

WESTER ROSS FISHERIES TRUST River Ewe fisheries survey report 2009 - 2010



Peter Cunningham, March, 2011

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1. Introduction

This report provides a summary of the Wester Ross Fisheries Trust's work and related activities within the River Ewe system and Loch Ewe during the years 2009 and 2010.

The primary objectives of this work were to maintain an understanding of the status and distribution of wild salmon and sea trout populations in the River Ewe system, and also to support actions to improve the health and natural productivity of respective fisheries.

This report covers the following:

- Rod catches within the River Ewe system
- WRFT juvenile fish surveys and related projects
- River Ewe rotary screw trap
- Monitoring of sea trout and their parasites in Loch Ewe
- The Bruachaig salmon restoration programme
- Habitat restoration initiatives

In summary: The rod catch of salmon and grilse in 2010 was of around 240 fish. The sea trout catch in 2010 was of approximately 100 fish. The sea trout fishery has yet to recover. Sea trout fishing effort was much less than in the 1970s and 1980s. The River Ewe rotary screw trap recorded both salmon and sea trout smolts, at a ratio of approximately 2.5 salmon : 1 sea trout. Sea trout grew particularly well in the sea in 2009, less well in 2010. There were no serious sea lice epizootics (of the scale last seen in 2007) in Loch Ewe. Salmon of wild origin have yet to recolonise the upper Bruachaig where a salmon restoration programme continues; in most other parts of the system, notably the Kinlochewe River and Kernsary sub-system, juvenile salmon were present at CPUE levels considered to be indicative of near carrying capacity densities. Recommendations are proposed for future activities to support wild fisheries.

Cover photos (top to bottom): Coree Island, Loch Maree and Slioch, June 2009; Brook char, Brown trout and Salmon parr from the Coulin River, August 2009 (photo by David Mullaney); Garbhaig River mouth and Loch Maree, October 2010; Sweep net sampling team [Garry Bulmer, Dr Steve Kett, Roger McLachlan and Ben Rushbrooke], Boor Bay, 15 July 2009; Sea trout from Inverasdale shore, Loch Ewe, August, 2010

Below (left) Neil Morrison and Simon Stewart at the Coulin Estate hatchery in November 2010; (right) three trout from the Coulin Farmhouse Burn. Both sea trout and brown trout spawn together in this burn, relative proportions of which may vary from year to year.



2. Rod catches

Salmon

The unofficial total rod catch of salmon and grilse for the River Ewe system of 238 is the highest since 1994. For the third year out of the past four, salmon and grilse catches exceeded 200 fish (Figure 1). After a slow spring, and low water through much of June, water levels were generally higher from the beginning of July (Figure 2) and conditions for fishing remained generally favourable for the remainder of the season. The largest salmon taken was a 21lb fish from the River Ewe in June. Some fish had 'red vent'. In line with the River Ewe system 'Fisheries Regulations' adopted in 2009 (see Appendix 3), the great majority of fish were returned. No confirmed reports of escaped farm salmon in 2010 have been received.

Figure 1: River Ewe rod caught salmon and grilse catch 1952 to 2010. (Note that until the mid 1980s, nets also operated in Loch Ewe, each year catching between an additional 400 and 1300 salmon and grilse [maximum 2105 fish in 1962]. Many of these fish may have been destined for the River Ewe system.

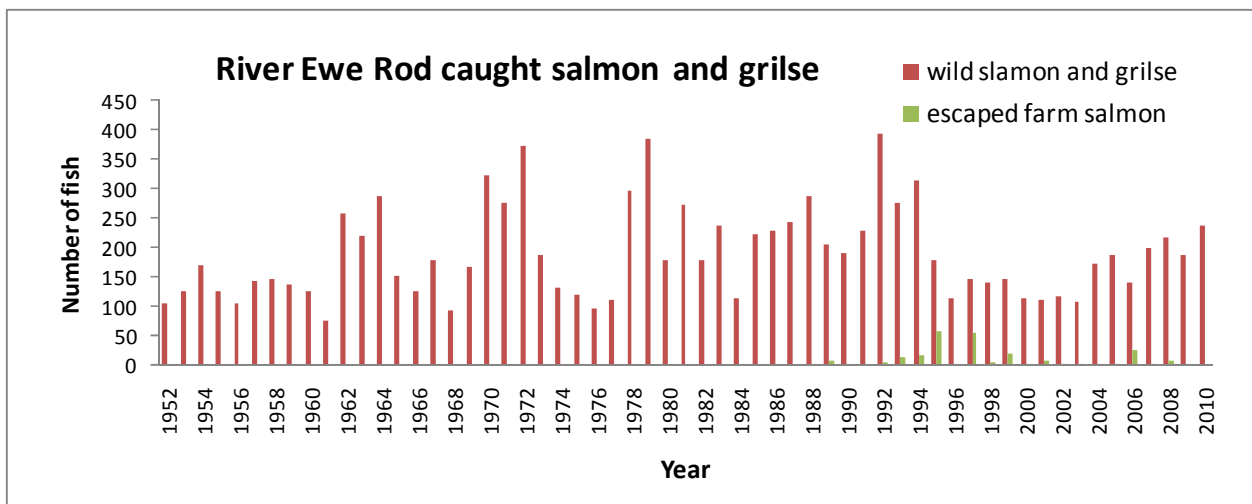
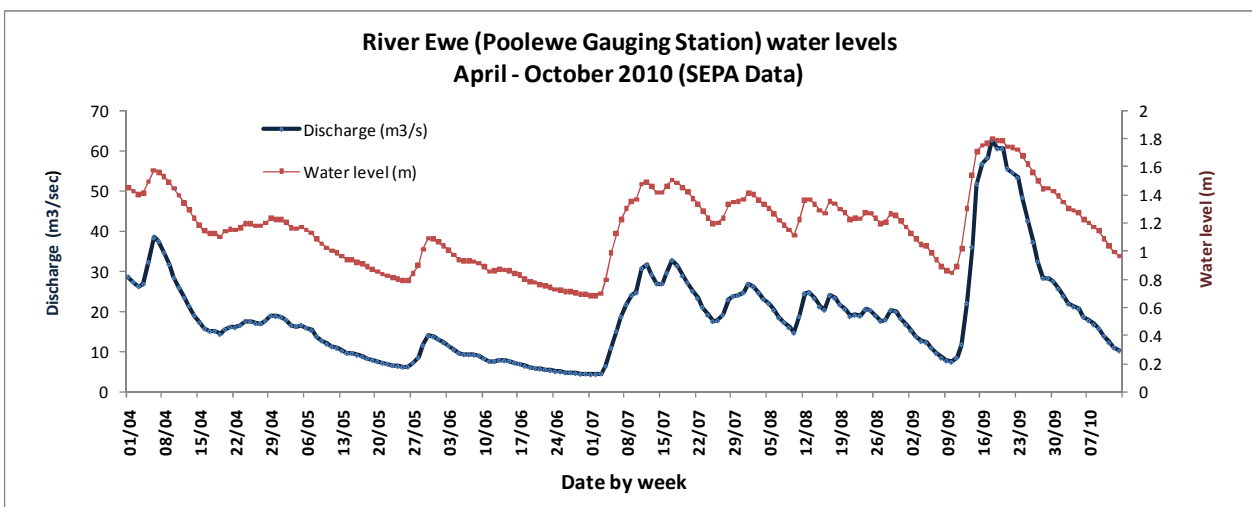


Figure 2: River Ewe water levels April to October 2010, measured at the Poolewe gauging station. SEPA data.



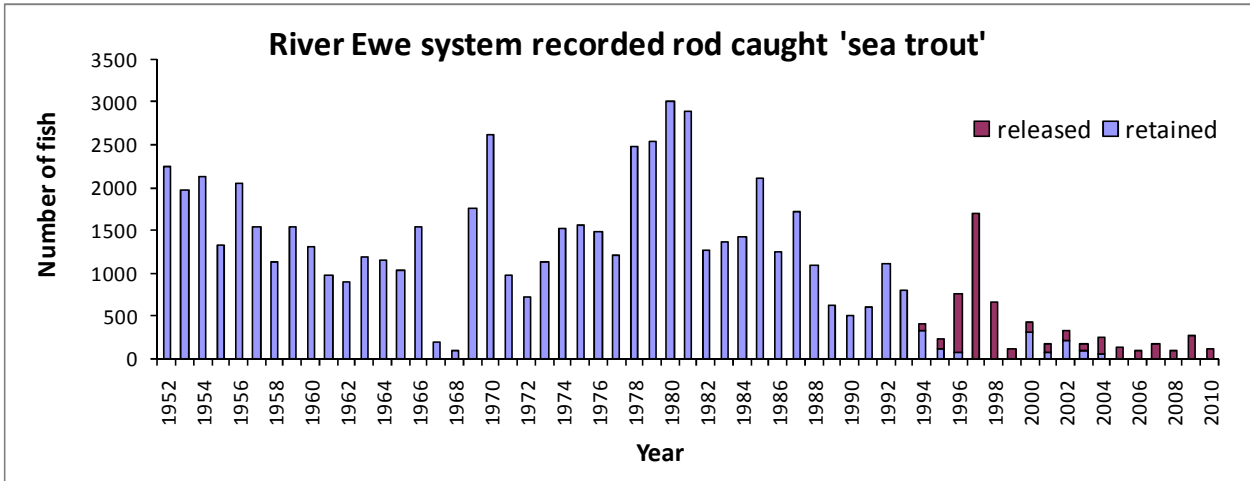


Grilse, River Ewe, Flats, 12th October 2010

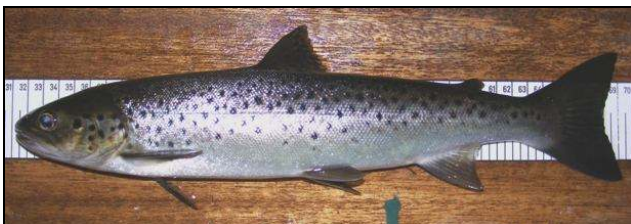
Sea trout

About 100 sea trout and 200 finnock were recorded in 2010. In terms of total catches, 2009 was a better year than 2010, but in neither year were catches of sea trout comparable to those of the past. In 2010 fewer sea trout were taken in the River Ewe than in 2009; and Loch Maree was lightly fished, with an average of less than one boat per day through the months of July – September from Loch Maree Hotel. The largest sea trout reported in 2010 was a fish of 4lb from the River Ewe; a 3.5lb sea trout was taken at the head of Loch Maree. In comparison, of 1163 sea trout taken by rods in 1980 (minimum size 1lb), 12% (139 fish) were over 4lbs in weight (Walker, 1980). These big sea trout have yet to reappear in rod catches.

Figure 2: River Ewe rod caught sea trout catch 1952 – 2010. (Note that until the mid 1980s, typically between 100 and 400 sea trout of ~2.2lb [1kg] and over were also taken in nets operated in Loch Ewe).

