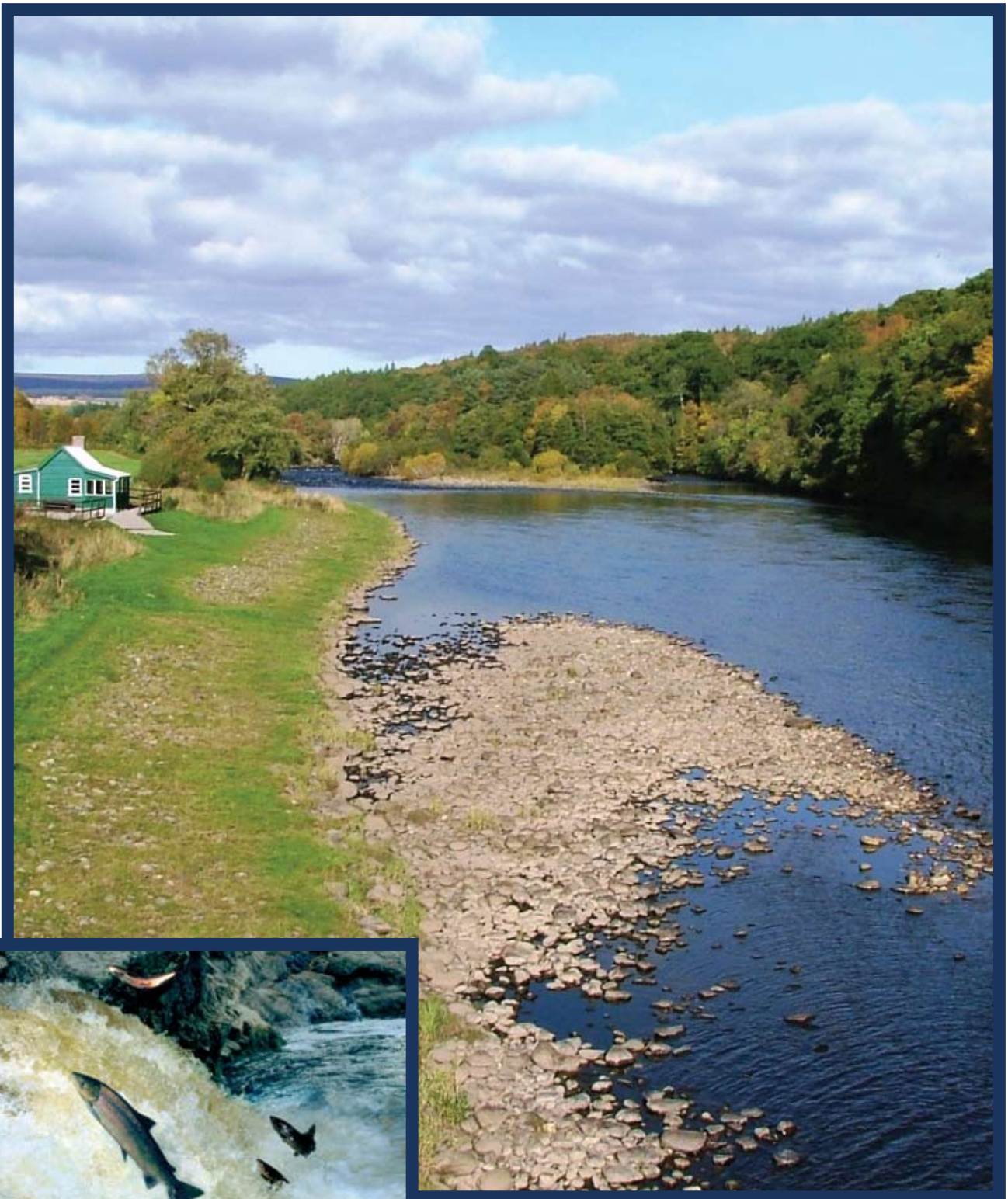
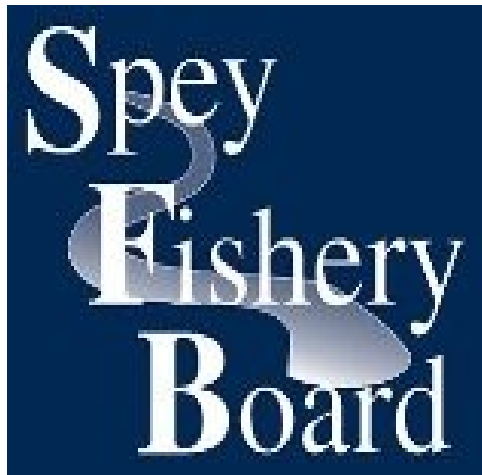


ANNUAL REPORT 2008

Spey
Fishery
Board



Cover Photo: Pitchroy Beat from Blacksboat Bridge (Photo: Roger Knight)
Inset Photo: Leaping Salmon (Photo: Ian Neale)



www.speyfisheryboard.com

ANNUAL REPORT 2008

by

Roger Knight
Director

and

Bob Laughton
Biologist

January 2009

Director & Spey Research Trust:
Spey Fishery Board Research Office
1 Nether Borlum Cottages
Knockando
Aberlour
Morayshire
AB38 7SD

Tel.: 01340 810841
Fax: 01340 810842

director@speyfisheryboard.com
research@speyfisheryboard.com

Chairman & Clerk:
c/o R. & R. Urquhart
121 High Street
Forres
Morayshire
IV36 1AB

Tel. 01309 672216
Fax. 01309 673161

clerk@speyfisheryboard.com

Contents

Page

Spey Fishery Board Members, Staff and Structure	5-6
Acknowledgements	7
Chairman's Foreword	8-9
Part 1 Statutory Remit of the Spey Fishery Board	
1.1 Constitution	10
1.2 Aquaculture & Fisheries Act 2007	10
1.3 A Fisheries Trust for the Spey	12
1.4 Strategic Framework for Scottish Freshwater Fisheries Management	12
1.5 EU Water Framework Directive	13
1.6 Core Paths	13-14
1.7 Water Abstraction	14-15
Part 2 Fisheries and Conservation	
2.1 Salmon and Grilse Catches	16-19
2.2 Sea Trout Catches	19-20
2.3 Salmon Conservation Policy	21-22
2.4 Sea Trout Conservation Policy	23-25
Part 3 Spey Catchment Management Plan	
3.1 Spey Catchment Management Plan	26
3.2 Spey Fishery Management Plan	26
3.3 Angling, Canoeing and Access	27
Part 4 Management Report	
4.1 Stock Enhancement 2008	29-30
4.2 Stocking Policy Review	31-33
4.3 Monitoring Stock Enhancement	34
4.4 Genetic Analysis Project	34-35
4.5 Obstacles to Fish Passage	36
4.6 CASS LIFE Project	36-42
4.7 Pollution Incidents - Macallan	42
4.8 Control of Ranunculus	42-43
4.9 Sawbill Ducks and Cormorants	44
4.10 Moray Firth Seal Management Plan	44-45
4.11 Fishery Protection	45-46
4.12 Administration	47
4.13 Staffing	47
Part 5 Spey Research Trust Report	
5.1 Juvenile Surveys 2008	48
5.2 Rotary Screw Trap	49-51
5.3 Salmon Go To School	52
5.4 Thermal Discharge Project	52
5.5 Contract Surveys	53
Part 6 Consultations	
6.1 Wind Farms	54
6.2 River Works	54
Part 7 Publicity	
7.1 Media Coverage	55
7.2 Briefings	56
7.3 Talks and Presentations	56
7.4 Committees	57
Part 8 Financial Summary	58-59

Spey Fishery Board

Chairman:	<i>Alan Williams</i> , Carron Fishings
Board Members:	<i>Toby Metcalfe</i> , Mandatory for Crown Estate Commissioners <i>Grenville Johnston</i> , Mandatory for Atlantic Salmon Conservation Trust <i>Major General Bernard Gordon Lennox</i> , Mandatory for Brae Water Trust <i>James Litchfield</i> , Tulchan Estate <i>Sir Edward Mountain Bt.</i> , Delfur Fishings <i>Oliver Russell</i> , Mandatory for Ballindalloch Trustees <i>Dr. Catherine Wills</i> , Knockando, Phones and Lower Pitchroy <i>Anthony Tinsley</i> , Wester Elchies Fishings
Board Co-optees:	<i>James Thomas</i> , River Spey Anglers Association <i>Grant Mortimer</i> , Strathspey Angling Improvement Association
Board Invitees:	<i>Paul Timms</i> , Scottish Natural Heritage
Clerk:	<i>William Cowie</i> , R. & R. Urquhart

Research Committee (Spey Research Trust)

Chairman:	<i>Alan Williams</i> , Carron Fishings & SFB Chairman
Members:	<i>Dr. Catherine Wills</i> , Knockando, Phones and Lower Pitchroy <i>Sir Edward Mountain Bt.</i> , Delfur Fishings <i>Peter Graham</i> , Peter Graham & Associates <i>Anthony Tinsley</i> , Wester Elchies Fishings <i>Dr. Colin Bean</i> , Scottish Natural Heritage <i>Dr. Alastair Stephen</i> , Scottish & Southern Energy <i>Ross Gardiner</i> , FRS Freshwater Laboratory <i>Roger Knight</i> , SFB Director <i>Bob Laughton</i> , SRT Biologist

Publicity Committee

Chairman:	<i>Sir Edward Mountain Bt.</i> , Delfur Fishings and SFB Board Member
Members:	<i>Alan Williams</i> , Carron Fishings and SFB Chairman <i>Roger Knight</i> , SFB Director <i>Bob Laughton</i> , SRT Biologist <i>Grenville Johnston</i> , Mandatory for Atlantic Salmon Conservation Trust <i>Malcolm Newbould</i> , Wester Elchies Fishings <i>Frank Clark</i> , Gordon Castle Estate <i>James Thomas</i> , Chair, River Spey Anglers Association and SFB Co-Optee

Spey Fishery Board Staff

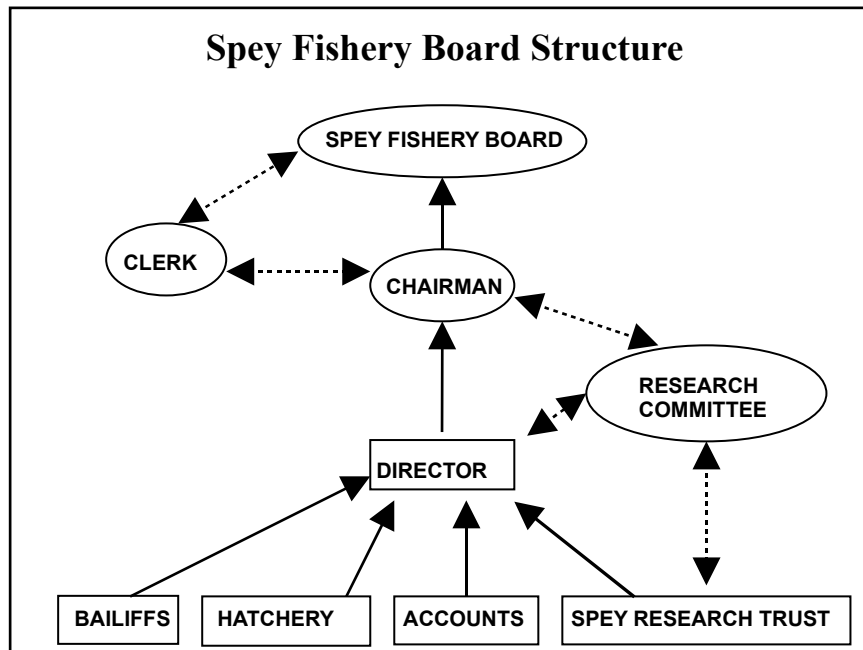
Director: Roger Knight

Accounts Manager: Alison Maxwell (Part-Time)

Hatchery Manager: Jimmy Woods
Hatchery Assistant: Alistair Grant

Head Bailiff: Duncan Ferguson
Deputy Head Bailiff: Richard Whyte
Bailiffs: Lindsay Grant
 Jason Hysert

Spey Research Trust: Robert Laughton (Biologist)
 Steve Burns (Assistant Biologist)
 Jim Reid (seasonal)
 Graeme Laughton (seasonal)
 Alan Wickham (Seasonal)
 Ryan Miele (Seasonal)
 Sean Dugan (seasonal)



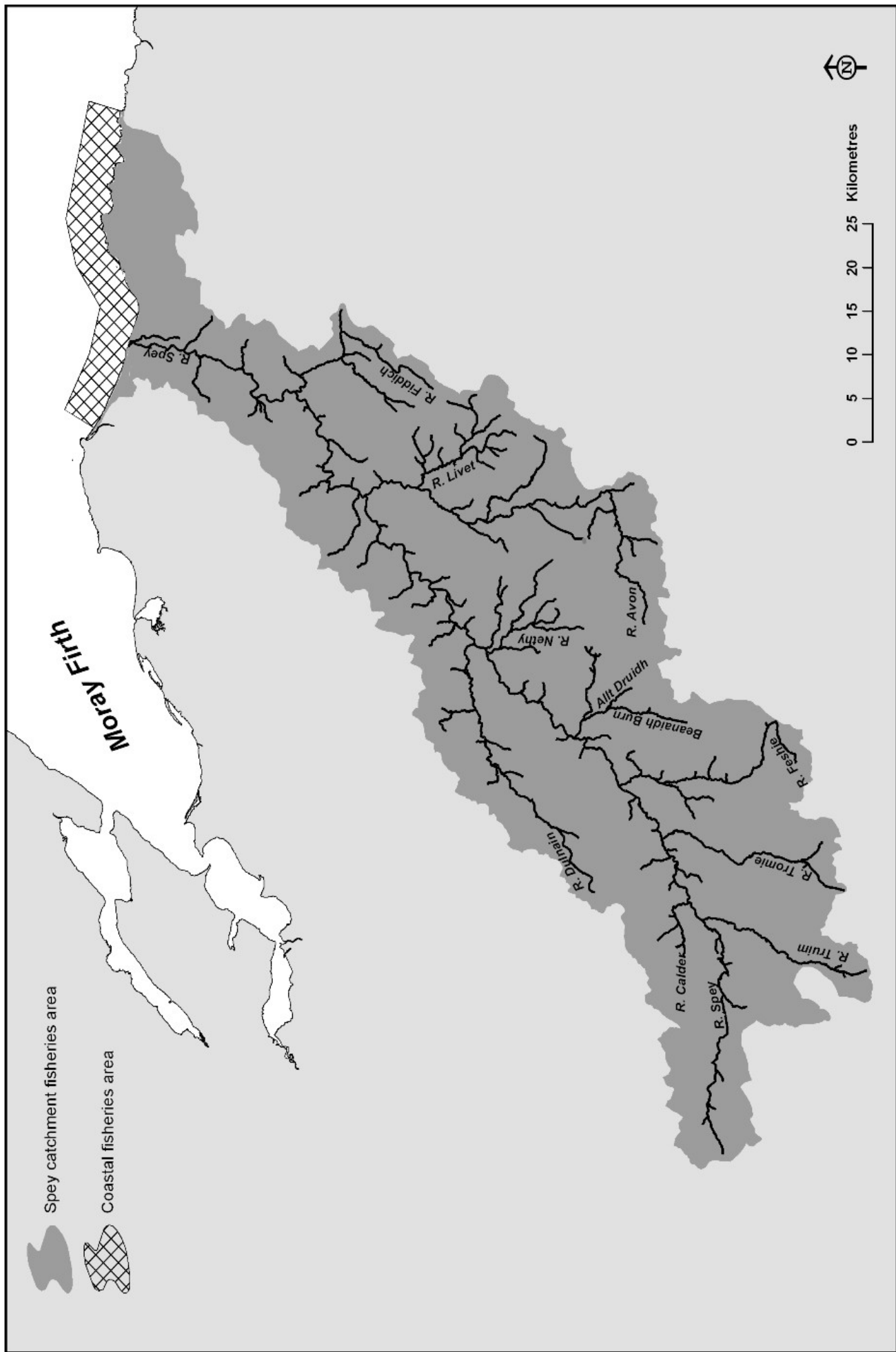


Figure 1. The River Spey catchment and Spey Fishery District

Chairman's Foreword

After a year which was so difficult in many walks of life, not just financial, it is refreshing to be able to be so positive about 2008 and the River Spey. The overall catch of Salmon was in excess of 11,500, similar to but slightly more than 2006. The trend towards a larger number of Multi Sea Winter fish as opposed to Grilse was also continued. The improving numbers of the past four seasons have now been extended into a fifth. Inevitably questions arise as to why. It is probably not as a result of any one factor, but more a combination. Catch and Release has no doubt improved the figures and our ratio of released fish has been more than two thirds since 2002. As a result we are beginning to see the progeny of those we released in earlier years returning to the River as mature fish. Our hatchery policy may also be making a contribution since it was substantially revised in 2003. We have also in the last few years been making every effort to improve habitat for juvenile fish. The pressure from Intercepting Nets has eased with the closure of the Station at Strathy Point, although some Mixed Stock Netting still impacts on fish returning to the Spey. The Marine Environment may also have become more benign, but whatever the reasons are, the Board will continue to follow the same Management Policies as before, although there will be some modifications which are explained in this Annual Report.

