/25), salmon fry were recorded at low CPUE in both the Slattadale burn and Garbhaig River nearby; at moderate CPUE in the Talladale River; and at high CPUE in the Grudie River. Salmon parr were also present at all sites, at lower CPUE than for salmon fry. Further south salmon fry and parr were recorded in the burn by the Beinn Eighe NNR mountain trail car park on 21/8; there was much freshly deposited sediment following Storm Floris on 4th August 2025.

Surveying juvenile salmon in streams flowing into Loch Maree with Sean Robertson of SFCC on 26th August 2025



An even bigger spate associated with Storm Amy on 3rd October moved much sediment in streams in the Kinlochewe area. On 13/11/25 salmon fry and salmon parr were recorded at very low CPUE in the Tagaan burn below the road, where there was much evidence of recent changes in stream channels associated with sediment movement. This stream is unstable, due in part to an active landslip in the valley above the road which feeds sediment into the river.

In the Bruachaig River by the Heights of Kinlochewe (above the falls), salmon fry were found in July 2023 and July 2024. However, no salmon fry could be found at sites above the falls on 19th August 2025. Salmon parr were recorded at very low CPUE at two sites above the falls on the latter occasion.

(left) Fish survey team by the Heights of Kinlochewe on 19th August 2025. (below) Well fed salmon parr were recorded here but no salmon fry.

In the Docherty Burn, salmon fry were recorded at moderate densities at two WRFT Salmon Streams Nutrient Restoration Pilot Project [see Box 2.2] sites August and November 2025. On 13th November (late in the season – following spate flows associated with storms Floris and Amy) salmon fry were recorded in the lower Bruachaig River at high CPUE just above the confluence with the A' Ghairbhe and in the sides of the Kinlochewe River downstream from the Manse Pool, demonstrating resilience to high spate flows. Earlier in the season (21/8), salmon fry were recorded at high CPUE in the upper A' Ghairbhie about 500m downstream from Cruive pool (below Loch Clair).

On 5th August 2025, just after Storm Floris, salmon fry were recorded at high CPUE at one of three sites in the Coulin River, and parr at moderate CPUE; field notes indicate that the river was still above normal summer levels that day and 'many fish were missed'.

Overall, juvenile salmon were found to be widespread within the River Ewe system in 2025, with high CPUE of fry recorded at sites in several areas, despite difficult fishing conditions due to high water on some survey days. The main gap in the distribution of juvenile salmon within the River Ewe system in 2025 was of an absence of salmon fry in the Bruachaig River above the main falls.

Further information about juvenile salmon occurrence and growth in the Docherty Burn and the Coulin River can be found in the WRFT Salmon Streams Nutrient Restoration Pilot Project 2025 report (Cunningham and Bulter, 2025) by clicking here.

Thankyou, to many estates and estate staff for support especially Donald Macleod and Franki Kalinowski of Kinlochewe estate, and to Sean Robertson of the Scottish Fisheries Coordination Centre [SFCC] for help. Sites were surveyed with support from WRASFB and for the Salmon Stream Nutrient Restoration project part-funded by Highland and Islands Environment Foundation.

Box 2.2 Salmon stream nutrient restoration pilot project 2026

Numbers of wild salmon and sea trout returning to rivers in Wester Ross have fallen in recent years (especially pre-1980). A decline in the number of adult salmon and sea trout returning to freshwater to spawn leads to a reduction in the amount of available food for juvenile salmon, further depressing wild salmon populations. This is primarily because of a reduction in the amount of decomposing adult salmon carcasses which provide marine-derived nutrients [MDN] that support the production of aquatic insects upon which juvenile salmon feed.

To address this issue, this pilot project aimed to explore the practicalities of using salmon carcass analogue pellets (organic high fishmeal content farm salmon feed) to nourish salmon nursery streams within Wester Ross, using methods developed over 15+ years of research in nearby streams within the River Conon system.

Objectives were as follows:

1. to investigate the use of an alternative source of marine nutrients as an 'analogue' for the missing salmon carcasses and salmon eggs,
2. to explore methods of application,
3. to record outcomes for aquatic invertebrates and juvenile fish.

Salmon carcass analogue pellets [SCAP] (organic high fishmeal content farm salmon feed) were kindly provided by Hendrix-Genetics Inverkerry Hatchery. These were applied to two treatment sites in each of: the Torridon River, the Coulin River (River Ewe headwaters) and Docherty Burn in December 2024 and February 2025 (right), following baseline surveys of invertebrates and juvenile fish.

Subsequent monitoring indicated that the nutrients from the decomposing SCAP dispersed in different ways. At some sites, large spate events swept much of the material away; at other sites spates buried it more deeply under newly deposited sediment.

Responses to nutrient application from biota were recorded at treatment sites in the Docherty Burn, including increased production of green periphyton (algae etc.) on the streambed and higher numbers of mayfly larvae post-treatment.

At one site in each of the Docherty Burn and Coulin River, there was some indication that salmon fry and parr had grown more quickly post-treatment, consistent with expectations based on previous work elsewhere.

However, 'Storm Floris' (in early August 2025) and 'Storm Amy' (October 2025) both prior to follow-up juvenile fish monitoring surveys caused much movement of streambed sediment and made it impossible to fully understand outcomes for fish.

Future work should focus on developing methods of salmon carcass analogue application which are less vulnerable to being swept away in big spates. Several options to help renourish stream ecosystems and thereby support juvenile salmon production are proposed, including more focus on nourishing riparian habitats and streamside ecosystems rather than applying salmon carcass analogues directly into the water.

This project was supported by the Highlands and Islands Environment Foundation and Wester Ross Area Salmon Fisheries Board. Thank you to all the estates that provided permissions for this project, Nature Scot, several volunteers. The report can be found by clicking here.