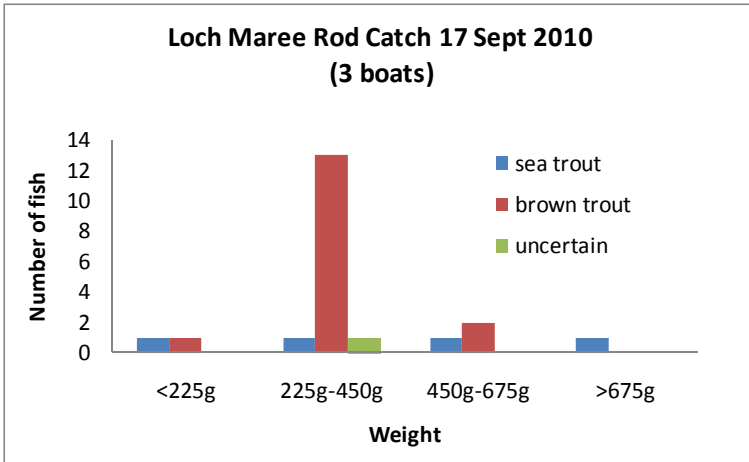


Two sea trout taken in the Flats Pool of the River Ewe on 12 October 2010.

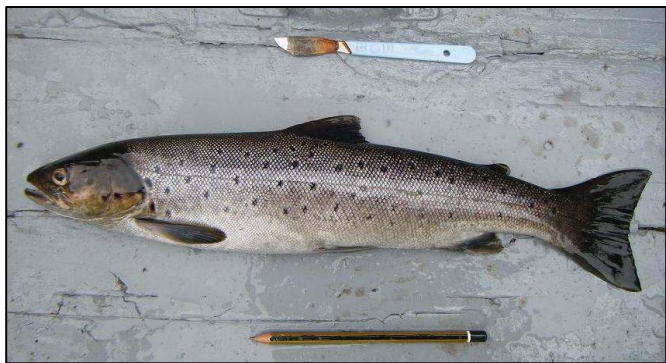


On 17 September 2010, three boats set out from the Loch Maree Hotel, ghillied by Ala MacKenzie, Alan Jackson and Fred Robertson. The day was cold, with showers and NW breeze. 21 trout were retained for measuring (all sea trout were subsequently released) and scale samples were taken to confirm identity. Scale reading confirmed that the majority of fish taken were brown trout, with a minority of sea trout. Two silvery fish initially listed as sea trout were found to be brown trout. Andrew Ramsay caught the largest sea trout, a fish of 876g (nearly 2lb). Thank you to Ben Hadfield of Marine Harvest for supporting this Loch Maree fishing day and Nick Thomson at the Loch Maree Hotel for soup and sandwiches.

Figure 3: a day's catch from the Loch Maree Hotel boats: 3 boats each with a ghillie. Fish identity based on reading of scale samples.



Andrew Ramsay and the anaesthetised sea trout of 876g (1.8lb) taken from the boat ghillied by Alan Jackson, and two of the brown trout taken. All sea trout were released back into Loch Maree.



3. Juvenile fish survey

Wester Ross Fisheries Trust has investigated juvenile salmon and trout stocks in the River Ewe system since 1997. Results have helped to highlight problems and opportunities for fisheries management. An absence of salmon fry or parr at a survey site usually indicates that salmon have not spawned in that section of water in the preceding two or three years. Very low densities of juvenile fish may be indicative of a shortage of spawning fish or habitat problems, for example redd washout.

The objective of the WRFT juvenile fish survey in 2009 – 2010 for the River Ewe system was to maintain an understanding of the distribution and relative abundance of juvenile salmon within the system. Because juvenile salmon usually take two or more years to become smolts in West Ross rivers, this can be achieved by surveying rivers every two years.

To learn more about trout, sites were fished in several of the smaller burns entering Loch Maree where trout and sea trout spawn. To learn about the outcome of a stocking programme, sites were fished above impassable falls near Kernsary where salmon fry were stocked in 2007 and in the Tollie burn where salmon were stocked in 2008.

Methods

As in previous years, electro-fishing surveys were carried out by WRFT staff trained to Scottish Fisheries Co-ordination Centre (SFCC) protocols, using 'Electracatch' back-pack electro-fishing equipment.

Semi-quantitative (timed) electro-fishing was used at all but one site. Timed fishing involves fishing for a recorded time through a section of likely juvenile habitat and gives an index of abundance of juvenile fish caught per minute, or Catch Per Unit Effort (CPUE).

Most sites were surveyed in 2009; sites in the Garbhaig were fished in 2010; and in the Slattadale Burn and Bruachaig in both years.

The WRFT electro-fishing team of Peter Cunningham and David Mullaney, Roger McLachlan and/or Garry Bulmer was assisted by Beinn Eighe NNR volunteers for the electro-fishing survey of the Kinlochewe River (below) on 12 August 2009.



Results

These are presented in Figures 4 to 9 and in Appendix 1.

Table 1 Definition of Catch-per Unit effort grades as used in the following text.

CPUE	Grade
0	Absent
0.1 – 0.5 fish per minute	Very low
0.6 – 1.0 fish per minute	Low
1.1 – 2.0 fish per minute	Moderate
> 2 fish per minute	High

Salmon fry (Figure 4)

The pattern salmon fry (salmon young of the year) distribution was very similar to that of the last survey in 2007 and 2008. CPUE for salmon fry were again high in the Kernsary sub-system below the impassable falls, in the Kinlochewe River and Coulin River (fry densities supplemented with stocked fish). Of note, high densities of salmon fry were found in mid July 2009 at the top site in the Docherty burn; at another site only 1km further downstream very few fry were found; this highlights the patchiness of salmon fry distribution in the early part of the electro-fishing season. Salmon fry of wild origin were not found above the Bruachaig falls, nor above the falls in the Ghuiragarstidh burn.

Figure 5 shows how the size of salmon fry around Kinlochewe varies above and below the waste water treatment works discharge. Given the importance of the section of river below this point to the loch, further investigations may be warranted.

An unexpected catch: an American Brook trout from the headwaters of the Coulin River, caught in September 2009. Brook trout were intruded to headwater lochs in the 19th Century (photo by David Mullaney).



Figure 4. Distribution and relative abundance of salmon fry in 2009 and 2010 in the River Ewe catchment. All sites except the Bruachaig and Gharbaig river were surveyed in 2009.

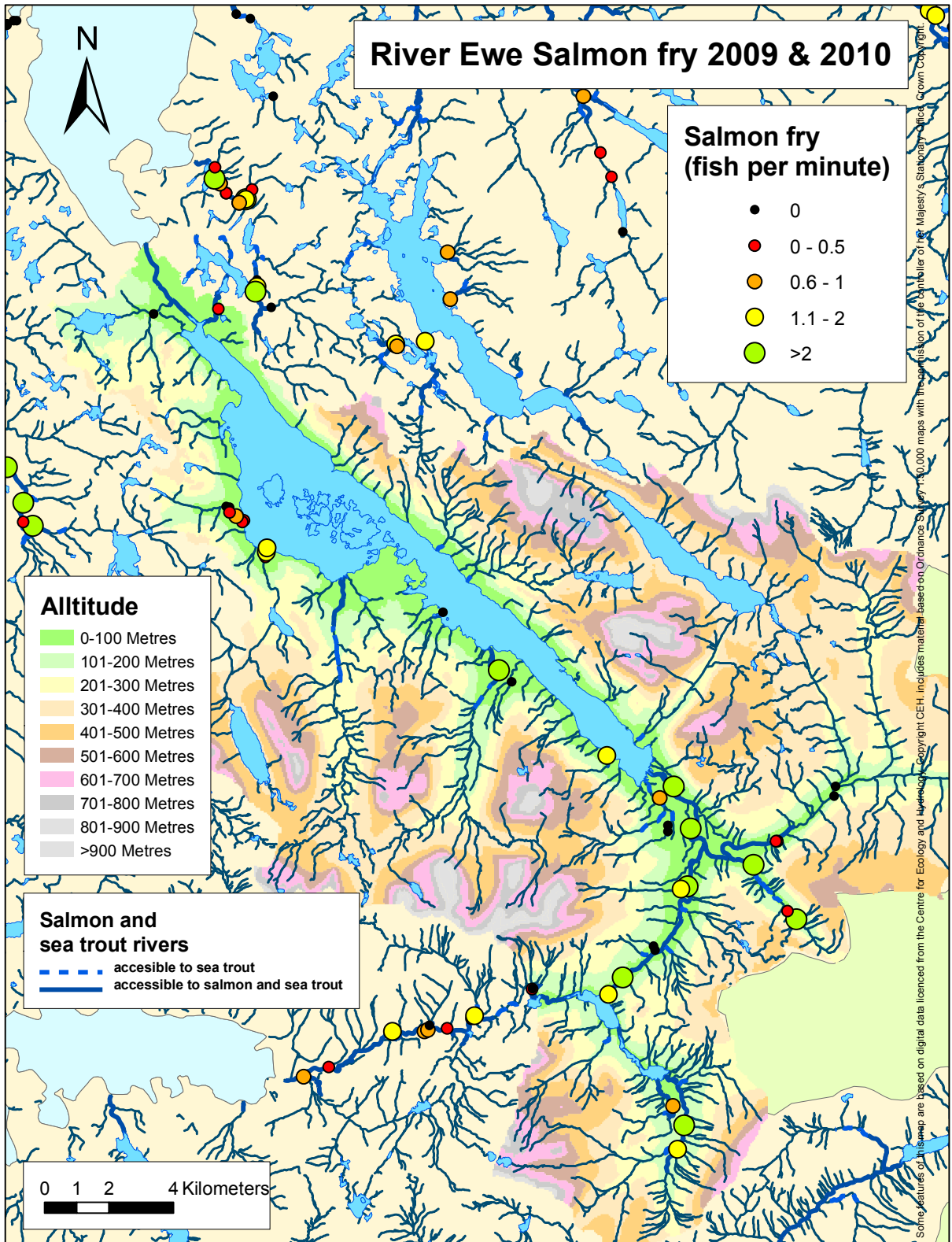
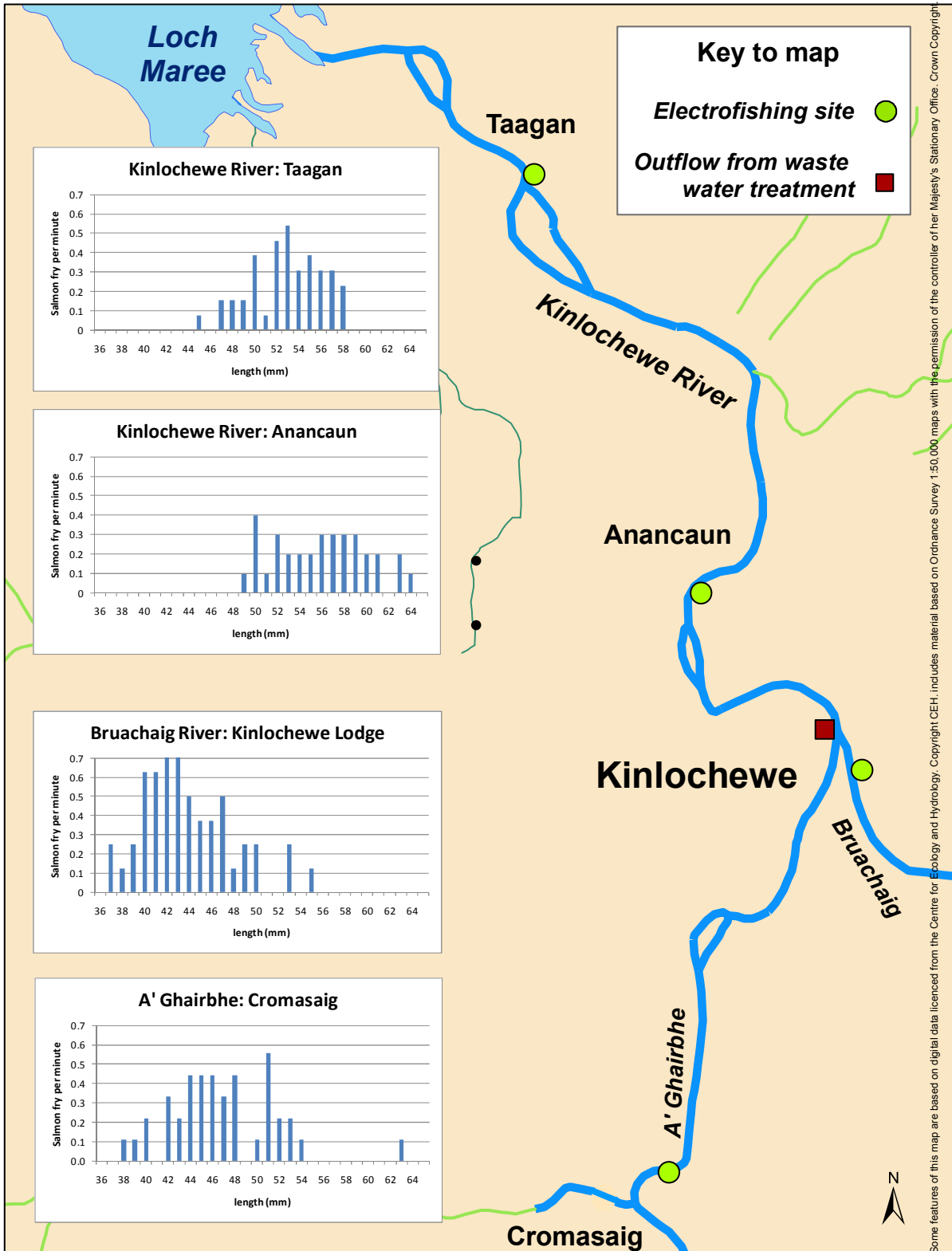


