Association of Salmon Fishery Boards

2010
ANNUAL REVIEW

STRUTT & PARKER

Chairman's introduction

HUGH CAMPBELL ADAMSON

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It gives me great pleasure to introduce you to the ASFB's second annual review.

We were delighted by the response to our inaugural report and this year we have continued in a similar vein. We have articles on aquaculture, both from a national and a local perspective; we have an update from Iceland, from which parallels can be drawn for Scotland; we discuss the work of RAFTS; and we look at ways to combat both wildlife crime and invasive species. We also analyse last season's catch figures on an ever-growing number of rivers.

This review may not appear as upbeat as last year's, however. The reports from the rivers are discussed later in detail but – with notable exceptions – 2009 will not be remembered as a classic season. Marine mortality is clearly much higher than in the past and the features by Ken Whelan and Chris Todd explain the latest research on the issues facing salmon at sea. What is already known is that there is a serious problem – one that our civil servants and their advisors must act on – and we must reduce exploitation by using international advice, based on strong evidence.

2009 will not be remembered as a classic season. Marine mortality is clearly much higher than in the past and we must reduce exploitation by using international advice, based on strong evidence.

There is a danger that those of us involved in a single issue tend to overstate its significance, but surely we can ill afford to ignore the importance of salmon and sea trout angling to Scotland? Not only does it provide vital employment, revenue and pleasure to thousands, but we also build our tourist industry on the beauty and purity of Scotland's countryside and there are few more iconic examples of this than the sight of a leaping salmon.

The ASFB, together with our colleagues in the Salmon and Trout Association, Atlantic Salmon Trust and – of course – Rivers and Fisheries Trusts of Scotland (RAFTS), will continue to highlight the problems facing our migratory fish. We must be prepared to make ourselves unpopular, we must be prepared to be uncooperative and we must even be prepared to take legal action when necessary. We cannot allow self-interest or apathy to jeopardise the future of our salmon and sea trout.

We therefore hope this publication will help our message reach a wider audience and I would like to express our particular thanks to Strutt & Parker for their sponsorship, which made this review possible. I would also like to thank the Fishmongers' Company, in recognition of its considerable support, and the review's contributors, who have worked so hard on our behalf. Most of all, however, I would like to thank all those readers with an interest both in angling and in the future of Scottish salmon and sea trout stocks.

I hope you enjoy this review. If you have any comments we would be delighted to hear from you.

Hugh Campbell Adamson

The ASFB acknowledges and thanks the following for their support of their work:

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The 2009 season: a curate's egg

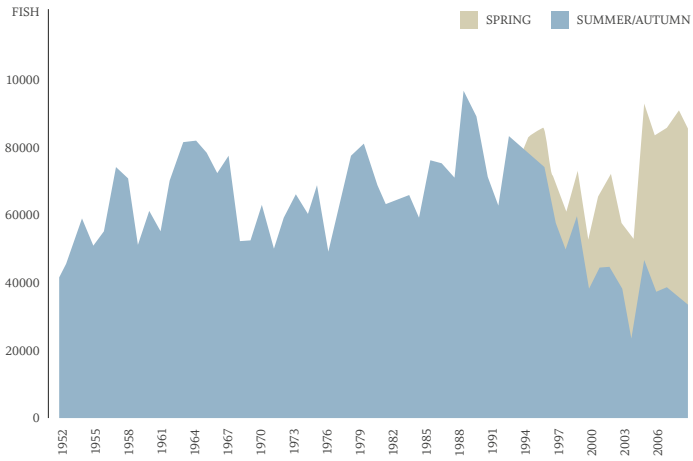
ANDREW WALLACE - *Managing Director, ASFB & RAFTS*

In this, our second annual review, you will see a stronger emphasis on trying to produce high quality catch data from a variety of rivers, as soon as possible in the new year. The textual analysis of last season on each river is accompanied by graphs that give an impression of longer term trends, and our analyses precede Marine Scotland's official statistics, which will be published in the autumn.

Last season was not one to remember with much enthusiasm, although some rivers performed satisfactorily and the Dee had a rod catch at a 20 year high (even without the season's extension). In general, however, the spring run was so weak that last April the Association warned it would be advisable to increase catch and release of this precious stock. Thankfully, Boards, proprietors and anglers responded commendably to this call.

The salmon run picked up moderately in May/June but this was followed by a weak grilse run in late July/early August – a 'late' arrival that seems to have become par for the course. Condition and size of 1SW fish showed little change and there are still significant numbers of small, poorly conditioned grilse.

The summer and autumn salmon runs were also not strong, and this is reflected in the poor catches on most rivers, despite reasonable water conditions throughout the year. On a more optimistic note, after a protracted period of decline, sea-trout runs were generally stronger all along the east coast.



NATIONAL ROD CATCH STATISTICS (RETAINED AND RELEASED) 1952-2008
SOURCE - Marine Scotland Science

So, what conclusions do we draw from this? Despite knee-jerk reactions from commentators, this was just a moderately poor year and the 2009 catch will be considerably higher than a number of seasons in the last decade (1999 – 52,533 fish; 2002 – 57,920). It is only when a definite trend starts to develop that we should start to think about alternative management strategies and there is not yet an argument for radical shifts in policy, despite some suggestions.

Indeed, it is a source of some frustration that on rivers like the Tweed – which has been hitting historically high catches for about five years – one poor year (just over 10,000 fish) has led critics to call for hatcheries and radical changes in management.

Clearly it is important not to be complacent, but we are managing a resource that spends at least half its life in an environment over which we have no control. The fact that rivers do not produce consistent catches should come as no surprise to anybody. Salmon fishing is not like pheasant shooting – you can't simply order up a 20 fish week. The fact remains that, given significant shifts in marine climate and the many challenges facing *Salmo salar,* Scottish stocks are still, in comparison with other salmon-producing nations, in pretty good shape.

This review also contains some interesting counter data. While catch data is notoriously fickle, except over long time-series, due to changes in factors such as angling effort and water conditions, counter data can be a more accurate representation of stock health, though care has to be taken with analysis. The increase in catch and release combined with the reduction in coastal netting over the last 30 years should both be reflected by higher counts in our rivers than we are currently witnessing, suggesting continuing problems with marine survival.

However, despite this reduced exploitation, it is quite clear that salmon stocks are down from the abundance of the 1960's and 70's – largely due to poorer marine survival. Yet, it is also clear that the superabundance of that period may provide us with an unhelpful comparison, as this was a period of an unusually high salmon population, prior to which records are less reliable.

But to end on a more encouraging note, in 1909 the great WL Calderwood (Inspector of Salmon and Freshwater Fisheries for Scotland) pronounced about the Nith:

'Unhappily the fisheries have been allowed to sink to a very low ebb. The catch of salmon by both net and rod is now a mere bagatelle. In 1905 the rod catch did not yield, I suppose, 2 score. In 1902 it did not make one score and in 1908 I believe it to be 22 fish'.

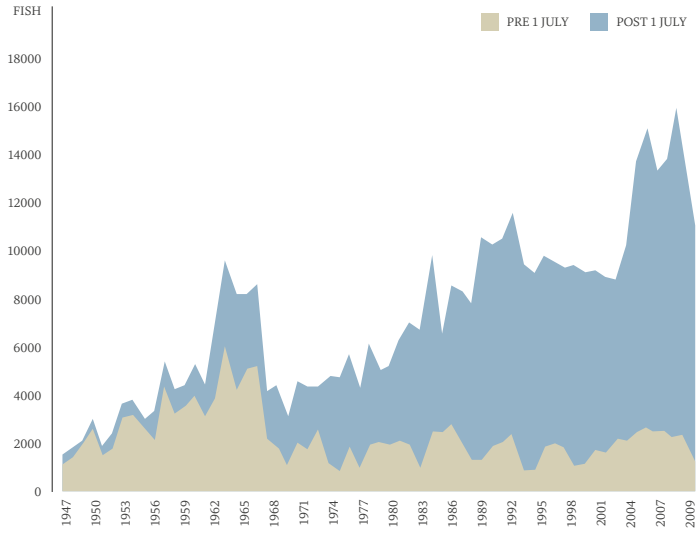
Yet over 2,000 salmon were caught on the Nith in 2009 (and over 4,000 in 2008). This is the result of steady long term effective management of the river – the removal of obstacles, the reduction of exploitation, and the improvement of water quality and habitat. This, surely, is evidence that Atlantic salmon, despite all their problems, can respond positively if we take the right measures. Let's hope for a more encouraging 2010.

The graphs that follow are in geographical order from south east Scotland to south weat Scotland going in a an anti-clockwise direction.

Tweed

NICK YONGE - *Director Tweed Commissioners and Foundation*

All fisheries in the system reported difficult river conditions during the year, as well as a reduced run of salmon throughout the season. Overall 12,199 salmon were caught, of which 10,465 were taken by rods, (63% of which were returned) and 1,734 by nets. 23 salmon over 25 lbs were caught, while 6,671 sea trout were caught, of which 1,814 were caught by rods (46% returned) and 4,857 by nets. The Spring Salmon Conservation Measures were increased in April to ensure that all fish caught by rod and line were returned. However, even with this measure in place, the spring catch was a mere 1,147 fish.



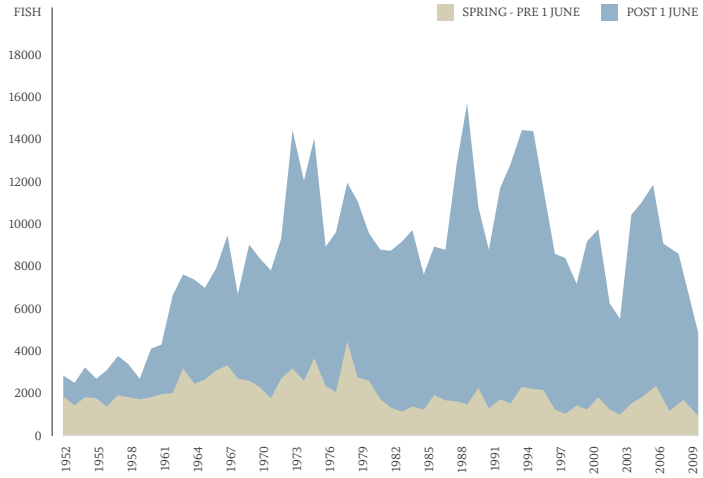
TWEED SALMON ROD CATCH 1947-2009

SOURCE - TWEED COMMISSIONERS

Tay

DR DAVID SUMMERS - *Director Tay Board and Foundation*

The 2009 season started with a better run of 3SW fish, giving the best January fishing for 15 years. While 2SW catches were very disappointing in March and April, they improved markedly in late May and early June, suggesting that the spring run was unusually late. In common with recent years, summer grilse did not materialise until August, and even then catches were down, abetted by poor angling conditions. Fishing improved late in the season, but the autumn grilse run was not strong and this was reflected in a reduced season total. Despite the disappointing season, catch and release continues to increase and it is thought that 80% of springers were returned.



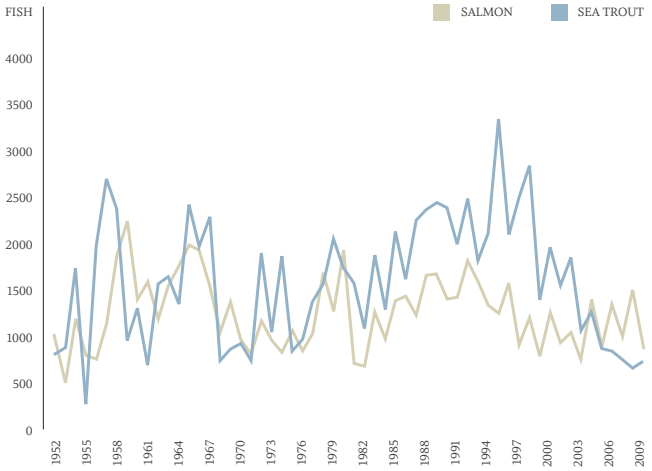
TAY SALMON ROD CATCH STATISTICS 1952-2009

SOURCE - TAY DSFB

South Esk

DR MARSHALL HALLIDAY - *Esk Fishery Board and Trust*

Conditions were ideal for much of the season, but rod catches – 726 salmon and 733 sea trout – were not exceptionally high, with early-running stocks remaining particularly weak. Grilse are arriving almost a month later and remain on the small side. Sea trout runs improved slightly but stocks are declining, while the increase in catches experienced from the early-1980s until the mid-1990s probably reflected the gradual closure of netting in Montrose Basin. The Board has agreed that the coastal net fisheries will not sell any sea trout in 2010 in exchange for compensation, which should benefit stocks, but it remains vital that anglers release most of their catch.



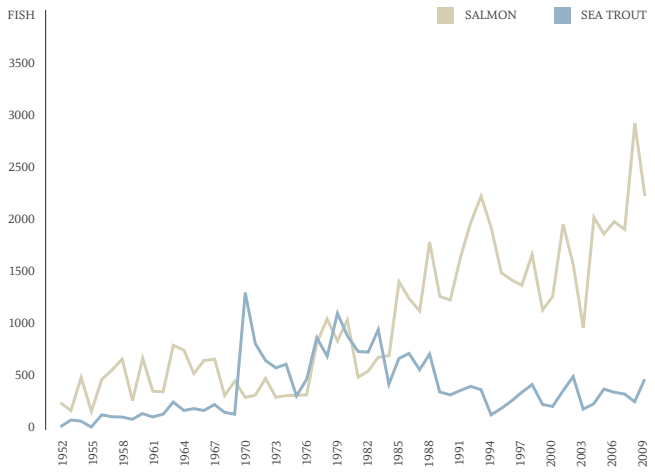
SOUTH ESK ROD CATCH STATISTICS 1952-2009

SOURCE - ESK DSFB

North Esk

DR MARSHALL HALLIDAY - *Esk Fishery Board and Trust*

Angling conditions were ideal for the majority of the season, as was reflected in strong rod catches. Data from the Logie counter indicate an increase in overall river stock, although this has to be interpreted against a major reduction in net fisheries, now that the Montrose Bay coastal fishery is closed. Early-running salmon stocks remain weak, while grilse are running almost a month later and remain on the small side, but sea trout runs improved, possibly due to increased sandeel survival. The Board has moved from a statutory requirement to release spring salmon to a voluntary code, but would recommend that anglers continue to release both spring salmon and sea trout.



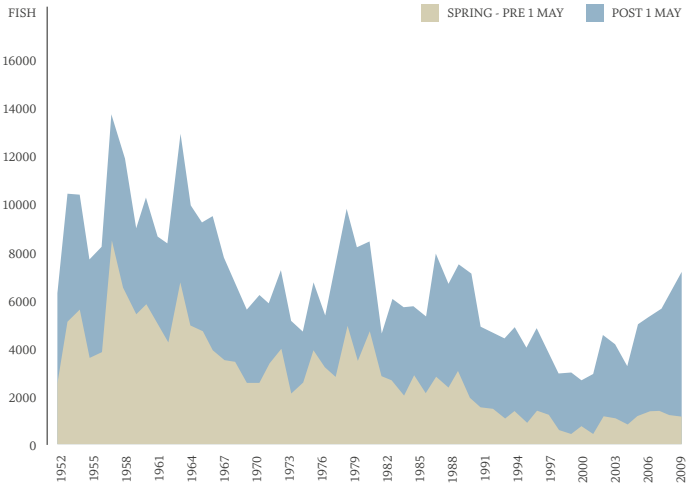
NORTH ESK CATCH STATISTICS 1952-2009

SOURCE - ESK DSFB

Dee

MARK BILSBY - *River Dee Director*

Some beats fared better than others but, overall, it was the best season since 1989 – with a total of 6197 fish caught by the end of September, while an additional 993 were caught during the season's 2-week trial extension. Although the overall catch was up and the spring salmon numbers were better than at the turn of the century, the spring run was not as good as in recent years. Sea trout fared better, however, with the catch of 2094, the best for ten years. The Dee's Conservation Code appears to be paying dividends, with over 7000 salmon and 2000 sea trout returned.