Sguod River (by Loch Ewe)

This little river system has sustained a juvenile salmon population as well as brown trout over most of the past 20 years. It is many years since an adult salmon has been caught in the loch. On 16th October 2025, salmon fry were found in two of the three burns flowing into Loch Sguod. Low numbers of salmon fry and moderate numbers of parr were also recorded in the river below Loch Sguod. There were also many juvenile trout.

Sand River

The Sand River flows into Loch Gairloch at the end of the big beach by Sands Caravan and Camping. In previous years we have found both salmon fry and parr at a site below the Gairloch Gathering ground during fish survey demonstrations at the Gairloch Gathering; juvenile salmon have also been recorded at sites further upstream.

On 14th October 2025, five sites were surveyed in the river, from near the campsite to near the top of the main glen (below the archaeology trail), about 3.5km further upstream. Salmon parr and salmon x trout hybrids were recorded at a site in the lower part of the river. No salmon fry were recorded at any of the sites.

Juvenile trout were caught at all sites, including three finnock at the lowest site. One of these fish carried six small attached-stage sea lice; all had damaged dorsal fins indicative of sea lice infestation earlier in the year. The nearest salmon farms to the Sand River are in Loch Torridon about 25km by sea away.

(left) one-year-old trout, salmon x trout hybrid, and salmon parr from the Sand River, 14th October 2025. (right) some of the rooty stumps used here to repair the riverbank had already been washed out in a big spate. Formerly, bank strengthening was achieved here using large boulders which are more stable in a big spate and may provide a better long-term solution where there is a need to protect property and local businesses.

(below) Small immature sea trout (finnock) of 252mm with a damaged dorsal fin, indicative of sea lice infestation earlier in the year, Sand River, 14th October 2025. Sea trout can rid themselves of sea lice by returning to freshwater; post-smolt salmon that become infested with sea lice do not behave in this way and will not survive if too many sea lice (more than about 10) attach when they are migrating through coastal waters.

Badachro River

Many salmon parr in the Badachro River system grow on to become large smolts within Loch Bad a' Chrotha before migrating to sea. In April and early May 2021, smolts were trapped at the outflow of this loch using a rotary screw trap as part of a project supported by the Atlantic Salmon Trust. Many of the 100+ salmon smolts migrating downstream below the loch were between 130 and 170mm in length; there was only one sea trout smolt. Click here for report about the Badachro River smolt monitoring project (Cunningham, 2021b).

Water levels within the river and loch are currently regulated according to hydropower production by the 1.5MW Badachro hydro scheme. Water levels in the river above the loch may rise rapidly when hydropower production commences. Beware if you cross the river when it is low, you may not be able to get back again!

On 23rd September 2025, three sites were surveyed, two in the main river and one in the tributary Allt a' Ghiubhais. The main river above the loch was running high and conditions were difficult for our electro-fishing survey. Numbers of salmon fry and parr recorded underestimate numbers present compared to previous years.

However, we recorded both salmon fry, and salmon parr at high CPUE at a site in Allt a' Ghiubhais. Our results indicate that the juvenile salmon population in the Badachro River system remains in reasonably good health.

Juvenile salmon and a dragonfly larvae from site in the Badachro River just downstream from the powerhouse where there are many channels and islands, 23rd September 2025.

Torridon River

Six sites were surveyed in the Torridon River system on 20th August 2025, four sites along the main Torridon River and two in the River Thrail (tributary of the Torridon River). River levels were low and fishing was very effective. Salmon fry were recorded at all sites. The highest salmon fry CPUE were recorded at a site in the River Thrail and at sites towards the upper part of the Torridon River. Few, salmon fry were recorded at a main river site by the Scots pine woods further downstream.

At the best sites in the main river, estimated minimum densities for salmon fry were around 10 fish per 100m^2, less than in some of the previous years. Salmon fry were 40mm to 56mm in length in the flats above Glen Cottage; larger at 51mm-64mm at the lower Thrail site, and largest (over 65mm) near the pinewood where very few juvenile salmon were recorded, hinting at density-dependent growth of salmon fry at all sites.

Salmon parr (assumed to be mostly 1 year old fish) were also recorded at all sites. However, only one parr was recorded in 10 minutes fishing by the pinewoods in the lower part of the Torridon River. Parr numbers (Catch Per Unit Effort [CPUE] and estimated minimum densities) were highest at the top site above the road near the hill walkers' car park. In some previous years (especially 2014 and 2016) parr numbers have been slightly higher in the lower part of the main river, however during the past 20 years they have never as high as one might expect based on the apparent high physical quality of the in-stream habitat.

In conclusion, our results again concur with Scottish Government's category 3 grading for the Torridon River. Some adult salmon spawned in the Torridon River and in the River Thrail in 2024, enough to support a juvenile salmon population in core areas, but not enough to repopulate the whole river system to near carrying capacity. Some areas of good habitat for juvenile salmon had few juvenile salmon indicating inadequate salmon egg deposition in the lower part of the main river Torridon.

Lightly sedated juvenile salmon from the River Thrail, upstream from the house, 20th August 2025.


Juvenile salmon in the River Thrail downstream from the house; bigger fry here than at the upstream site.


River Balgy

Five sites were surveyed in the River Balgy system on 9th of September 2025, one site in the main river below Loch Damh near the road bridge, and four sites in tributary streams above Loch Damh. Water levels were low providing good conditions for the survey.

Salmon fry were recorded at only two of the five sites: in the River Balgy by the road bridge; and in the Abhainn Dearg just above Loch Damh. No salmon fry were recorded in the Allt Eisg, a tributary of Abhainn Dearg; in the Abhainn Dubh (or Loch Coultrie River) or in the Allt a' Ghuibhais above Loch an Loin. As in previous recent years, salmon fry were exceptionally large at the lowest site in the River Balgy (66mm to 99mm in length); but much smaller in the Abhainn Dearg (42mm to 58mm in length).