The picture so far as Sea Trout are concerned is somewhat different. The reduction in numbers experienced in recent years was continued. It is to be hoped that 2008 will be the low point in what may be a cyclical process. Not all the Rivers which flow in to the Moray Firth have been following a trend similar to the Spey in terms of numbers of Sea Trout which belies the conclusion that there is "an at sea problem". Brown Trout and Sea Trout are the same genetic species and it may be that Brown Trout abundance is what leads the Juvenile Trout to seek a better life at sea! Anecdotal evidence points to an improvement in Finnock numbers and the Board hopes that these will become Sea Trout in the future. Nevertheless in the face of the obvious pressure which Sea Trout are under, the Board has strengthened the recommended Sea Trout Conservation Policy. Equally it is to be hoped that the "tag" of Brown Trout as "vermin" has been consigned to history.

In my Forward to the 2007 Annual Report I mentioned the Board's position as it relates to Core Paths. This has not changed but the process which each of the three Local Authorities, the Cairngorms National Park and the Highland and Moray Councils is following continues and, amazingly, each process is different. The outcome of these processes is uncertain but the Board will continue to resist the designation of the River Spey as a Core Path.

During the year the Macallan Distillery at Easter Elchies undertook a significant development project to provide new warehouses at Overton. The site adjoins two burns that flow in to the River, the Ringorm and the Elchies. Despite the significance of this development, its proximity to the River and the fact that it was within the Special Area of Conservation, the Board were not consulted at the Planning Stage by Moray Council. The message that this omission conveys is that, in spite of the significance of the River as one of the most important for Atlantic Salmon in the world and the contribution which fishing makes to the local economy, the profile of the Board needs to be enhanced. A message which we have taken to heart. At the start of the development it was clear that the precautions which were in place to filter out silt before it entered the burns and the River were inadequate. A considerable amount of effort was made by the Board, with the Director joining the committee overseeing the activities, to hold the Scottish Environment Protection Agency and Macallan to account to ensure that the impact on the watercourses from this development was minimised. The Ringorm Burn, a significant spawning tributary, has been surveyed in the Autumn and although there is evidence of increased siltation, juvenile fish are present. The Board will continue to monitor the longer term impact.

At the time of the 2007 Annual Report a year ago the Board was awaiting the report by Professor George Fleming and Envirocentre into the current and proposed abstractions and transfers of water from the River Spey. This very comprehensive report was received in the

early part of 2008 and subsequently circulated widely to all Proprietors, Local Councils, MSPs, MPs, Scottish Natural Heritage, the Scottish Environment Protection Agency (SEPA), Scottish & Southern Energy, British Alcan and the principal water users. The report highlighted, as was expected, the substantial current impact of water use in the Upper Spey from Aviemore and above, as well as the potential for further loss of habitat and biodiversity should more water be removed. A number of meetings have been held with, amongst others, SEPA, Scottish & Southern Energy, British Alcan and a number of MSPs including the Minister for the Environment. Further meetings will no doubt result but no definite proposals for further water transfer have been forthcoming and the Board have formally objected to Scottish Water's Borehole Abstraction at Kinakyle.

The Board is anxious to progress the proposed project to genetically map the various family types of different fish populations in the Spey. By analysis of the DNA of various samples which we have been collecting from fish in the River over the last five years we hope to ascertain the different family types of fish present throughout the River, their locations and spawning range, and most importantly, their abundance and strength. A clear insight will also be gained into the success or otherwise of our hatcheries since we will have a comprehensive record of the DNA of all of our broodstock. This project will cover many of the Rivers in Scotland and will dovetail into research being carried out by the Atlantic Salmon Trust into Salmon at sea. The Spey is in an ideal position to be at the forefront of this very important research since it already has the samples to be analysed. However, the project needs considerable funding, some of which will come from the Board and we have already received support from beyond the Board, but more will be required and we are working to achieve this. From the results of this research we hope to be in a position to demonstrate the ability or otherwise of the Salmon to survive and adapt to significant changes in their habitat occasioned by man, for example either through impoundment or transfer of water.

The past couple of years have seen considerable change in the way that the Board Administration is organised. The Director is now in total control of the collection of Assessments from Proprietors and the way in which these are spent. At the same time the proportion of the Board's Turnover which arises from projects for various third parties continues to rise and the financial control of these is most important. The Board is fortunate that these financial responsibilities have been so diligently discharged.

There are more meetings of Proprietors and others on the River than used to be the case and the Spey Fishing Trust Limited, a Company owned by Proprietors, of which the Director is the Company Secretary, has proved to be an excellent forum for the interaction of Proprietorial Interests and Board Activities. Finally I would like to pay tribute to our dedicated workforce. There is a general feeling of optimism on the River Spey and that is in no small way due to the commitment of all those who work hard to achieve the goals set by the Proprietors and the Board.

Alan Williams
Chairman

Part 1

Statutory Remit of the Spey Fishery Board

1.1 Constitution

The Spey District Salmon Fishery Board (SFB) was established under the 1860s Salmon Fisheries legislation as subsequently amended and stated in the Salmon Act 1986 and the Salmon Conservation (Scotland) Act 2001. This legislation was later streamlined into the Salmon and Freshwater Fisheries (Consolidation) (Scotland) Act 2003. The SFB is empowered under the legislation to take such acts as considered expedient for the protection, enhancement and conservation of Atlantic salmon and sea trout stocks and fisheries (Table 1). The SFB is responsible for the Spey Fishery District, which includes 52 rod fisheries within the mainstem of the Spey and its tributaries. The District covers 107 miles of Mainstem River, approximately 560 miles of tributaries and 20 miles of coastline in the Moray Firth, from Lossiemouth to the west of the Spey estuary to Cowhythe Head in the east. The District extends 3 nautical miles out to sea (Fig. 1).

In 2006 the Scottish Parliament also approved The Conservation of Salmon (Collection of Statistics) (Scotland) Regulations 2006 which empower DSFBs to require any proprietor or occupier of a salmon fishery in its district to provide catch statistics relating to the number, species, description, weight, method and date of capture or capture and release of salmon and sea trout in that fishery for each calendar month. These regulations come into force with effect from 1 January 2007.

1.2 Aquaculture & Fisheries (Scotland) Act 2007

The Aquaculture & Fisheries (Scotland) Bill was passed by the Scottish Parliament on 1 March 2007 and received Royal Assent on 5 April. It has three main purposes: to provide a statutory basis for regulating previously unregulated practices in aquaculture; to enhance emergency powers for controlling *Gyrodactylus salaris* (a parasitic disease in salmon); and to make a number of miscellaneous amendments to salmon, freshwater and sea fisheries legislation. The Executive contemplated making changes to the system of managing freshwater fisheries in Scotland through this Bill, but it was not possible to develop legislative proposals in time. However, these changes are now being addressed by the Strategic Framework for Scottish Freshwater Fisheries (see section 1.4).

The Act also brought changes to constrict the introductions and transfers of fish. Whilst this legislation does not specifically affect single river hatcheries, it has resulted in the ASFB and RAFTS producing more robust guidelines for stocking which have played an integral part in the SFB's review of its stocking policy for 2009 (see section 4.2).

Table 1. Statutory responsibilities of the Spey Fishery Board

1. Provide fisheries protection;
2. Set Salmon rod fishery season (11th February – 30th September);
3. Set Sea Trout rod fishery season (15th March – 30th September);
4. Set weekly rod fishery close times (midnight Saturday – midnight Sunday);
5. Police the purchase and sale of illegally-caught or unseasonable fish;
6. Ensure fish passage over obstructions to migration;
7. Protect juvenile fish and spawning redds;
8. Regulate the movement and introduction of adults, juveniles and ova.

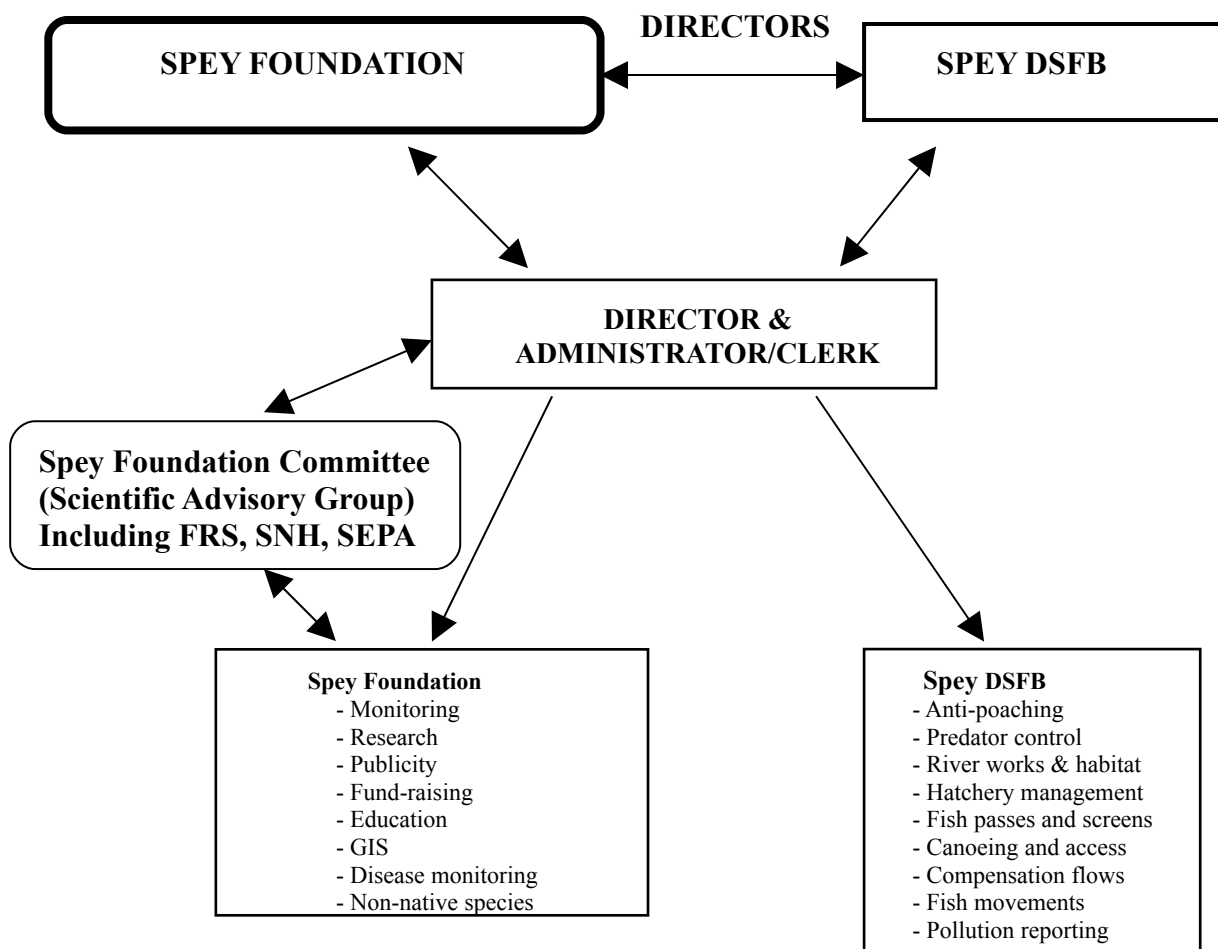


Figure 2. Proposed management and administrative framework of the Spey Foundation and the Spey Fishery Board, and their respective duties

1.3 A Fisheries Trust for the Spey

Although the Aquaculture & Fisheries Bill did not propose to change the current legal framework of District Salmon Fishery Boards (DSFBs) in Scotland, the consultation process had proposed to alter fisheries management structures in the future. Following discussions of various options via the Fisheries Forum, the Executive concluded that a catchment-based, 'unitary authority' is the favoured model. Such an authority would be locally-based, and cover all fish species within a catchment, backed up by suitable legislation.

In most parts of Scotland the process of creating such unitary bodies began with the expansion of the fisheries trust network. Although charitable bodies without statutory powers, trusts have a broad remit to monitor, conserve and promote all fish and fisheries. Rivers and Fisheries Trusts of Scotland (RAFTS) was formed in 2004 as the national coordinating body, to assist and support the establishment of trusts across all of Scotland as prototype 'unitary authorities'.

Having started to consider the establishment of a fisheries trust for the Spey catchment in 2005, the SFB has proposed to modify the existing Spey Research Trust (SRT), established in 1982 to study salmon, to work in collaboration with the SFB and the Spey Fishing Trust Limited but with a broader remit to research all fish species and the option, but not obligation, to research all aquatic wildlife. Work on this has gathered pace throughout 2008. The SRT's Research Committee reconsidered the future of the Trust at its meeting in August and in November 2008

approved a Business Plan for the evolution of the SRT in to the Spey Foundation, adopting the framework illustrated in Fig. 2. The SRT has also been altering its constitution to ensure that this transition complies with RAFTS guidelines and the requirements of the Office of the Scottish Charity Regulator.

1.4 Strategic Framework for Scottish Freshwater Fisheries

In July 2007, the Scottish Government published a draft consultative document, "A Strategic Framework for Scottish Freshwater Fisheries". This was discussed by the Freshwater Fisheries Forum at their meeting in Glasgow in November 2007. Whilst the Aquaculture Bill only had a peripheral impact on freshwater fisheries management, this Strategic Framework document sets out the present status of freshwater fisheries management in Scotland and identifies aspirations for the future, building on the concept of a unitary authority. In order to achieve these aspirations, it sets out a series of Priorities for Action, built around the Scottish Government's three pillars: economic growth; environmental conservation; and sustainability.