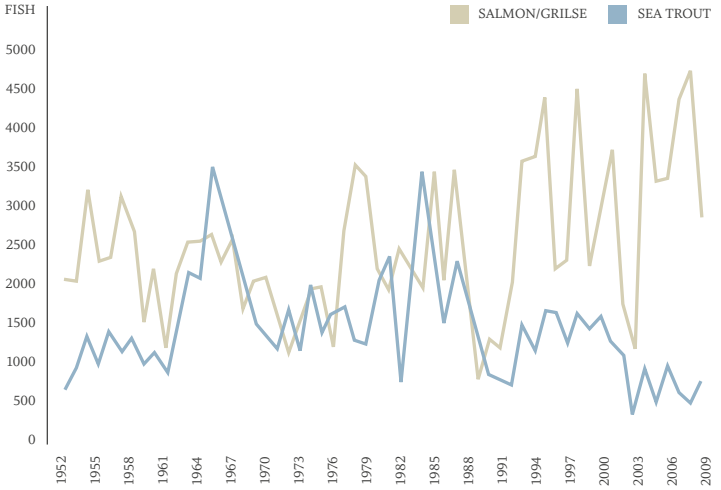
DEE SALMON ROD CATCH STATISTICS 1952-2009

SOURCE - DEE DSFB

Deveron

RICHARD MILLER
Senior Biologist, Deveron, Bogie and Isla Rivers Charitable Trust

Last season 2,843 salmon and grilse were caught – a 39% decrease from the 2008's record total. While the spring figures increased, with 115 salmon caught before the end of April, summer catches were lower, thanks in part to low water and in part to the late arrival of the grilse run. Late August brought better angling conditions and catches increased steadily, while November saw the largest flood in living memory. The sea trout catch, meanwhile, increased by 65% to a total of 759 fish, ranging from 3 to 9lbs, 80 per cent of which were returned.



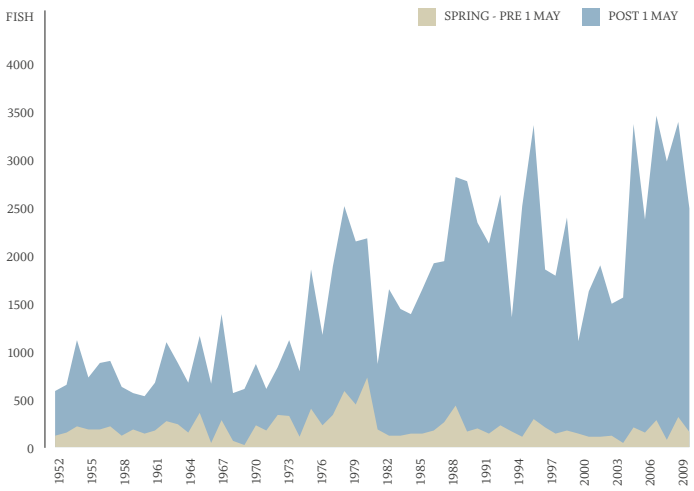
DEVERON SALMON AND SEA-TROUT 1952-2009

SOURCE -DEVERON DSFB

Findhorn

SIR ALASTAIR GORDON CUMMING - *Findhorn DFSB Chairman*

The 2009 catch was down about a third on the previous season. The spring run was generally very poor but, more encouragingly, there was a relatively high proportion of 3SW fish, with several over the 20lb mark. The bulk of the salmon did not show up until the early summer, however, and the grilse run was also very poor. Thanks to the conservation code the overall release rate for the river was 72%, which is to be commended. A good stock has also been left in the upper reaches and Albert Duffus has successfully caught sufficient broodstock for the hatchery.



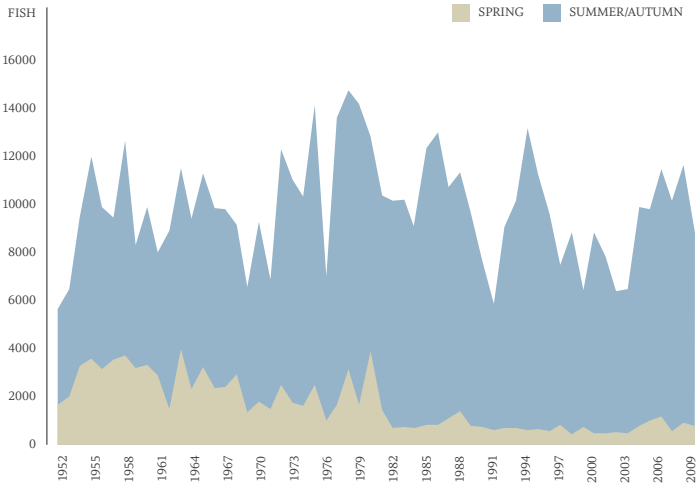
FINDHORN SALMON ROD CATCH STATISTICS 1952-2009

SOURCE - FINDHORN DSFB

Spey

ROGER KNIGHT - *Director Spey Board and Trust*

The 2009 season saw 8,626 salmon and grilse caught, including 780 spring fish – some 5% below the 10-year average of 9,100. However, the success of the river's voluntary catch and release policy continued to rise, with 77% (6,639) of the salmon and grilse being returned. The best fishing months were June to August, with the lower beats more dependent upon late summer runs and the middle and upper beats on spring and early summer fish. Although concerns remain about their dwindling numbers, sea trout catches were up on those in 2008, with 2,022 caught throughout the season, 64% of which were voluntarily returned. For full details see the annual report at www.speyfisheryboard.com.



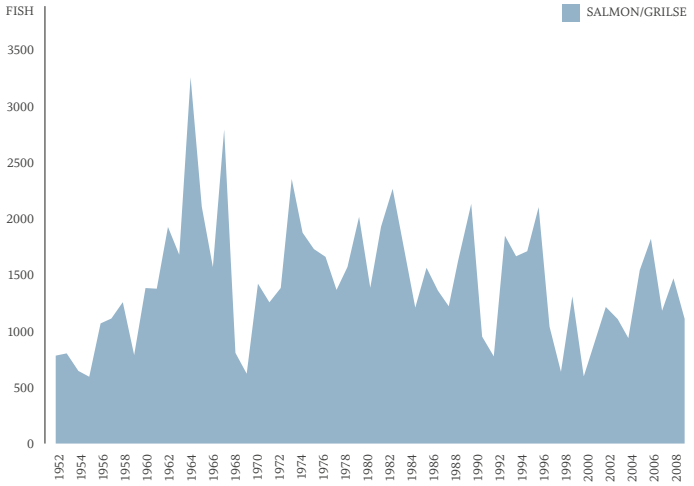
SPEY SALMON ROD CATCH STATISTICS 1952-2009

SOURCE - SPEY DSFB

Ness

NIGEL FRASER - *Ness Board Member*

June saw decent numbers of fish, although it is usually quite a quiet month, while numbers in July seem to have decreased. August, which is usually the busiest month, was uncharacteristically poor, in particular on the upper system, although the association water fished very well throughout the season. Red vent syndrome was more evident than in 2008, while sea trout numbers have been the best in the last 4 or 5 years, and there were noticeably more salmon than grilse. 2009 saw an experimental lengthening of the season, from 15th October to the 7th of November, which yielded some fresh fish in the lower river. We hope this will aid research.



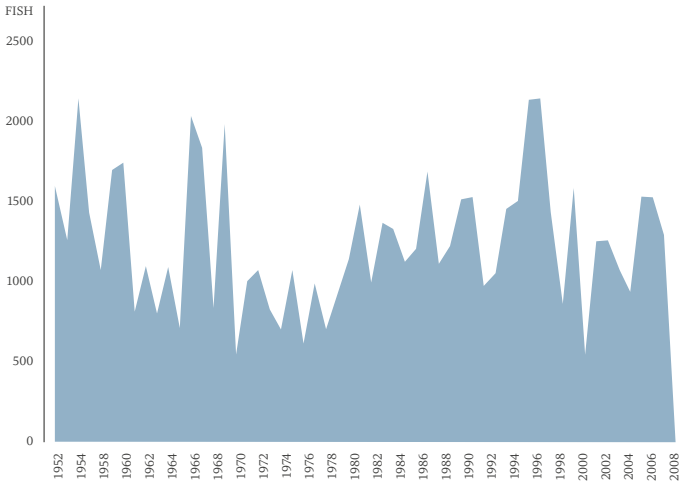
NESS ROD CATCH 1952-2008

SOURCE - NESS DSFB

Beauly

ANDREW GRAHAM-STEWART

Despite some barren spells 2009 was a reasonable angling season. The rod catch for the three Lower Beauly rotating beats was 721 (including 74 % released) – right on the five year average of 720. The main grilse runs in August consisted of two distinct elements: well-conditioned fish in the 5 lb class and poor, thin specimens in the 2 lb to 3 lb class. The number through the counter upstream in the Aigas Dam was 4,128 – there has been little variation from 4,000 in the last five years; counts of 8,000 or more were often achieved from the 1960s through to the early 1980s. This counter does not record those fish which spawn in the lower river and in October the stock in this section was thought to be the best for ten years. On the Farrar tributary the Culligran Estate beats recorded 90 – in line with the ten year average of 86.



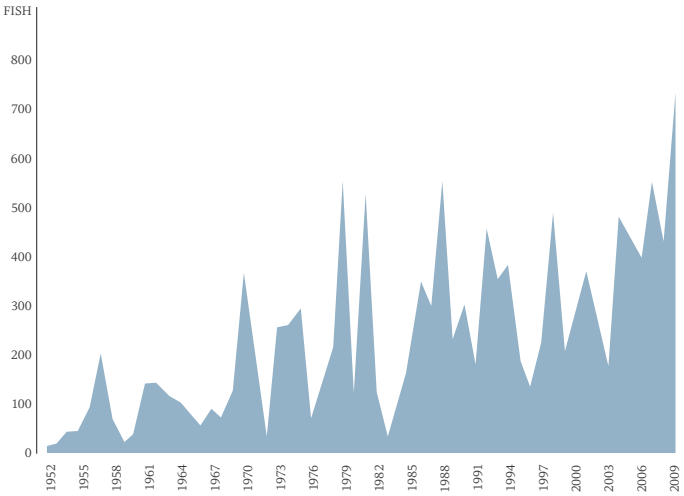
BEUALY SALMON ROD CATCH 1952-2008

SOURCE - BEAULY DSFB

Alness

ROGER DOWSETT - *Novar Fishings Manager*

2009 was an excellent season, although the early months were patchy. There was a small spring run in May, but June was very dry, and catches didn't really get going until July. The main grilse runs started a week or two later than in 2008, but the fishing was very good by late August. September was drier, and the fishing slower than in past years, but a wet and warm October more than compensated. 395 fish were caught on the Novar Fishings (67% returned); 279 on Alness Angling Club's waters (36% returned), and at least 57 on Kildermorie's water (37% returned), resulting in a total catch of over 735 salmon and grilse.



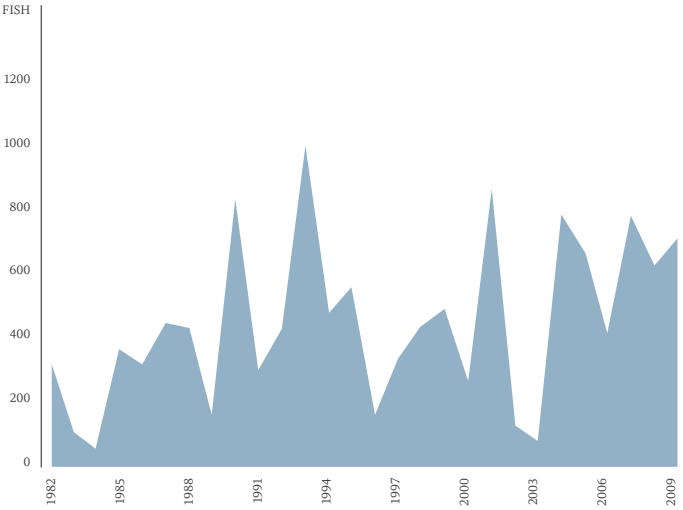
ALNESS SLAMON ROD CATCH STATISTICS 1952-2009

SOURCE - CROMARTY DSFB

Wick

JOHN MACKAY - *Wick Angling Club Secretary*

With catches of 707 salmon and grilse, 2009 was the Wick's sixth best season on record. As a spate river, the bulk of the catch is usually made from July to September and when the rains arrived in July we had almost continuous fishing to the end of the season. Grilse were very small – the average being around 4.5lb and a number in the 1.5 to 2lb range. The catch and release percentage has increased to 25%, with all fish returned in October. The ten year average now stands at 536 fish and the five year average 651 – figures which have increased steadily over the last 20 years.



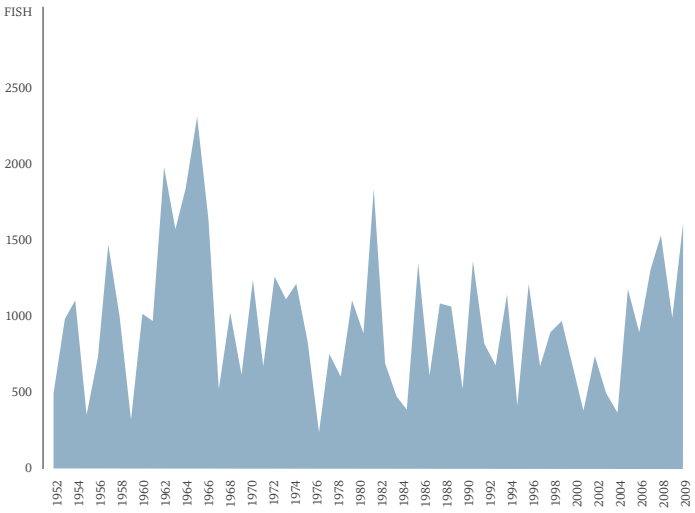
WICK SLAMON ROD CATCH 1982-2009

SOURCE -RIVER WICK

Thurso

EDDIE MCCARTHY - *Thurso River Manager*

Our first fish of the season was not taken until the end of February. March and April were also a little slow, while May saw catches improve considerably. The grilse were again late but, more encouragingly, few had red vent and most seemed in decent condition. From late-July until the end of season there were as many fish around as had been seen for 40 years. Once the season was over, there were reports of fish spawning in areas in the upper reaches where they have not been seen in such abundance for several years, which bodes well for the future.