Small numbers of salmon parr were recorded at four of the five sites. At the lowest site, two very large parr were caught (141mm and 144mm in length). In the Abhain Dearg and Allt Eisg the six parr caught were from 68mm to 102mm in length; and at the mouth of the Abhainn Dubh the three parr caught were 101mm to 145mm; the largest of these had eroded dorsal and caudal fins and was thought to be a fish-farm escapee from one of the smolt production units in Loch Damh.

A wild salmon population of native 'Balgy' origin in the in the River Balgy system remains fragile if one still exists. The relative scarcity of parr in the River Balgy (downstream from Loch Damh) may be partly because many juvenile salmon become smolts after just one summer and winter in freshwater. The rapid growth of juvenile salmon here may be partly due to the apparently nutrient-enriched and unusually productive riverine habitat here, and to the genetic origins of these fish. Previous studies (e.g. Gilby et al 2021) have indicated a high level of genetic introgression of salmon parr here. It would be very useful to be able to reassess the genetic makeup of the salmon population in this and other parts of the River Balgy system.

The lack of salmon fry above Loch Damh is cause for continued concern. Above Loch Damh, salmon fry were only recorded in the Abhainn Dearg. In 2024, salmon fry were recorded in the Allt Eisg (small tributary further upstream) but not in 2025. At the bottom of the Abhainn Dubh, the salmon parr may have included one or more farm salmon escapee(s). Loch Damh has two active open cage salmon smolt farms including one just a few hundred metres away from the river mouth.

Juvenile salmon from the River Balgy just above road bridge. Exceptionally large salmon fry and parr.

Loch Coultrie River (Abhainn Dubh) – below bridge. Big parr (fish farm escapee?). No salmon fry here.

Abhainn Dearg. The only site above Loch Damh where salmon fry were recorded.

Applecross River

Historically, wild salmon may have been able to ascend the Applecross River all the way up to the lochs in Coire Attadale at the head of the Allt Coire Attadale. There are several small waterfalls, however, during a big spate, these are thought to have been passable to adult salmon. Juvenile salmon have not been recorded far above the top of the main glen, about 5km from the top of the tide within the past 20 years.

In previous recent years, juvenile salmon have been stocked within the Applecross River, so it has not always been possible to determine the health and distribution of juvenile salmon of wild-spawned origin in the Applecross River. Salmon stocked as fry can move around within the river and by the time they are parr, look much like juvenile salmon of wild origin.

On 30th September 2025, four sites were surveyed towards the top of the main glen. Salmon fry were recorded at two of these sites. Just two fry were found at the top site in the Allt Coire Attadale about 500m upstream from confluence of the Allt Coire Attadale and the Allt na h-Airighe Riabhaich. Higher numbers of salmon fry were recorded at a site in the main Applecross River 2km further downstream; these were thought to be of wild origin.

Salmon parr were recorded at three out of 5 sites; with the highest numbers in the main river at the lowest of the 5 sites surveyed.

Salmon fry and parr from a site in the lower Allt Coire Attadale on 20th Sept. 2025, thought to be of wild origin.

Riparian trees by the lower Allt Coire Attadale (left) and otter spraints on a stream-side boulder (right), 20th September 2025. Can these trees act as seed sources to support riparian woodland revival further downstream?

3. Assessment of pressures affecting wild salmon in Wester Ross area

3.1 Marine pressures

3.1.1 Sea lice infestation of wild post-smolt salmon in local waters

Sea lice from salmon farms continued to plague wild sea trout in coastal waters around parts of Wester Ross in 2025. A sample of sea trout taken in the Flowerdale estuary (Loch Gairloch) in April 2025 demonstrated that cumulative levels of infective planktonic sea lice larvae were once again much too high, over 25km away from the nearest salmon farms (Cunningham, 2025c). See https://www.wrft.org.uk/files/Torridon%20Sea%20trout%20monitoring%20report%202025_21Nov25.pdf.

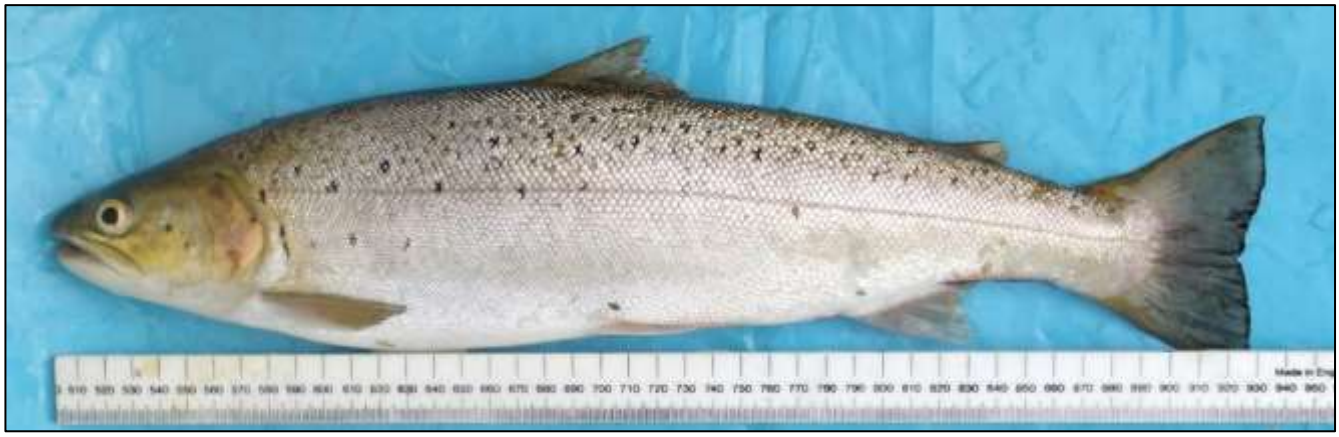
Lice levels recorded on sea trout further north, near Ullapool, were also high in May 2024 and 2025. From 2015 to 2023, the relatively small 'hands-on' salmon farms in the Ullapool area operated by Wester Ross Fisheries were better able to control lice than the much larger and more automated salmon farms in Loch Torridon and further south and around the Isle of Skye, based on SSPO sea lice reports and now Scottish Government sea lice reports. Since 2023, high numbers of sea lice have been recorded on sea trout sampled in nearby waters, correlating with higher reported numbers of sea lice on salmon in the Ardmair salmon farm nearby.