Figure 5. On 12th August 2009 salmon fry at sites in the Kinlochewe River below the waste water treatment works outflow were almost 1cm larger than those in the Bruachaig river just a short distance further upstream. Fry size varied between nearby sites and may be related to both density and to the amount of food available; a little extra nutrient may have led to faster growth and higher smolt production?



Salmon parr (Figure 6)

The distribution of salmon parr (fish aged 1 year and older) was very similar to that of fry, with the following exceptions:

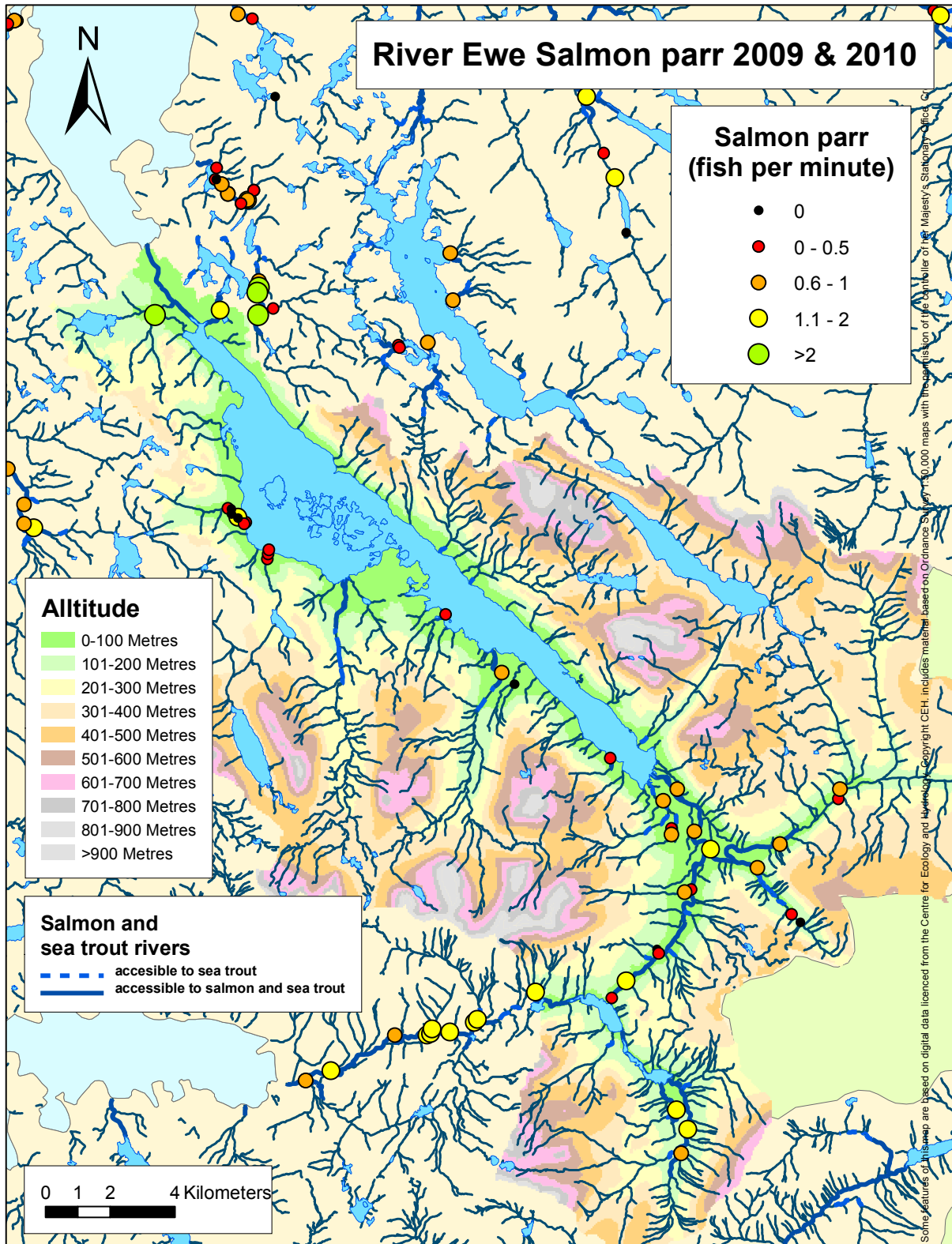
- Ghuiragarstidh burn (above Kernsary): salmon parr were found above the falls but not salmon fry (the salmon parr were assumed to be of wild origin).
- Allt na Creige (Kernsary): 2+ year old salmon parr were recorded above the falls in 2009; these were assumed to be fish which had been stocked as fry into the river in 2007, demonstrating good survival of stocked fish (the majority of fry stocked in 2007 are presumed to have smolted and gone to sea in 2009 as two year old smolts prior to the survey).
- Tollie Burn: salmon parr recorded here in 2009 were assumed to be fish which had been stocked as fry in 2008, demonstrating good survival and growth of stocked fish.
- Bruachaig: salmon parr recorded here in 2010 are assumed to be fish which had been stocked as fry in 2009, demonstrating good survival and growth of stocked fish.
- Slattadale: in 2009 and 2010, salmon parr were found further up the river than fry, including a parr beneath the concrete forestry bridge for the first time. These fish are assumed to have swum upstream from areas where they hatched further down the Slattadale burn.

Inferred parr densities were mixed. At the quantitative site in the Kernsary sub-system they were high as in previous year. However, salmon parr CPUE for sites in the lower Kinlochewe River in 2009 were lower than anticipated, despite very high salmon fry densities at respective sites in 2008. There are several possible reasons for this: 1. parr had moved from these areas into deeper water nearby where the back-pack electro-fishing equipment was unable to catch them; 2. parr had moved downstream into Loch Maree; 3. over-winter survival of fry from the year before was poor, or a combination of these and other factors. The Kinlochewe River is a large river and most of the river is too deep to survey using back-pack electro-fishing equipment, so factor one is considered to be a major part of the explanation.

Salmon fry and parr and juvenile trout were found in the Garbhaig River on 4th October 2010



Figure 6. Distribution and relative abundance of salmon parr in 2009 and 2010 in the River Ewe catchment. All sites except those in the Bruachaig and Gharbaig river were surveyed in 2009.



Trout fry (Figure 7)

Trout fry were found at many sites within the catchment, particularly in the smaller burns. In the Docherty burn, trout fry were present in 2009 at three sites (and at high CPUE at one site). In 2007 trout fry were not recorded in the Docherty Burn above the new road bridge. This recolonisation may be due to the burn stabilising after the completion of road construction activities rather than a clear indication of an increase in trout egg deposition.

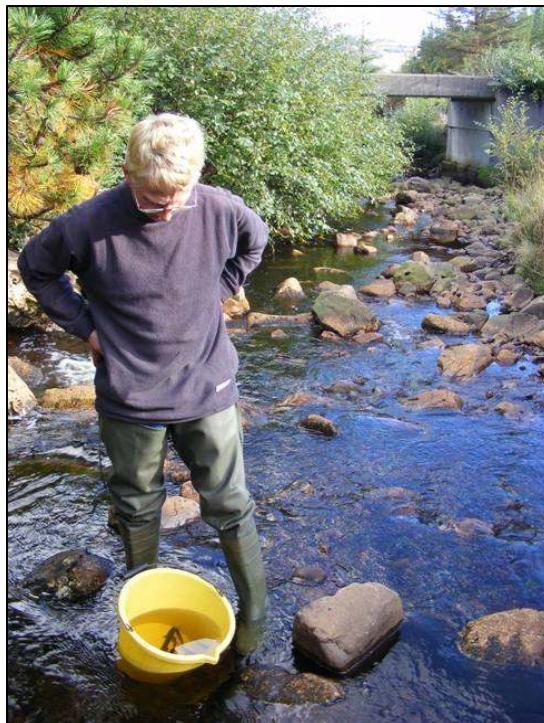
In 2009 trout fry were also present at high CPUE in four of the smaller streams flowing into the southern shore of Loch Maree, and in the burn above Loch Bharanch.

'Sea trout' fry of native origin were stocked into the headwaters of the River Ewe system around Coulin in 2009, and are assumed to have been represented in e-fish samples in the Coulin area.