Both the SFB and SRT support and welcome the vision and guiding principles set out in this document. However, more work needs to be done on policy development, the future of mixed stock netting stations and the funding of the management of all fish species before it is finalised. The Board will continue to work with the ASFB and RAFTS to achieve an evolution rather than revolution in the management of Salmonid Fisheries.

1.5 EU Water Framework Directive

The European Union (EU) Water Framework Directive came into force in December 2000, and has been transposed into Scottish law through the Water Environment & Services Act 2003. Under the aegis of the Scottish Environment Protection Agency (SEPA), the Act aims to establish a process of River Basin Management Planning to achieve “good ecological status” of freshwater, groundwater and coastal water bodies. For Heavily Modified Water Bodies (e.g. those impacted by water diversion for the production of hydro electricity) such as the River Spey, the aim is to achieve “good ecological potential”, with the aspiration of achieving “good ecological status”..

SEPA divided Scotland into eight sub-basins, where catchments of similar types are grouped and managed collectively. The Spey is included in the North East sub-basin, which also includes the Rivers Deveron, Ythan, Don and Dee. The SFB is part of the North East Area Advisory Group which met several times during 2008 to contribute towards the development of an Area Management Plan, which forms part of Scotland’s first River Basin Management Plan (RBMP). The draft RBMP was submitted to Scottish Ministers on 22nd December 2008 and has gone out to public consultation for six months. Any revisions as a result of the consultation will be considered for inclusion in a revised Plan to be approved by Ministers later in 2009.

1.6 Core Paths

Under the Land Reform (Scotland) Act 2003, there is a legal right to reasonable and responsible non-motorised access to most land

and water within Scotland. This was enhanced by the Scottish Outdoor Access Code of 2005. Under this legislation, Local Authorities in Scotland are required to develop a network of Core Paths to encourage the general public to make greater use of the outdoors. Waterways as well as land can be included within this network of Core Paths.

In 2007, Moray and Highland Councils and the Cairngorms National Park Authority (CNPA) published draft consultation documents which outlined the network of paths they proposed should be included within their respective networks of Core Paths. The most contentious proposal has been to include the River Spey as a Core Path.

Moray Council subsequently proposed the designation of their canoeing access and egress points on the River Spey and the paths leading to them as Core Paths. They have also proposed that the River be a Promoted Path, on the basis that it is promoted on the Scottish Canoe Association’s website. The CNPA, however, decided in 2008 to propose the designation of the River Spey as a Core Path, as well as the canoeing access and egress points. Their decision was taken in order to justify the release of public funding for the development of access and egress points for canoeists, to develop educational resources, and because they believe their Core Path network would be insufficient if the River Spey were excluded. Highland Council, meanwhile, having conducted an initial consultation in which they followed the CNPA’s proposals, have since decided to propose the designation of only one access and egress point (at Tulchan), rather than the designation of the River itself as a Core Path.

The SFB has staunchly rebutted these proposals with concerns that designation of the River Spey as a Core Path will do nothing to enhance the species for which the Spey is designated a SAC. Indeed, such designation may well have an adverse impact upon the ecology of the River. We are also concerned that angling interests will be adversely affected, with a subsequent impact upon the local economy. All three Local Authorities have received objections to their proposals and it is likely that the proposals by each Authority will be subject to a Public Local Inquiry (PLI) in 2009 to resolve the issue. The SFB will continue to monitor the situation closely in 2009 and will take an active role in any ensuing PLI.

1.7 Water Abstraction

Water abstraction is the removal of water from the river for purposes other than hydro electric generation. The River Spey currently has 45 abstractions consented by SEPA, including major transfers out of the catchment from Spey Dam by British Alcan, from Loch An-t Seilich (River Tromie) by Scottish & Southern Energy (SSE) and at the Dipple Wellfield (by Scottish Water) near Fochabers. The SFB has been concerned for some time about the level of water abstraction and transfer from the Spey and believed that the River was currently losing 20% of its water as a result.



A substantial amount of water is abstracted by British Alcan at Spey Dam.

In September 2006, SEPA and SSE proposed to reduce the flow down the River Tromie, an important tributary of the Spey, and to provide small Compensation Flows down the Rivers Cuaich and Allt' Sluie which lead into the Truim near Dalwhinnie. This was proposed in order to meet their conflicting responsibilities of achieving "good ecological potential" under the Water Framework Directive whilst also maintaining Scotland's renewable energy policies.



The SSE Dam at Loch An-t Seilich (River Tromie).

In April 2007, Scottish Water dug exploratory boreholes south of Aviemore, an area which has been traditionally supplied by Loch Einich in the Cairngorms, in order to resolve Badenoch & Strathspey's water supply problems due to new housing developments, principally around Aviemore.

The SFB remains concerned that the cumulative impact of these new proposals, on top of the high level of water abstraction already in place, will produce lower water flows that have an adverse impact on the ecology of the River Spey and the species within it, including Atlantic Salmon and Sea Trout. Accordingly, in August 2007 the Directors of the Spey Fishing Trust Limited and the SFB voted unanimously to commission independent specialist consultants

Envirocentre to report on all water abstractions and compensation flows throughout the Spey Catchment, both those existing and those now being proposed, as well as their likely impacts upon the River.

Envirocentre produced their Report in April 2008. It showed that up to 20% of the mean annual water flow to Spey Bay was currently being abstracted and recommended that measures be put in place to maximise the management of the existing flows before any new proposals were considered. It also showed that if the new proposals were to proceed, they would equate to an abstraction 1.6 times that of the Dipple Wellfield at Fochabers (which is licensed to abstract 27 million gallons of water per day), but this time in the Upper rather than Lower River with a corresponding impact downstream. The Report was widely distributed to all Proprietors, MSPs, MPs, Scottish Natural Heritage, SEPA, Local Authorities, British Alcan, SSE and the principal water users.

The SFB has subsequently met with SEPA and (separately) SSE and British Alcan to review the findings of the Report. The SFB's Director lobbied Cabinet Secretary (and Moray MSP) Richard Lochhead MSP about the issue and the SFB's Chairman and Director were subsequently asked to present the Report to Environment Minister Mike Russell MSP at the Scottish Parliament in November 2008 and to discuss the Board's concerns.

Scottish Water have now lodged Planning Applications for their borehole development with Highland Council and a Controlled Activity Regulation Application (for water abstraction) with SEPA. All of these have received formal objections from the SFB. The Board will continue to monitor the situation closely throughout 2009.



Boreholes have been dug here at Kinakyle near Aviemore, to try to resolve Badenoch & Strathspey's water supply problems. (Photo: Roger Knight)



Water from one of the pipes at the borehole test site at Kinakyle. (Photo: Scottish Water Solutions)

Part 2

Fisheries and Conservation

2.1 Salmon and Grilse Catches

With the cooperation of all proprietors, ghillies, angling associations and hotels, an assessment of 2008 catch returns has again been possible. Rod catches saw 11,545 fish caught, higher than those of 2007 (10,043) and a slight increase on 2006 (11,378). Significantly, though, the 2008 catch has been the highest since 1994 when 12,922 fish were caught and at 11,545 for the season was almost 27% above the 10 year average (1992-2001) of 9,100 (Fig. 3).

The early part of the season produced a spring catch (between 11th February and 30th April) of 924 fish, similar to 2005 (930), but still below more recent trends (1,186 were caught in 2006 and 1,100 in 2004). However, the 2008 Spring catch has still been a healthy increase on the 10 year average (1992-2001) of 600.

A further 1,411 fish were caught in May and 2,429 in June. This brought the catch for February – June to a total of 4,764 which was a significant increase on recent years when between 3,600 and 3,800 has been the norm. Catches fell in July to 1,863, with speculation that July had become the new June as anglers

eagerly awaited the arrival of the Grilse, and then peaked in August at 3,216 before falling back in September to 1,690. (Fig. 4).



11,545 Salmon and Grilse were caught in 2008.

The detailed catch returns also allowed an assessment of catches by river reach i.e. the seasonal variations in catches relative to distance from the sea (Fig. 5). The geographical variations have tended to suggest that the lower beats (Spey Bay to Inverfiddich) are more dependent upon late summer runs, while the middle beats (Craigellachie to River Avon) and upper beats (Tulchan to Loch Insch) are more dependent upon spring and early summer fish. However, whilst Figure 5 illustrates the percentage of the catch by river reach over the last three years, many beats reported their best months during 2008 being August, closely followed by June.

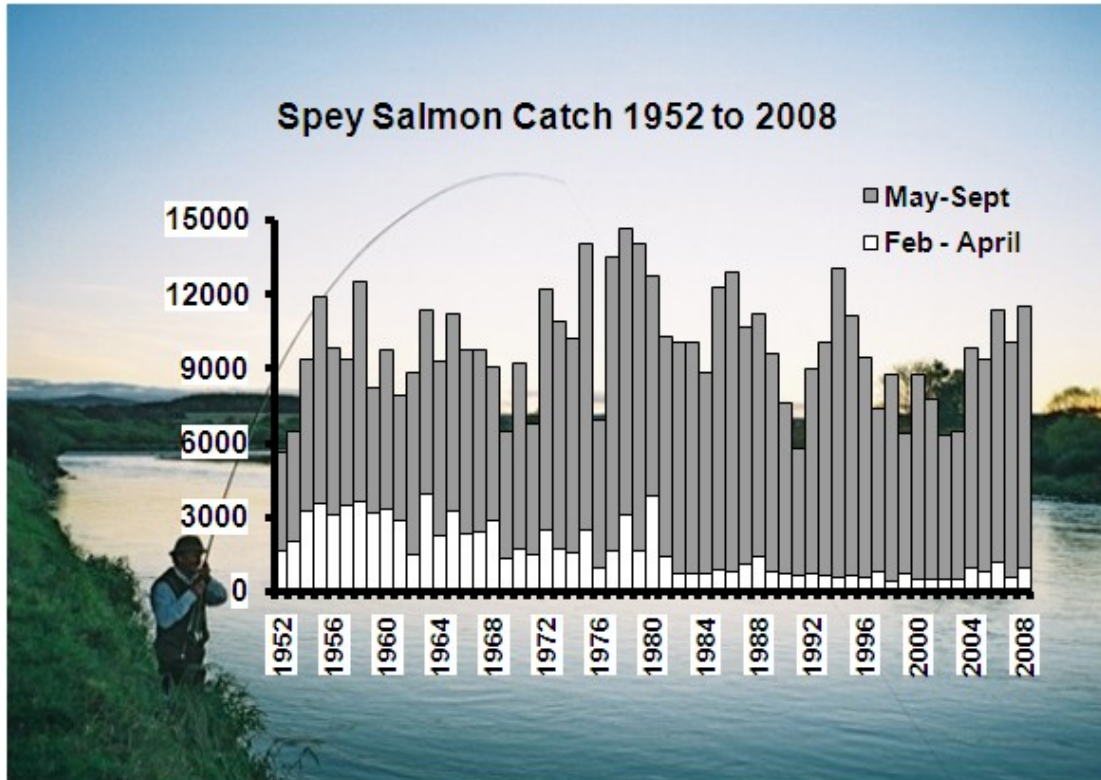


Figure 3. Annual declared rod catch of wild Salmon and Grilse from the River Spey, 1952-2008. The 2002-2008 catches are from returns made to the SFB by proprietors.

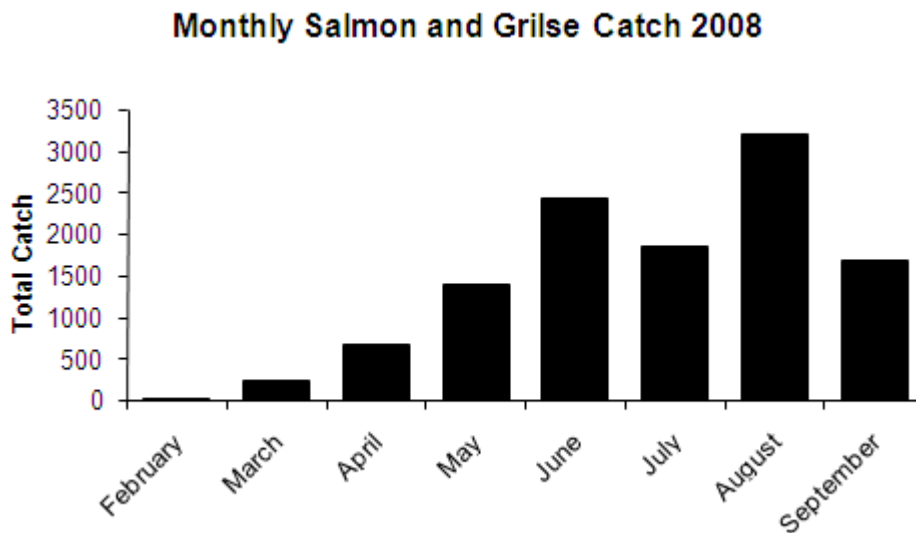
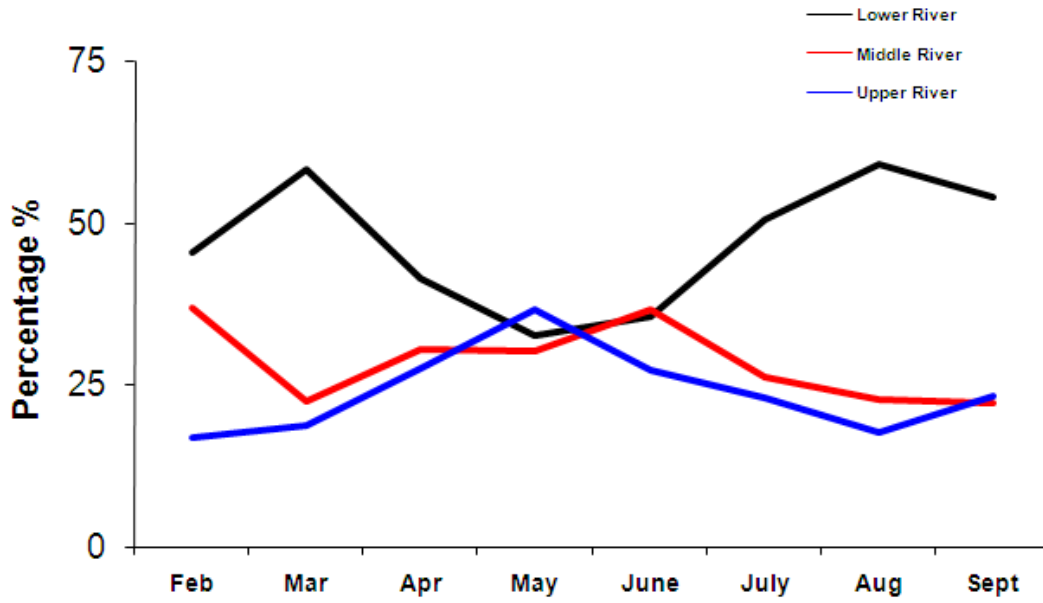
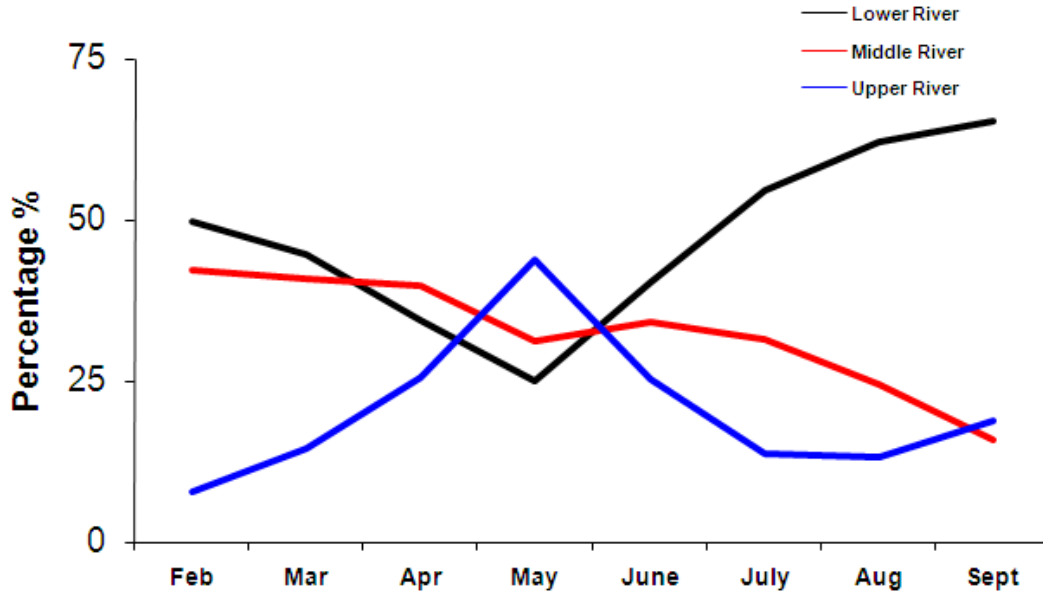


Figure 4. Declared monthly rod catch of wild Salmon and Grilse from the River Spey in 2008, calculated from returns made to the SFB.