Sea lice also represent an unresolved major threat to post-smolt salmon migrating through coastal waters from the Applecross River (and nearby rivers to the south), from rivers in Loch Torridon, and based on sea trout sampling in Loch Gairloch, to post-smolt salmon from the Badachro River and River Kerry SAC.

Following the closure of the MOWI Isle Ewe salmon farm in 2020 there has been some reduction in sea lice infestation levels on sea trout in Loch Ewe. Note that it is possible (based on sea lice dispersal modeling) that infective stage sea lice from salmon farms as far away as the east coast of Skye can infect post-smolt salmon within the Wester Ross MPA 30+ km away; some sea trout with moderate levels of sea lice infestation can still be found, consistent with infective stage sea lice dispersal modeling.

Proposed new regulations to protect wild salmon from sea lice emissions from salmon farms that were to be introduced by SEPA in 2025 were appealed by the salmon farming industry in March 2025 in such a way as to make it unlikely that on-farm sea lice regulation to protect wild fish populations will be a condition of farm salmon production any time soon.

Plump sea trout of 430mm taken in Loch Ewe on 21st July 2025. With a condition factor of 1.29, this was the best conditioned sea trout of the year. However, it carried 54 sea lice (mostly pre-adult and adult lice) and had a sea lice damaged dorsal fin. Even in Loch Ewe, some 40km 'downstream' from the nearest open cage salmon farm, sea lice damaged sea trout can be found.



Ragged dorsal fin typical of many of the larger sea trout seen in Wester Ross area in 2025; this damage is typically associated with high numbers of small early stage chalimus sea lice. Adult and preadult sea lice can cause damage by grazing skin behind the ventral fin.


Gargan et al 2025 also reported that salmon lice from aquaculture reduce marine survival of Atlantic salmon. Their results provide further evidence of significantly reduced return rates for adult salmon linked to salmon lice infestation from marine salmon farms.

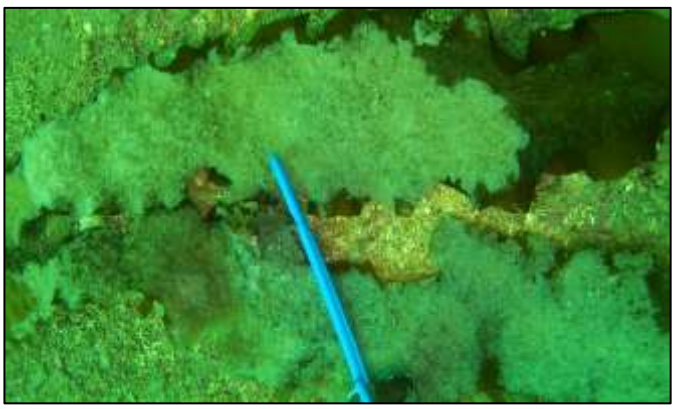
Their study infers that the effects of sea lice infestation from nearby salmon farms on wild stocks are underestimated with significant loss of adult returns at high lice levels along post-smolt migration routes; a conclusion that also matches our interpretation of rod catches in rivers in the south of Wester Ross in recent years in relation to results from sea trout sea lice monitoring nearby. Sea lice are killing many wild salmon.

3.1.2 Feeding at sea

Changes in far away oceanic feeding areas associated with climate change may be affecting wild salmon survival at sea; however, it is beyond the scope of this report to comment further on this issue.

Of local relevance and importance to wild post-smolt salmon is the occurrence of high densities of fish larvae and other potential post-smolt salmon food in local waters in May and June 2025. Herring were again recorded spawning near the mouth of Loch Gairloch in March of 2024 and 2025, with herring eggs recorded on the seabed and herring larvae caught with plankton nets nearby, following observations of much associated wildlife including gannets, seals, dolphins and whales. See Cunningham (2025a) https://www.wrft.org.uk/files/Wester%20Ross%20spring%20spawning%20herring%20report_8may25.pdf.

(left) GoPro video screen grab of herring eggs on sugar kelp and maerl gravel; (right) herring larvae from plankton sample; 1km west of Opinan (near Loch Gairloch) 3rd April 2025.




Herring larvae and fry and those of other fish including sandeels and sprats in April and May provide ideal food for post-smolt salmon migrating through coastal waters.

Results from the Atlantic Salmon Trust led West Coast tracking project indicate that some salmon from rivers as far south as SW Scotland (and presumably beyond) migrate through the coastal waters of the west of Scotland.

Protection of herring stocks in the west of Scotland and their spawning grounds, especially those around Wester Ross, should be of high priority as a means of supporting wild salmon populations. Protection of the herring and of herring spawning grounds by Wester Ross can support post-smolt salmon migrating through coastal waters from all the rivers covered by this report and rivers far to the south of Wester Ross in southern Scotland and other parts of the British Isles by providing food for post-smolt salmon.

3.1.3 Predation by marine mammals

Both seals and dolphins may take juvenile salmon and adult salmon as they return to estuaries through coastal waters. Seals were formerly killed by salmon netsmen around Wester Ross through the 'netsman's defense'. One retired local netsman stated a few years ago that seals were very likely taking more salmon in a year from coastal waters by the former netting station at Red Point and nearby than he ever did when he netted salmon there!

In 2025, harbour seals were particularly evident in Gruinard Bay (esp. Laide to Gruinard beach) and Loch Thurnaig close to the mouth of the Tournaig burn (see 2.2). More detailed observation of seals may be useful for understanding whether wild salmon and sea trout represent a significant part of their diet and what that might represent in terms of fish numbers returning to nearby rivers.