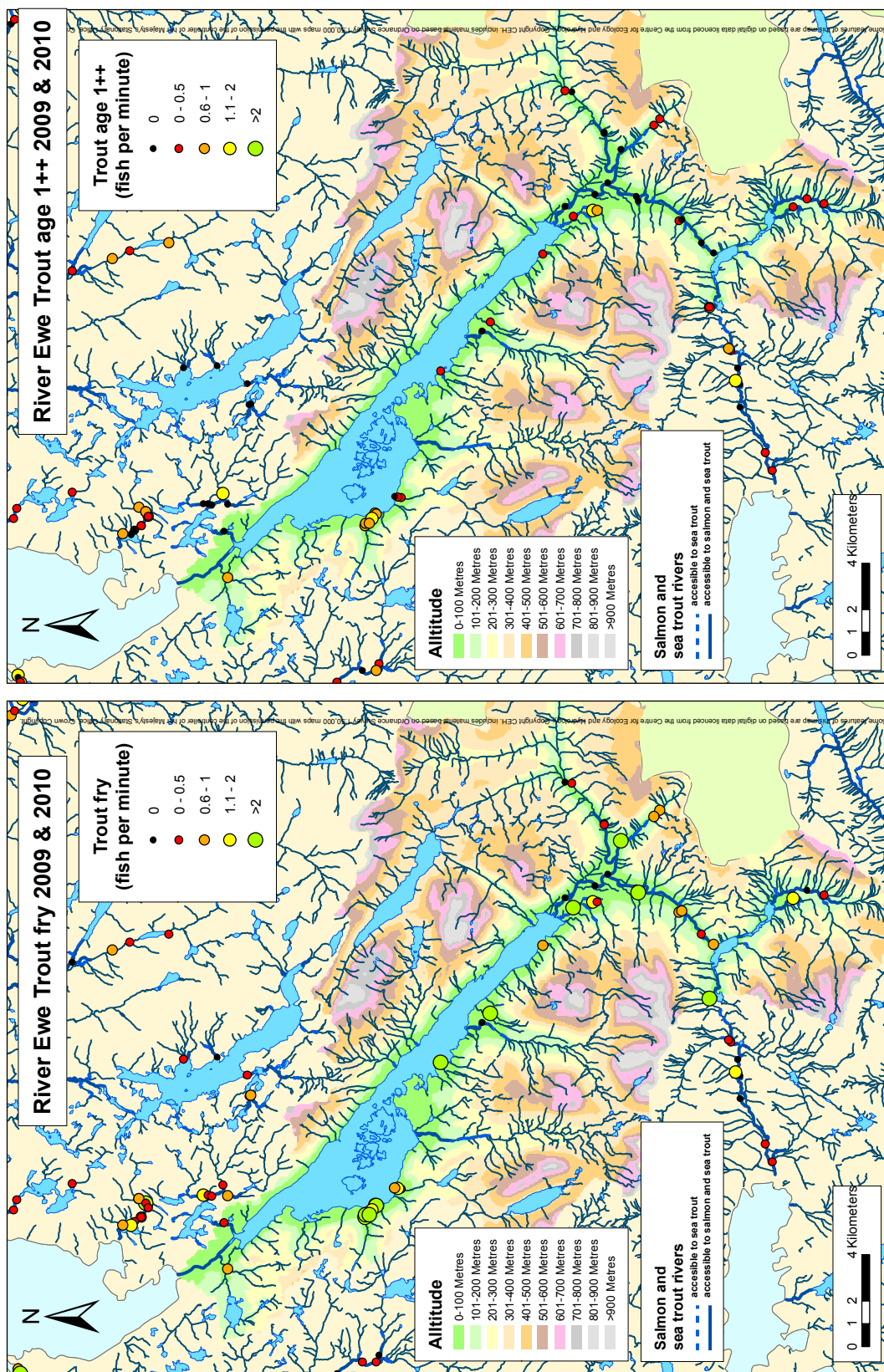
Older trout (Figure 8)

Trout aged 1++ years were found at higher CPUE in the Slattadale burn, Taagan burn and Kernsary sub-system above falls than elsewhere within the system. After their first summer in running water, juvenile trout usually move to deeper pools in small streams or into lochs where they are not easily surveyed; so they tend to be under-represented in electro-fishing survey catches.

(below) David Mullaney awaiting anaesthetised fish to recover before releasing them back into the Slattadale Burn. In addition to trout, the bucket contained a salmon parr, the first found as high up the burn as the concrete bridge in the past 8 years. This stream now provides an ideal mix of shade from alders and willows and open sunlit habitat for juvenile trout. A footpath now runs along the side of the burn between Loch Maree to the concrete bridge.



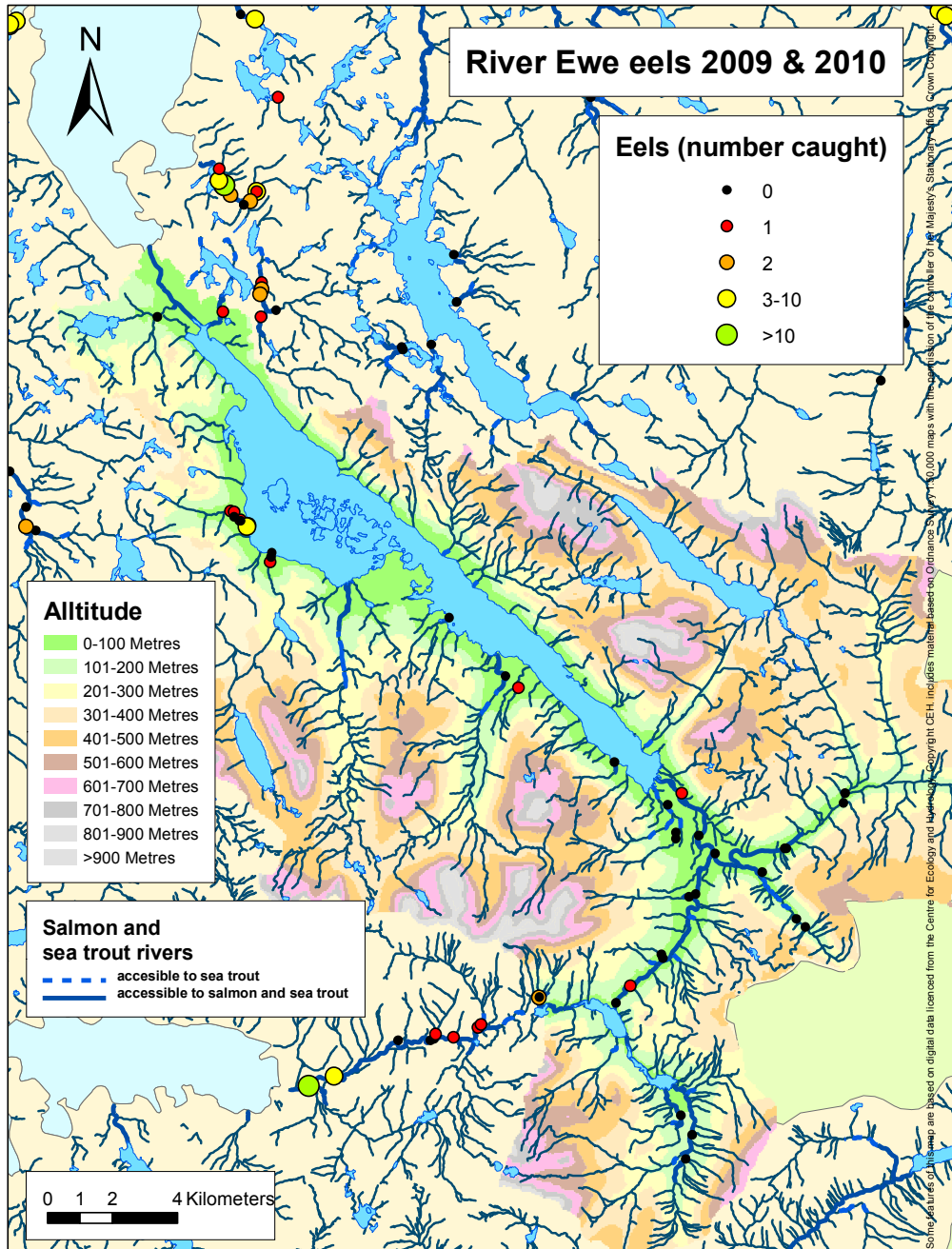
Distribution and relative abundance of trout fry (Figure 7, left) and trout aged 1 years or more (Figure 8, right) in 2009 and 2010 in the River Ewe catchment. All sites except the Bruachaig and Gharbaig River are for 2009.



Eels (Figure 9)

As in previous years, few eels were encountered during electro-fishing surveys within the system. [A large number of eels was recorded at one site in the neighbouring Tournaig river system.] The number of elvers entering rivers from the sea each year is known to have fallen greatly in many parts of Europe and there is concern for their future. Loch Maree has a reputation for large eels which can be caught using a fyke net.

Figure 9. Distribution and relative abundance of eels recorded in the River Ewe catchment. All sites except those in the Bruachaig and Gharbaig river are for 2009.



4. Ewe Screw trap

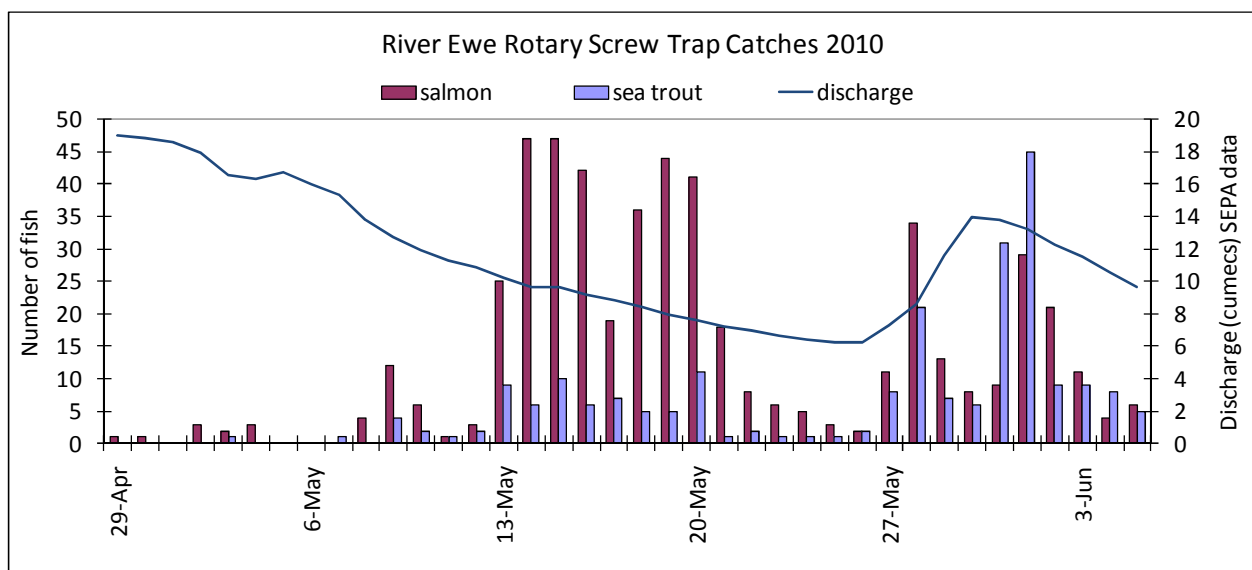
To learn more about smolts migrating to sea from the River Ewe-Loch Maree, Inveran Estate purchased a screw trap in 2009. In 2010, this was exchanged on loan for a larger rotary screw trap belonging to the Spey DSFB, which was delivered on 19th March 2010.



The trap was initially operated below the Flats Pool without success. On Friday 23rd April the trap was moved to the T-Pool of the River Ewe where it remained until the 5th of June. The first fish, a salmon smolt, was recorded on the 29th of April. The largest catches were taken during the week of 13th – 20th May when salmon smolts were dominant (Figure 10). Few fish were taken during a period of very low flows between 20th May and 26th May. There was a second peak in catches during the week of 27th May to 3rd June, following a rise in water level. Catches of sea trout smolts and over-wintered finnock were equal to or greater than those of salmon smolts during this later period.