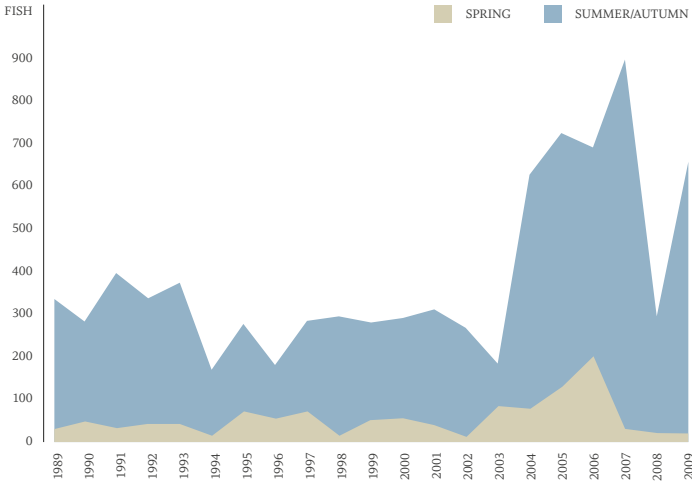
THURSO SALMON ROD CATCH 1952-2009

SOURCE - THURSO RIVER MANAGEMENT

Halladale

JOHN SALKELD - *Halladale Partnership*

661 salmon and grilse were caught, up to 22lbs, making it close to the 5-year average of 656 and considerably better than 2008's catch, which was a mere 292. While the early run suffered from an exceptionally dry spring, good water levels from mid-July to late September brought correspondingly good runs of grilse and reasonable returns of summer salmon, a welcome relief after last year's dry summer. September floods caused some damage to the river, but spawning was strong in spite of periods of high water. Parr counts, meanwhile, were average to good for fish of all ages. Catch and release rates were 69%.



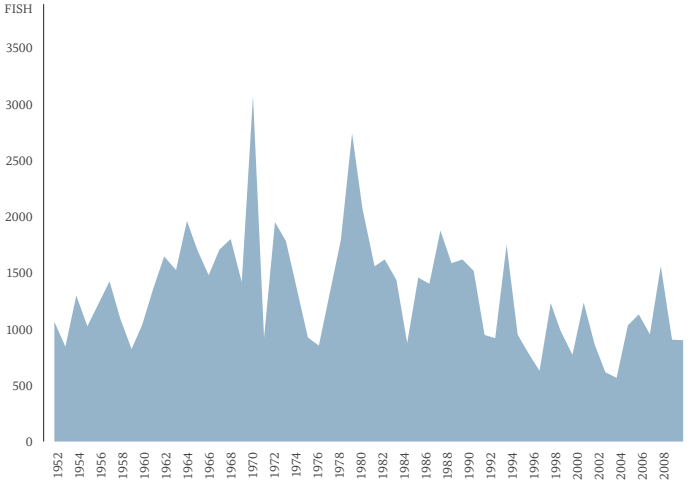
HALLADALE SALMON ROD CATCH 1985-2009

SOURCE - HALLADALE PARTNERSHIP

Naver

CHRIS CONROY - *River Naver Superintendent and Biologist*

A total of 895 fish, including 423 MSW salmon, averaging 10lbs, and 472 grilse were caught. The overall release rate for the district as a whole was 77%, with the 6 beats of the River Naver Fisheries achieving 82% as a result of their Conservation Policy. The largest fish was 25lb, with a further eight over 20lbs recorded, and it proved to be one of the Naver's best sea trout seasons, with a total of 322, up to 5lbs brought to book. Although the fishing suffered from low river levels throughout April, May and June, conditions improved later in the season, with above average catches in July and September.



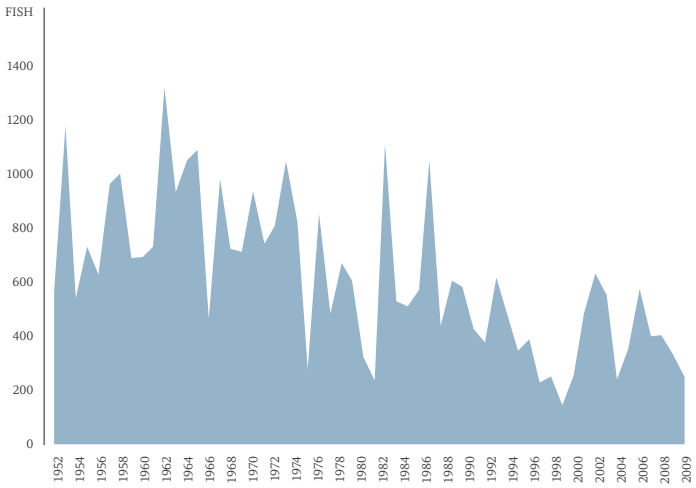
NAVER SALMON ROD CATCH 1952-2009

SOURCE - NAVER MANAGEMENT

Grimersta

SIMON SCOTT - *Director Outer Hebrides Trust*

The final return was 249 salmon and grilse and 286 sea trout, 39% of which were caught on the lochs. For the third consecutive season the grilse run was late and anglers in June and July had to contend with low water and few fish, although there were some respectable returns in August. While some small fish were in evidence, they were generally in good condition. Two disappointing seasons have put a dent in the steady recovery seen since the late-1990s and the late run reduces an already short season. There are, however, some grounds for optimism as the sea trout figures are the best since 1985. 76% of the salmon and 100% of the sea trout were returned.



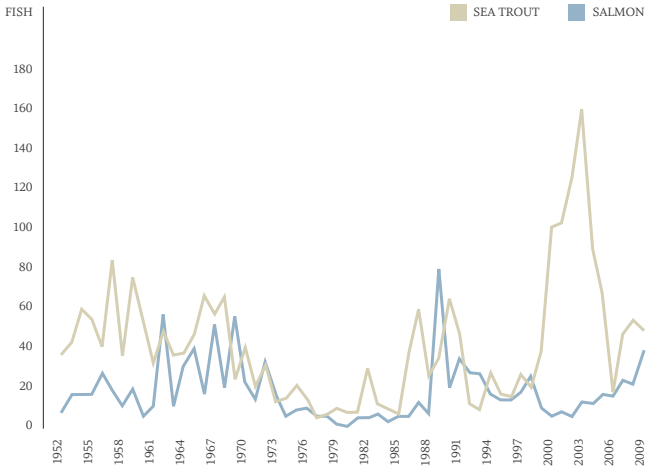
GRIMERSTA SALMON ROD CATCH 1952-2009

SOURCE - OUTER HEBRIDES DSFB

Polla

CHARLES MARSHAM - *Chairman North and West Sutherland Board and Trust*

The 2009 season yielded five salmon, at an average of 10lbs, 34 grilse at an average of 4.5lbs, and 49 sea trout at an average of 2.1lbs. The largest salmon was 12.5lbs and the heaviest sea trout over 6.5 lbs and 60% of all fish were returned. The season was unusual in that many grilse were caught when the river had little or no water, while many spates were less productive than expected, other than a 4 day period in late September when two rods had 12 salmon and grilse and eight sea trout. Overall this was a near record year for salmon and grilse but the sea trout numbers were down.



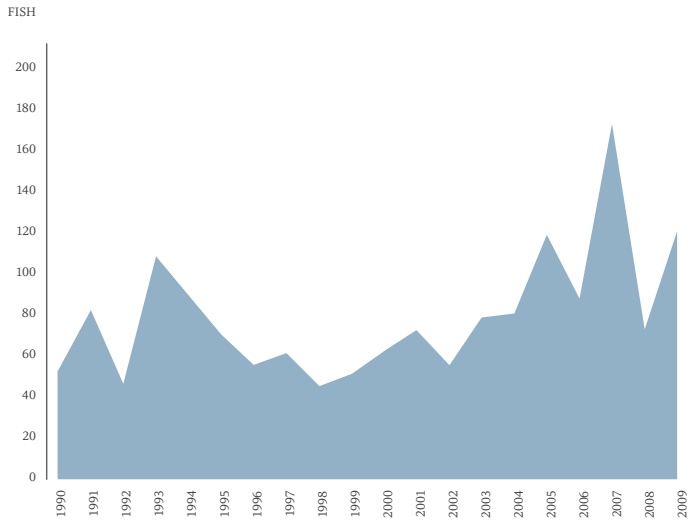
POLLA SALMON AND SEA TROUT ROD CATCH 1952-2009

SOURCE - NORTH AND WEST SUTHERLAND DSFB

Little Gruinard

GRAEME WILSON - *Manager Little Gruinard*

Last season yielded 120 salmon and grilse, up to 19.5lbs, making for the second best year since the Van Vlissingen family bought the river in 1989. The first fish was caught on the 19th of May, but none were caught in June due to low water and little angling pressure. The remaining 119 were caught in July, August and September, while the bad weather experienced in October kept many fishermen away. The overall condition of fish was good, with very few cases of red vent and only two farm escapees brought to book. There was also, encouragingly, an increase in sea trout catches, although numbers still remain low. All fish were released.



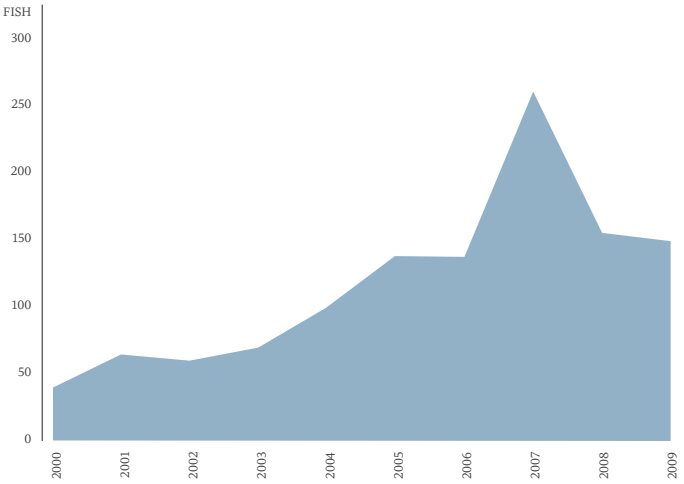
LITTLE GRUINARD SALMON ROD CATCH 1990-2009

SOURCE -LITTEL GRUINARD MANAGEMENT

Snizort

DEREK DOWSETT - *Snizort River Manager*

This is the fifth year of a salmon re-stocking programme using native fish and the catch trend continues upward for both salmon and sea trout. Despite record dry spells preventing fish from arriving until August, when rain finally arrived, the river fished well right through to the end of the season. This resulted in a total catch of 149 salmon and grilse – with a new record fish of 34.6lb – and 72 sea trout, up to 8.75lb. All in all over 90 per cent of fish were returned, a practice which is to be encouraged.



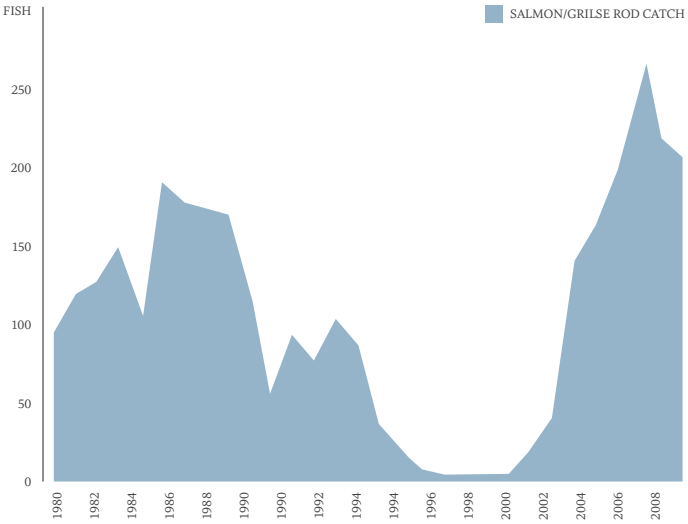
SNIZORT SALMON ROD CATCH 2000-2009

SOURCE - SKYE DSFB

Carron (Wester Ross)

BOB KINDNESS - *Carron River Manager*

Last season was another good one, and the 5-year average is now the highest on record. Particularly encouraging were numbers of MSW fish – with 115 (up to 25lbs) caught – and sea trout, with 194 (up to 6lb) taken. Grilse were less abundant, with 93 caught. A 100% catch and release policy operates and all salmon go into keep-nets so that they can be marked to assess the rate of double captures before being allowed to recover completely and then released. Having marked salmon for 5 years, there is a clear pattern of significant numbers of fish being caught more than once. Perhaps the real reason why catch and release appears to be effective! 27 salmon and 24 grilse were retained as broodstock. The salmon runs followed the normal pattern, with fish appearing in numbers from mid-July onwards, although dry conditions through much of the summer restricted fishing.



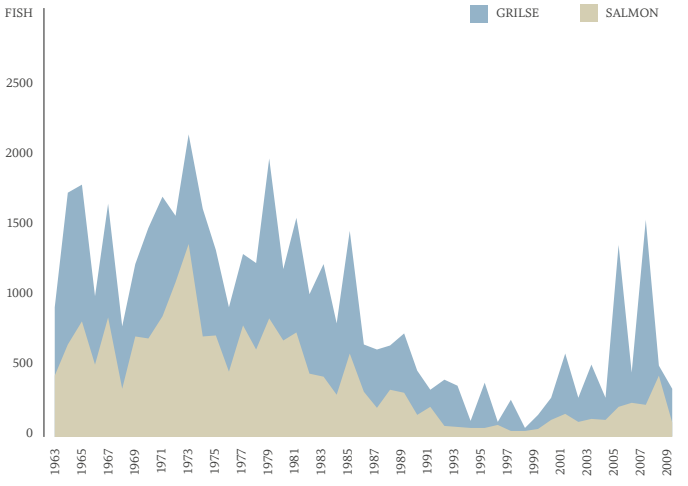
CARRON (W.COAST) SALMON ROD CATCH 1980-2009

SOURCE - RIVER CARRON MANAGEMENT

Lochy

JON GIBB - *Lochy Association Manager*

Along with most of the western seaboard of the UK, grilse numbers were depressed, while spring and autumn MSW numbers were mediocre to poor. This has prompted continued concern about the seemingly unchecked expansion of the fish farm industry, even though wider oceanic forces may have been at work of late (numbers were also depressed in non-aquaculture zones). One more encouraging moment, however, was when local angler Sandy Walker lifted the 2009 Malloch Trophy with a fresh 32lb fly-caught fish, taken in the tidal beat in June.



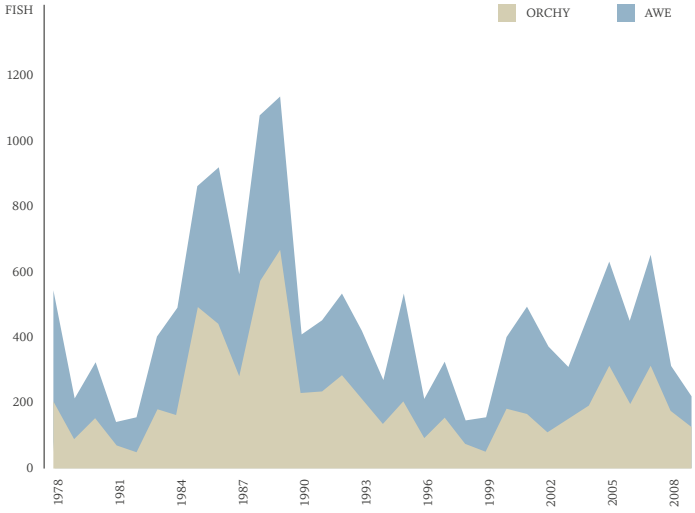
LOCHY SALMON ROD CATCH 1963-2009

SOURCE - LOCHY ASSOCIATION

Awe & Orchy

ROGER BROOK - *Chairman Argyll DSFB*

The early fish and the larger summer salmon run through the Awe quite quickly into Loch Awe, thanks to the river's ever-available hydro compensation water. The Orchy is dependent on natural rainfall but the larger fish soon run the river and mid-river falls. With the failure of the grilse run, the Awe and the lower Orchy were left with a poor stock of fish whilst the upper beats of the Orchy fared well. Overall, almost 30% of the total run was caught (50% above average), but the Board reacted quickly ensuring a release rate of 95%. One theory indicates that 2010 will be a very good year – but this remains to be seen.