It is currently not acceptable to use lethal means to control seal numbers. This contrasts with red deer where in the absence of a natural predator the need for annual culls is widely accepted by wildlife conservation organisations for animal welfare purposes and to maintain overall ecosystem health.

There have been some recent developments in seal scarers which are designed to only make a seal scaring noise when a seal is nearby. Thank you to Dr Carol Sparling of St Andrews University for her talk about seal populations around Scotland and seal scarers at the WRFT Annual Meeting in April 2025.

Please report any dead seals to https://strandings.org/ .

3.2 Freshwater pressures

3.2.1 Streambed instability and stream habitat washout

Streambed stability is a localised but increasing problem affecting river systems. The Rhidorroch River (Ullapool river system) and Applecross River have particularly unstable streambeds with frequent movements and redeposition of bedload sediment, causing undercutting of riverbanks and erosion, and washout of fish eggs, fry and parr, and invertebrates (food for fish). In 2025, very high spate flows associated with Storm Floris (August 2025) and Storm Amy (October 2025) caused much erosion and movement of streambed sediment.

Streambed washout is episodic even in the most unstable rivers. So, for example, in some previous years when there have been no major spates, high densities of juvenile salmon have been recorded even in the Rhidorroch River, in contrast to other years following a major river channel-redirecting spate.

In 2022 a project in the upper catchment of the Rhidorroch River in Glen Douchary proposed several actions to greatly reduce sediment discharge. As a follow up a catchment vegetation revival workshop was held at Kinlochewe and Beinn Eighe NNR nearby in April 2023 to discuss the main findings; reports from this meeting can be found here. They include peatland restoration work and riparian tree planting, especially where there is much sediment entering the water.

The Applecross River is also subject to streambed instability and washout. In 2017, the fisheries trust field team identified a major active landslip, which if repaired would reduce the amount of sediment entering the river. This is another area where appropriate actions would benefit wild salmon and other interests further down the glen, including a reduction in the frequency of the need for intervention to prevent flooding.

Other areas with streambed instability problems include tributaries of the Gruinard River in Strath na Sealga including the upper Abhainn Gleann na Muice; and the Kinlochewe River where Storm Amy in October 2025 caused much damage.

(left) landslip by the Cromasiag burn (Allt a Chuirn) near Kinlochewe which fed much sediment into the A' Ghairbhie river; and (right) the Docherty Burn following a big spate associated with Storm Amy in October 2025. Several other rivers nearby experienced much movement of streambed sediment (to the size of boulders) and associated bank erosion. Photos taken in November 2025.

In contrast, many rivers including the mainstem rivers Gruinard, Little Gruinard, Runie (Kanaird tributary), Ullapool (below Loch Achall), upper A' Ghairbhe [Ewe]), Kerry, Badachro and upper Torridon have generally stable streambeds, especially downstream from lochs, where redd washout and juvenile fish washout has not been an issue of major concern in recent years.

3.2.2 Riparian woodland

Rivers where riparian woodland protection and restoration could be particularly beneficial include parts of the rivers Runie (Kanaird tributary), Rhidorroch (woodland restoration in progress since 2021), Gruinard system (above and below Loch na Sealga), Little Gruinard system (several areas), Coulin (Ewe headwaters), Torridon (localised) and Applecross.

Benefits include moderating water temperatures (particularly very high summer water temperatures), providing shade and habitat for juvenile and adult fish; and providing nourishment for the ecosystem that supports juvenile salmon. Some of the riparian woodland management issues in Wester Ross were reviewed in a presentation entitled 'About river banks and juvenile salmon production in Wester Ross' at the SFCC Riparian Woodlands workshop in February 2020 (Cunningham, 2020a).

In the past four years, several small enclosures have been set up by the Torridon River and planted with native trees to provide seed and mycorrhiza sources for expansion of riparian woodland along the Torridon River in future years.

Action is also being taken by some estates to reduce deer numbers to allow for natural regeneration of trees including riparian trees. Young riparian trees were seen growing along the sides of several rivers during the summer of 2025.

Volunteer tree planters by the Torridon River on 16th October 2023

To the north of Wester Ross, Project Laxford, a partnership between the Atlantic Salmon Trust and Grosvenor Estate, has embarked upon a large catchment-scale wild salmon recovery project including riparian woodland recovery https://atlanticsalmontrust.org/project-laxford/ . Some of the lessons learned at the Laxford may be useful for helping to guide actions to support wild salmon populations in Wester Ross.

3.2.3 Malnourished fish and ecosystem degradation

This pressure is associated with very slow growth of juvenile salmon and is a feature of rivers which drain very oligotrophic catchment areas underlain by Torridonian sandstone and Lewisian gneiss which have been managed for many decades for grazing. Over hundreds of years, catchment denudation, fire, trampling and soil erosion, and the export of sheep, cattle and deer carcasses have led to a deficit of phosphorus and calcium, particularly in animal bone (Cunningham, 2020b). It particularly affects production of salmon smolts from the Gruinard River, Little Gruinard River and Coulin River (Ewe).

In addition to finding high numbers of very small salmon fry and parr, the problem may be so severe in some rivers that freshwater pearl mussels are inadequately nourished to be able to reproduce successfully.

Historically there was a much larger input of marine derived nutrients via both salmon and sea trout into some rivers. At the very least, this missing amount of nutrient should be replaced. At a catchment level, continued denudation and erosion associated with grazing animals and trampling by red deer, goats and livestock, and export of carcasses, represents a major net export of phosphorus. This phosphorus deficit should also be addressed through appropriate nutrient budgeting and emphasis on restoration of ecosystem fertility and associated biota. These issues were discussed at length in previous WRFT workshops, for example Refertilising Wester Ross 2016, and reviewed at a workshop at MSS Freshwater Laboratory in February 2020; a presentation entitled 'About ecosystem nutrition and juvenile salmon production in Wester Ross' can be found here.