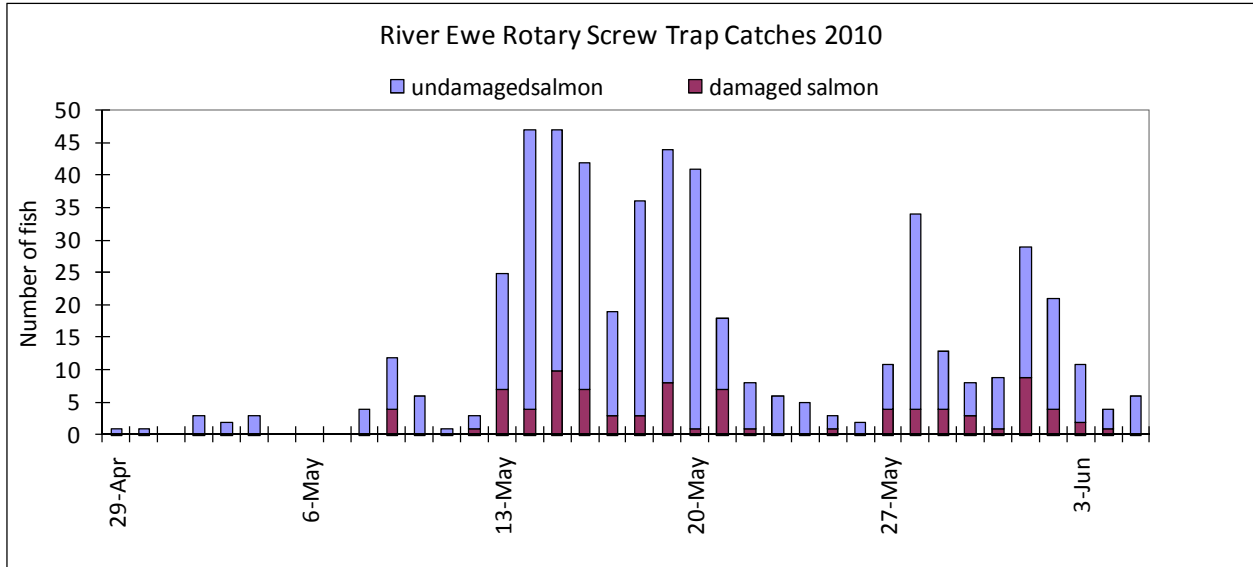
In total 525 salmon smolts and 227 sea trout (smolts and over-wintered finnock) were taken in the trap between 29th April and the 5th June 2010. This suggests a ratio of approximately 2.5 salmon for every sea trout smolt. Many of the smolts of both species were recorded as predator damaged (Figure 11).

Figure 10 Catches of salmon and sea trout smolts and over-wintered finnock in the River Ewe rotary screw trap 29th April to 5th June 2010



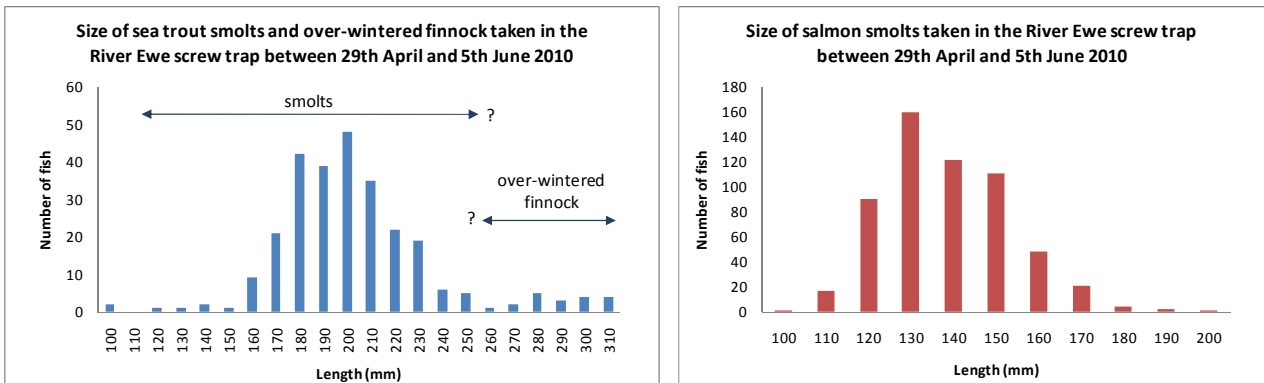
19 salmon smolts were fin clipped (3.6%)

Figure 11 Undamaged and damaged salmon smolts recorded in the River Ewe rotary screw trap in 2010.



Most salmon smolts were between 130 and 160mm in length (Figure 12). Sea trout smolts were mostly between 170 and 230mm in length (Figure 13); larger sea trout were assumed to be over-wintered finnock on their way to sea for a second time.

Figure 12 (left) Recorded lengths of salmon smolts and Figure 13 (right) lengths of sea trout taken in the River Ewe rotary screw trap in 2010.



In comparison to the River Carron (Kindness 2009 & 2010), there was a higher proportion of sea trout smolts vs. salmon in the Ewe catch and both salmon and sea trout smolts were larger in the Ewe.

The trap was operated by Ray Dingwall and Roger McLachlan. Thank you to Angus Morrison and the Scottish Government (via RAFTS) for support for this project, and to the Spey Salmon Fisheries Board for delivering and helping to install the trap.

Thank you to Neil Morrison, Bill Whyte, Graeme Wilson, Ben Rushbrooke and Prof Peter Maguire for assistance and photos.

These results provide useful new information. The Ewe screw trap demonstrates that in addition to salmon, there is still a sizable run of sea trout smolts heading to sea each year. Butler (2002) estimated the maximum salmon smolt production from river habitat at 28,000 per year with a further 21,000 from loch habitat, giving an estimated maximum total of 50,000 salmon smolts per year. If the total salmon smolt production in 2010 is more conservatively estimated at least 30,000 per year, then if the sea trout smolt run is indeed around 50% of the salmon smolt run (as indicated by the Ewe screw trap), a realistic estimate of 2010 sea trout smolt production from the River Ewe system would be around 10,000 – 15,000 sea trout smolts. What happens to them?

5. Sea trout in the marine environment

Much depends upon marine survival. Marine survival rates (sea trout smolt to finnock) recorded at the Shieldaig sea trout project for wild smolts varied from less than 5% in years up to 2004 (except 2002), to 14% in 2005 and 36% in 2006 (Raffell *et al.*, 2007). Year to year variation is considerable.

Since 1997 the WRFT has monitored sea trout through netting at Poolewe. Until 2008, samples were taken using a gill net set at the mouth of the River Ewe in June each year; subsequently sea trout have been sampled using a sweep net in Loch Ewe. In addition, rod and line has been used to provide supplementary samples of sea trout from the River Ewe. Appendix 2 provides details of fish sampled in 2009 and 2010. Data from earlier years can be found on-line at <http://www.wrft.org.uk/files/WRFT%20Sea%20lice%20monitoring%20report%202007-2008%20for%20web.pdf>

2009

In total 35 fish were sampled in 2009. This included a catch of 15 sea trout taken in the sweep net at Boor Bay on 15th July 2009. These fish were in excellent condition between, and 13 of the fish had a condition factor¹ of 1.20 or over (in other words, they were fat). The largest of these was a fish of 380mm and condition factor of 1.46, which remains the 'best' conditioned sea trout seen by the WRFT biologist. There was an average of 17 *Lepeophtheirus salmonis* lice per fish (range 0 - 40 lice per fish) and 1.1 *Caligus elongatus* per fish.

A remarkably 'fat' sea trout of 380mm, 800g (condition factor 1.46) taken in the sweep net at Boor Bay on 15th July 2009 (photo Ben Rushbrooke)



¹ Condition factor: (weight in grams x100) / (length in mm/10)³

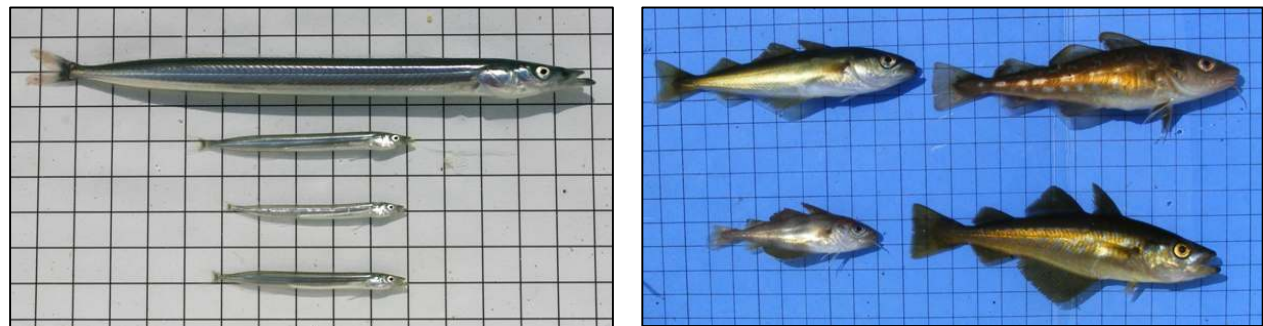
Thirteen finnock were taken by rod and line from the River Ewe on 9th – 10th July 2009 of between 230mm and 270mm in length. With condition factors all above 1.30, these fish had also grown well at sea. They carried an average of 12 *L. salmonis* per fish (range 0-25 lice per fish) and seven of them had dorsal fin damage.

Finnock taken from the River Ewe on 10 July 2009 (photo by Steve Kett).



The most obvious explanation for the recorded high condition factor for sea trout in 2009 was that there were many sandeels in local sea lochs. Sandeels, including small smolt-snack sized 0+ sandeels were seen by the snorkeler coming out of the back of the sweep net at Boor Bay on several occasions, and sampled in Loch Gairloch where the both Lesser and Greater sandeels were present.

(left) Greater and Lesser sandeels, 10th July 2009, Loch Gairloch; (right) clockwise from top left: juvenile Coalfish, Cod, Pollack and Bib from the sweep net sample at Boor Bay on 15th July.



In summary, 2009 was a good year for River Ewe system sea trout in terms of marine growth. Sea lice levels recorded were not as high as in some other second years of the salmon farm production cycle within Loch Ewe in the past 20 years (e.g. 2007).

2010

In total 34 sea trout were sampled, either by sweep net in Loch Ewe or rod and line. The largest sample was of 15 fish taken in the sweep net at Boor Bay on 15th June. These fish were small (average length 167mm), thin (average condition factor of 1.00), but mostly lice free with only 5 fish carrying lice (maximum of 17 *Lepeophthierus salmonis* per fish).

Only 6 fish were caught in July: 4 small post-smolts in a sweep net sample at Boor Bay on 15th July and two larger fish (including one of 430mm) by rod and line from the River Ewe on 16th July. All these fish were thin for the time of year, with condition factors of less than 1.20. There were less than 10 lice on all these fish.