Salmon and Grilse Catch for River Reach 2006



Salmon and Grilse Catch for River Reach 2007



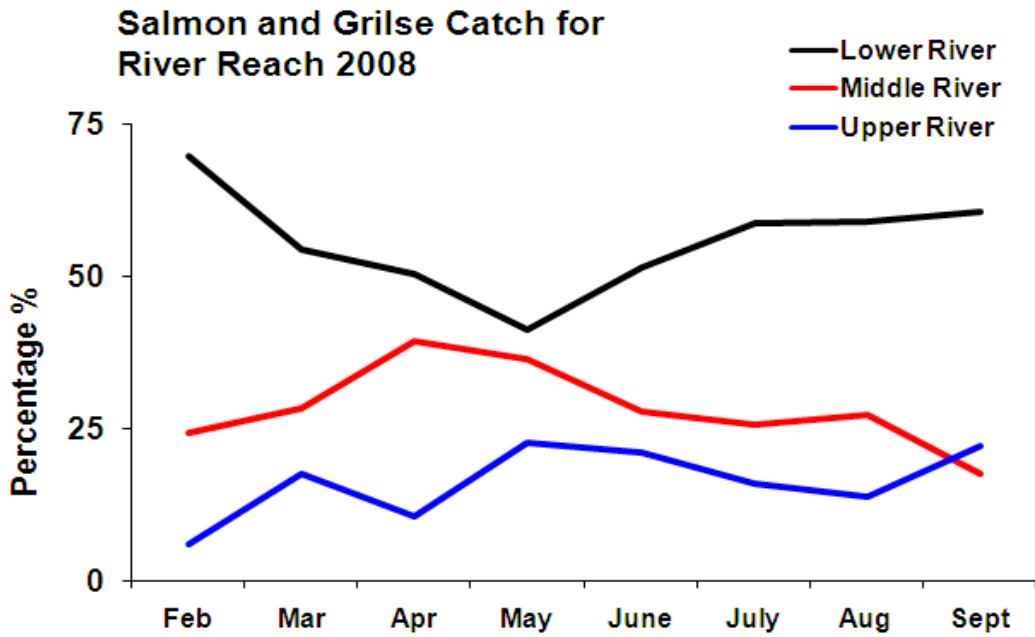


Figure 5: These three graphs (above and opposite) illustrate the declared monthly rod catch of wild Salmon and Grilse by river reach from the River Spey between 2006 and 2008, calculated from returns made to the SFB.

2.2 Sea Trout Catches

The 2008 rod catch for Sea Trout was 1,627, well below the numbers caught in recent years (2,199 in 2007, 3,286 in 2006 and 2,270 in 2005) (Fig. 6). Indeed, it was almost 65% below the 10 year average (1992-2001) of 4,590. The poor numbers of fish evident since 1997 in comparison to the 1980s and early 1990s remain a cause for concern.

As for the previous three years, monthly catches (Fig. 7) show that most Sea Trout (44%) were caught in June (715). July was again the second most prolific month, with 501 caught (31%). Overall therefore, 75% of Sea Trout were recorded in these two months.



1,627 Sea Trout were caught in 2008, almost 65% below the 10 year average (Photo: Dr James Butler)

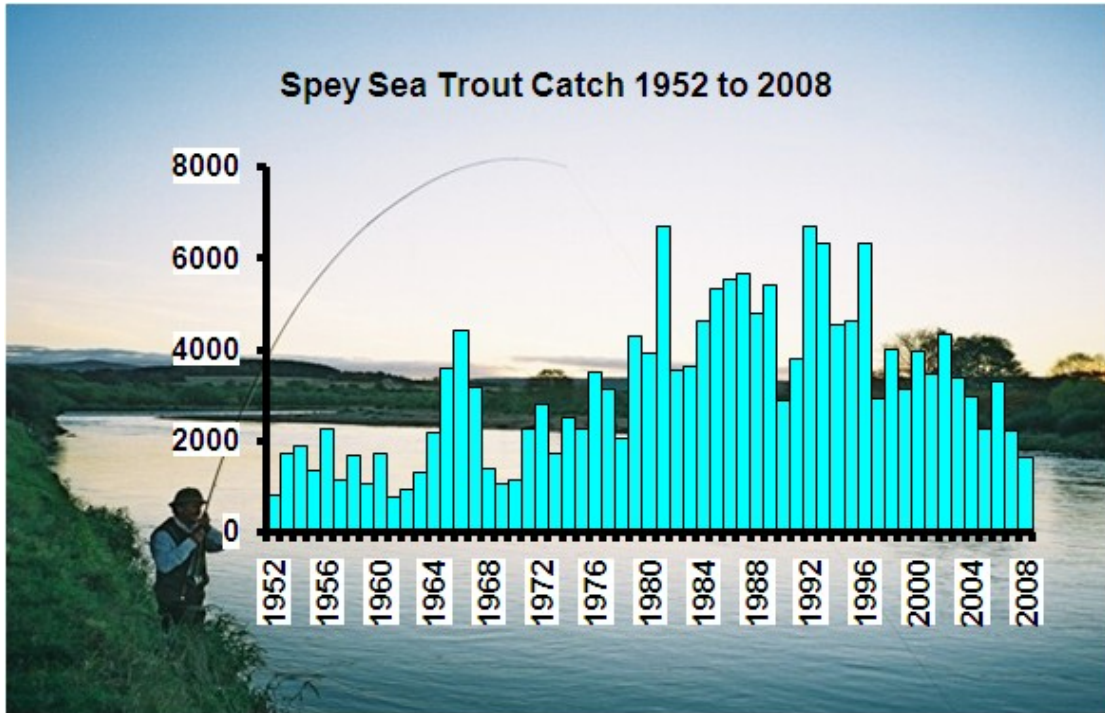


Figure 6. Annual declared rod catch of Sea Trout from the River Spey, 1952-2008. The 2002-2008 catches are from returns made to the SFB.

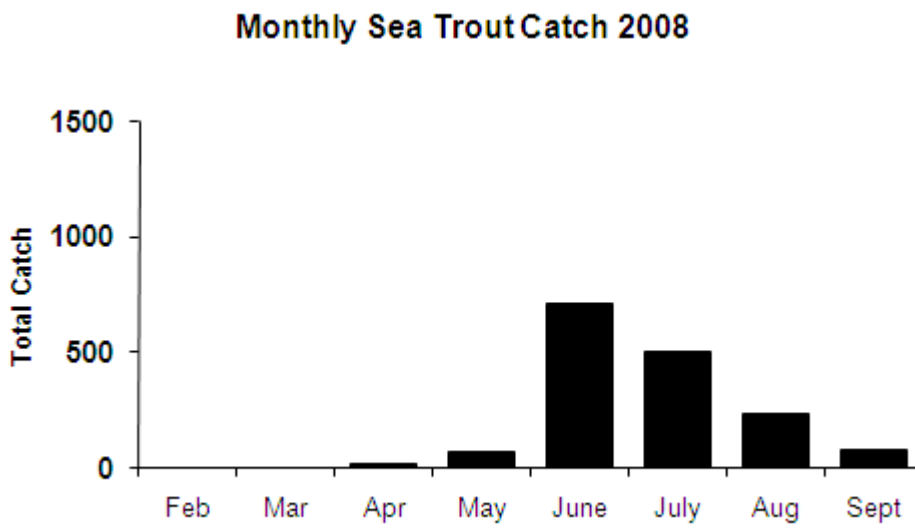


Figure 7. Declared monthly rod catch of Sea Trout from the River Spey in 2008, calculated from returns made to the SFB.

2.3 Salmon Conservation Policy

As part of its long term commitment to the protection of Salmon stocks, the SFB launched a Salmon Conservation Policy in 2003 (Table 2). The policy aimed to achieve the release of at least 50% of Salmon and Grilse, and to protect the depleted stocks of multi-sea winter Salmon in February-June. At least 70% of these fish are female, and therefore contribute an important part of the river's spawning stock. Also, studies by the SRT have shown that these fish are particularly vulnerable to capture and re-capture having been released.

Until 30th June 2008, 71% of fish caught had been released, an increase on the 69% for that period over the last two years. By the end of the season the release rate had climbed to 74%,

an increase on the 71% achieved for the preceding two years (Fig. 8). This is a highly commendable result for a large River such as the Spey and we are grateful to all proprietors, ghillies and anglers for their support for the policy. In total, 8,566 Salmon and Grilse were released to spawn in 2008.

Despite the encouraging catches between 2005 and 2008, the SFB has decided to maintain a precautionary approach, and following discussions with the Spey Research Trust, it has been decided that the current policy is working well and will be maintained for 2009.

The SFB will continue to monitor catches to ensure their accuracy.



Seafield Estates Sporting Manager Frank Law returns one of the 11,545 Salmon and Grilse caught from the River Spey in 2008 (Photo: Mrs Lisa Law)

Table 2. Details of the SFB Salmon Conservation Policy

1. Catch and release

- **Until 30th June each angler must return the 1st, 3rd, 5th etc. salmon and grilse caught;**
- **After 30th June all hen salmon and hen grilse must be released;**
- **Throughout the season all stale or gravid fish must be released;**
- **Escaped farmed salmon must be retained.**

2. Method:

- **Where possible anglers should be encouraged to fish with a fly;**
- **All hooks should be ‘pinched’ or barbless;**
- **Where spinning is allowed only one set of barbless hooks may be used on a lure.**

3. Fishing effort

- **Where possible the numbers of hours and rods fished should be limited.**
-

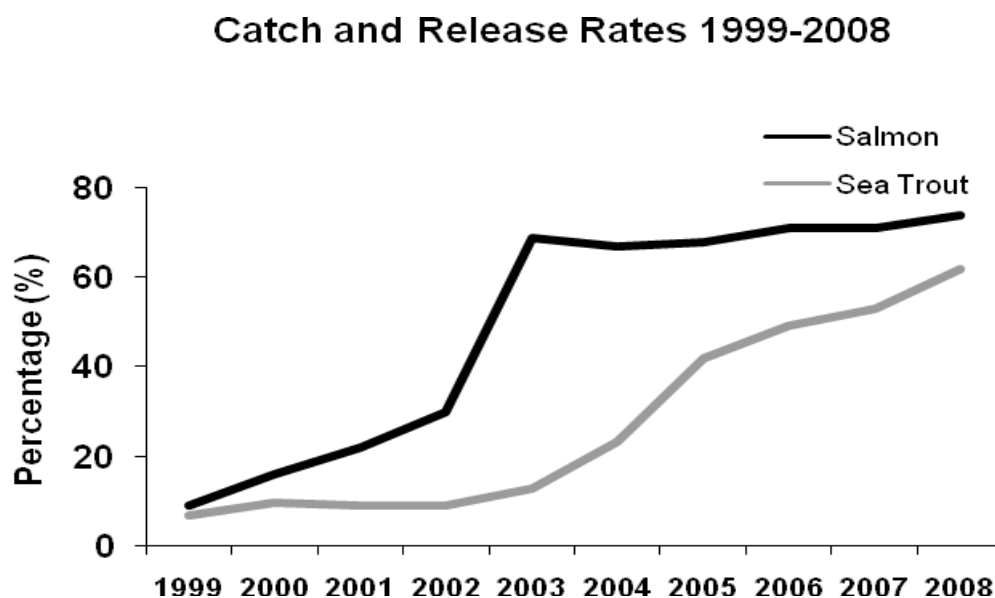


Figure 8. The proportion of rod-caught wild Salmon and Sea Trout released on the River Spey, 1996-2008

2.4 Sea Trout Conservation Policy

Under fisheries legislation Sea Trout have the same legal status as Salmon, and DSFBs are also responsible for their protection and enhancement. Sea Trout in the River Spey – and Brown Trout, which are part of the same family - are poorly understood and often overlooked. However, catch statistics show that the Spey Sea Trout rod fishery has been one of the largest in the UK, with a 10 year (1992-2001) average annual catch of 4,590. By comparison, only the Rivers Tywi and Teifi in Wales have caught more fish.

An International Sea Trout Symposium in 2004 made the following key points, which are still valid today:

- *Sea Trout are the sea-running form of Brown Trout;*
- *Sea Trout and Brown Trout interbreed;*
- *The majority of Sea Trout are female;*
- *Unlike Salmon, Sea Trout can return to spawn up to 10 times;*
- *Because of their large size, female Sea Trout provide most of the Trout eggs laid in a river;*
- *Genetic studies show that larger, longer-lived Sea Trout produce young that are also likely to grow large;*
- *Finnock are Sea Trout in their first year after leaving the river as smolts;*
- *Some Finnock enter rivers in the summer/autumn, and some of these breed;*
- *Interbreeding with stocked 'domestic' Trout may interfere with Sea Trout genetics;*
- *Sea Trout and Brown Trout should be managed jointly;*

- *Since Sea Trout are largely coastal; they are barometers of the health of the local marine environment.*

Because Sea Trout catches have not been as prolific as in the early 1990s, the SFB has maintained a precautionary approach and assumed that this trend is indicative of reduced Sea Trout abundance. While the causes of this trend are still not known, the SFB introduced a Sea Trout Conservation Policy for the Spey rod fishery in 2004. In consultation with proprietors, angling associations and the Spey ghillies, the policy was designed to encourage catch and release of Finnock and larger adult Sea Trout.

2008 saw the rate of catch and release increase to 61%, up from 53% in 2007, 49% in 2006 and 43% in 2005 (Fig. 7). In 2004 it had only been 21%. Whilst the overall upward trend is commendable, the SFB has become increasingly concerned by the fall in the numbers of Sea Trout being caught. In August 2008 the Spey Research Committee reviewed the Sea Trout Conservation Policy in light of the reduced catch and recommended to the Board that the Policy be enhanced. These recommendations were unanimously supported by the Board and a revised Sea Trout Conservation Policy has been adopted for 2009 (Table 3).