Concerns about malnourishment of juvenile salmon in some rivers in Wester Ross prompted more recent studies to learn more about this issue in Wester Ross, including consideration of the possibility that surplus salmon eggs are a vital food source for pre-smolt salmon parr in some rivers (see Cunningham, 2024a and Cunningham 2024b).

In 2024 and 2025, Wester Ross Fisheries Trust carried out a pilot project to learn more about the practicalities of treating some stream sections with salmon carcass analogue pellets to support higher in-stream productivity; see Box 2.2 and Cunningham and Bulter, 2025.

3.2.4 Pollution and nutrient over-enrichment

In contrast to the foregoing, the Kinlochewe River has been greatly enriched with nutrient in recent years due to discharges of phosphorus-rich effluents from the Kinlochewe septic tank. The streambed can be like a green rug of filamentous algae during the summer. Salmon fry densities were high in 2025; however few salmon parr were recorded (however the river was at high level on day of survey). A combination of drought and high numbers of people staying at Kinlochewe may have led to the highest concentrations of effluents from domestic sources into the Kinlochewe River to date (see also Cunningham, 2022).

There is a need to monitor this river during periods of very low flow and high-water temperature during the summer. Local estate staff and Beinn Eighe NNR staff are aware and have been keeping an eye on the river and septic tank outflow.

The other river with greatly elevated nutrient status in the Wester Ross area is the River Balgy below Loch Damh where there are two open-cage fish farms to produce salmon smolts. Juvenile salmon grow unusually quickly in the River Balgy; and many of them are thought to become smolts after only one year in freshwater.

3.2.5 High water temperatures, drought and low flows

Marine Directorate scientists and colleagues working in other parts of Scotland recorded very high river water temperatures (to over 25C) in some rivers in 2025 (reported at SFCC Biologists' meeting, 2026). They stress the need to plant riparian trees to provide shade in future years when peak summer temperatures are projected to be several degrees higher. Much information about this can be found on the Scotland River Temperature Monitoring Network website.

Priority rivers for riparian trees within the WRFT area to provide more shade include rivers Coulin, Gruinard, (including headwaters), Little Gruinard, Torridon, Applecross. Note that riparian trees have many other benefits as stated earlier (see 3.2.2).

Elsewhere in Scotland, some rivers were flowing at levels lower than recorded in previous years at times in 2025 (also reported at SFCC Biologists' meeting, 2026). Not much can be done for wild salmon populations where rivers run dry. However, actions such as peatland restoration (including leaky dams) and catchment revegetation (where soils are thin and there is little organic matter) in some areas may help to hold back water and allow for slower discharge. Recently, the River Kerry falls hydropower operator with agreement of Nature Scot carried out works on Loch Bad na Sgalaig to help maintain low compensation flows into the river during periods of drought.

Other river systems in Wester Ross with potential for retention of water in a loch to provide compensation during dry periods; include the River Kanaird and River Broom.

Low flows can also be of concern during the smolt migration period. A big spate in April 2025 helped juvenile salmon migrate to sea from some rivers. Some rivers (e.g. Allt Beith) may have options for being able to release a freshet to help smolts migrate to the sea.

3.2.6 Predation by fish eating birds and other animals

Fish eating birds which may be seen along rivers in Wester Ross include goosander, red-breasted merganser, cormorant, heron, herring gull and common gull. Of these, goosander and cormorant are often regarded as being of greatest concern to wild salmon. Otters are present throughout Wester Ross and take advantage of feeding opportunities in freshwater as well as in the sea.

Smolts tend to migrate downstream at night. However, where smolts set off downstream from a safe holding pool but fail to reach the sea or other safe place because of obstructions associated with very low flows, they can be particularly vulnerable to predation by fish eating birds and otters.

Streams with narrow tree-lined channels (so deeper water) with many places for smolts to hide (e.g. among alder roots) provide more secure routes to the sea than wide shallow streams where smolts may 'run aground' or have nowhere to hide should they be intercepted.

Smolts may struggle to migrate downstream at low flows in many rivers, including include parts of the river Little Gruinard, Allt Beith, Applecross, Torridon, A'Ghairbhe (Ewe) and tributaries including headwaters of larger rivers. In some places water tends to percolate through stones within the streambed, rather than flow over the streambed at low flows.

An extreme example of such a situation occurred in 2025 for the River Girvan in SW Scotland, following formation of a sediment bar across the mouth of the river which blocked access for migrating salmon smolts to the sea. Fisheries managers were permitted to intervene through excavation of a channel to allow smolts to reach the sea (reported at SFCC Biologist meeting, February 2026).

3.3 Population health and genetic introgression

This issue was reviewed by Cunningham, 2022, following publication of a study by Gilby et al 2021, which presented the findings of a study of genetic introgression of wild salmon populations in Scotland.

The issue remains one of much concern for wild salmon, particularly within the River Balgy where salmon parr, thought to be escapees from a smolt unit on Loch Damh, were recorded in 2025 (see part 2.2)

4. Recommendations

In 2022, the Scottish Wild Salmon Strategy was published. This document provides a summary of legislation to protect wild salmon in Scotland, pressures that affect wild salmon populations in Scotland, and outlines a series proposed actions at national government level. As stated earlier, in 2025, the Scottish Government assessed 146 salmon 'stocks' in Scotland and found significant patterns of decline in 63 stocks, including many river systems in south Wester Ross (Balgy, Applecross, Carron, Ling, Elchaig, Glenelg rivers) which were already of poor conservation status before 2011. Does the Wild Salmon Strategy provide the recommendations and guidance needed to recover threatened wild salmon populations?

Recommendations proposed here focus on issues affecting wild salmon populations in the Wester Ross area:

4.1 Improve control of sea lice on salmon farms around Wester Ross

This issue remains at the top of the list for wild salmon populations in Wester Ross. Since the previous 'Status of juvenile salmon in Wester Ross' report was written (Cunningham, 2022), progress was made by SEPA to introduce the Sea Lice Regulatory Framework until, in March 2025, the salmon farming industry appealed proposed regulations. At the time of writing, the outcome of appeals remains uncertain. The salmon farming industry within the Wester Ross area has not been able to sustain any improvements for on-farm sea lice control to the levels required to safeguard wild fish populations.