In August and September, some larger fish were caught. On 3rd August the sweep net team sampled the shore at Inverasdale, catching a plump sea trout of 351mm, condition factor 1.35. However another sea trout of 311mm had a condition factor of only 1.10. The larger fish carried 67 sea lice, mostly pre-adult and adult lice and was the lousiest sea trout seen in Loch Ewe in 2010. Large sandeels (estimated length 10cm +) were seen coming out of the net as it was pulled in; were these too big for smaller trout to feed on?

(left) The sweep net sampling team by Inverasdale on 3rd August 2010, and (below) the 351mm sea trout taken.



Five small (165 - 193mm) post smolt sea trout were taken in the Boor Bay sweep net on 12 August; with condition factors of up to 1.35 indicating reasonable growth; and a further two fish of 197mm and 265mm on 13th September along with many sprats.

Sea trout and sprats taken at Boor Bay in the sweep net on 13 September 2010.



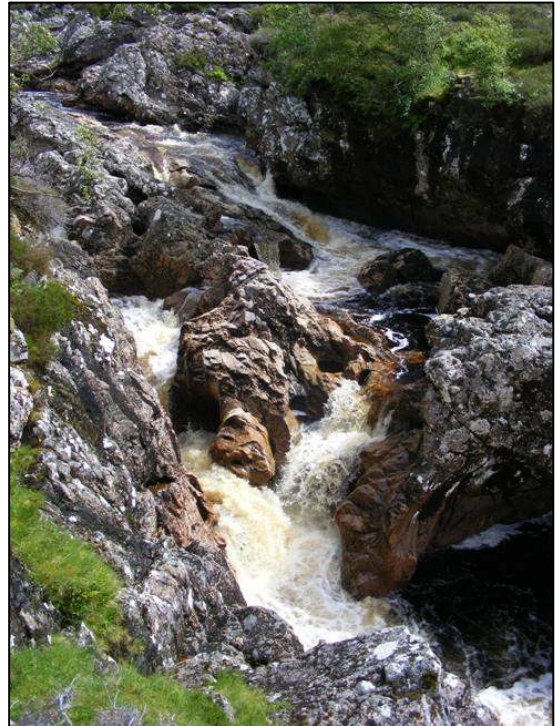
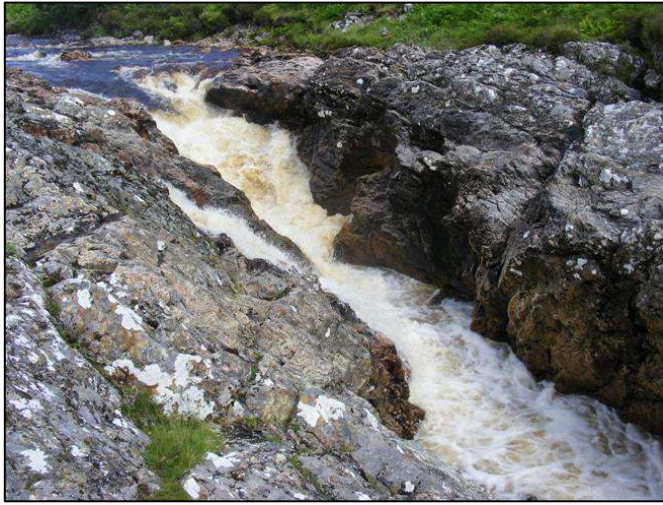
In summary, 2010 was a difficult year for learning about sea trout. Few fish were caught in July. Some sea trout smolts may have been delayed in entering Loch Ewe, where feeding was initially less prolific than in 2009. Many of the fish caught were small, even compared to those taken in the rotary screw trap. Although recorded sea lice infection levels were low in June and July, there was little evidence of good feeding or growth until the end of the summer.



Corkwing Wrasse (left) and Goldsinny Wrasse (below) taken in the sweep net at Boor Bay on 12th June and 13th September 2010 respectively. Some fish farm companies have recently requested permission from the Scottish Government to commercially harvest wrasse of these species to help delouse farmed salmon.



6. Bruachaig restoration project (supported by the Scottish Government via RAFTS, and River Ewe proprietors)



A Bruachaig summer spate, 7 July 2010. There were frequent spates in July and August 2010, providing wild salmon with opportunities to recolonise the upper Bruachaig. Will salmon fry of wild origin be found above the falls in 2011?

This project is aimed at restoring a self-sustaining wild salmon population above the falls complex on the Bruachaig River between Incherill and the Heights of Kinlochewe, shown above. Adult salmon were again captured using rod and line from the Kinlochewe River in the autumn in 2009 and 2010 and transferred to Coulin Estate hatchery where eggs were stripped, fertilised and incubated. In both 2009 and 2010, Neil Morrison (below) and Simon Stewart had to contend with sustained periods of severe frost. However, rates of egg – hatch survival have remained good (?80-90% survival).



In June 2009, approximately 25,000 fed salmon fry were stocked out above the falls around the Heights of Kinlochewe and above Leckie. This is the largest stocking out of salmon fry into the system to date. In 2010, approximately 10,000 fry were stocked into the burn around the Heights of Kinlochewe in early July 2010 as fed fry. Another 500 of these fish have been retained to be grown on as a captive broodstock for future years.

Despite difficult high water river conditions, eight large 1 year old salmon parr were recorded in 20 minutes electro-fishing at the side of the main channel at the tail of the Professor's Pool on 7th

July 2010. This demonstrates that fry stocked in 2009 had survived and grown well.

It is becoming clear that it will not be possible to stock available habitat above the Bruachaig falls to near 'carrying capacity' using eggs from adult fish taken downstream alone. Therefore, options for rearing a River Carron type 'captive broodstock' are being explored.

7. Habitat restoration initiatives

Spawning burns

In 2009, representatives for the River Restoration Council, supported by SNH, visited two streams within the River Ewe catchment to consider options for restoring habitat for wild fish and other wildlife.

1. Taagan burn. Historically, the burn meandered across the floodplain at the head of Loch Maree. Sometime in the 19th Century, the lower part of the burn was straightened. However, due to the instability of the burn and rate of sediment accumulation, the burn has periodically flooded over the banks of the channel, notably around Taagan Farm.

There was some uncertainty at the time of the visit of local responsibilities in terms of taking forward a possible project. Options for restoring fish habitat in the burn remain uncertain.

SNH and RCC representatives visiting the Taagan burn 14 Sept 2009, showing area from which quartz gravel was extracted, partly to prevent channel from infilling and protect against flooding.



2. Tollie Burn. SNH and RRC discouraged WRFT from further investigation of options for restoring the lower part of the Tournai Burn into Loch Maree to recreate a longer, less steep section of stream habitat, because of a lack of clear evidence that the historic change in course had been due to human intervention, and concerns for Freshwater pearl mussels. In 2009, a Freshwater pearl mussel survey was carried out by Lee Hastie; WRFT looks forward to the results of this survey.



8. Spawning season 2010



Conditions for trout and sea trout spawning in November 2010 were good. In mid November, fresh trout redds were seen every 4-5 m along a 400m length of the Bharranch burn between Loch Bharranch and Loch Clair. Trout were seen spawning in a burn flowing into Loch Ghuiragarstidh on 4th and 5th November 2010 (left); eggs were seen lying on the gravel, some of which were rather pink, possibly those of sea trout.

However, in late November, water levels dropped. By the end of the month salmon were crowded together in deeper pools awaiting higher flows. Unusual low water conditions remained until the middle of December 2010, by which time a period of severe frost had set in which lasted until the end of the month.

An electro-fishing survey of the catchment in 2011 will clarify whether salmon were able to wait until higher flows in mid-December provided salmon with access to upper spawning streams (e.g. Coulin River, Glen Docherty, Kernsary River).

9. Loch Maree



In May 2009, Ron Greer and Derek Pretswell set gill nets aiming to collect pelagic **Arctic charr** from the loch. Only one of these large charr was caught. The spawning area or this population is not known. Dixon (1986) reports that the Earl of Seaforth netted Arctic charr in Loch Maree in the autumn. Are there records in estate archives of the locations of where charr were netted? The pelagic charr of Loch Maree is a relatively large charr, adults are typically 30cm in length, sometimes more. It would be useful to learn more about the status of this unique fish.

(left) Ron Greer and Derek Pretswell extracting otoliths from benthic Arctic char 24 May 2009.

Pelagic Arctic charr, taken in a gill net near Rhu Noa in May 2009.



10. Main conclusions and some recommendations

1. The unofficial rod catch of salmon and grilse in 2010 was of 238 fish, (188 in 2009). Sea trout catches were of around 100 fish in 2010 (259 in 2009); sea trout were out-numbered by brown trout in a rod catch from the Loch Maree Hotel in September 2010. Official catch records will be available for analyses in March 2011. **Action** WRFT

2. Juvenile salmon of wild origin were found at all sites surveyed within the accessible part of the River Ewe system, except above the Bruachaig Falls. Stocked salmon fry had grown well above falls in the Kernsary catchment, Tollie Burn and Bruachaig. The 2011-12 juvenile fish survey will return to all these and other areas within the Ewe catchment. **Action** WRFT.

3. The Bruachaig salmon restoration project has now been running since 2006 (first stocking in 2007). 25,000 salmon fry of Kinlochewe River origin were stocked out in 2009, with support from Coulin Estate. Fry had grown well at least until July 2010 when large parr were recorded. A salmon smolt run of '000s from above the falls is anticipated in 2011. Until there is natural spawning in the upper Bruachaig, to fully populate available habitat above the Bruachaig falls with salmon fry a captive broodstock is required. **Action:** Proprietors & Bob Kindness

4. The 'Catch and Release' policy for early running salmon and sea trout is helping to ensure adequate egg deposition in other areas, and provides insurance against inadequate egg deposition where fish are taken from the Kinlochewe River and River Ewe later in the season for stocking programmes. The policy of returning all fish before the end of June is fully supported by the WRFT Biologist. **Action:** all to agree fisheries regulations for 2011 season.

5. Both salmon smolts and sea trout smolts were recorded in the Ewe Rotary screw trap at a ratio of approximately 2.5 salmon to 1 sea trout. This suggests a run of 10,000+ sea trout smolts in 2010. The trap worked best in the T-Pool at medium – low flows. Salmon catches peaked in early May, sea trout catches peaked in late May. To obtain more precise estimates of smolt numbers 'Mark and Recapture' should be considered. **Action:** WRFT & Inveran Estate, supported by other Ewe proprietors?

6. Sea trout sampled (sweep netting and rod and line) in 2009 were fatter than in 2010, reflecting better feeding in the sea. In neither 2009 nor 2010 were very high sea lice levels on wild sea trout recorded. Lice levels were generally higher in 2009; however the lousiest fish sampled was a sea trout of length 351mm with 67 lice caught in August 2010 from the Inverasdale shore. Sea louse monitoring in Loch Ewe should continue. **Action:** WRFT.

7. Continued constructive engagement with Marine Harvest may help to sustain minimal infective pressure from larval sea lice in Loch Ewe. **Action:** Loch Ewe AMG

8. Food availability in Loch Ewe may be of critical importance to the survival and growth of these fish in their first few weeks at sea (c. 2009 vs. 2010 sea trout condition). For this reason, Ewe salmon and sea trout fisheries interests should actively engage in efforts to protect habitats of importance for juvenile fish populations (e.g. sandeels, herrings and sprats) within Loch Ewe, including the Scottish Government's Marine Protected Area programme. **Action:** Proprietors, WRASFB, RAFTS, SNH, WRFT.