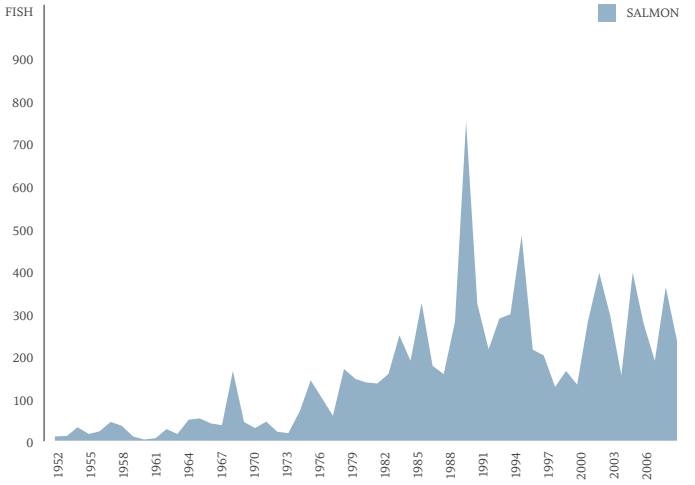
AWE & ORCHY SALMON ROD CATCH 1978-2009

SOURCE - ARGYLL DSFB

Irvine & Garnock

BRIAN SHAW - *Biologist, Ayrshire Rivers Trust*

There is no fishery board in the Irvine and Garnock district, so the only source of catch data is from the annual returns. Although they were the only two Ayrshire rivers where the 2008 return was below the ten year average, 2009 seems to have been a better season, especially for the upper beats which benefitted from the river levels more than the lower club stretches. Works are currently underway to open up the Kilmarnock Water and tributaries to migratory fish for the first time since the Industrial Revolution, which will hopefully have a positive effect in years to come.



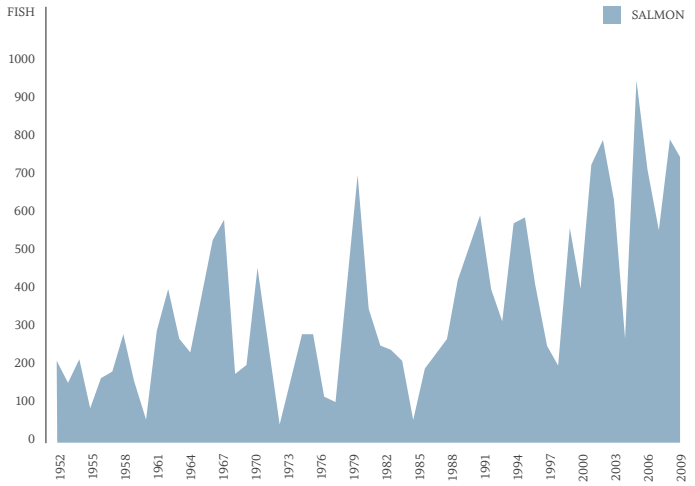
IRVINE/GARNOCK - SALMON/GRILSE ROD CATCH 1952-2008

SOURCE - AYRSHIRE RIVERS TRUST

Ayr

BRIAN SHAW - *Biologist, Ayrshire Rivers Trust*

The figures for the Ayr are encouraging, with an increasing numbers of salmon being recorded. However, although 2009's results are not yet available, catches are likely to be down on 2008, which was an especially productive season. The best fish reported in 2009 was 23lb and, in common with the other local rivers, it was a relatively poor grilse year. Catches of spring fish are highly variable on the Ayr, but May can often be a good month for quality double figure fish. In 2009 a few spring fish were recorded by anglers fishing the middle river beats. Sea trout catches showed a slight improvement in 2008 from a very low base.



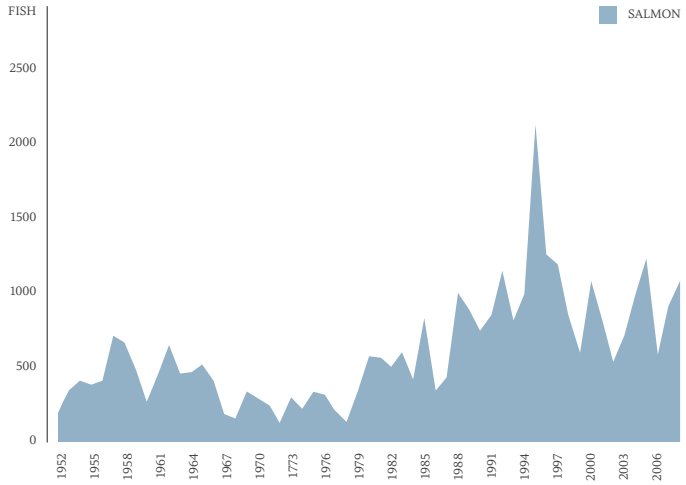
AYR SALMON/GRILSE ROD CATCH 1952-2008

SOURCE - AYRSHIRE RIVERS TRUST

Doon

BRIAN SHAW - *Biologist, Ayrshire Rivers Trust*

2009 was not a great year on the Doon, with many rods reporting disappointing catches. The ten year average for this productive river is 849, but the 2009 catch will be below that. The compensation flow ensures that the river is always in fishable condition, although the regulation of the river means that proper spates in the summer are rare. A number of 20lb+ fish were landed in 2009. The earliest salmon was landed in March, while August was the most productive month, September and October were poor, with a lack of late running grilse. Sea trout catches remain very poor. The catch and release percentage has been increasing steadily and is now over 50%.



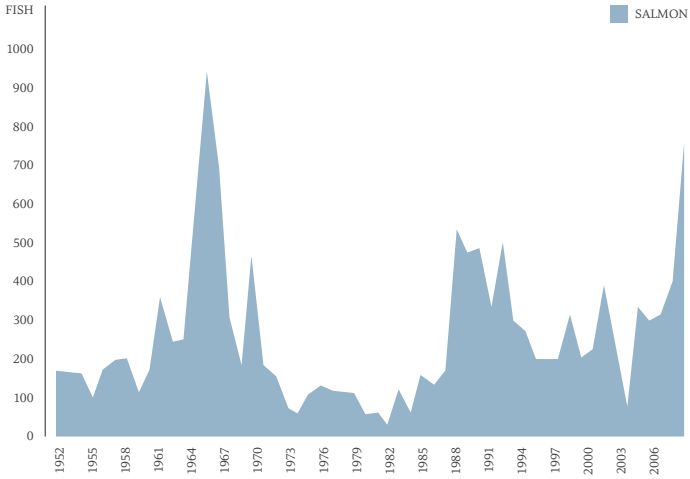
DOON SALMON/GRILSE ROD CATCH 1952-2008

SOURCE - AYRSHIRE RIVERS TRUST

Girvan

BRIAN SHAW - *Biologist, Ayrshire Rivers Trust*

Salmon and grilse catches in 2009 will be approximately 450, down on the great catches of 2008, when almost 800 salmon and grilse were landed. Despite that, last season's figures are well above the ten year average of 320. The largest fish was estimated to be 28lb when caught in October but would have been 30lb when fresh run, a very big fish for the Girvan. The sea trout catch in 2008 was 139, the best for many years, but still a fraction of the historical catch on the river. The improvement in the sea trout catch seen in 2008 was not maintained however, and last season's catch was down to about 70.



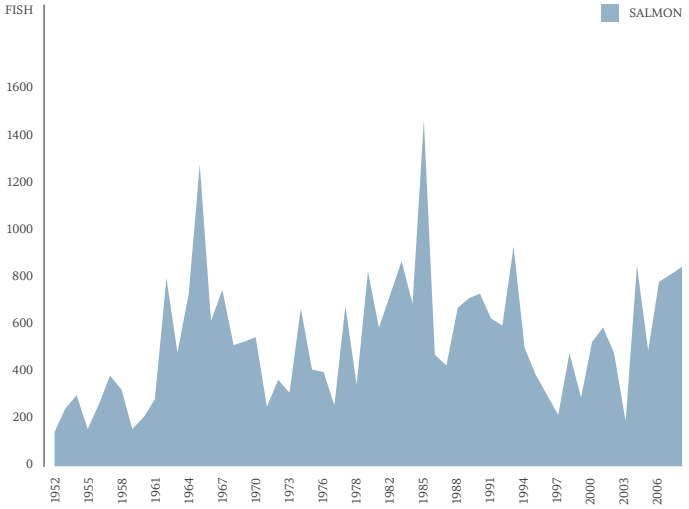
GIRVAN SALMON/GRILSE ROD CATCH 1952-2008

SOURCE - AYRSHIRE RIVERS TRUST

Stinchar

BRIAN SHAW - *Biologist, Ayrshire Rivers Trust*

The Stinchar has always been a noted late river and very few fish are caught before the tail end of the summer. Last season's run coincided with ideal water conditions, providing excellent sport, and some beats experienced the best August fishing for many years. September was relatively quiet, however, despite good river levels, while sport improved at the start of October when there was a good run of fresh fish, including many MSWs. As always there were several big fish landed, the largest being 30lb. The total catch was roughly 650, which is reasonable considering that it was a poor year for grilse, and catch and release continues at over 50%.



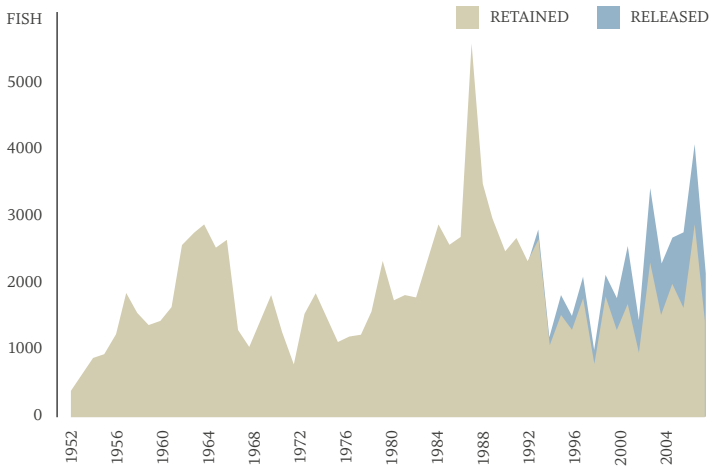
STINCHAR SALMON ROD CATCH 2000-2008

SOURCE - AYRSHIRE RIVERS TRUST

Nith

JIM HENDERSON - *Director Nith Board and Trust*

Like many Scottish rivers, catches were down on those of 2008. However, this was primarily due to the number of days when fishing was not possible due to poor water conditions. More encouragingly, numbers of sea trout recorded were up on previous years and the Board's 'Return & Reward' scheme, designed to encourage catch and release, is proving successful. All species fisheries management in the catchment has also been enhanced by the formation of the Nith Catchment Fishery Trust, which will work with the Board and share resources when appropriate. As a result of these last three factors, overall prospects for 2010 are looking promising.



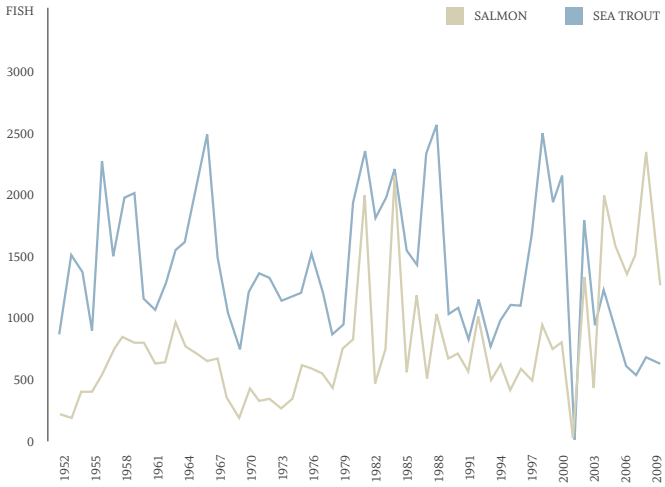
NITH SALMON ROD CATCH 1952-2008

SOURCE - NITH DSFB

Annan

NICK CHISHOLM - *Director Annan Board*

Last season was a mixed bag, with water conditions affecting the figures. The sea trout catch was low, but so was effort, and there appeared to be a decent amount of fish on the redds at spawning time. The summer salmon catch was fairly average, but come autumn there was a definite paucity of fish. Grilse were conspicuous by their absence and the overall catch was the lowest for six years. However, to put this into context, it was still the 9th most prolific season since 1952. The rate of catch and release was poor and proprietors will be warned that, unless this improves, strict statutory regulation will be introduced.



ANNAN SALMON AND SEA-TROUT ROD CATCH 1952-2009

SOURCE - ANNAN DSFB

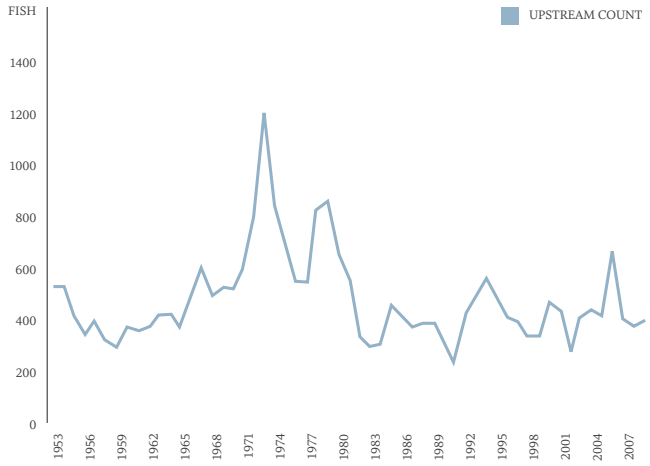
Counter Data

This is the first year we have included counter data in the ASFB Review. The value of this data is that it is not subject to changes in water conditions or angler effort. However, counters do come with their own problems. Many of these counters now have video validation which has resulted in progressively more accurate counts throughout the counter network. Most of these counters are built into fish passes or Borland lifts in the network of hydro-electric dams managed largely by Scottish & Southern Energy (SSE). SSE works closely with river boards using counter technology, resulting in a useful time series of count data that gets as close as we can to a true value for the numbers of salmon entering parts of Scotland's salmon catchments. Our thanks to SSE for the use of these data.

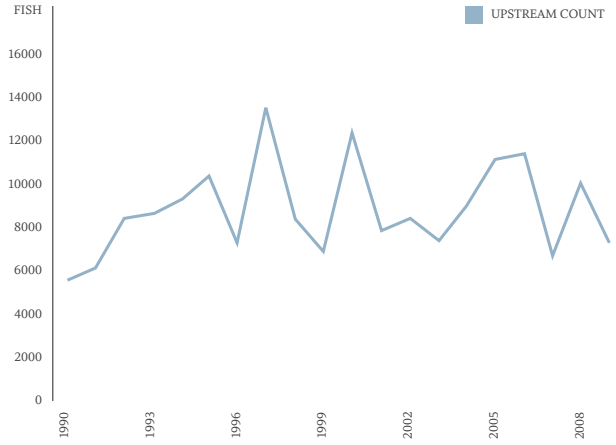
Tay

DR DAVID SUMMERS - *Tay DFSB and Foundation Director*

Despite the poor spring catches on the Tay, the Ericht count to the end of June 2009 was the second highest in the years for which data are available and the Pitlochry count was only slightly below the recent average. The better runs of late May and early June must have made up for the poorer runs of March and April. However, the summer count, which is mainly grilse, was the poorest for the Ericht since the counter was installed in 1990 and 15% below the recent average at Pitlochry. At both sites peak grilse numbers passed through in August, while previously (prior to 2005) July was normally the peak month.