Recommendations:

- There should be a presumption against any new open cage salmon farms within the Wester Ross MPA. This is because of the importance of the Wester Ross MPA area for wild salmon populations in NW Scotland and continuing problems of sea lice infestation for wild fish associated with existing salmon farms in this area. See 'Stronghold' about work of Guido Rahr (Malarkey, 2019); also https://wildsalmoncenter.org/stronghold-approach/ .

- Until all the farms in the Wester Ross MPA area are able to demonstrate an ability to control sea lice to the very low levels previously achieved by Wester Ross Salmon, the Ardmair salmon farm (now operated by MOWI) and Tanera salmon farm (operated by Scottish Sea farms) should be fallowed by March each year to protect post-smolt salmon from six major salmon rivers.

- Salmon farms in Loch Torridon (operated by MOWI and Bakkafrost) should synchronise fallowing with each other, and so far as possible, with salmon farms in the east of Skye, Lochash, and Loch Kishorn – Loch Carron areas, at least until such time as all operators are able to control sea lice on their farms to much lower levels than achieved in 2025.

- Levels of sea lice on sea trout close to the areas through which post-smolt salmon migrate should continue to be monitored to be able to inform the Wester Ross Area Salmon Fisheries Board. Sea lice monitoring results for wild fish should be published in a timely manner especially where they are of concern to wild fish populations.

- Relationships between numbers of returning salmon (grilse and Multi-Sea-Winter [MSW] Salmon) and sea lice infestation levels in nearby waters should be investigated for rivers including the Applecross River and River Carron in the south of the WRASFB area.

4.2 Add wild salmon to the list of 'protected features' for Marine Protected Areas

The Little Gruinard River Special Area of Conservation [SAC] has been of value to wild salmon conservation within the Wester Ross area more widely than for just protecting Little Gruinard salmon. Post-smolt salmon from neighboring rivers (e.g. Gruinard River) received the same level of protection as Little Gruinard salmon as they very likely go the same way through coastal waters, most notably when planning permission for a proposed large salmon farm at Annat Bay near Ullapool was not granted in 2005, partly because of concerns for wild salmon post-smolt from the Little Gruinard River.

Can the Scottish Government commit to giving post-smolt salmon migrating through coastal waters from the Little Gruinard River SAC the same level of protection as prior to leaving the EU?

The Little Gruinard River SAC is much smaller than the SACs for Atlantic salmon in the north and east of Scotland. The rivers and wild salmon of northwest Scotland are different from those in the north and east of Scotland. To protect a useful genetic diversity of wild salmon in northwest Scotland, special protection measures could be extended at least to all salmon rivers which enter the Wester Ross Marine Protected Area, including those of the Gruinard River and River Ewe system. Much of the River Ewe system is already protected under Natura 2000 legislation; Loch Maree is a Special Protected Area for Black-throated diver. Wild salmon are iconic to the Wester Ross area and to Gairloch Parish in particular: the logo of the award winning Gairloch Museum is a wild salmon depiction from a Pictish stone recovered from nearby. The freshwater pearl mussels of the River Kerry SAC are also dependent upon a healthy population of juvenile salmon.

Other important fish species of conservation concern could be added to the list of protected features for the Wester Ross MPA (e.g. Flapper skate). Giving protection to wild fish would not preclude aquaculture developments or other appropriate developments within the MPA where it could be certain that the development presented no threat to wild fish populations or other protected features.

See 'Stronghold' about work of Guido Rahr (Malarkey, 2019); also https://wildsalmoncenter.org/stronghold-approach/ .

These ideas are in line with the Scottish Salmon Strategy proposed actions which include:

'Protecting and enhancing marine biodiversity, including salmon and the habitats they depend on, through a well-managed network of Marine Protected Areas, proposed Highly Protected Marine Areas and other conservation measures.'

Outer Loch Carron has also become a Marine Protected Area. Adding Atlantic salmon to the list of protected features for this MPA might provide an additional incentive for salmon farms in Loch Carron and Loch Kishorn to control on-farm sea lice levels?

4.3 Protect seabed habitats (especially maerl and maerl gravel) where they may be used as herring spawning grounds

Wester Ross is surrounded by diverse seabed habitats including the priority marine features [PMFs] maerl and maerl gravel. Some of these features remain outwith marine protected areas and are still vulnerable to further damage by scallop dredging. Maerl gravel is known to be used by herring as a spawning ground (Jackson, 2019; Cunningham, 2025a). Is hatching success of spring spawning herring eggs highest where the seabed habitat is in good condition where there is more gravel, including shell and maerl gravel and less sand?

Many other fish species benefit at different stages of their life cycle from maerl and other seaweed habitats in relatively shallow water, including juvenile cod and flatfish. Many of these species spawn in the spring; eggs and tiny fish larvae all add to the abundance of post-smolt-sized food that can all help to ensure that wild salmon grow well in their first few weeks at sea.