The SFB has continued to work hard throughout 2008 to promote a better understanding of the policy and the reasons for the changes, in order to encourage the continued compliance from all. The aim has been to explain that Sea Trout numbers

continue to be in decline and, whilst we have sport today, this might not be the case in the future unless active participation in the voluntary conservation measures remain. The SFB will continue to monitor the situation throughout 2009. The life cycle of the Sea Trout is illustrated in Figure 9.

The decline in Sea Trout numbers in recent years has been reflected in the numbers from most rivers throughout the Moray Firth and widespread concern about this has led to the

formulation of a research project to identify the reasons behind it. A Project Officer (Marcus Walters) was recruited in March 2008 for three years to conduct research around all rivers throughout the Moray Firth, examining possible reasons behind the decline and formulating management plans to try to redress the situation. The SFB and SRT are both providing financial support for the project and will continue to work closely with other DSFBs within the region throughout the year.

Figure 9: The Life Cycle of Sea Trout

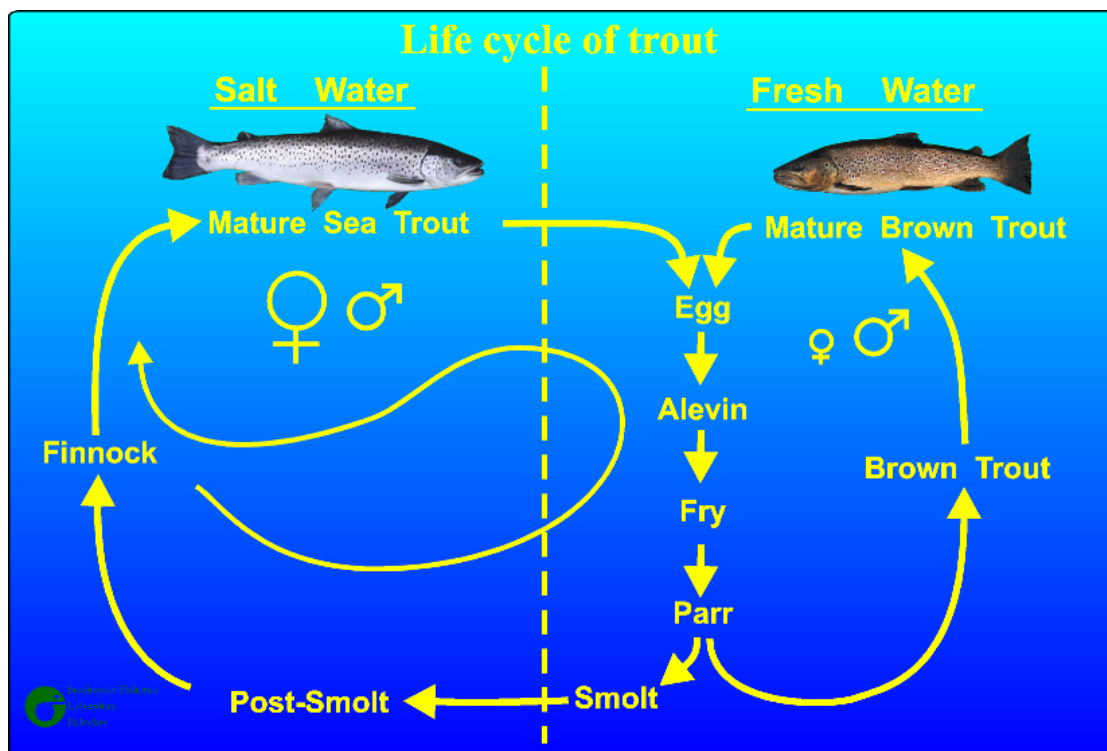


Table 3. Details of the Revised SFB Sea Trout Conservation Policy

1. Finnock:	Release all fish of 16 oz. / 35 cm / 14” or less
2. Sea Trout:	Release all fish of 3 lb. / 50 cm / 20” or more
3. Bag Limit:	1 Sea Trout of takeable size per calendar day. Anglers are also encouraged to release their first fish and take the second of takeable size.
4. Unseasonable Fish:	Release all unseasonable fish.

Part 3

Spey Catchment & Fishery Management Plans

3.1 Spey Catchment Management Plan

Although funding for this collaborative project with Scottish Natural Heritage (SNH), SEPA, and Moray and Highland Councils was exhausted in October 2004, the SFB has continued to pursue initiatives raised by the Management Plan throughout 2008. The publication of the Envirocentre Report on River Spey Abstractions also prompted the Spey Board to promote a reassessment of the Plan by those who had instigated it five years previously. SNH chaired a meeting in September 2008 to discuss how this might be achieved and it was concluded that a further meeting would be held to analyse progress made so far and to identify possible ways to take the Plan further forward. The Board looks forward to further progress with this initiative during 2009.

3.2 Spey Fishery Management Plan

During 2008 the Spey Research Trust received funding from the Scottish Government via the Rivers and Fisheries Trust Scotland (RAFTS) to review all existing fisheries research and management within the Spey catchment. An inventory was prepared and is available as Spey Research Report 01/08 (Redgewell and Laughton, 2008). This document and funding also provided the springboard to prepare an updated Fishery Research and Management Plan for the Spey.

The Plan provides a framework within which the Spey Fishery Board can identify target

areas for research and apply specific funding. It builds on previously developed Plans and policies (Spey Fishery Board 1993 and 1998, Spey Catchment Steering Group 2003).

The fish and their habitats are affected by many factors and so an integrated catchment management approach is desirable for their effective management. This approach was fully embraced in 2003 with the publication of the first Spey Catchment Management Plan (Spey Catchment Steering Group, 2003). This ambitious document provided the backdrop for much of the Board's research and management efforts in the last few years. This Plan does not seek to review or replace the Spey Catchment Management Plan, but focuses on more specific issues directly relating to the management of the Spey fish stocks. It also recognises and incorporates new requirements and commitments developed from the Water Framework Directive (WFD), the Strategic Framework for Scottish Freshwater Fisheries (Scottish Government 2008) and more local plans such as the Cairngorms National Park Plan (CNPA 2007).



*An angler and Ghillie at Delfur, River Spey.
(Photo: Roger Knight)*

The Spey is designated as a Special Area of Conservation (SAC) for Salmon, Sea Lamprey, Otters and Freshwater Pearl Mussels and so the responsibility for its management involves a range of bodies. This Plan seeks to highlight key areas of responsibility for the Spey Fishery Board and Spey Research Trust. It does not take away current management responsibilities from existing organisations. However, it does seek to encourage close liaison and build on the already good working relationships that exist. Copies of the plan are freely available in 'pdf' format from the Research Office.

3.3 Angling, Canoeing and Access

A major issue highlighted by the economic survey commissioned by the Spey Catchment Management Plan was the potential conflict between angling and canoeing. This situation has been complicated by the introduction of the Land Reform (Scotland) Act 2003 and the launch of the Scottish Outdoor Access Code in 2005. The Code encourages reasonable and responsible non-motorised access to rivers and river banks, and is being promoted within the Spey catchment by the Moray Council, Highland Council, SNH and the Cairngorms National Park Authority.

In 2008 there was an escalation in problems between fisheries and canoeing interests on the River Spey, with more incidents reported to the SFB in the first half of the year than had been reported in the whole of 2007. Most of the problems occurred between the Ballindalloch and Knockando areas of the River, where white water rafting has continued to become more popular. To aid the resolution of these

issues, the SFB, Spey Fishing Trust Limited and Scottish Canoe Association held the now annual meeting of the Spey Users' Group on 8th December 2008 at the Ben Mhor Hotel in Grantown on Spey. The meeting was held under the auspices of and chaired by the Cairngorms National Park Authority.

The main concern amongst ghillies and anglers has been the continued year-on-year rise in the numbers of paddlers on the river, particularly between the Tulchan and Craigellachie beats. During the meeting the SFB called for the introduction of an identification system for paddlers, so that the minority responsible for causing problems could be identified for follow-up action and this was readily accepted by the commercial element of the paddling fraternity that were present at the meeting.



Canoeist at Tulchan, River Spey. (Photo: Gordon Blackmore)

Part 4

Management Report

4.1 Stock Enhancement 2008

On the basis of advice from the Research Committee, which includes representatives of Fisheries Research Services (FRS) and SNH, the SFB introduced a Stock Enhancement Policy in 2003 (Table 4). The Policy aims to boost natural smolt output from the Spey by targeting areas above man-made obstacles and natural obstacles, and also accessible areas proven to be under-stocked.

As part of the Geographical Information System (GIS) Project in 2000, the SRT identified the majority of man-made and natural obstacles within the Spey catchment. The area above obstructions, assuming the instream habitat is suitable, provided good opportunities for supplementing the Spey's stocks using hatchery reared salmon from suitable sources. The area of habitat above man-made obstructions was estimated to be 878,000 m², and the area above natural obstructions was estimated at 200,000 m², giving a total of 1,078,000 m². Planting juvenile salmon at a density of approximately 2 fry/m², meant that a target of 2.2 million fry was required to fully stock these areas (Table 5).

The SFB's Sandbank Hatchery has a capacity of 1.2 million eggs. The hatchery at Tulchan Estate has a capacity of 600,000, which is run at Tulchan's expense, but under the supervision of the SFB and until 2006, additional space at the Alvie Hatchery, Kincaig was also utilized.

Salmon and Sea Trout broodstock from selected locations collected in Autumn 2007 and successfully reared in the Sandbank and Tulchan Hatcheries over the winter. The resulting fed fry from the Salmon broodstock were planted out between June and July 2008 at various locations as detailed in Table 8 and the unfed fry from the Sea Trout were released in April 2008 (Table 9). As far as possible, juvenile fish were again planted into the same areas of the catchment that their parents had originated from, to ensure optimal survival.



The SFB's Hatchery at Sandbank (Photo: Roger Knight)

Table 4. SFB Stocking Enhancement Policy from 2003

1. Stock areas accessible to salmon and sea trout proven to be under-populated;
 2. Stock inaccessible areas above man-made obstructions;
 3. Stock inaccessible areas above natural obstructions;
 4. Use only wild broodstock from the Spey catchment;
 5. Take broodstock from close to target stocking areas, to maintain local adaptations and ensure optimal survival of stocked juveniles;
 6. Stock eggs, fry or autumn parr subject to ease of access;
 7. Monitor stocking success with juvenile surveys and DNA screening of returning adults.
-

Table 7. SFB Salmon* Stocking Enhancement Policy From 2009

1. Broodstock capture from as close as possible to the target stocking area.
 2. Target areas above man-made obstructions.
 3. Target accessible areas where salmon are absent and habitat is suitable.
 4. Continue tissue sampling from all broodstock
 5. Salmon to generally be raised to fed fry
 6. Eyed ova used if vehicle access is problematic
 7. Fed fry - Released from June to August
 8. Eyed ova - Released from Feb to March
 9. Improve post stocking monitoring using EF and/RST
 10. Re-structure existing Electro-Fishing surveys to improve juvenile salmon distribution data.
-
- **N.B. No Sea Trout.**

Table 5: Former Area Available for Stocking Salmon on the River Spey.

	Area (m ²)	No of Salmon fry @ 2 per m ²
Above Natural Obstruction	200,000	400,000
Above Man-made Obstructions	878,000	1,756,000
		2.156,000

Table 6: Revised Area Available for Stocking Salmon on the River Spey from 2009.

	Area (m ²)	No of Salmon fry @ 2 per m ²
Areas above Man-made Obstructions plus accessible but under-used habitat	600,000	1,200,000

4.2 Stocking Policy Review

Five years on from its introduction, 2008 saw the Research Committee conduct a review of our Stock Enhancement Policy. In practical terms, some proposed stocking areas have been difficult to access by vehicle and areas of poor habitat, or areas where salmon survival had been poor, have been more clearly identified. In particular, some of the upper tributaries, particularly the Tromie and the Truim, had caused concerns that the removal of broodstock from what appeared to be diminished numbers of fish could be having a detrimental effect on natural spawning. The review resulted in these areas being removed from our list of target areas for stocking from 2009. Furthermore, the CASS LIFE project and Northern Periphery Project have resulted in a number of man-made obstacles being opened-up and these have also been removed from our stocking programme because adult

fish are now able to access these areas to spawn naturally.

More recently electro-fishing surveys have also identified areas upstream of the natural reach of fish that contain good salmon habitat, in particular in the upper Livet, Avon, and Conglass. Further surveys to examine other tributaries are planned for 2009. Crucially, though, electro-fishing surveys over the last few years have shown that some areas that have been substantially stocked in the past have been unable to sustain the populations that were being introduced. This, in particular, led to a reassessment of the numbers of fry that we were rearing in our hatcheries.

The SFB has also had to take heed of the new legislation regarding the introductions and transfers of fish (the Aquaculture and Fisheries Act 2007). This has restricted fish

introductions and transfers and although single river Salmon hatcheries and stocking are not specifically covered in this legislation, the ASFB and RAFTS have produced more robust guidelines for Salmon stocking. These have been supported by the recent publication of a Fisheries Research Services report, "Hatcheries and Stocking Guidance" (Youngson, 2007), as well as other scientific guidance. This guidance, reinforced by advice from scientists on the Spey Research Committee, also suggested that Sea Trout stocking was not successful. Despite the fall in numbers of Sea Trout, scientists have recommended that Sea Trout stocks are better left to recover naturally. The SFB has therefore concluded that it would not stock Sea Trout as a result.

All of the above has led to a revised policy for Salmon stocking being developed. In general the areas above natural obstacles such as waterfalls have been dropped, since the introduction of Salmon could be disruptive to native Trout stocks and a revised estimate of the area available has been calculated. This is presented in Table 6 and the revised Stock Enhancement Policy is illustrated in Table 7.

In October 2008, the collection of broodstock was sufficient to meet the revised guideline. It was once again made highly efficient due to the use of the electro-net and associated equipment. With the assistance of Delagyle Ghillie Willie Mearns and help from the Delfur Ghillies, broodstock were collected from the revised target areas below the confluence of the Rivers Dulnain and the Spey. The electro-net was used to great effect on the tributaries, whilst the main stem river again saw the

bailiffs employing the more traditional rod and line. This is because the size of the River Spey (particularly during periods of high water levels) does not lend itself to electro-netting, not least for health and safety reasons.

The SFB was also contracted again to assist the Deveron DSFB in the collection of its broodstock.



The collection of broodstock was again made highly efficient due to use of the electro-net. (Photo: Jimmy Mitchell).



Delfur Head Ghillie Mark Melville with another fine Cock Salmon for the hatchery broodstock.

Table 8: Stocking locations for Salmon Fry during 2008.