RIVER TUMMEL (PITLOCHRY) 1953-2009
SOURCE - SCOTTISH AND SOUTHERN ENERGY

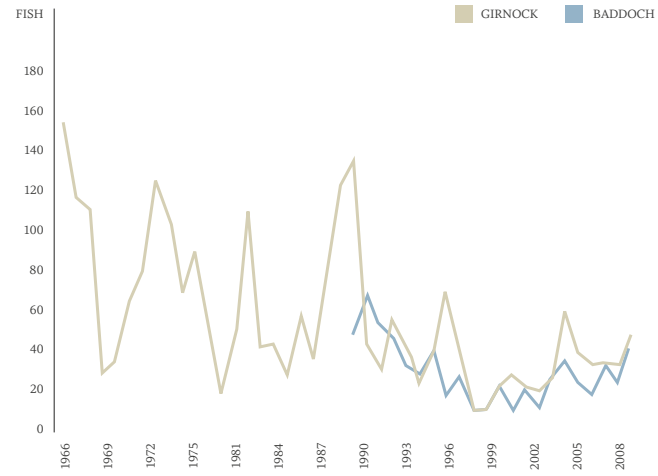


RIVER ERICHT 1990-2009
SOURCE - TAY DISTRICT SALMON FISHERIES BOARD

Girnock & Baddoch (Dee)

IAIN MCLAREN - *Marine Scotland Science*

The Marine Scotland Science Freshwater Laboratory has operated two trap sites on tributaries of the upper river Dee for a number of years – the Girnock Burn (1966-2009) and the Baddoch Burn (1988-2009). Ascending adults are caught annually as part of a long-term, routine monitoring programme. The numbers of adult females are thought to be a more accurate index of abundance, due to the observed difference in behaviour exhibited by the sexes with respect to the trapping facilities at spawning time. Only the female numbers are presented here. In the case of the longer time series from the Girnock, it can be seen that numbers of returning females have fallen over time from the highs of the 60's and 70's. Numbers from the two sites track each other fairly well and there is an indication of a slight improvement in numbers, at both sites, in recent years.

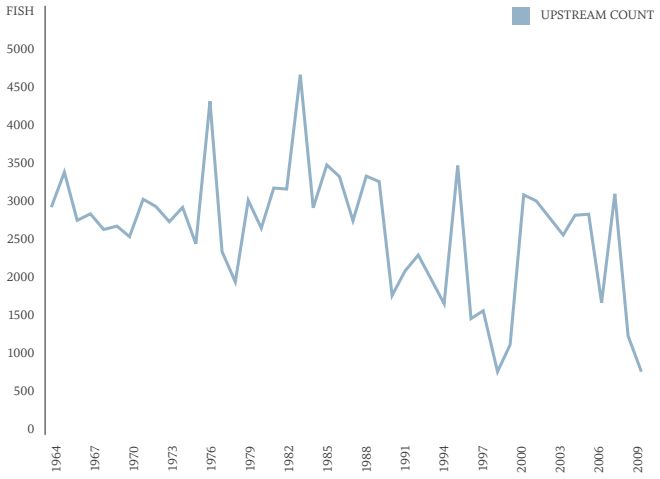


GIRNOCK AND BADDOCH BURN TRAP COUNTS (FEMALE UPSTREAM) 1966-2009
SOURCE - MARINE SCOTLAND SCIENCE

Awe

ROGER BROOK - *Chairman Argyll DSFB*

The Awe count was the second lowest on record, rivalling the 1998 figures at just below 800 fish. Although there were a few spring fish, the grilse run failed dramatically. While the river is subject to the adverse pressures typical of the west coast, as well as some of its own, the Board did not anticipate such a dramatic decline. The share of the run that was caught was 50% above the average and those rivers without a counter who judge their run by their catch figures should worry about this fact. The Board reacted as soon as the counter showed that the grilse run had failed and asked anglers to release all fish.

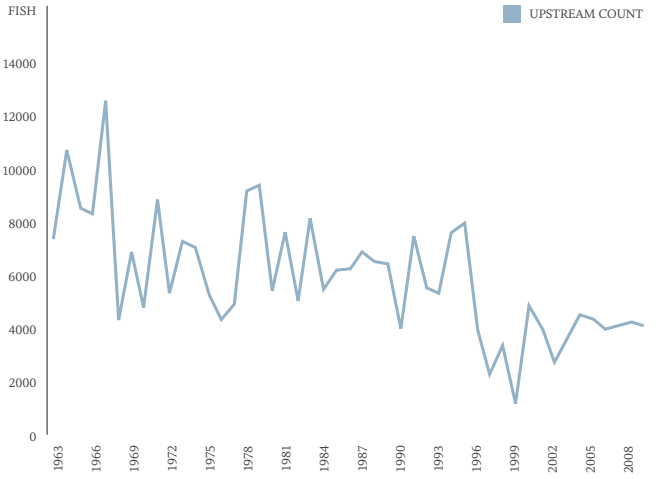


RIVER AWE BARRAGE UPSTREAM COUNT 1952-2009
SOURCE - SCOTTISH AND SOUTHERN ENERGY

Beauly

DR ALASTAIR STEPHEN - *Scottish and Southern Energy*

It has been discovered that the old counter at Aigas under-counts salmon by between 15 -18% due to simultaneous multiple upstream fish movements, but now we have a picture of each event that will enable more accurate validation. The graph illustrates the trend in runs since the hydro scheme was built in the early 1960s. In the early years the average run through Aigas was 8-9,000, where as it is 4-4,500 toady. The conclusions of the recent in-stream habitat survey undertaken by the Ness & Beauly Fisheries Trust were that the Beauly, unlike other rivers affected by hydro development, did not lose large areas of spawning and nursery habitat following the construction of the scheme and salmon today can access almost all the usable habitat in the catchment. The important implication is that the reason for the decline in salmon numbers has little to do with what has happened in freshwater, but is related more to marine survival. The national collapse of the grilse run in 1999 was picked up by the Aigas counter, when only 1,000 fish ascended into the upper catchment. Despite this, the counts in subsequent years returned to a level three to four times higher, indicating how few adults one needs to sustain the smolt run.

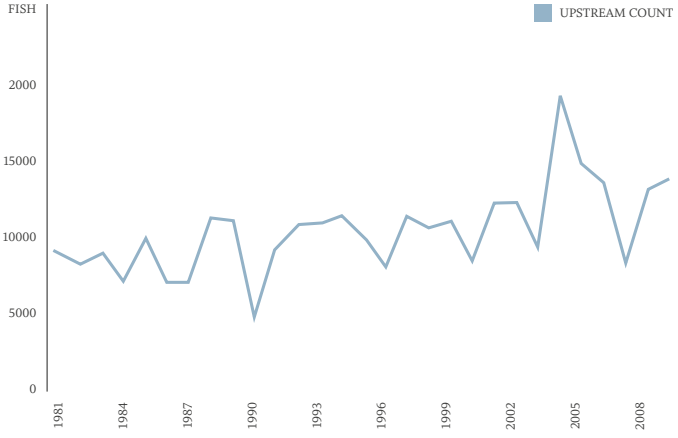


RIVER BEAULY (AIGAS) UPSTREAM COUNT 1963-2009
SOURCE - SCOTTISH AND SOUTHERN ENERGY

North Esk

DR MARSHALL HALLIDAY - *Esk Fishery Board and Trust Director*

The number of adult fish returning to the North Esk has been estimated by a counter at Logie each year since 1981. The annual net upstream count has shown an increase during the 28 years of operation of around 20%. However, this has coincided with a massive fall in exploitation – largely thanks to the reduction and final closing of the sea nets off the mouth of the river and, to a lesser extent, thanks to an increased policy of catch and release by anglers below the counter. Consequently spring counts began to rise, but peaked in 2006, and while counts in 2007 were low, these improved in 2008 and 2009.



NORTH ESK (LOGIE) UPSTREAM COUNT 1981-2009
SOURCE - MARINE SCOTLAND SCIENCE

ASFB news

BRIAN DAVIDSON - *Director, ASFB*

SEPA BARRIERS PROJECT

In partnership with RAFTS, the ASFB has co-ordinated a project to assess man-made barriers to fish migration on rivers identified by Boards and Trusts. Financed by the SEPA Restoration Fund, the project has identified 19 sites across Scotland where serious obstructions occur. The first phase of the project, which is now complete, focused on quantifying the problem at each site through a detailed engineering assessment. Phase 2 will involve a series of applications to the Fund, to help support remedial works at the barriers concerned. There are ongoing opportunities to seek financial support for such work and ASFB and RAFTS are keen to ensure that Boards and Trusts are fully aware of how the Fund can assist in addressing fish passage problems. This will be of particular significance to those post-industrial rivers in Scotland's Central Belt where fish passage is the major factor affecting distribution of salmon and other species.

GYRODACTYLUS SALARIS (Gs)

The ASFB continues to remain vigilant about the insidious threat posed by Gs, and during 2009 we invested further funds in the provision of riverbank signage and supplies of disinfectant for the Boards to use locally. A comprehensive contingency plan has also been developed by the Government and stakeholders and moves are afoot to ensure that this is tested in a 'dry run' scenario this year. It is essential that all Boards, Trusts, proprietors, anglers and other river users take all precautions to ensure Gs does not obtain a foothold in Scotland.

TRAINING

Work continues with Scotland's branch of the Institute of Fishery Management (IFM) to develop training for bailiffs and fishery managers. The bailiff training course is now well established and is regarded as a prerequisite – by both the ASFB and Scottish Government – for anyone wishing to exercise the powers of a water bailiff under warrant. In addition, the ASFB organises the annual bailiff's seminar which provides an invaluable opportunity for Scotland's bailiff network to discuss a wide range of enforcement, management and technical issues. The seminar rotates around the country and was hosted by the Nith DSFB in March 2010.

SALMON STOCKING

More detailed scrutiny on fish movements and stocking of salmon and sea trout is now being applied, thanks largely to Section 35 of the Aquaculture and Fisheries (Scotland) Act 2007, which confers new powers on Scottish Ministers to regulate the movements of all freshwater fish – including salmon and sea trout where there is no DSFB. For areas where there are DSFBs, however, the Board will remain responsible for consenting to any movement or introduction of salmon or sea trout within their district. With power comes responsibility and it is important that all Boards are aware of their legal obligations regarding restocking operations and that due process and best practice is observed. The ASFB recognises that individual river systems possess unique characteristics and can present different challenges, but it is also recognised that certain broad principles apply to restocking, in order to protect native populations. Accordingly, the ASFB and RAFTS have developed a Code of Practice. While this focuses on good operational practice for stocking, it also introduces other dimensions, including the legal implications of restocking in designated sites, the importance of maintaining paper audit trails on the consideration process, and of taking specialist advice.

HYDRO POWER

The ASFB hosted a seminar on the impacts of small-scale hydro power in October. This was inspired by an increase in the amount of micro hydro schemes and the cumulative effects that these may have on fish passage. Driving this increase is the demand for green energy schemes, which often fail to take account of other ecological considerations such as fish passage. Many of the schemes are sufficiently small to allow them to circumvent the full environmental impact assessment and, as such, many receive formal approval without any assessment of their effect on fish. A specialist group is therefore being set up to consider how the interests of fish can be better accommodated at the pre-planning stage, so that appropriate mitigation can be built in early on.

BEAVERS

The Knapdale beaver introduction trial is now underway and, as a result of the controversy caused by the project, the Scottish Government have established a Species Reintroduction Forum with a Beaver/Salmon Working Group which will examine the specific issues relating to the mammal's potential impacts on migratory fish. The findings of this group will inform any decisions about the future of beavers in Scotland after the Knapdale trial is completed in 5 years time.

Photo: Andrew Graham-Stewart

Rivers and Fisheries Trusts of Scotland (RAFTS) news

CALLUM SINCLAIR - *RAFTS Director*

2009 has proved to be a year of growth and strengthening for RAFTS as it works to support its members across a range of activities and areas. Some of these are introduced below.

FISHERY MANAGEMENT PLANNING

A full suite of fishery management plans have now been published as part of a Scottish Government-supported programme. Plans are already available for the 22 Trusts and Boards which took part in this exercise in 2008-09 and fresh plans are in preparation for our two new members – the Skye Fishery Trust and the Findhorn, Nairn and Lossie Fishery Trust. Though these plans have been very much a labour of love they are vital to future progress. Scotland's Trusts, with their DSFB partners, are now delivering an increasingly co-ordinated, planned and effective programme of fishery management which considers numerous species of fish.

Under the current funding support, this programme has another full year to run, but it is hoped that further funding will help deliver longer-term management projects across Scotland.

UNDERSTANDING SALMON POPULATIONS AND GENETICS

Last year saw the coming together of the Focusing Atlantic Salmon Management on Populations (FASMOP) genetics project. Despite the rather dubious acronym, this project is amongst the most exciting to be initiated by RAFTS and has the potential to transform our understanding of Atlantic salmon populations in our rivers and, more importantly, how we protect and manage them.

Salmon collected by Trusts across Scotland are now being analysed by a dedicated team of molecular geneticists based at the Marine Scotland laboratory in Pitlochry. The staff are employed by RAFTS and housed and supported by Marine Scotland. Scottish Government funding for fishery management planning has been allocated to this work, while significant additional cash and in-kind contributions have been made by Trusts, DSFBs, grant giving trusts and SNH. The project, when set alongside the SALSEA Merge programmes, demonstrates the huge value of a public/private sector partnership approach when a common area of interest is identified.

It is fair to say that the RAFTS Director was not quite sure what a molecular geneticist actually looked like or how many of them wandered free in the world when starting this project, but the FASMOP partnership are thrilled to have been able to appoint Mark Coulson (from Canada), Lucy Webster (from Banchory) and Anja Armstrong (from Grandtully) to the new team. We have high hopes that they will make significant strides in demystifying the genetic picture of our salmon populations so that managers can increasingly protect their unique and valuable stocks.

BIOSECURITY PLANNING AND INVASIVE NON-NATIVE SPECIES

Our biosecurity planning programme continues to develop apace under the stewardship of Chris Horrill and is described more fully on page 24 of this review. A number of biosecurity plans are complete and nearing completion and a suite of treatment, control and eradication projects are in various stages of development and preparation – ranging from fully-fledged applications to ideas which remain but a twinkle in our eye. We are very hopeful that this area of work will continue to expand and allow the Trusts to deliver genuine environmental improvement.

One collaborative project undertaken with SNH and Glasgow University, which was completed in 2009, is the development of a protocol to detect American signal crayfish and the completion of surveys across Scotland to refine our understanding of their current distribution with a view to control the further spread of this species and – hopefully – identify locations where eradication may be possible.

Some of the other activities we are involved with include: acting as the Director of the Scottish Aquaculture Research Forum (SARF), being a member of the Strategic Framework for Scottish Freshwater Fisheries Steering Group, and being a Management Committee Member of the Scottish Fisheries Coordination Centre, and a participant in a number of associated working groups. We also organise our annual conference, visit members on a rolling programme basis, support new Trust formations, aim to transfer RAFTS from a charity to a company limited by guarantee, chair the Steering Groups for FASMOP Genetics and Biosecurity Planning Projects, and seek funds and project development for collaborative trust projects.

Further details of all of the above can be found at www.rafts.org.uk

An American signal crayfish

Using the resource – one year on

HUGH CAMPBELL ADAMSON

In 2008's review I described the problems caused by coastal nets. I mentioned that, in some districts, 85% of salmon killed are taken in the nets and that the present levy system hugely discriminates against anglers – a mere £2 is raised by each fish killed by a netsman, while each fish caught by an angler generates £70. I also wrote about the danger of overexploitation, the threat to management, and the blind eye being turned to the dangers of mixed stock fisheries (MSFs) by the Government.

At that stage I still held out some hope that a working group set up to advise Holyrood on MSFs (coastal nets which take fish destined for more than one river) would make some progress. One year on, however, it seems this optimism may have been misplaced.