9. The Slattadale Burn Habitat Restoration Project, initiated in 2002, in collaboration with the Forestry Commission, has been a success in terms of restoring more natural habitat. Juvenile salmon and trout populations in this stream may now benefit from the coppicing of willows and alders where they have grown back over the river. Opportunities for improving the Loch na Fideil burn require greater support from all stakeholders. A public awareness raising event is planned for Slattadale for 23rd June 2011. **Action:** WRFT, Proprietors

10. Options for improving co-ordination of the Loch Maree fishery (including record keeping and provision of guidance to visitors) should be reviewed. **Action:** Fisheries proprietors, Bailiffs, SNH, WRFT.

11. Acknowledgements

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Going dapping on Loch Maree, 1 June 2009

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Appendix 1

Electro-fishing survey results for the River Ewe system for 2009 and 2010

Date	Code	Location	Easting	Northing	Time (mins)	Salmon	Trout	Salmon	Trout	CPUE (fish per minute)	Eel	Min/w	S'back	Notes
						0+	1++	0+	1++	0+	1++			
17-Jul-09	EWFE22	Ewe, Docherty Burn towards top	205980	859990	12	41	0	11	1	3.42	0.00	0.92	0.08	0
17-Jul-09	EWET112	Ewe, Docherty Burn above road of culvert at corner	205710	860240	12	1	5	11	5	0.08	0.42	0.92	0.42	0
28-Jul-09	EWFE13	Ewe, Tollie Burn, bridge upstream to Rowan tree	186050	878750	7	0	20	6	4	0.00	2.86	0.86	0.57	0
30-Jul-09	EWFE19	Ewe, Siattadale Burn, above forestry bridge	188400	872750	8	0	0	33	7	0.00	0.00	4.13	0.88	1
30-Jul-09	EWET122	Ewe, Siattadale Burn, between Loch and footbridge	188800	872300	7	3	2	15	4	0.43	0.29	2.14	0.57	4
30-Jul-09	EWET123	Ewe, Siattadale Burn, above fence, and way up to forestry bridge	188600	872480	6	6	0	9	7	1.00	0.00	1.50	1.17	0
30-Jul-09	EWET124	Ewe, Siattadale Burn 50m below power cable, cobbly run	188400	872600	5	1	0	22	3	2.00	0.00	4.40	0.60	0
30-Jul-09	EWET27	Ewe, Grudie River, pebbly riffle at tail of corner pool	196750	867700	8	35	5	0	0	4.38	0.63	0.00	0.00	0
30-Jul-09	EWET125	Ewe, Grudie fields, burn, Alltan odhar, ~200m above power cables	197150	867350	10	0	2	33	5	0.00	0.00	2.30	0.50	1
30-Jul-09	EWFE4	Ewe, Grudie Island Burn	195020	869500	8	0	2	33	2	0.00	0.25	4.13	0.25	0
03-Aug-09	EWET117	Ewe, Beinn Eighe NNR Mountain trail burn below foot bridge below road	200100	865060	8	14	3	6	2	1.75	0.38	0.75	0.25	0
03-Aug-09	EWET103	Ewe, Beinn Eighe Visitor Centre burn above road	202000	862900	6	0	1	11	11	0.00	0.17	1.83	1.83	0
03-Aug-09	EWET109	Ewe, Beinn Eighe Visitor Centre burn Allt Squabaidh above footbridge	202000	862700	8	0	7	1	8	0.00	0.88	0.13	1.00	0
03-Aug-09	EWET118	Ewe, Allt a' Chuirn, above Cromasag bridge	202400	860920	7	9	4	18	0	1.29	0.57	2.57	0.00	0
03-Aug-09	EWET18	Ewe, Beinn Eighe NNR, Allt Fhann Alltan from road culvert upstream	197800	857820	7	1	5	10	7	0.14	0.71	1.43	1.00	2
03-Aug-09	EWET119	Ewe, Beinn Eighe NNR, unnamed east burn above L.Bharranch from road upstream	197800	857830	8	0	13	24	3	0.00	1.63	3.00	0.38	0
03-Aug-09	EWET120	Ewe, Beinn Eighe NNR, Alltan Fearna - alder, jungle	201550	859150	4	0	0	4	1	0.00	0.00	1.00	0.25	0
03-Aug-09	EWET21	Ewe, Beinn Eighe NNR, Alltan Fearna below road	201600	859030	6	0	1	6	0	0.00	0.17	1.00	0.00	0
04-Aug-09	EWET116	Ewe, Kersary, Ghiuragastidh burn above falls	189250	879800	10.5	0	10	17	0	0.00	0.95	1.62	0.00	1
04-Aug-09	EWFE24A	Ewe, Kersary, Ghiuragastidh burn above footbridge	189250	879600	10	20	24	4	0	2.00	2.40	0.40	0.00	2
04-Aug-09	EWFE23	Ewe, Kersary River, below house; quantitative site, 1st run	189200	879450	14	53	37	2	0	3.79	2.64	0.14	0.00	2
04-Aug-09	EWET12	Ewe, Loch Thollidhorre burn, bouldery run by track	189230	878750	5	35	20	4	0	7.00	4.00	0.80	0.00	1
04-Aug-09	EWFE14	Ewe, Kersary River above waterfalls	189700	878950	9	0	3	2	10	0.00	0.33	0.22	1.11	0
04-Aug-09	EWFE12	Ewe, Inveran River above road bridge	188050	878900	6.5	2	13	3	0	0.31	2.00	0.46	0.00	1
12-Aug-09	EWFE45	Ewe, Kinlochewe River, above Taagan Otter stone Pool	202180	864100	13	46	8	0	0	3.54	0.62	0.00	0.00	1
12-Aug-09	EWFE33	Ewe, Allt na Doire Daraich, by gate	201750	863750	9	5	7	24	1	0.56	0.78	2.67	0.11	0
12-Aug-09	EWFE150	Ewe, Kinlochewe River at Anancaum ford	202700	862800	10	35	6	0	0	3.50	0.60	0.00	0.00	0
12-Aug-09	EWFE153	Ewe, Brua chraig River below Kinlochewe Lodge	203200	862250	8	60	14	0	0	7.50	1.75	0.00	0.00	0
12-Aug-09	EWFE42	Ewe, Docherty Burn 100m below new road bridge	204650	861680	8	23	7	23	0	2.88	0.88	2.88	0.00	0
12-Aug-09	EWET117	Ewe, A' Ghairbhe, Cromasag burn by Bridge	202600	861000	9	39	3	0	0	4.33	0.33	0.00	0.00	0
14-Aug-09	EWFE180	Ewe, Coulin River by pine wood	202300	825850	6	7	5	3	3	1.17	0.83	0.50	0.50	0
14-Aug-09	EWFE18	Ewe, Coulin River, Allt Doire Bheithe usual site	202500	853800	6	19	9	0	1	3.17	1.50	0.00	0.17	0
14-Aug-09	EWFE32	Ewe, Coulin Farmhouse burn, from watergate upstream	202150	854200	10	9	13	14	3	0.90	1.30	1.40	0.30	0
14-Aug-09	EWFE174	Ewe, A' Ghairbhe between road bridge and Loch Clair	200150	857650	6	8	1	6	0	1.33	0.17	1.00	0.00	0
14-Aug-09	EWFE173	Ewe, A' Ghairbhe spawning fords, ~200m above s'lyfe	200600	858180	10	40	18	3	0	4.00	1.80	0.30	0.00	1
07-Jul-10	EWFE193	Ewe, Brua chraig, between Incherill and falls	205400	862400	5	2	2	1	0	0.40	0.40	0.20	0.00	0
07-Jul-10	EWFE193A	Ewe, Brua chraig, between Incherill and falls, corner	205350	862400	5	2	4	1	0	0.40	0.80	0.20	0.00	0
07-Jul-10	EWFE163	Ewe, Brua chraig above falls at tail of riffle below Professor's Pool	207150	863800	20	0	8	10	0	0.00	0.40	0.50	0.00	0
07-Jul-10	EWFE129	Ewe, Brua chraig, up to mouth of Abhainn Gleann na Muice	207200	864100	12	0	7	0	2	0.00	0.58	0.00	0.17	0
04-Oct-10	EWFE126	Ewe, Garbhaig, from 60m downstream of old road bridge	189509	871170	10	1	4	2	1	0.10	0.40	0.20	0.10	1
04-Oct-10	EWFE119	Ewe, Garbhaig, around both sides of island	189533	871372	12.5	19	6	17	1	1.52	0.48	1.36	0.08	0
04-Oct-10	EWFE127	Ewe, Garbhaig, from river, mouth upstream sides of channel	189557	871496	10	17	4	8	0	1.70	0.40	0.80	0.00	1
04-Oct-10	EWFE128	Ewe, Siattadale burn, below footbridge by pathside	188850	872350	10	1	3	11	8	0.10	0.30	1.10	0.80	2
04-Oct-10	EWFE129	Ewe, Siattadale burn, 100m+ above footbridge	188600	872500	5.5	1	8	4	2	0.18	1.45	0.73	0.36	1
04-Oct-10	EWFE197	Ewe, Siattadale burn, from concrete bridge upstream	188300	872780	10	0	1	22	9	0.00	0.10	2.20	0.90	1

Appendix 2

Sea lice data for Loch Ewe & River Ewe sea trout 2009 (sweep netting funded by the Scottish Government via the TWG)