Broodstock source	Stocking site	Access	Quantity	Fish type	Month
Truim	Truim	River from confluence of Allt Coire Fahr u/s	80,000	Fed fry	June
Feshie	Feshie	Upper Reaches	75,000	Fed fry	June
River Avon	Burn of Brown	Partly Inaccessible above falls	100,000	Fed Fry	June
River Avon	Burn of Brown	Partly Inaccessible above falls	200,000	Fed fry	June
River Avon	Burn of Brown	Partly Inaccessible above falls	100,000	Fed fry	June
River Avon	Findouran Lodge	Accessible	200,000	Fed fry	June
River Livet	Upper Livet	Accessible	100,000	Fed fry	July
River Livet	Glen Livet Hall	Accessible	100,000	Fed fry	July
River Blye	Upper reaches	Accessible	100,000	Fed fry	July
River Conglass	Upper reaches	Accessible	100,000	Fed fry	July
River Dulnain	Allt na Moireach, R. Dulnain	Inaccessible above falls	25,000	Fed fry	July
River Dulnain	Allt Ghiuthais, R. Dulnain	Inaccessible above falls	25,000	Fed fry	June
River Dulnain	Caochan na Gaibhre, R. Dulnain	Inaccessible above falls	25,000	Fed fry	June
River Dulnain	Allt an Tudair, R. Dulnain	Inaccessible above falls	30,000	Fed fry	June
Tulchan, mainstem	Burn of Coire Seileach	Inaccessible above falls	10,000	Fed fry	July
Tulchan, mainstem	Glenmore Burn	Inaccessible above falls	10,000	Fed fry	July
Tulchan, mainstem	Allt Eoghainn	Inaccessible above man-made obstacle	10,000	Fed fry	July
Spey Mainstem	Spey Dam	Accessible above Dam	270,000	Fed fry	June
Total salmon			1,560,000		

Table 9: Sea Trout Stocking 2008

Broodstock source	Stocking site	Access	Quantity	Fish type	Month
Avon	Upper Conglass		15,000	Un-Fed Fry	April
Avon	Tommor Burn, R. Avon	From culvert on B9008	10,000	Un-Fed Fry	April
Avon	Allt Loin Beag	From Irish Bridge culvert	25,000	Un-Fed Fry	April
Avon	Allt na Cabar, Conglass Water	From culvert at Blairnamarrow on A939	10,000	Un-Fed Fry	April
Avon	Glenmullie Burn, Conglass Water	From forestry culvert u/s	5,000	Un-Fed Fry	April
Avon	Chabet Water, R. Avon	From road culvert at Ballcorach u/s	35,000	Un-Fed Fry	April
Total Sea Trout			100,000		

4.3 Monitoring the Stock Enhancement

The aim of the Stock Enhancement Policy is to boost the natural smolt output from the Spey catchment, and hence adult returns. In turn, extra fish may be caught in the rod fishery, and additional spawners may be present within the accessible area each autumn. Between 2000 and 2006, the numbers of juvenile salmon stocked into the river increased from approximately 750,000 to 2.2 million. In 2007 and 2008 this was revised to 1.8 million. However, it is important to quantify whether this policy is yielding extra smolts and returning adults.

4.4 Genetic Analysis Project

Pressure by mankind on the ecology of the River Spey continues to increase. In the past we have seen major infrastructure projects such as Spey Dam, the diversion of water from the Truim and the Tromie to the Tay catchment to make hydro-electricity and the development of the Dipple Wellfield near Fochabers to provide water for Elgin and the surrounding area. Today the demands for water are increasing all the time with population growth; the emergence of Aviemore as a major tourist resort is but one example. The River Spey currently faces two threats of increased water abstraction and diversion; more are likely to follow.

An increasing number of behavioural and genetic studies have shown that the Atlantic Salmon is structured into multiple, distinct breeding populations. The evidence shows that Salmon in different river systems belong to different breeding populations and stocks in all but the smallest rivers can generally be

expected to contain many breeding populations which are reproductively and genetically distinct. In practical terms, the Spey will have a Salmon population that is distinct from that of other Scottish Rivers and within the Spey, tributaries such as the Fiddich, Avon and Tromie etc will each hold distinct sub-populations.

Breeding populations are the fundamental units underpinning recruitment and defining the character of a river's salmon stock. It is therefore essential to understand a river's population structure for the development of effective stock conservation and management plans. Identifying breeding populations can be achieved by the analysis of heritable variation in the DNA of Salmon. Genetic variations in human beings are used to determine paternity or identify criminals with crimes they have committed. These techniques can also be used to investigate population structuring in Atlantic Salmon stocks as each Atlantic Salmon has a unique combination of genetic variants by which it and its offspring can be identified.

If the Spey Board and its Proprietors are to fulfil its primary objective of conserving, protecting and enhancing *Salmo Salar* and *Salmo Trutta*, it needs to be in a position to illustrate what impact any particular new project will have on the population of fish. Without the ability to identify different fish populations, their individual distinct habitat and their relative strengths or weaknesses, we will not be able to illustrate the impact that further incursions by mankind into the Natural World will have. Pin-pointing the different fish families is fundamental to a new and accurate plan for the Management of Fish Populations in the Spey Catchment. This logical and crucial

next step in our fisheries management planning will also allow us to identify whether or not our hatchery operations are an appropriate way of enhancing the fish population within the River Spey catchment, without compromising the conservation of natural stocks.

Throughout 2008, fish tissue samples were again taken from all broodstock stripped. We have continued to work with RAFTS and the FRS regarding the establishment of a Genetic Analysis Project (Focusing Atlantic Salmon Management on Populations – FASMOP) to analyse these samples and the SFB has been at

the forefront of establishing a steering group to enable this. With sufficient funding now in place to begin the Project, partly but not significantly supported by grants to all fishery Trusts from the Scottish Government, the recruitment of two genetics scientists began at the end of 2008. It is anticipated that these personnel will be in place to begin work in April 2009 and an initial, interim report on their findings will be due fifteen months later. However, this Project will be expensive and time-consuming to undertake and we may not know the full results for several years.



SRT Assistant Biologists Steve Burns and Jim Reid collect tissue samples from broodstock at Sandbank Hatchery.

4.5 Obstacles to Fish Passage

The process of identifying man-made obstructions to fish passage found a total of 109 obstacles. These have ranged from road culverts to hydro-electric dams. If removed, the riverine area accessible to Salmon and Sea Trout would be increased by 10%.

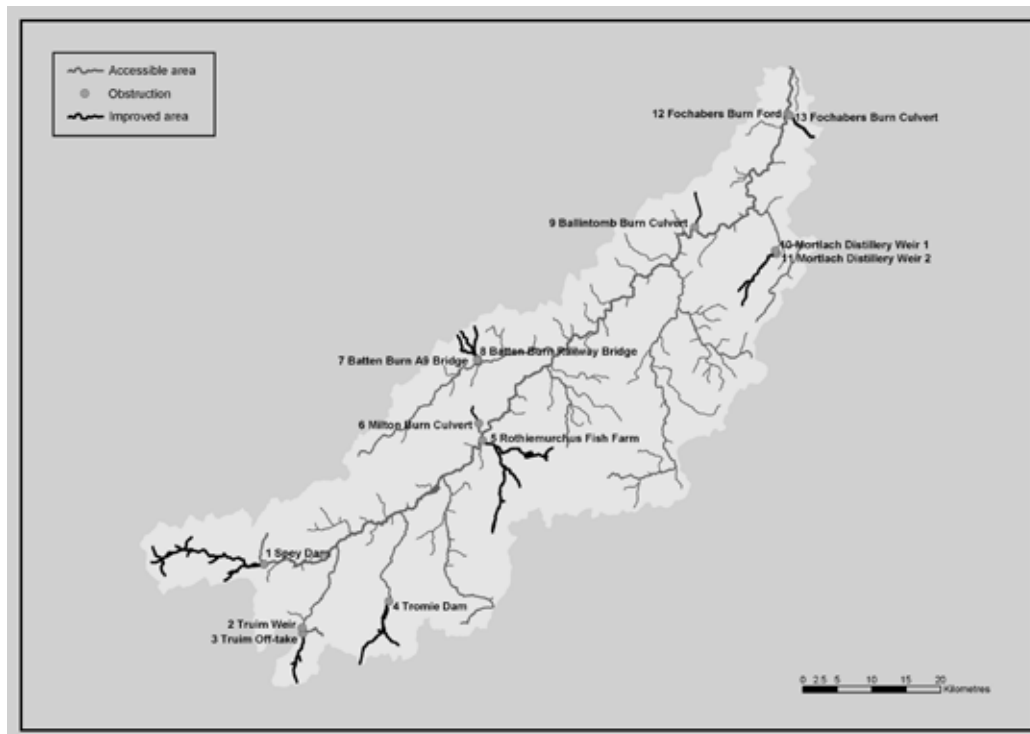


Figure 10: Map of the Spey Catchment showing the 13 major man-made obstacles identified in 2004 for removal or mitigation under the CASS Life Project.



4.6 CASS LIFE Project

The process of removing or mitigating these obstacles continued throughout 2008 with the EU LIFE Project, 'Conservation of Atlantic Salmon in Scotland (CASS)'. Because the Spey is a Special Area of Conservation (SAC), the SFB has been eligible for funding through the EU LIFE nature scheme. LIFE funding is targeted at improving the physical status of an SAC, while also supporting research and public awareness projects. In 2003 the Association of Salmon Fishery Boards and SNH coordinated a £3.5 million bid by the Spey and other salmon SACs including the Oykel, Moriston, Dee, South Esk, Tay, Teith, Tweed, Bladnoch and Endrick. The bid was approved by the European Commission in August 2004 and the four-year project was concluded in July 2008.

The SFB's component of the CASS LIFE Project focussed on removing or mitigating 13 major man-made obstacles to fish passage (Fig. 10). To improve monitoring of Salmon stocks, a fish counter was installed in a fish pass on the River Dullan in 2007. Another two were installed during 2008, one on the River Truim and one at Spey Dam. The Spey programme also included a public awareness component, which focussed on the extension of the SRT's Salmon Go To School programme, and demonstration site visits. The success of these educational programmes has ensured that they will continue throughout 2009.

The total value of the work on the Spey was £573,274, of which 64% was sourced from LIFE and SNH. The SFB provided support for project management, the running of fish counters, juvenile surveys, and stocking above the obstacles. Project management was assisted by officers employed by SNH. During 2008 works were completed on the following projects:

1. Spey Dam Smolt Trap & VAKI Fish Counter: In collaboration with British Alcan Smelters, the original smolt trap used for monitoring smolt runs through Spey Dam was replaced in 2005 by a modern, light-weight version. Improved data on smolt passage through the Dam has been gained from 2006 onwards. The VAKI counter for Spey Dam was installed during 2008. However, problems with water turbulence are currently hampering fish counting within the ladder and further work is planned to address this.



The fish pass at Spey Dam was modified to accommodate a VAKI fish counter in 2008. (Photos: Bob Laughton).

The CASS LIFE project also provided an opportunity to analyse historical records from Spey Dam. These indicate that Salmon stocks above Spey Dam have always been patchy and in the late 1990s the smolt trap recorded a worrying decline in the smolt output from the Dam with numbers falling to below 100. The area of suitable habitat available above the Dam and the number of Salmon fry that could be released into it were calculated and, as part of the CASS LIFE project, suitable Salmon stock from the upper river were raised in Tulchan hatchery and stocked as fed fry above Spey Dam from 2004 onwards. The amount of Salmon fry required was initially estimated at approx 250,000 and the hatchery has reared between 150,000 and 270,000 between 2004 and 2008 (Table 10). The Salmon fry are fed at the hatchery, typically for a period of 2-3 months, before being stocked above the Dam.

The smolts that result are captured in a trap below the Dam each year and initial age studies indicate the majority are 2 (83%) or 3 (17%) years old. So for example the 2yr smolts from 2005 fed fry would be captured in 2007 and the 3yr olds in 2008. Trap data from 2007 indicated that 4619 smolts were captured and so at 83%, 3834 would have been 2yr olds from the 2005 stocking. Similarly trap data from 2008 indicated that 1617 smolts were captured, so at 17%, 275 of those would have been 3yr olds from the 2005 stocking. The survival rate is calculated by dividing the smolt output by fed fry input and Table 10 indicates a generally low survival from fed fry to smolt, which is similar to findings in other studies.

Table 10: Numbers of fed salmon fry stocked above Spey Dam, smolt output and smolt survival (%).

Year	Salmon Fed Fry	Smolt output	Survival (%)
2003	0	969	
2004	150000	4369	2.9
2005	290000	4109	1.4
2006	290000	1342	0.5
2007	160000		
2008	270000		

Although the stocking approach to Spey Dam was reconsidered in 2004, the area has been stocked on a number of occasions during the period between 1972 and 2008. In particular extensive stocking was carried out in the 1970s and the 2000s. Some small-scale stocking was carried out during the 1980s and 1990s, although accurate records for this are not available. Figures 11 and 12 summarise the stocking results. Figure 11 indicates that a range of salmon stocking densities have been used from between 40,000 up to 670,000 and that there appears to be an optimum level for stocking the area above Spey Dam. This appears to be around 200,000 Salmon fry. When higher stocking densities are used the smolt output does not appear to increase significantly, whilst lower stocking densities have resulted in fewer smolts descending. Figure 12 confirms this and shows that above 200,000 Salmon fry survival drops, leading to poorer smolt output. As a result, recent stocking efforts have been maintained between 150,000 and 300,000. It must be emphasised that during the large-scale stockings in the 1970s there were some questions about the effectiveness of the smolt trap then in place. With the installation of the new and more effective trap used since 2004, so further stocking efforts may explore higher densities in the future to see if this relationship holds true. However, as Figures 13 and 14 illustrate, smolt output from above Spey Dam has been minimal without stocking by the SFB.

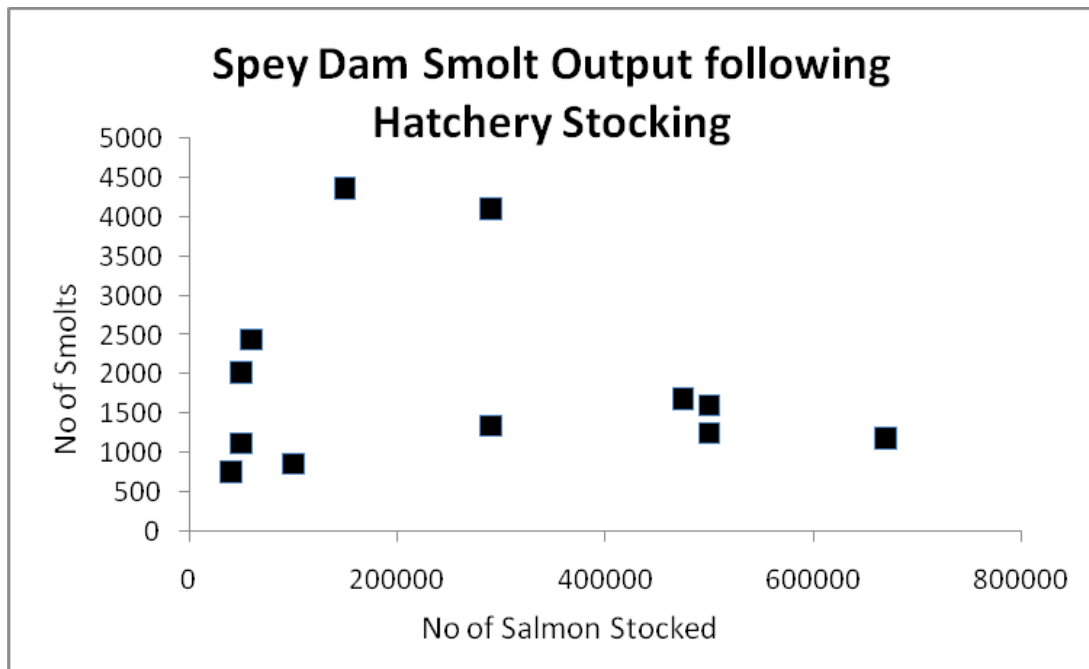


Figure 11: Number of hatchery salmon stocked above Spey Dam and the number of smolts produced during 1972 to 2008.