The group's brief was to make recommendations for the future management of MSFs, yet its membership suggested that agreement, even on minor issues, could be difficult to reach. Comprising four netsmen, one Government scientist and representatives from the ASFB, the Salmon and Trout Association, the AST and SANA, the group was always going to struggle to obtain consensus, and there was a clear divide between those who wished to maintain the status quo and those who wanted change.

Despite the masterful chairmanship of David Crawley, it was ultimately accepted that consensus was not possible, and the chairman was forced to produce his own recommendations instead. Not surprisingly, although there was much to admire in his final report, some of us feel that these recommendations do not go far enough.

The report quotes guidelines from ICES and the EU, and gives examples of other countries' policies, all accepting the problems caused by MSFs, and it even cites criticism of Scotland by the president of NASCO. However, at the same time it fails to recommend that the Scottish Government should heed this advice.

The report also acknowledges the decline in salmon stocks and recognises the contribution made by increasing catch and release by anglers, but fails to condemn the indiscriminate exploitation by coastal nets. It fails to elaborate on the intrinsic inequality whereby a whole river system can ask its anglers to return all fish, while the netsmen can do as they please. Moreover, it totally fails to face up to the inequality in the burden of management costs, as this was deemed by the chairman to be too contentious and better suited to another forum instead.

Overall the report is long on the need for more research but critically short of immediate action, as it deems that the present scientific data is insufficient – an attitude that epitomises the lack of urgency shown by the Government and its advisors on this subject.

There seems to be a refusal to accept the clear decline in the number of salmon returning and the need to protect the runs, yet anyone who has read *Cod* by Mark Kurlansky or *The End of the Line* by Charles Clover, will understand the depth of the problems facing our fish. We can no longer rely on market forces to reduce exploitation at sea, as wild fish attract an ever-increasing premium, and we must therefore take action urgently.

The Government's lack of commitment on this matter was demonstrated when the Esk DSFB put in an application to protect spring runs of salmon and early sea trout, by outlawing the killing of either species before the end of May. This laudable appeal was rejected by the Government, who not only suggested that the nets start on 1st May, but also wanted anglers to return all salmon and sea trout until the end of that month, with the added stipulation that South Esk anglers returned sea trout for the whole of June too. When asked why they rejected the advice of their own scientists, the Government response was – astonishingly – that socio-economics had been considered! The Board clearly could not agree to such blatant unfairness, and an unsatisfactory voluntary agreement is to run for this year.

Favouring netting interests over those of anglers is both illogical and unfair and this nebulous excuse cannot disguise the failure of the Government and its advisors to face up to either international advice or its own responsibilities. With catch and release rates at over 60 per cent, it is hard to see how angling can seriously affect the viability of a run of fish, while an indiscriminate netting station clearly can.

All is not lost though. The first recommendation of The Mixed Stock Fisheries Working Group Report calls on the Government to 'make a clear unequivocal policy statement about the strategy for MSFs…as soon as possible'. The chairman of the group recognised the need for urgency; let us hope the Scottish Government now do too.

If you wish to download the report, visit: www.scotland.gov.uk/Topics/marine/Fisheries/Salmon-Trout-Coarse/FFF/SFIG

Photo: Andrew Graham-Stewart

Salmon poaching and wildlife crime

BRIAN DAVIDSON - *Director, ASFB*

There is a widely-held view among the fishing fraternity that the prosecution of poachers has never been afforded a particularly high priority by either the Scottish legal system or the police. All-too-often thought of as merely local worthies taking 'one for the pot', poachers are perceived to have profited from a disinterested police force and lenient sentences in the courts.

Despite these opinions, however, considerable progress in tackling wildlife crime is being made. And the prevention of crimes against wildlife – ranging from badger baiting, hare coursing and raptor poisoning, to rather more esoteric pursuits, such as finch trapping, moss theft and habitat destruction – is now being given a much higher priority.

Fish poaching, (together with deer poaching and hare coursing) was formally classified as a wildlife crime in 2009, when the Partnership for Action Against Wildlife crime (PAW) identified it as one of six main priorities.

This partnership brings together the Police, HM Revenue and Customs, representatives of Government departments, and voluntary bodies that have an interest in wildlife and land management. Their main objective is to support the dedicated Police Wildlife Crime Officers (PWCOs) who are now attached to each regional force. The ASFB has itself provided input to PAW's poaching sub-group, which has produced an action plan to tackle poaching and hare coursing in Scotland as well as a leaflet campaign about salmon poaching which was launched at the Scone Game Fair by the Minister for the Environment, Roseanna Cunningham.

Participation in this sub-group has also enabled the ASFB to share information, sometimes of a highly sensitive nature, with PWCOs, which can assist in the successful prevention and detection of poaching, as well as prosecutions in the courts.

On a local level, one of the ASFB's priorities is to improve the links between the network of 150 water bailiffs and the PWCOs. Sound relationships have been forged between these groups in recent years, allowing for much improved co-ordination on enforcement activity relating to poaching. Bailiffs and PWCOs have also had close involvement with, and given presentations and guidance to, both the ASFB's annual bailiff's conference and the National Wildlife Crime Conference. This naturally leads to a much greater understanding of the issues involved, and some very worthwhile training on fisheries law enforcement has been provided by our bailiffs to the police. Superintendent Tony Coleman of the River Tweed Commission and Jim Henderson, Catchment Manager for the Nith DSFB, have been instrumental in training police officers in fishery-themed enforcement.

And the good news is that this co-operation is leading to tangible results, even on some of our smaller and less well known rivers. The persistent in-river netting by an individual in the Tyne in East Lothian has recently been curtailed. It was thanks to the close collaboration between Forth DSFB Superintendent Bill Cunningham , his bailiff team, PWCOs Ruaraidh Hamilton and Jim McGovern, and the local police force, that fines totalling over £1000 were imposed on this individual and his accomplice. A 3-month custodial sentence has also been successfully imposed on this repeat offender – for both fisheries offences and other related criminal activities.

A further example, near the River Ugie in the North East, provides a good demonstration of teamwork between the Ugie and Deveron DSFB bailiffs and the local constabulary. This case involved illegal netting of salmon on the coastline and the successful apprehension of another known poacher. Both Bob Davidson and James Minty worked very closely with PC Gary Johnston to allow three charges to be brought with a subsequent conviction and £850 fine. It is unlikely that such results would be achievable without the close networking of the DSFB bailiffs and the police. Of particular value in this case was the expert witness advice provided by the bailiffs, which was used at interview and subsequently at the trial.

The ASFB will continue to encourage this cross-fertilisation of ideas and information, and we now have both the necessary structures in place and the formal prioritisation of salmon poaching as a wildlife crime to allow this to happen. What's more, our bailiffs are better trained than ever before to deal with the challenges of contemporary law enforcement, and are much more integrated with a wide range of local, regional and national initiatives. While limited resources are always an issue in combating rural crime, we are confident that a much higher priority is finally being given to poaching and associated crimes.

The scales of justice

ROBERT YOUNGER - *Solicitor with Fish Legal*

Fish Legal has had a number of successful cases this year including, most notably, an out-of-court settlement of over £13,000, which was awarded in favour of the Forth District Fishery Board. This payment was made by Mainstream Scotland, part of the giant Norwegian salmon production conglomerate Cermaq, after the escape of smolts into the River Devon from their production unit at Fossaway Bridge was discovered. This was our first success against a fish farmer's malpractice and we hope that it will pave the way for similar victories.

Every case which we build requires good evidence but, time and again, we have found that those Government bodies which are supposed to investigate environmental damage are reluctant to release information. This may be, we suspect, either due to their embarrassment at their own inactivity or because of lobbying by large industries, companies and polluters. This means that we are repeatedly forced to complain to the Scottish Information Commissioner (SIC). In two separate decisions this year the SIC has ordered Scotland's environmental regulators and departments to open their files to Fish Legal in the name of proper public scrutiny.

In the first decision, the SIC has ordered the Scottish Environmental Protection Agency (SEPA) to disclose staff witness statements and notebooks relating to a serious pollution incident which occurred on the Rotten Calder, a tributary of the River Clyde in 2007, after failures at Scottish Water's Allers Sewage Treatment Works. Fish Legal used this information to secure £4,000 in damages from Scottish Water. These were then awarded to the East Kilbride Angling Club, which fishes the Rotten Calder, and the money will be used to fund habitat restoration work on the river. This case has clarified the duties of statutory authorities to disclose information relating to the environment, including the statements of officers dealing with the investigation.

In the second decision, the SIC ordered Scottish Ministers to disclose inspection reports relating to a number of significant escapes of farmed rainbow trout into Loch Lochy. The SIC decided that the reluctance of the Ministers to divulge the reports had more to do with the Goverment's 'general relationship with the industry as a whole'. Thankfully, however, the rainbow trout company involved has since ceased operation in the loch.

Despite these decisions, Scottish ministers have tried to continue their old ways and had recently refused Fish Legal access to inspection reports from rainbow trout operations on Loch Awe and Loch Etive, both of which have suffered massive escapes of farmed fish this year. However, as we go to press, we learn that the SIC has told Marine Scotland to release the information – failing which they will be formally forced to do so. It is becoming increasingly clear that the environmental regulators of Scotland can no longer continue to have an unduly close and closed relationship with the industries they regulate. That way of doing things is over.

Fish Legal Scotland has continued to provide a wide range of advice and services to the ASFB and our members amongst the fishery boards. Our services and advice have been used in issues relating to: setting up new companies limited by guarantee for RAFTS and the Nith Board, the drafting of employment contracts, the constitution of fishery boards, obstacles and obstructions, the CAR licensing system, River Basin Management Plans, the Knapdale beaver trial and much else besides.

Of all the issues facing wild fish interests perhaps the elephant in the room remains the impact of commercial fish farming. There seems to be a general feeling that the wild fishery interests should do more to fight the expansion of the fish farming industry where it has the potential to damage our interests and we have been working closely with the ASFB to develop a more proactive strategy. Expect to hear more on this in 2010.

Fish Legal has had a few changes of its own this year. Dr Stephen Marsh-Smith has retired as chair, to be replaced by Roger Furniss and Guy Linley-Adams, our head of legal, has returned to private practice and is replaced by Dr Justin Neal. Despite these changes, 2009 has been a successful year for Fish Legal in Scotland and we hope that the fishery boards will continue to support us so that our valuable work can continue.

The SALSEA programme 2008-2011

DR KEN WHELAN - *Chairman, International Atlantic Salmon Research Board*

A major factor influencing salmon abundance is the increased levels of mortality at sea. In 2002, the North Atlantic Salmon Conservation Organisation (NASCO) established the International Atlantic Salmon Research Board (IASRB) to co-ordinate a major research programme which would address the issues involved. The main objectives were to encourage international co-operation into finding the causes of marine mortality, to maintain an inventory of relevant research and identify gaps in it, and to raise funds to finance major new research projects relating to aspects of marine survival.

Following a series of detailed scientific meetings, the initial SALSEA programme was presented to the IASRB in 2005. This was a major programme covering the full marine range of the Atlantic salmon – from North America in the west, to the Kola Peninsula in the east. Once the plan was agreed on, the Board sought funding from both Europe and North America.

A wide range of foundations and private companies were canvassed, and both the Atlantic Salmon Trust and the TOTAL Foundation agreed to contribute. In 2007 a consortium of 20 partners was formed to apply for EU FP7 funding. This partnership, entitled SALSEA Merge, was unique in that it included the public sector, the private sector, NGO groups and a wide range of European universities.

The partnership's submission was successful and research work commenced in April 2008, with the marine sampling programme beginning the following month. Since then research vessels from Ireland, Norway and the Faroe Islands have carried out extensive surveys stretching from the west coast of Ireland to the far north-west coast of Norway. These surveys have followed the offshore migration pathways of post-smolts during their first summer at sea.

PROGRESS TO DATE

The Irish surveys were carried out on the research vessels (RVs) *Celtic Voyager* and *Celtic Explorer*. In 2008 the *Explorer* collected 358 salmon post-smolts, taken in 27 separate hauls over an eight-day period from a wide area of the southern range of the early salmon migration. Data relating to water temperatures, depth and salinity were also recorded. Some 76 post-smolts were taken by the *Voyager*, resulting in a total catch of 434 salmon. In 2009 the *Voyager* again sampled off the west of Ireland, but few fish were taken due to very stormy conditions. However, the *Explorer's* second survey, which took place off the west coast of Norway last June, was very successful and overall the two cruises resulted in a total sample of 466 post-smolts and 10 adult salmon.

The first Faroese cruise took place in July 2008, using RV *Magnus Heinason*. In total 363 post-smolts were caught, with three hauls accounting for 184 fish. The 2009 survey was equally successful and resulted in a sample of 310 post-smolts and 10 adult salmon.

The Norwegian research cruises, aboard RVs *Eros* and *Libas*, ventured much further north and surveyed areas in the Atlantic which had not previously been sampled. In 2008 a total of 82 post-smolts were taken in 31 net hauls. In 2009 a further 87 post-smolts and adults were taken.

Data recorded from each of the 1,700 post-smolts taken included: scale samples; DNA samples from the pectoral fin; disease samples from the gill filament, pyloric caeca, spleen, and kidney; isotope samples from the liver, dorsal muscle, adipose fin, heart, and tip of the caudal fin; lipid samples from the dorsal muscle; stomach samples; and otolith samples.

When combined with the large set of archival material (over 3,500 samples) already available, these fresh figures will provide the basis for extensive analysis to be carried out as part of SALSEA Merge. Over the next 18 months all of the material will be analysed and the resulting data will be assimilated into a comprehensive migration and distribution model of salmon stocks in the North Atlantic. The results from the programme – which are set to be incredibly exciting – will be delivered at a salmon summit in the autumn of 2011.

For fully updated information, including cruise reports from the work package leaders and details of those involved in the SALSEA programme, visit www.salmonatsea.com

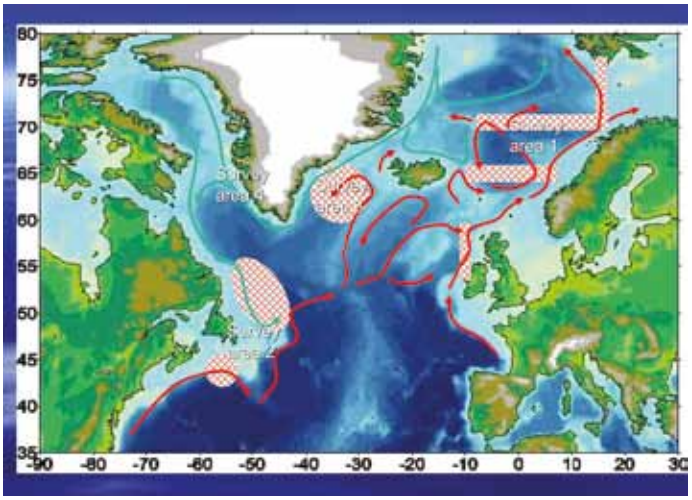


Fig 1: SALSEA Merge survey areas, showing a range of potential migration routes to and from the feeding grounds and the prevailing ocean currents (red = warmwater and blue = coldwater). The SALSEA Merge marine survey areas are shown as 1 to 3.

Trends in the condition of returning salmon

PROFESSOR CHRISTOPHER TODD - *Marine Scotland*

Most anglers who were on the riverbank during the summer of 2006 would have been shocked by the abundance of 'skinny' grilse. However, by detailed monitoring of grilse sampled from commercial nets (at Strathy Point on the north coast, and from the North Esk), Marine Scotland have been able to analyse the longer term patterns and show that, while 2006 was exceptional, it was not entirely unusual.