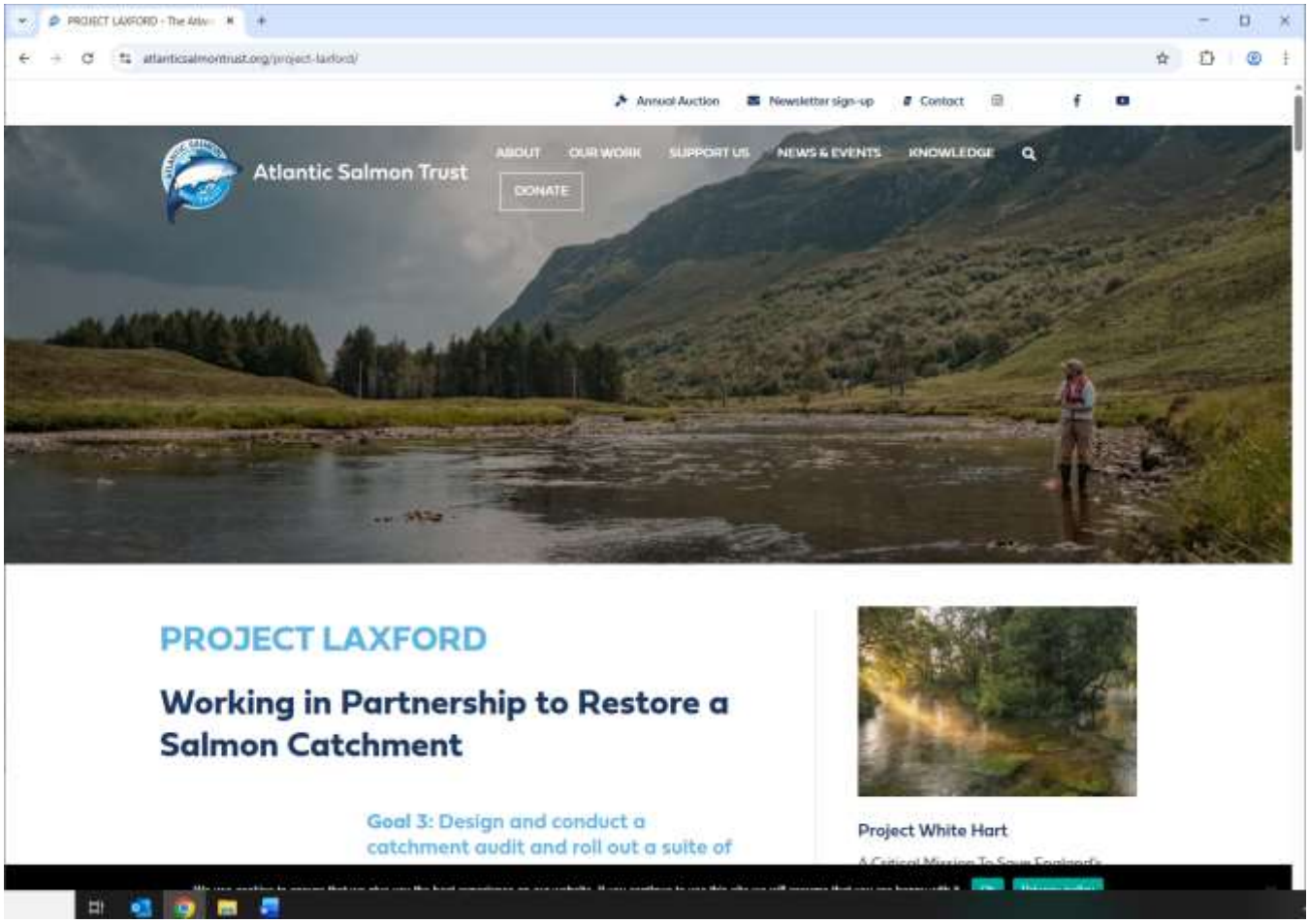
WRFT supported the West of Scotland Herring Hunt project (led by Napier University) in seeking to learn more about the spawning grounds of herring around Wester Ross and nearby areas; herring eggs were recorded on the seabed near Gairloch in 2024 and 2025 (Cunningham, 2025a). Herring larvae (see cover picture) are ideal food for post-smolt salmon migrating through local waters.

Herring eggs on shelly maerl gravel and on sugar kelp fronds, west of Opinan; 3rd April 2025. Video screenshot image ©Little Loch Broom Marine Life Surveys. Thank you Fiona MacKenzie and Sue Pomeroy.

4.4 Riparian woodland revival and whole catchment-scale river ecosystem restoration

The focus here, as it has been for many years, is to protect and revive the productivity of some of the larger salmon producing rivers, including providing more shade for the river and river catchment area. An urgent priority, to protect riparian habitat along the Abhainn Gleann na Muice (Gruinard River), was highlighted in Cunningham, 2022.

Estates owned by private landowners in other parts of Scotland have sought investments for 'rewildling' projects including large-scale tree planting. One landowner in northwest Scotland has already made the restoration of wild salmon to the River Laxford a principle objective of a large-scale restoration project, see Project Laxford website.



A similar ambitious catchment-scale project to take in parts or all the big Gruinard River, Little Gruinard River and River Ewe – Loch Maree catchments could be very beneficial for safeguarding wild salmon populations within and around the 'Great Wilderness' where more extreme conditions of low flows, extreme high flows and high water temperatures associated with climate change are anticipated.

Such a project could benefit from river catchment-scale ecosystem recovery initiatives.

- Could members of WRASFB and WRFT visit Project Laxford to learn more of outcomes for wild salmon and of options for similar catchment scale initiatives in Wester Ross?

4.5 Encourage local community groups to help to look after wild salmon and the habitats that sustain them

There are many opportunities for local communities to become more actively involved with wild salmon and sea trout conservation. Active interest should be encouraged; many landowners lack the resources to be able to look after all the things that need looking after on their own.

On 1st April 2023, a Buglife 'Guardians of Our Rivers' citizen-science 'Riverfly' project was initiated on the Allt Beith River by Aultbea *(below).* Monthly sampling has continued since then (into 2026) and local enthusiasts have collected much data and are keen to learn more. Well done everyone!

- Are there other community groups where a 'Guardians of Our Rivers' citizen-science monitoring project might be of interest to people nearby who are interested in helping to look after the river?

Postscript

The provisional rod catch figures for 2025 were published, just before this report was posted on the WRFT website. Catches were the lowest on record.

Please see: https://www.gov.scot/publications/scottish-salmon-and-sea-trout-fisheries-provisional-statistics/

Please could all who have an interest in wild almon conservation take note; this report aims to support conservation, fisheries management and wild salmon population revival throughout Wester Ross.

Thank you for your support.

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