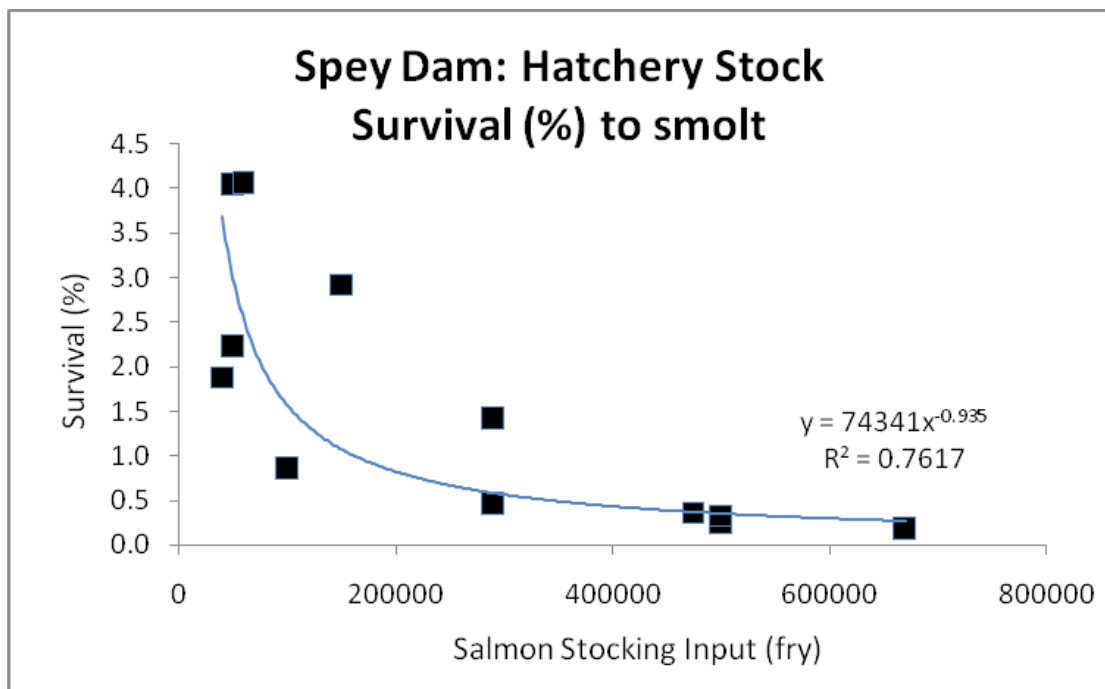


Figure 12: Number of hatchery salmon stocked above Spey Dam and the survival to smolt during 1972 to 2008.

Figure 13: Spey Dam Salmon Stocking 1969 to 2008

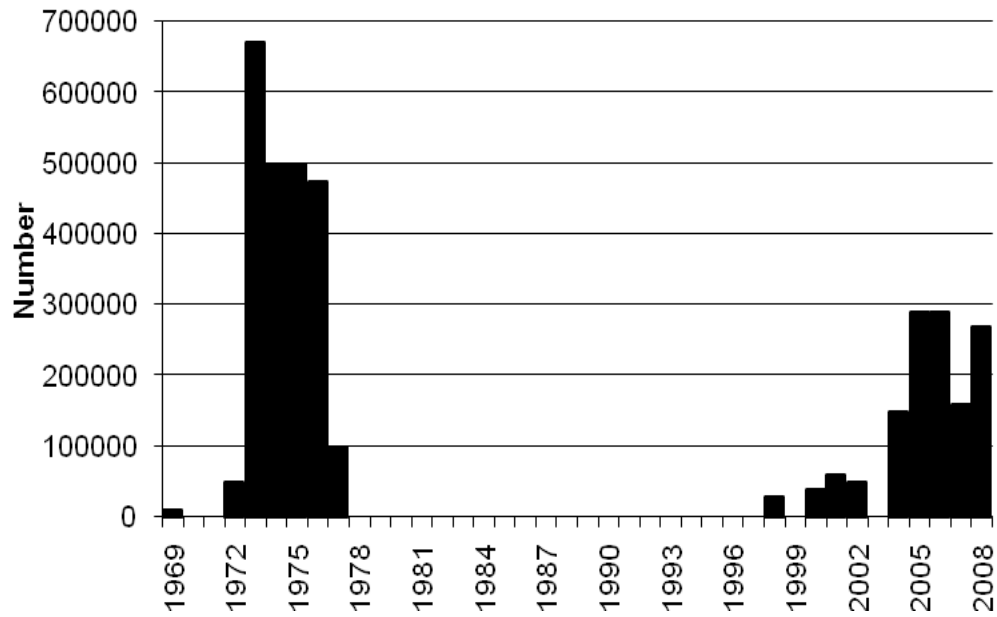
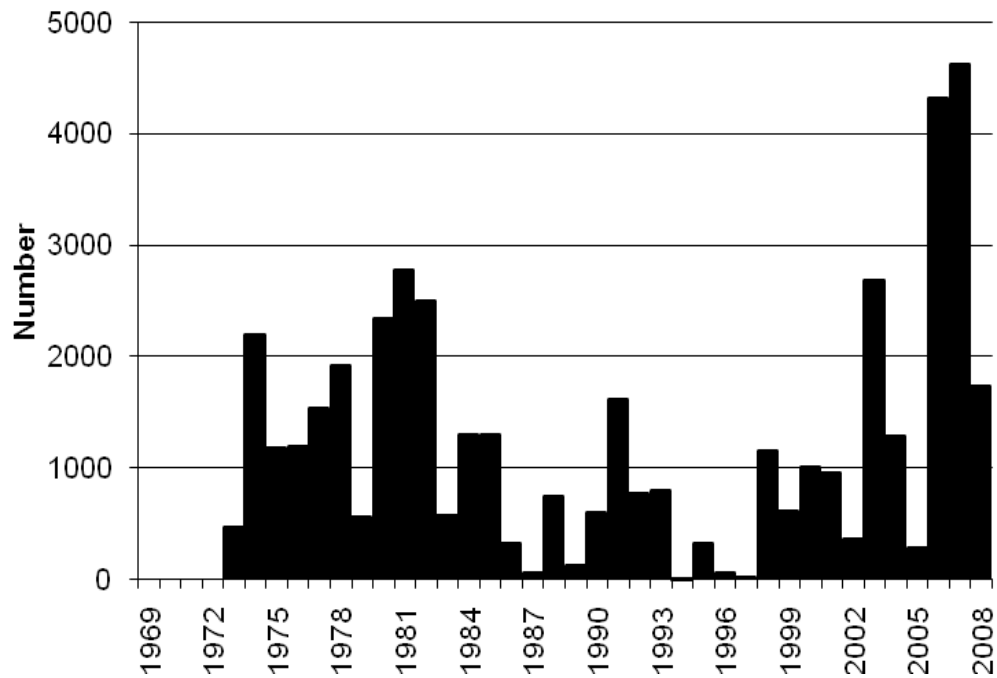


Figure 14: Spey Dam Smolts 1973 to 2008



2. Mortlach Weir: The VAKI fish counter continued to operate throughout 2008 and 872 fish were recorded passing through the counter from 1st March 2008 to 12th Jan 2009. Within this 158 Salmon, 84 Sea Trout and 94 Brown Trout were identified using the camera system. For the remaining 536 fish no visual identification was possible. The Dullan, similar to most tributaries, becomes very coloured during spates and so visual identification of the fish passing through the cameras is impossible. However, throughout the summer Aberdeen University M.Sc student Dimitros Chariskos examined this problem. Using fish size data and the timing of fish passage he determined that the unidentified fish could be apportioned to Salmon and Trout, thereby improving the count estimates for each species.

Although most of the Salmon and Trout ascending the weir pass through the fish ladder at certain elevated water flows, fish have been observed ascending over the face of the weir. Since these fish do not pass through the ladder they are not counted. To address this problem CCTV cameras and Infra red lights were installed on a gantry over the weir and continuous filming of the weir began during late summer 2008. During October and November a number of suitable spate events were observed and both Salmon and Sea Trout were observed attempting to ascend the weir out-with the fish ladder. Analysis of the CCTV data recorded during October and November indicated that very few fish successfully ascended the weir, even during the spate events. Thus initial results are quite promising, indicating that although a number of fish attempt to ascend the weir they are largely

unsuccessful and seem to opt for the easier route via the fish ladder.

A number of downstream fish were recorded passing over the weir, but many downstream fish were observed in lower water flows swimming along the upper edge of the weir before passing down through the ladder. Initial trials with the CCTV cameras have proved successful and further work on the data will progress, along with further data collection, in Autumn 2009.



The European Court of Auditors team visit one of the CASS Life Interpretation Panels at Craigellachie, June 2008. (Photo: Roger Knight).

3. EU Audit of the CASS Life Project:

Towards the conclusion of the project, the River Spey was selected for an audit by the European Commission. In June 2008, a team of three representatives from the European Court of Auditors, accompanied by members of the SNH Project Team, spent two days with the SFB examining the work carried out over the previous four years. Not a true financial audit, it was aimed instead at ensuring that the work carried out had brought sustainable long-term benefits, rather than short-term gains. The team spent the first day discussing the project in detail, as well as inspecting some financial records, and the second day visiting projects

throughout the Spey catchment. They departed satisfied that the goals of the CASS Life Project had been soundly achieved.



The European Court of Auditors were given a tour of Sandbank Hatchery by SFB Hatchery Manager Jimmy Woods. (Photo: Roger Knight).

4.7 Pollution Incidents

Macallan Distillery

In late 2007 the Edrington Group, owners of the Macallan Distillery, began the development of a site for seven new storage warehouses at Overton Farm, near Easter Elchies House. Three million cubic metres of topsoil were removed from a hillside over-looking the Spey. The site is adjoined by two Burns, the Ringorm and the Elchies, both of which are tributaries of the River Spey. During periods of heavy rainfall, considerable volumes of sediment-polluted run-off emanated from the site, entered the Ringorm and Elchies Burns and thence in to the Spey. This resulted in periods of extensive discolouration of the Spey and subsequent interruption to fishing in the early part of the 2008 season. The SFB, which had not been consulted by Moray Council during the planning application process for this development, formally objected to SEPA and to Macallan. SEPA undertook water sampling

analyses with a view to taking enforcement action and the SFB's Director was appointed to Macallan's project management group. A series of water retention pits and water purification (flocculation) blocks were installed on the site, to collate and cleanse run-off before it could enter the Burns and the planned programme of re-seeding and tree-planting was undertaken during the summer of 2008. The SRT undertook a programme of electro-fishing to determine whether fish stocks had been damaged by this development and will continue to monitor the situation over the next few years.



The Macallan development site at Overton where 3 million cubic metres of topsoil were removed from a hillside over-looking the River Spey. (Photo: Roger Knight).

4.8 Control of Ranunculus

Ranunculus is an invasive aquatic plant species which is non-native to the River Spey. It was accidentally introduced to the river over 30 years ago near Grantown-on-Spey and much of the River downstream of Grantown is now badly affected by this plant.

In the past the control of Ranunculus used the chemical Midstream, which contained the active and toxic ingredient diquat. Sadly, because of EC legislation, the use of this

chemical is no longer permitted and so the plant is spreading and in some areas choking the flow of the river. The plant is detrimental to two of the SAC-designated species (Atlantic Salmon and Freshwater Pearl Mussels). The extensive mats of *Ranunculus* often accumulate sand and gravel underneath, choking the underlying substrate beneath it. This affects the Freshwater Pearl Mussel, Salmon fry habitat and Salmon spawning.

Alternative methods of control, such as manual cutting and removal or hand pulling, are not considered practical as they are costly, labour-intensive and pose considerable health and safety issues for individuals working in a fast flowing river. Furthermore, manual cutting causes the plant to spread downstream. The SFB tried to obtain a special consent from the UK's Advisory Committee on Pesticides (ACP) to use diquat on a limited, experimental basis, for which Ministerial permission would also have been required. The highly toxic nature of diquat naturally aroused concern that any application of this chemical could have an adverse effect on the species in the river which qualify it as a Special Area of Conservation (SAC). So before applying to the ACP, the SFB, in conjunction with experts from Scottish Natural Heritage, the Scottish Environment Protection Agency and Scottish Water, looked at commissioning a series of laboratory tests to determine whether a limited application of diquat would have any adverse effects on the integrity of the River Spey SAC.

The ACP felt, however, that we would still not be able to prove that we could mitigate against the broader impacts of diquat on all species within the River and it became apparent that

whatever laboratory tests were conducted, a licence to use even limited amounts of diquat would not be forthcoming. The SFB has subsequently worked closely with the PSD to find an alternative chemical with which to control *Ranunculus*. There are a number of other organizations, including Natural England and various water authorities in England, who are equally keen to find an acceptable solution to this problem. As a result, the PSD convened a meeting in York on 6th October 2008 to look at how we might achieve this. SFB Director Roger Knight represented the Spey at this meeting, which was also attended by representatives from SNH, SEPA and the Scottish Government.

As a result of this meeting, the SFB has become aware of a chemical produced by BASF called Clearcast, which uses the active ingredient Imazamox. It kills weeds, but does not have any adverse impacts on fish, invertebrates or algae. Furthermore it has been approved for aquatic use in the USA by the US Environment Agency. The SFB Director is now liaising with BASF to persuade them to seek EU approval for the use of Clearcast in Europe.



Ranunculus in the River Spey. (Photo: Roger Knight).

4.9 Sawbill Ducks and Cormorants

At the end of 2007, the SFB coordinated a combined application to the Scottish Government for the Spey, Conon, Ness and Beaully Rivers to control Goosanders, Mergansers and Cormorants during 2008. This was the first application of its kind and has been the first step towards the creation of what is anticipated will be a Moray Firth Sawbill Plan, broadly along the lines of the successful Seal Plan for the area (see section 4.10). Furthermore, the application requested that our ability to control some of these birds be continued during May (rather than restricted to January – April, as has been the case in the past) to provide additional protection to Salmon stocks during the annual smolt run. The application was successful and the SFB was awarded an interim licence from January-April 2008 to shoot 18 Goosanders, 7 Mergansers and 5 Cormorants. The interim licence was granted whilst the issue of May licensing was considered further. Due to the designation of the Inner Moray Firth and Cromarty Firth as SPAs for these species under the Habitats & Birds Directives, future schemes must consider the potentially conflicting conservation obligations of other relevant authorities for piscivorous birds against the obligations of DSFBs to conserve the fish stocks on which these birds prey. The SFB was successful in subsequently being granted a licence to shoot 4 of the 18 Goosanders in May, during which trials of non-lethal methods of scaring birds were also undertaken.

The SFB has continued counting these species using canoes. Counts are carried out from Loch Insh to Spey Bay approximately once

every two months, weather and river conditions permitting.

The SFB will continue to work with SNH and the Scottish Government to establish a Moray Firth-wide management scheme for Sawbill Ducks and Cormorants during 2009.



SFB staff conduct regular counts of sawbill birds and cormorants on the River Spey by canoe.

4.10 Moray Firth Seal Management Plan

2008 saw the continuation of the Moray Firth Seal Management Plan. This was first implemented in 2005 with the aim of protecting salmon and sea trout stocks while also maintaining the conservation status of the Dornoch Firth Special Area of Conservation (SAC) for common seals. The scheme introduced the novel approach of managing seals and Salmon over a large geographical area, the training of Nominated Marksmen to an agreed standard, and the accurate reporting of all seals shot.

In January 2008 the Scottish Government again issued a licence for the shooting of 50 common seals and 60 grey seals by DSFBs in agreed Management Areas. These areas are largely restricted to freshwaters and river estuaries. A further 10 animals of each species

were expected to be shot by Salmon netmen, who do not require licences, at netting stations in the Moray Firth. Among these the SFB shot five common and five grey seals, according to our licensed quota of five of each species.