Indeed, every year since 1993 – when the monitoring programme started – some fish have returned in poor condition while others come back to the rivers spectacularly plump. However, what we have also seen is that average condition improved between 1993 and 1997, but fell sharply and steadily thereafter. 2006 was merely the worst year in a decade-long downward progression.

Fig. 1 Both fish are male grilse. The upper individual (46.5 cm, 0.87 kg) is 23% underweight for its length, whilst the lower (69.5 cm, 4.09 kg) is just 3% above 'normal'.

We measure the condition of an individual fish by its Relative Mass Index. In brief, we can calculate the condition of any individual by dividing its observed weight by the predicted weight for a fish of that length. An average fish shows a condition factor value of 0.97, fish which are significantly above or below that value are respectively considered over- or under-weight.

The Strathy Point monitoring was terminated in 2007 with the closure of that netting station, but during 2008 and 2009, with the collaboration of the nearby nets at Armadale and Melvich, we have been able to continue the monitoring of multiple stocks of grilse.

The 2009 Marine Scotland monitoring data for the North Esk will not be available until 2010, but from information gathered to date we can show that there is little indication of average condition of grilse improving systematically since 2005. For, although the river's 2007 figures did show an improvement on 2006, average condition fell back in 2008. The likelihood is that for 2009 the river will show a value comparable to that seen at Melvich and Armadale. One concern is that thin grilse may remain a feature for the foreseeable future.

From our monitoring of fat reserves in grilse (initiated in 2006) at Strathy Point and Armadale/Melvich we have found that fish which are 30% underweight for their length have fat reserves reduced by as much as 80%. This has profound implications for the upstream migration and reproduction of salmon. In view of the long-term declines in average condition since the late-1990s, it is inevitable that the numbers and quality of eggs produced will have correspondingly reduced. Given that we are now in a period when the adults from the poorest spawning years (2005-07) are now returning, and given the parlous abundance of salmon throughout much of their geographic range, then one can only remain very concerned about salmon conservation in the future.

We will continue to undertake research on the skinny grilse problem, and results to date all point to the marine phase of the life-cycle being the crucial component. Our present working hypothesis is that rising temperatures in the North Atlantic have led to marked changes in the quality and quantity of prey available to salmon at sea.

Scottish grilse appear to be essentially starving during the latter part of their migration and the recent consequences for the average population condition are clear. Major international collaborative research initiatives, such as the SALSEA programme, will cast much light on the marine phase of salmon, and the value of long-term time series monitoring cannot be overestimated.

As a journalist recently commented on our work, it appears an oxymoron that we need to kill salmon in order to conserve them. But, while many see the closure of commercial netting as an aid to salmon conservation, it could also be argued that the resulting lack of detailed time series monitoring would have major negative consequences for managing these fish.

I believe it is essential that monitoring data are available in order to permit an informed basis from which to advise the Government and the DSFBs. As detailed technologies, such as stable isotope analysis and DNA fingerprinting, are developed, there is much information that we can yet gain from the various time series archives of data, scales and otoliths (ear bones). But it is only by improving our understanding that we can conserve and enhance future stocks.

I would wish to express my sincere gratitude to the ASFB, the AST, various DSFBs, the Worshipful Company of Fishmongers and numerous individuals for their help in funding our current projects.

Aquaculture – the rising tide

ANDREW WALLACE - *Managing Director, ASFB & RAFTS*

The impact of salmon farming on Scotland's migratory salmonid fisheries continues to dominate Association business, arguably because it is an area where the least progress is being achieved. The collapse of the Chilean fish farming industry, as a result of appalling health management issues, has acted as a financial incentive for the Scottish industry. The Chilean collapse however is all the more alarming in that many of the problems were created by the very companies which made the same mistakes in Scotland 20 years ago.

This depressing lack of corporate intelligence is hardly encouraging, but the Chilean collapse has created new buoyancy in the Scottish industry which appears to be gathering both momentum and political support. Indeed, Scotland has plans to increase production by about 60,000 tonnes and it is clear that there are instructions from on high to the industry's regulators that this should be encouraged.

As a result, planners are following the jobs incentive; SEPA claim to have no remit for wild fish impacts (despite their obligations under the Water Framework Directive); Marine Scotland Science claim not to be able to raise concerns, providing the industry Code of Good Practice is followed; and even SNH, ostensibly the guardians of our natural heritage, are not objecting to any development unless there is a designated site issue. Conveniently for the industry, there are only two specific Special Areas of Conservation for salmon in the western Highlands and Islands.

The result is that the industry's development is now largely governed by a Code of Good Practice designed and implemented by the industry itself. This is a bit like asking hedge fund managers to regulate themselves.

So what positive news is there to look forward to? Precious little. Marine Scotland assures us it is making an effort to properly structure the industry's management using the new aquaculture regulations, while area based management, co-ordinated lice control, synchronised production and treatment, lice thresholds and containment standards may now have the potential for some statutory force.

There are two concerns about this, however. The first is that, despite assurances that the problem is under control, 2009 saw more escapes from farms than for several years. The second problem is that, while these initiatives may deliver better management standards, it is questionable whether the thresholds set will really allow for wild stock recovery.

Photo: Andrew Graham-Stewart

There is some limited evidence (Loch Fyne) of the positive effects of restructured management and we wait with bated breath to see whether the significant reorganisation of 12,000 tonnes of salmon farming in Loch Roag (Lewis) will have a positive impact on the Grimersta, Morsgail and Blackwater systems. Let's hope so. But there is little sign of any effective attempt to actively assist the wild fish recovery except through the largely impotent Tri-Partite Working Group (TWG), which remains better at identifying problems than solutions. The accompanying article from the Western Isles (see page 23) explains the value of the initiative to those on the front line.

One glimmer of hope is the Scottish Government's Relocation Programme and there is, we believe, a genuine effort and support in some official circles for the idea of achieving win/win outcomes by allowing the industry to expand in less sensitive areas while possibly being persuaded to give up a handful of very sensitive sites – such as Loch Ewe, Upper Loch Linnhe and Lochailort. Some of the fisheries affected, if restored, could match or beat the socio-economic benefits of fish farming in their areas.

However, this is heavily reliant on the industry being co-operative. There is little evidence for this: indeed cage reconfiguration plans in Loch Ewe indicate the industry's long term commitment to the site rather than any planned withdrawal. Against such a background it is hard to be anything but cynical about the industry's willingness to be a good neighbour. The outcome of this negotiation will be clearer towards the middle of the year but, without a positive industry response, our options look very limited.

Consequently, against this unpromising background, legal options are being explored – there is little choice. And, with at least two successful settlements against fish farmers for incompetent escape incidents, one of which was denied (on the River Devon in Clackmannanshire) and one that we have written assurances couldn't happen (at Howietown on the Teith), and a further case pending on Loch Awe, at least some attempt is being made to regulate, through the use of the law, an industry which currently seems to have little sense of responsibility to either the environment or its neighbours.

SIMON SCOTT - *Director Outer Hebrides Trust*

Meanwhile a different and more local perspective is offered by Simon Scott of the Outer Hebrides Fisheries Trust and Board

The publication of the controversial Restoration Guidelines for West Coast Salmon and Sea trout, criticism of the perceived failings of the Tripartite Working Groups (TWGs), and the expansion of the aquaculture industry have all served to raise the profile of how wild fisheries and aquaculture interact in the Western Isles.

What may appear a black-and-white issue to some commentators is inevitably rather less clear on the ground, as there is often no clear dividing line between wild fishery and fish farming interests. In the Western Isles a number of fishing estates still derive a significant proportion of income from aquaculture activities – either directly by fish farming, or through lease arrangements for slipways, hatcheries and freshwater lochs. This has led to inevitable criticism and accusations of hypocrisy from some quarters, but it is a factor governed also by the economic reality of life in the islands.

The TWG process has been subject to some negative comment, as progress is often difficult to measure and initial data collection methods and analysis procedures were not standardised. However, as the Outer Hebrides Fisheries Trust has no financial gain from TWG, we would refute the suggestion that Trusts will continue to support TWG simply to perpetuate funding.

There are also frustrations caused by the aquaculture planning application process. There is little apparent cooperation between regulatory bodies and what could be described as a 'rubber stamp' approach from some agencies in dealing with planning applications. We are liaising with Comhairle Nan Eilean Siar (Western Isles Council) in an attempt to improve this process. The Local Plan should quantify the maximum aquaculture production capacity that is regarded as – at least theoretically – sustainable, and identify those areas in which there should be no production. The employment of an ecologist within the planning department would be a positive development.

In the Outer Hebrides we are fortunate that there has been relatively little change in land use and the freshwater environment. It was recognised early in the Trust's development that aquaculture was, and remains, the big issue. To this end the Trust employed an Aquaculture Liaison Officer sometime before the advent of TWG and Regional Development Officers (RDOs).

The RDO is now responsible for developing Area Management Agreements (AMAs), but the proposals for increased fish farm production will serve to put further strain on this process. A recent and alarming development is a proposal to site fish farms in the few remaining 'pristine' sea lochs. The application by Lighthouse Caledonia to utilise an existing, but hitherto unused, site in Broad Bay threatens the renaissance of several river systems, and this has attracted much local criticism.

On the other hand, there is hope that the site optimisation plan in Loch Roag will assist smolt survival. The return of sea trout at Grimersta in 2009 was the best for over 20 years, which offers some possible encouragement. However, as current research is demonstrating, there are many other factors affecting salmonids at sea.

The RDO undertakes a particularly challenging role. To develop and maintain the confidence of both wild and farmed fish interests is no easy task, and they also have to remain impartial and maintain confidentiality often in the face of considerable pressure. There are problems, not least with the coordination of a widely dispersed group, and there are regional differences in how the RDO is managed. Nevertheless we regard the RDO's role as vital.

It is hoped that the recently formed Sponsor Group can reinvigorate the process. Failure at this stage would be a waste of years of both government and local investment and a statement that the fisheries and aquaculture industries cannot work together. We must be positive, as the principals of TWG remain sound and no credible alternative has yet been suggested.

There has been some criticism of the fact that there are aquaculture interests serving on Fisheries Trusts and Boards. The suggestion that Trusts cannot fulfil their remit while also recognising other interests could be applied with equal inaccuracy to, for instance, forestry, agriculture or, in our case, large scale on-shore renewable developments! As long as there are robust procedures for declaring and avoiding conflicts of interest, this should not be an issue.

We face a considerable challenge. One area in which the wild fishery industry is vulnerable is that we often struggle to find consensus – even in public – so we must work to achieve better cooperation. It is also vital to remember that we are in the tourist business and must continue to project the many, many positives of fishing in Scotland.

Sea lice infestation on a post-smolt

Combating the alien invasion

CHRIS HORRILL - *Biosecurity Planning Officer for RAFTS*

Biosecurity issues associated with invasive non native species (INNS), fish diseases and parasites have a growing ecological and economic significance. There is also an increasing probability of their introduction and spread – due to rising trade, tourism and climate change. Waterbodies are particularly vulnerable as they are excellent transport vectors for many of these species. As a result rivers, lochs and their surroundings are amongst the most vulnerable habitats.

Ecological changes wrought by INNS can further threaten already endangered native species and reduce the natural productivity of rivers and lochs. The economic impacts of INNS in the UK have been estimated to cost £2-£6 billion per year , while the introduction of *Gyrodactylus salaris* alone would cost Scotland an estimated £633 million, with severe consequences for rural communities . Without action, it is likely that the ecological, social and economic impacts of these species and diseases will continue to increase.

Although there are now GB-wide strategies in place, local policies of prevention and eradication have often been disjointed. It is the need for a co-ordinated approach, which links local actions to national strategies, that has inspired the Rivers and Fisheries Trusts of Scotland (RAFTS) Biosecurity Planning Project.

The project, supported by SNH, the Esmée Fairbairn Foundation, the Scottish Government and SEPA, was established in October 2008. A Steering Group, drawn from the funding bodies and RAFTS members, provides further direction and support. The main aim is the formulation of biosecurity plans for 20 Trusts. These plans set out a co-ordinated local approach for selected species and diseases that significantly impact freshwater fisheries and the aquatic environment. The key aims are to:

- Increase awareness of the impacts of INNS and the measures required to prevent their introduction and spread.
- Establish early warning systems for surveillance, detection and monitoring of INNS.
- Set up a rapid response mechanism (RRM).
- Establish effective sustainable control/eradication programmes.

During 2009 pilot plans for the Esk Rivers Fisheries Trust, the Argyll Fisheries Trust and the Deveron, Bogie and Isla Fisheries Trust have been finalised, with the latter now being implemented (see Box 1). The plans for a further ten Trusts are currently being drafted, using a template developed during the pilot phase, and will be finalised before the end of March. The project has also developed its own dedicated website (www.invasivespeciesscotland.org.uk), a local reporting system and there were two training courses held for Trust and Board staff on the identification of aquatic plants and two courses on the identification, prevention and control of American signal crayfish. The latter were held with support from SNH and were attended by Trust, Board, SNH and SEPA staff as well as Wildlife Crime Officers. Furthermore, RAFTS was successful in gaining support funding from SEPA for the control and eradication of invasive non-native plants with six Trusts: Ayrshire, Galloway, Cromarty Firth, the Esks, Argyll and Deveron.

Those plans currently in preparation will soon be finalised and a start made on drafting the final seven. There will be continued implementation of the riparian INNS control and eradication project, and it is also envisaged that there will be closer ties between the mink eradication project and the RAFTS Biosecurity Programme, as well as further work on the prevention and control of signal crayfish with SNH, and the formulation of monitoring and rapid assessment protocols with SNH and SEPA. An interesting development is the possibility of the English Trusts following Scotland's lead in developing and implementing biosecurity plans. Discussion with the Association of Rivers Trusts (ART) are now well underway.

In summary: although significant progress has been made there is still a long way to go. There is a constant need to be alert to the dangers posed by parasites such as *Gyrodactylus* and INNS like signal crayfish – in both cases prevention is the preferred, if not only, option. Once a system is infested then the impacts can be catastrophic and the cure both expensive and difficult to administer. To prevent the worst case scenarios Boards and Trusts must continue to work closely together as well as with key governmental and non government agencies. This area of work, which is now gaining increasing political and public recognition, is one which RAFTS and its members are well placed to make a significant contribution to. The prioritisation of work in the biosecurity plans should inevitably lead to programmes of survey, control and eradication to the benefit of all our rivers.

Deveron District Biosecurity and Fisheries Development Project

The Deveron, Bogie & Isla Rivers Charitable Trust (DBIT) is delighted to announce the launch of this project, having secured around £120,000 funding. The main objectives are to implement the recently finalised DBIT Biosecurity Plan prepared by DBIT Biologist, Richie Miller, with support from RAFTS, and to promote Deveronside, both locally and nationally, as a top angling destination to assist local economic growth.

The 3-year funding package from Aberdeenshire LEADER, SNH, the Scottish Government, Aberdeenshire Council and Moray Council will allow the DBIT to employ a full-time Biosecurity and Fisheries Development Officer, a first for Scotland, and also purchase the required project equipment. The new officer, Alastair Fenn, will be working with a wide range of organisations: to control and eradicate INNS such as giant hogweed and American mink; to put in place early warning networks and rapid response protocols; and also to raise awareness of invasive species.

One of the main responsibilities will be to co-opt volunteers to assist in the monitoring and eradication programme throughout the entire Deveron district – including the Water of Philorth, Water of Troupe and the Burn of Boyne. The new volunteers, known as 'river champions', will assist by monitoring mink rafts and traps and also help monitor areas for invasive non-native plants.