Date	Location	Method	River, estuary or beach?	Length (mm)	Weight (g)	Condition	Caligus elongatus total	Lepeophtheirus salmonis					Dorsal damage?	Lice spots	Predator damage?	Comments
								Chalimus	Pre-adults and adults	Ovigerous females	Total					
22-May-09	Boor Bay (Loch Ewe)	Sweep	Beach	230	122	1.00	0	0	0	0	0	0	0	0	0	no cryptocoty - fresh smolt
22-May-09	Boor Bay (Loch Ewe)	Sweep	Beach	360	470	1.01	0	4	15	2	21	1	1	n	yes	orange mark under chin
08-Jun-09	Poolewe	Gill	Estuary	345			0	0	0	0	0	0	0	n	n	
22-Jun-09	Boor Bay (Loch Ewe)	Sweep	Beach	147	35	1.10	0	0	0	0	0	0	0	n	n	
30-Jun-09	Boor Bay (Loch Ewe)	Sweep	Beach	215	118	1.19	0	4	6	0	10	0	0	Y	n	
30-Jun-09	Boor Bay (Loch Ewe)	Sweep	Beach	160	38	0.93	0	4	1	0	5	0	0	Y	n	
09-Jul-09	River Ewe	Rod & line	River	230			0	10	5	0	15	0.5	0	n	n	
09-Jul-09	River Ewe	Rod & line	River	235			0	1	10	0	11	0	0	n	n	
09-Jul-09	River Ewe	Rod & line	River	243			0	0	12	0	12	0	0	n	?	scale damage
09-Jul-09	River Ewe	Rod & line	River	240			0	5	6	1	12	0	0	n	n	
09-Jul-09	River Ewe	Rod & line	River	250			0	2	5	0	7	0	0	n	n	
09-Jul-09	River Ewe	Rod & line	River	252			0	0	0	0	0	0.5	0	Y	n	
09-Jul-09	River Ewe	Rod & line	River	250			0	0	13	0	13	0	0	Y	n	
10-Jul-09	River Ewe	Rod & line	River	258	230	1.34	0	10	12	3	25	0.5	0	Y	n	
10-Jul-09	River Ewe	Rod & line	River	241	187	1.34	0	4	3	1	8	0.5	0	Y	n	
10-Jul-09	River Ewe	Rod & line	River	239	190	1.39	0	4	9	1	14	1	0	Y	n	
10-Jul-09	River Ewe	Rod & line	River	270	261	1.33	0	12	7	3	22	1	0	Y	n	
10-Jul-09	River Ewe	Rod & line	River	244	191	1.31	0	5	5	2	12	0.5	0	Y	n	
10-Jul-09	River Ewe	Rod & line	River	228	158	1.33	0	0	2	1	3	0	0	Y	n	
15-Jul-09	Boor Bay (Loch Ewe)	Sweep	Beach	380	800	1.46	1	1	15	4	20	0	0	Y	n	
15-Jul-09	Boor Bay (Loch Ewe)	Sweep	Beach	233	162	1.28	1	5	9	0	14	0	0	Y	n	
15-Jul-09	Boor Bay (Loch Ewe)	Sweep	Beach	239	196	1.44	6	6	6	0	12	0	0	Y	n	
15-Jul-09	Boor Bay (Loch Ewe)	Sweep	Beach	236	181	1.38	0	3	3	0	6	0	0	Y	n	
15-Jul-09	Boor Bay (Loch Ewe)	Sweep	Beach	252	190	1.19	1	32	8	0	40	0	0	Y	yes (old)	
15-Jul-09	Boor Bay (Loch Ewe)	Sweep	Beach	202	106	1.29	0	0	1	1	2	0	0	Y	n	
15-Jul-09	Boor Bay (Loch Ewe)	Sweep	Beach	235	167	1.29	0	8	2	0	10	1	0	Y	n	
15-Jul-09	Boor Bay (Loch Ewe)	Sweep	Beach	308	390	1.33	0	0	3	1	4	0	0	Y	n	
15-Jul-09	Boor Bay (Loch Ewe)	Sweep	Beach	395	750	1.22	0	12	12	0	24	2	0	Y	n	
15-Jul-09	Boor Bay (Loch Ewe)	Sweep	Beach	235	152	1.17	0	5	4	0	9	0	0	Y	n	
15-Jul-09	Boor Bay (Loch Ewe)	Sweep	Beach	257	221	1.30	1	6	10	1	17	0	0	Y	n	
15-Jul-09	Boor Bay (Loch Ewe)	Sweep	Beach	242	179	1.26	1	27	7	0	34	1	0	Y	n	
15-Jul-09	Boor Bay (Loch Ewe)	Sweep	Beach	161	55	1.32	4	12	1	0	13	0	0	Y	n	
15-Jul-09	Boor Bay (Loch Ewe)	Sweep	Beach	206	115	1.32	0	10	11	0	21	0	0	Y	n	
15-Jul-09	Boor Bay (Loch Ewe)	Sweep	Beach	188	85	1.28	2	15	14	0	29	1	0	Y	n	
19-Aug-09	Boor Bay (Loch Ewe)	Sweep	Beach	182	67	1.11	0	1	1	1	3	0	0	n	n	
19-Aug-09	Boor Bay (Loch Ewe)	Sweep	Beach	186	71	1.10	0	0	1	0	1	0	0	n	n	
19-Aug-09	Boor Bay (Loch Ewe)	Sweep	Beach	236	140	1.07	0	33	14	1	48	0	0	n	n	

Sea lice data for Loch Ewe & River Ewe sea trout (sweep netting funded by the Scottish Government via the TWG)

Date	Location	Method	River, estuary or beach?	Length (mm)	Weight (g)	Condition	<i>Lepeophtheirus salmonis</i>				Dorsal damage?	Lice spots	Predator damage?	Comments
							Caligus elongatus total	Chalimus	Pre-adults and adults	Ovigerous females				
02-Jun-10	Boor Bay (Loch Ewe)	Sweep	Beach	158	36	0.91	0	8	0	0	0	N		
15-Jun-10	Boor Bay (Loch Ewe)	Sweep	Beach	169	45	0.93	0	0	0	0	0	0		
15-Jun-10	Boor Bay (Loch Ewe)	Sweep	Beach	209	82	0.90	0	1	0	1	0	0		
15-Jun-10	Boor Bay (Loch Ewe)	Sweep	Beach	177	55	0.99	0	0	0	0	0	0		
15-Jun-10	Boor Bay (Loch Ewe)	Sweep	Beach	152	35	1.00	0	0	0	0	0	0	Y	
15-Jun-10	Boor Bay (Loch Ewe)	Sweep	Beach	200	78	0.98	0	0	1	0	1	0		
15-Jun-10	Boor Bay (Loch Ewe)	Sweep	Beach	183	72	1.17	0	0	1	0	1	0		
15-Jun-10	Boor Bay (Loch Ewe)	Sweep	Beach	174	60	1.14	0	0	0	0	0	0		
15-Jun-10	Boor Bay (Loch Ewe)	Sweep	Beach	150	33	0.98	0	0	1	0	1	0	Y	
15-Jun-10	Boor Bay (Loch Ewe)	Sweep	Beach	190	76	1.11	0	4	13	0	17	0		
15-Jun-10	Boor Bay (Loch Ewe)	Sweep	Beach	155	38	1.02	0	0	1	0	0	0		
15-Jun-10	Boor Bay (Loch Ewe)	Sweep	Beach	167	44	0.94	0	0	0	0	0	0		
15-Jun-10	Boor Bay (Loch Ewe)	Sweep	Beach	142	31	1.08	0	0	0	0	0	0		
15-Jun-10	Boor Bay (Loch Ewe)	Sweep	Beach	152	37	1.05	0	0	0	0	0	0		
15-Jun-10	Boor Bay (Loch Ewe)	Sweep	Beach	153	33	0.92	0	0	0	0	0	0		
15-Jun-10	Boor Bay (Loch Ewe)	Sweep	Beach	142	25	0.87	0	0	0	0	0	0		
16-Jul-10	River Ewe	Rod and line	River	311	331	1.10	0	0	0	0	0	0	lice scarred (minimal) scale sampled	
16-Jul-10	River Ewe	Rod and line	River	430	825	1.04	0	0	1	0	1	1.5	killed by angler. Lots of scale damage	
24-Jun-10	Boor Bay (Loch Ewe)	Sweep	Beach	152	42	1.20	0	1	2	0	3	0	Y	
24-Jun-10	Boor Bay (Loch Ewe)	Sweep	Beach	161	48	1.15	0	0	3	0	3	0	Y	
24-Jun-10	Boor Bay (Loch Ewe)	Sweep	Beach	165	50	1.11	0	0	1	0	1	0	Y	
15-Jul-10	Boor Bay (Loch Ewe)	Sweep	Beach	184	69	1.11	0	0	8	1	9			
15-Jul-10	Boor Bay (Loch Ewe)	Sweep	Beach	201	95	1.17	0	5	2	0	7	0.5		
15-Jul-10	Boor Bay (Loch Ewe)	Sweep	Beach	136	22	0.87	0	1	0	0	1		cryptocotyl infection	
15-Jul-10	Boor Bay (Loch Ewe)	Sweep	Beach	155	43	1.15	0	0	2	0	2			
03-Aug-10	Inverasdale, Loch Ewe	Sweep	Beach	271	200	1.00	0	4	0	0	4	0		
03-Aug-10	Inverasdale, Loch Ewe	Sweep	Beach	351	572	1.32	3	21	30	16	67	1.5		
12-Aug-10	Boor Bay, Loch Ewe	Sweep	Beach	187	77	1.18	0	5	2	1	8	0	tatty fins	
12-Aug-10	Boor Bay, Loch Ewe	Sweep	Beach	193	83	1.15	0	4	6	1	11	0		
12-Aug-10	Boor Bay, Loch Ewe	Sweep	Beach	165	58	1.29	0	14	0	0	14	0		
12-Aug-10	Boor Bay, Loch Ewe	Sweep	Beach	187	88	1.35	0	11	10	2	23	0		
12-Aug-10	Boor Bay, Loch Ewe	Sweep	Beach	171	67	1.34	0	18	6	0	24	0		
13-Sep-10	Boor Bay, Loch Ewe	Sweep	Beach	197	95	1.24	0	2	4	0	6	0.5		
13-Sep-10	Boor Bay, Loch Ewe	Sweep	Beach	265	215	1.16	0	0	6	0	6	1		

River Ewe – Loch Maree system Fisheries Regulations for 2009

Background

The River Ewe – Loch Maree salmon and sea trout fisheries are currently recovering from historic 'lows' in the 1990s. Electro-fishing surveys by the Wester Ross Fisheries Trust in 2007 and 2008 demonstrated that there are healthy populations of juvenile salmon in core parts of the system, including the River Ewe, the Kernsary sub-catchment and the Kinlochewe River. However, in recent years, wild salmon have failed to ascend the Bruachaig falls and there is a large section of river above the falls where production of salmon smolts is minimal and currently sustained only through a stocking programme. In recent years, rod catches in the river have been increasingly dominated by summer and autumn salmon and grilse, with a tendency towards later runs of grilse. Formerly, more salmon were taken in spring months. As elsewhere in Scotland, early entering salmon are increasingly scarce and need protection. Stocks of sea trout within the system, particularly of older fish, remain very low.

At a meeting of river proprietors and ghillies to review fisheries conservation and management in Gairloch on 21st April 2009, the following regulations for the 2009 season were agreed by all present:

Regulations for 2009

1. 'Catch and release' is mandatory for all sea trout throughout the season. Anglers should return all fish as carefully as possible and use smaller hook sizes as appropriate.
2. 'Catch and release' is mandatory for all salmon and grilse before the end of June. Early running two-sea winter female salmon are particularly valuable as broodstock for the future of the fishery. Please treat them as carefully as possible!
3. From 1st July onwards, anglers are asked to return salmon and grilse unless there is a special reason for keeping a fish. Please respect the guidance of your ghillie. If you wish to keep a fish for the table, a fresh run male grilse should be taken in preference to a hen salmon, especially one that may have been in the river for several weeks!
4. All escaped farm salmon should be killed. If in doubt as to whether a fish is wild or farmed, use a keep net and seek a second opinion (scale reading may be required).

[recommendation from WRFT & AST Biologists: treble hooks should not be used]

Fisheries Management Activities for 2009

On-going fisheries management activities within the River Ewe catchment include restocking programmes and habitat management projects, led by Coulin Estate and Inveran Estate, with support from Kinlochewe, Letterewe and other estates in the catchment area, Scottish Natural Heritage, and the Wester Ross Fisheries Trust (WRFT).

The WRFT work programme for 2009 is the most ambitious to date and includes juvenile fish surveys, assistance with stocking programmes, the development of a range of habitat restoration projects, a hands-on habitat management day (18th September), sea lice monitoring, genetic sampling, and much other fisheries restoration work. Any anglers who would like to support this work, or join a WRFT team for a day in the field are welcome to contact the WRFT Biologist on 01445 712 899. Further details can be found on the WRFT website, at www.wrft.org.uk.

Many thanks for your co-operation and support. Enjoy your fishing. Tight lines!