If anyone would like to participate by becoming a 'river champion' please contact the DBIT Trust office at 01466 711 388 or email alastairfenn@deveron.org

Iceland – the gin-clear tonic

MARK AINSCOUGH - *Director of the Lax-a Angling Club*

In contrast to most of Europe, many Icelandic rivers have recently experienced some of their highest salmon catches for decades. Indeed, 2009 was a prolific season for many of the classic gin-clear rivers of the north as well as the 'ranched' rivers of the south. Although many western rivers suffered from the unusually dry weather, when the rains came, the catches improved. The sample catch figures below demonstrate the prolific nature of a number of the rivers – they are especially impressive when you consider that the season only runs for 90 days.

	Rods	2008 Catch	2009 Catch
West Ranga	20	14,315	10,749
Midfjardara	10	1,736	4,004
Vididalsa	8	1,440	2,019
Laxa in Asum	2	503	1,142
Laxa in Kjos	10	1,530	1,404
Laugardalsa	3	501	413

Catch figures over a longer period reveal consistently good fishing, although there are marked cyclical trends, with two or three good seasons generally followed by three or four comparatively poor ones. However, the last decade has seen a significant increase in catch-and-release as well as an overdue reduction in worming. There are signs that these conservation measures may help to flatten out some of the cyclical declines, which may have been caused by the overfishing of some rivers in years of poorer runs. There are also encouraging increases in the number of MSW fish.

It is interesting to compare the management issues affecting Scottish salmon rivers to the situation in Iceland, and it seems that the latter nation has several advantages. With a population of only 300,000, an extensive farming system, minimal industry and high precipitation, Icelandic rivers are pollution-free, and have extensive unspoilt spawning grounds. Iceland also has no coastal salmon netting, while the small number of in-river netting stations are coming under increasing pressure from the sport-fishing lobby. Salmon farming was widely practised in the '70s and '80s, but competition from Scandinavia and Scotland has all but eradicated the industry, to the anglers' delight. Cod farming is still at an experimental stage and has not affected wild salmon to date.

As far as predators are concerned, seals inevitably feed on the salmon around the river mouths. However, the farmers who own shares in the rivers rely on the fishing revenue for a large part of their income – consequently, the predator situation has never been allowed to get out of hand. No doubt the remote and sparsely populated nature of the country has helped the farmers manage predation without interference from the media or conservation groups.

Where natural spawning is compromised Iceland also has some good examples of effective smolt release schemes – a regulated practice which is closely monitored by the fisheries ministry, and which allows any river to be stocked with smolts bred from its native fish. The Tungufljot, a gin-clear river to the east of Reykjavik, is a prime example of the success of these projects.

Thanks to a combination of smolt stocking, which started in 2004, and the reconstruction of a fish-ladder above a previously insurmountable waterfall (which has opened up numerous tributaries ideal for spawning) , breeding fish were witnessed in the river for the first time in 2006. It is hoped that, perhaps within five years, natural spawning may have entirely replaced smolt-release, but in the meantime the fishing has been excelling, with 2,400 salmon landed by just six rods in 2008.

The East and West Ranga, in the south of the island, offer two more excellent examples. Both rivers suffer from riverbeds made of volcanic ash, a substance which renders them unsuitable for spawning. However, thanks to the release of smolts (400,000 smolts a year in the West Ranga), they are consistently among the most prolific rivers in the country, with over 14,000 salmon caught on the West Ranga alone in 2008. It is estimated that over 5 per cent of released smolts return, and that roughly half of these are then caught.

As everyone knows, Iceland has suffered huge economic misfortune since 2008, but the salmon themselves appear ignorant of this fact and most rivers are thriving. Moreover, the realisation that leases had become too expensive, combined with the weakening of the Icelandic Krona, has created a long overdue reduction in prices. Coupled with the prolific catches of the past few years, it is hoped that more British anglers will now be able to experience Iceland's thrilling sport.

For further details: email mark@lax-a.is or visit www.lax-a.net

River Ranga

Buying a beat

ANDREW RETTIE - *Strutt & Parker*

Having been involved in the sale, valuation and purchase of numerous salmon beats in Scotland I'm well aware that the main reason people buy fishing is similar to the reasons they buy a grouse moor, a deer forest or, indeed, a football club – it is not primarily due to a desire to make money, but is largely based on a love of the game.

There also tends to be an element of philanthropy, or at least generosity, involved. After all, an owner can only fish one rod, while most beats have sufficient fishing for two to six people per day. Therefore, buyers tend to enjoy providing sport for their family, friends, and business colleagues.

Looking at the specifics, buyers can generally be split into two different categories. Firstly, those who want to own a beat or perhaps a timeshare on one of the Big Four rivers – namely the Dee, Tweed, Spey, or Tay – and are looking for consistency in terms of annual records and a good chance of catching fish throughout the season.

The second type of buyer specifically wants a smaller river and might be keener on a Highland stream, such as the Carron, Oykel, Cassley, Findhorn or Naver. Some of the buyers in this category go even further and specifically stipulate that they prefer a west coast spate river, and are prepared to accept the vagaries of water heights and the inconsistency of the fishing.

In all cases, once a beat has been acquired, they accept the collective responsibility of owning a part of a whole river system, stretching from the source to the sea. They soon realise that each proprietor is a link in the chain and that the health of each river system is determined by the collective administration and management of the river as a whole.

In my experience, potential buyers are now looking very carefully at how each river is managed before dipping their toes in the water. For example, a vital part of the pre-purchase appraisal is establishing whether there is any netting carried on at the mouth of a river, as well as determining how active the DSFB is in the management of the system. Both these points influence buyers' choice of a beat and thus the capital value of the fishing.

The value of a beat is also calculated by also looking carefully at:

a) The 5- and 10-year catch averages.
b) Whether there is any discernible trend in catches.
c) Whether a beat is double or single bank. If the latter, who owns the far side, and whether there is a reciprocal agreement in place.
d) The recognised method of fishing – from bank or boat, by fly or spinner.

Buyers also look critically at the annual running costs. A theoretical example of a 4-rod beat with an annual average catch of 100 to 150 salmon is as follows:

INCOME	Estimated
• Rents from lets on those weeks surplus to the owner's requirements:	£20,000

EXPENDITURE	Estimated
• Wages – full-time ghillie:	£14,000
• Other employee costs – vehicles, perquisites, cottage rents etc	£10,000
• Levy – payable to the DSFB	£1,500
• Repairs – to croys, groynes, river bank, lunch hut, footpaths etc	£5,000
• Letting costs – es, electricity, gas	£5,000
• Insurance – public liability and employers liability	£1,500
TOTAL	£41,000

PURCHASE COSTS	
• 130 salmon per annum @ £7,500 per fish	£975,000
• Stamp Duty @ 4%	£39,000
• Agent's Commission	£15,000
• Solicitor's fees	£10,000
TOTAL	£1,039.000

NOTE
Additional value if an owner's house, land and ghillie's cottage(s) are also included.

Despite the credit crunch, we do have several buyers on our books who are keen to acquire beats. Most of these have accumulated considerable wealth over the last three years and now wish to live the dream of owning their own fishing. The most interesting buyer that came to my attention during 2009 was a gentleman who had won a very large sum of money on the lottery! He has since fulfilled his dream and bought a beat, which I hope gives himself, his family, and – no doubt a growing number of friends – a great deal of pleasure.

Evidence that the salmon fishing market is alive and well comes from sales which were concluded during 2009 of a beat on the Tweed, two fisheries on the Tay, as well as several timeshares on the Tweed, Lochy, and Tay.

STRUTT &PARKER

Fisheries management in Scotland – facts and figures

Number of District Salmon Fishery Boards	41
Total capital value of Scottish salmon fisheries	£425,000,000
Total rateable value of salmon fisheries in Scotland – 2009	£5,264,048
Funding raised by DSFBs in 2009	£3,453,907 Rods: £3,394,455 (98.3%) Nets: £59,452 (1.7%)
Further project funding raised by DSFBs Total	£745,977 £4,199,884
Number of salmon caught (2008)	Total rod catch: 85,929 Released: 53,038 (62%) (Spring fish – 78%) Total net catch: 15,660
Number of sea trout caught (2008)	Total rod catch: 17,243 Released: 9,631 (56%) Total net catch: 5,542
Total netting effort (2008)	Fixed engine: 181 trap months Net & Coble: 62 crew months
Number of DSFB Staff	Full time: 63 Part time: 93 Voluntary: 41
Legislation governing Boards	Salmon & Freshwater Fisheries (Consolidation) (Scotland) Act 2003 www.opsi.gov.uk/legislation/scotland/acts2003/asp_20030015_en_1 Aquaculture and Fisheries (Scotland) Act 2007 http://www.opsi.gov.uk/legislation/scotland/acts2007/asp_20070012_en_1
Number of river bailiffs trained under the ASFB/IFM SVQ accredited qualification	175
Annual value of salmon fisheries to Scottish economy (Scottish Government statement 2008)	£120m
Number of days salmon fishing per annum	545,000
Number of people employed in Scottish freshwater angling (FTE)	2,800
Number of Scottish charitable fisheries research trusts	23
Number of people employed by Fisheries Trusts & Foundations	Salaried – 57 full time equivalents (FTEs) Volunteers – 60 (FTE)
Percentage Board areas covered by Trusts in 2010 (exc. Northern Isles)	81%
ASFB turnover 2010 (2009)	£103,509 (£93,000)
RAFTS turnover 2010 (2009)	£105,000 (£97,000)
RAFTS funds raised for Fisheries Trusts 2009 (2008)	2008: £314,259 2009: £506,544
ASFB office bearers	PRESIDENT: The Lord Nickson KBE VICE-PRESIDENTS: Sir Robert Clerk Bt Jean Matterson CHAIRMAN: Hugh Campbell Adamson VICE CHAIRMAN: Sir Edward Mountain EXECUTIVE COMMITTEE: Ian Scott (Dee DSFB) Andrew Douglas-Home (Tweed) Alan Williams (Spey) David Summers (Tay DSFB) Roger Brook (Argyll DSFB – Chair RAFTS) Nigel Cox (Fishmongers' Company)
ASFB & shared staff	MANAGING DIRECTOR: Andrew Wallace DIRECTOR: Brian Davidson ADMINISTRATOR: Stephen Harris PR: Andrew Graham Stewart (Part-time) LEGAL ADVISERS: Fish Legal (formerly ACA) Gillespie Macandrew WS
RAFTS staff	DIRECTOR: Callum Sinclair INVASIVES & BIO-SECURITY PROJECT: Chris Horrill FUND-RAISING / PROJECT DEVELOPMENT: Luke Comins (part time) FASMOP GENETICS PROJECT : Lucy Webster, Mark Coulson, Anja Armstrong (part time)
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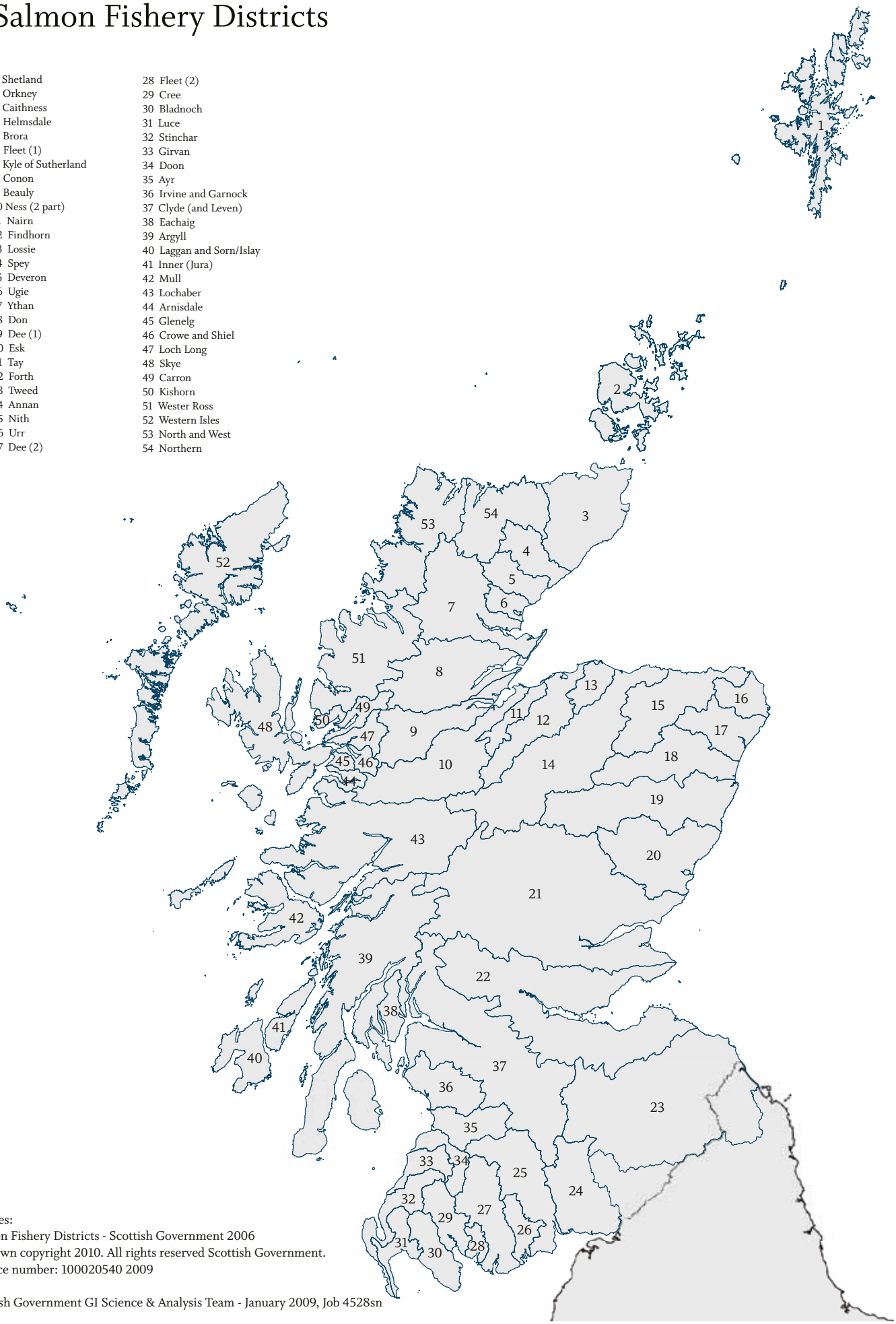
Salmon Fishery Districts

1 Shetland
2 Orkney
3 Caithness
4 Helmsdale
5 Brora
6 Fleet (1)
7 Kyle of Sutherland
8 Conon
9 Beauly
10 Ness (2 part)
11 Nairn
12 Findhorn
13 Lossie
14 Spey
15 Deveron
16 Ugie
17 Ythan
18 Don
19 Dee (1)
20 Esk
21 Tay
22 Forth
23 Tweed
24 Annan
25 Nith
26 Urr
27 Dee (2)
28 Fleet (2)
29 Cree
30 Bladnoch
31 Luce
32 Stinchar
33 Girvan
34 Doon
35 Ayr
36 Irvine and Garnock
37 Clyde (and Leven)
38 Eachaig
39 Argyll
40 Laggan and Sorn/Islay
41 Inner (Jura)
42 Mull
43 Lochaber
44 Arnisdale
45 Glenelg
46 Crowe and Shiel
47 Loch Long
48 Skye
49 Carron
50 Kishorn
51 Wester Ross
52 Western Isles
53 North and West
54 Northern



Sources:
Salmon Fishery Districts - Scottish Government 2006

Licence number: 100020540 2009

Scottish Government GI Science & Analysis Team - January 2009, Job 4528sn

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