Having operated as a pilot scheme for Scotland for the last four years, the Moray Firth Seal Management Plan will continue throughout 2009. The SFB is also continuing to support

the coordination of the Seal-Salmon Research Programme in collaboration with the Sea Mammal Research Unit (SMRU), the Scottish Government, FRS, SNH and the Atlantic Salmon Trust. As part of this research SFB Bailiffs carry out counts of seals at Spey Bay and have continued to assist the SMRU with the collection of other scientific data.

4.11 Fishery Protection

Angling on the Spey contributes £11.8 million each year to the local economy and provides 367 full-time-equivalent jobs. Poaching therefore not only causes irreparable environmental damage, but also has a significant impact upon the local economy and causes damage to the rural community.

In 2008 the SFB continued to work closely with the Grampian and Northern Constabularies. Grampian Constabulary launched Operation Salmo in February 2007, a nationwide police operation against salmon poaching that saw greater cooperation between the SFB's Bailiffs, the police and the general public. This enhanced our already close ties with Grampian Police, which were strengthened further in 2008 in order to control the poaching of these superb fish. SFB Bailiffs attended a one-day training course on restraint procedures held by Grampian Police in Inverurie in March 2008, which was also attended by Bailiffs from neighbouring DSFBs. In January 2008 the SFB Director attended a meeting with HM Inspectorate who were evaluating the success of the Grampian Police links with DSFB Bailiffs. This in part resulted in progress being made to strengthen links between Northern Constabulary in the Highland region and the SFB's Bailiffs, to the same degree as those enjoyed by the SFB and Grampian Police. A number of successful joint operations between the SFB's Bailiffs and Northern Constabulary officers based at Aviemore took place in the course of 2008 as a result.

Coastal patrols between the Boar's Head stretch of coastline and Fraserburgh were continued from April-September 2008. One patrol was conducted in collaboration with the Deveron DSFB and one was combined with a Sawbill Duck Count to evaluate the numbers of these birds along the coast at the same time as those on the mainstem of the River Spey. A total of 15 patrols were completed with the SFB's 17ft Rigid-hulled Inflatable Boat, during which two illegal gill nets were intercepted. However, the deterrent effect of these patrols should not be under-estimated. A helicopter patrol of the coast was also undertaken in August 2008, in collaboration with the Conon and Kyle of Sutherland DSFBs.

The SFB's Bailiffs dealt with more incidents in 2008 than they had in recent years. Whilst poaching activity nationwide may be declining, the trend on the River Spey in recent years has seen a rise in the presence of known poachers. Furthermore, whilst the numbers of arrests and convictions may be low,

there is no doubt that without the dedicated, professional work of the SFB's Bailiffs and the deterrence that they provide, the River Spey would be far more of a target for such illegal activity.



SFB Head Bailiff Duncan Ferguson keeps a watchful eye over the River.



The SFB Patrol Boat at Lossiemouth Harbour. (Photo: Roger Knight)

4.12 Administration

In November 2007, having taken full control of the majority of our financial administration throughout that year, SFB Director Roger Knight recommended to the Board that it should assume the administration of our income as well as our expenditure, in order to further enhance our operational effectiveness. The Board approved this recommendation and we began administering our income, including the preparation of the Assessments, at the beginning of 2008. This process has been completed and the Director is now in full control of the collection of Assessments, as well as the ways in which these are spent. The seamless transition that has taken place is in no small way due to the efforts of our Accounts Manager, Alison Maxwell.

The self-sufficiency of the SFB and SRT in terms of their financial administration, together with the increase in the number of projects being undertaken for third parties, have also provided an opportunity to review and implement new measures to further enhance our administrative and operational effectiveness. Work on these will continue throughout 2009, but the Board is confident that it is now better placed to administer the challenges of fishery management in the foreseeable future.

4.13 Staffing

In January 2008 Duncan Ferguson was appointed Head Bailiff and Richard Whyte was appointed Deputy Head Bailiff. The Board wish both Duncan and Richard every success in their new positions.

Part 5

Spey Research Trust Report

5.1 Juvenile Surveys 2008

	Timed Sites	One Run Sites	Three Run Sites
Mainstem	50		
Tributaries		20	42
Findhorn	2	29	
Contract	26		1

Table 11: Summary of electro-fishing for the 2008. Two electro-fishing approaches are used: Timed Fishing or Area Based Fishing. Timed Fishing is where the surveyors fish a reach for a set period of time, typically 10mins. With Area Based Fishing a discrete survey site is marked out and fished either once (One Run) or three times (Three Runs).

Table 11 provides a summary of the electro-fishing achieved throughout 2008. Despite a wet summer an extensive coverage of the catchment was achieved, including the Mainstem River and all major tributaries. This type of monitoring is essential to monitor the success of the SFB's Salmon and Sea Trout Conservation Policies, stock enhancement programs and the removal of man-made obstacles. The SFB and SRT are members of the Scottish Fisheries Coordination Centre (SFCC), and all data is gathered according to standard SFCC electro-fishing protocols.

The 2008 survey was similar to previous years. The survey included 50 timed electro-fishing sites along the length of the mainstem along with a further 62 tributary sites.

Analysis of the juvenile data is underway. However, an initial assessment shows that Salmon fry were found at 74% of the 112 sites surveyed, compared to 82% of the sites in 2007. The distribution of fry was slightly poorer when compared with 2007 and there was some evidence that distribution of fry in the upper tributaries such as the Tromie was poorer than in previous years. Mainstem distribution of fry was good with only the slow-flowing reaches showing a lack of fry. Lower tributaries and the smaller burns also indicated a good distribution.

Trout fry were found at 60% of the 112 sites surveyed in 2008. This is similar to the 66% found in 2007, which improves again upon the 50% recorded in 2006, although some caution is needed with this data. Distribution of Trout fry in the mainstem was again poor, and similar to 2007. However, in burns where Sea Trout are known to spawn, distribution was similar to previous years.

5.2 Rotary Screw Trap (RST)

Two rotary screw traps were installed in the lower Spey during 2008. Similar to 2007, the relatively dry spring lead to good sampling conditions and both traps were in operation from March through to June, with only a few days lost due to debris build-up or spates. Data from 2008 provided an interesting insight into the Spey Salmon and Sea Trout smolt populations.

Table 12 indicates that eight species of fish (Salmon, Trout, Minnow, Eel, Lamprey, Stickleback, Pike and Rainbow Trout) were captured during 2008. Salmon were the most abundant followed by Trout and Minnows.

Fish Type	Number	Mean Length (mm)	Size Range (mm)
Salmon Smolt	6491	123	47 - 169
Salmon Parr	39	77	65 - 124
Salmon Fry	2	56	52 - 59
Trout Smolt	252	147	84 - 228
Trout Parr	11	82	68 - 101
Minnow	67	64	51 - 85
Lamprey (Brook)	23	128	93 - 327
Eel	17	278	126 - 583
Stickleback	3	43	39 - 48
Rainbow Trout	1	391	391
Pike	5	130	95 - 160

Table 12: Fish species captured by the rotary screw traps at Brae Beat 2 (RST1) and Brae Beat 4 (RST2) during March to June 2008.

Salmon smolts ranged from 47mm to 169mm and the mean length was 123mm. Fewer Trout smolts were captured but they exhibited a wider length range (84mm to 228mm) and a longer mean length of 147mm.

Similar to previous years, Minnows were the third largest group of fish captured with 67 individuals caught between March and June 2008. Mean length was calculated at 64mm, ranging between 51mm and 85mm. Again, similar to previous years, many Minnows were observed in spawning condition.

The capture of juvenile Pike in RST2, the lower smolt trap, during 2007 came as a surprise and a few Pike were captured again during 2008 (4 in the lower trap and 1 in the upper trap). Pike are present in the upper, slower-flowing reaches of the Spey from Grantown to Spey Dam. They are present in a number of adjoining Lochs, including Insh, Alvie, Beag, Pityoulish and Morlich. An occasional capture of a Pike has been recorded on fisheries in the lower mainstem but there have not been any reports of juveniles or spawning activity.

The lower trap (RST2) is situated downstream of a large back channel. The channel is slow flowing and lined for part of its length with reed beds. It would offer suitable spawning and rearing habitat for Pike and it seems likely that some Pike have dropped downstream and settled in this channel to spawn.

The Rainbow Trout was a surprise catch on the 31st of March, and is likely to have originated from one of the put-and-take fisheries further upstream.

Scale samples have been collected each year from a proportion of the smolts captured. Approximately every tenth smolt captured throughout the study at RST1 was sampled and Table 13 indicates the percentage of scale samples obtained from the smolts captured in each year.

Species	Age (years)				No Age Determined	Total
	1	2	3	4		
Salmon Smolts	2	137	57	1	12	209
%	0.9	65.5	27.3	0.5	5.7	-
Trout Smolts	-	15	11	3	8	37
%	-	40.5	29.7	8.1	21.6	-

Table 13: summarises the age classes of Salmon and Sea Trout smolts captured during 2008. Age data was not available for a small percentage of Salmon and Trout due to scales being replacements. The dominant age class for Salmon was 2 years old. Three year old smolts were the next most prevalent with a small percentage of one- and four-year-olds also being captured. For Trout, two- and three-year old smolts were the most common.

Figure 13 compares the cumulative Salmon smolt catch with the time from 1st March in 2006, 2007 and 2008. It indicates that there is a substantial difference in run time between 2006 and 2007. During 2006 the run extended over a longer period, with 50% of the catch being reached at 79 days after the 1st March, while in 2007 the run was of shorter duration and 50% of the catch was reached in only 59 days from the 1st March. Water flow and temperature were both found to influence the passage of smolts and differences in these variables between years may account for the variation in run time and run duration of the Salmon smolts. The 2008 run fell between these two years.

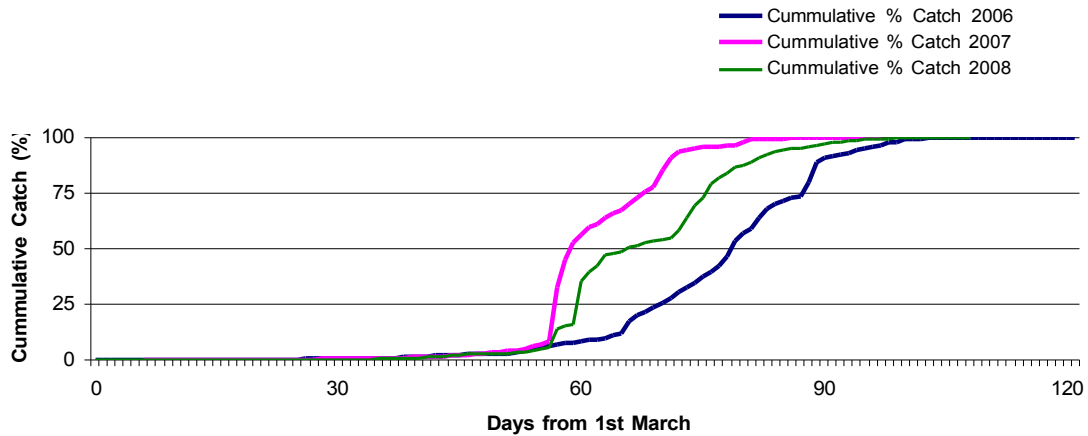


Figure 13: Cumulative Salmon smolt catch (%) and time from 1st March in 2006 to 2008.

Each year a proportion of the Salmon and Trout smolts were marked using a simple dye tattoo and then released upstream of the smolt traps. The numbers of these marked smolts recaptured is then recorded and used to develop population estimates for the Spey smolt output. Using the 2005 to 2008 data and the Petersen Recapture model, Salmon smolt output was estimated for each year (Table 14) Outputs for salmon smolts ranged from around 600,000 to 1.6 million. However, this approach turned up as many questions as it did answers. The approach used in the study does not fit the Petersen model very well, so other models have also been tried and the estimates are being refined.

Simple Petersen Recapture Model					
Year	Total Salmon Smolts Captured (n_i)	Marked Smolts (M_i)	Marked Smolts Recaptured (m_i)	Estimate of Population Size (N_i)	Trap Efficiency (e_i)
2005	2199	1135	4	623966	0.004
2006	5302	2752	9	1621234	0.003
2007	8035	4884	64	613171	0.013
2008	6490	6087	53	745370	0.009

Table 14: Salmon smolt run estimates for the River Spey for 2005 to 2008 using Petersen mark-recapture method.

A great deal has been achieved through the installation of the smolt traps in the mainstem and some better data on the total smolt output for the Spey Salmon population has been gained. However, the Spey Research Committee reviewed the data in the summer of 2008 and decided that little more was to be learnt from continuing to site the traps in the Lower Mainstem. Therefore, the next step in collecting smolt data would be to station the traps on some of the Spey's tributaries. This approach will be implemented from 2009.

5.3 Salmon Go To School

Through the CASS LIFE project, the SRT continued to promote awareness of the Spey with its highly successful Salmon Go To School educational programme. Aviemore Primary School successfully raised 200 Salmon eggs in the classroom, and then participated in a Fishing Day at Rothiemurchus coordinated by Head Bailiff Duncan Ferguson and his team of Bailiffs. This latter event was filmed by BBC Landward and supported by Ian Robertson, Manager of the Scottish National Angling Programme (SNAP). Grantown Primary and Applegrove Primary Schools both enjoyed “Bugs and Beastie” hunts to the Kynintra Burn and Mosset Burn (Forres) respectively. The River Bank resource box was also used by Aviemore and Cluny Primary (Buckie).



Hatchery Manager Jimmy Woods conducted numerous tours of Sandbank Hatchery which are always popular with children from local schools. (Photos: Jimmy Mitchell)

Work experience placements are offered to local secondary school pupils, and this year Sara Dixon from Lossiemouth High School and Fiona Logan from Buckie Academy joined the Spey staff for one-week placements.

5.4 Thermal Discharge Project

The Water Framework Directive allows cooling waters from whisky distilleries to elevate water temperatures by a maximum of 1.5°C. There are 25 distilleries within the Spey catchment, and in 2004 the SRT was contracted by SEPA, FRS and the whisky industry to investigate the thermal discharges of selected distilleries, and their impacts on juvenile Salmon growth. The Thermal Discharge Project builds on earlier work carried out by the SRT on the River Fiddich in 1998-1999, which suggested that whilst growth rates and smolt ages of juvenile Salmon are accelerated downstream from distillery outlets, this has little effect on the adult return time and age structure.

Monitoring of discharge temperatures continued at several distilleries within the Spey and Lossie catchments throughout 2008 and data was compiled and presented to the Thermal Discharge Expert Group. The project was widened to encompass distilleries across Scotland in 2008 and the SRT was contracted by the Malt Distillers Association to initiate temperature monitoring at between 15 to 30 additional distilleries. During 2008, 15 distilleries were assessed and temperature monitoring has been implemented where required.

5.5 Contract Surveys

The SRT have again conducted juvenile surveys for neighbouring Fishery Boards and in particular routine surveys of the Findhorn catchment have been completed since 1997. A survey of a further 29 sites were completed on the Findhorn during 2008 and a report on the findings is in preparation for the Findhorn District Salmon Fishery Board.

Part 6

Consultations

6.1 Wind Farms

The full programme of monitoring water quality, invertebrate and fish populations around the Paul's Hill Wind Farm development reached its conclusion in October 2007. A detailed analysis of the five year monitoring programme is underway and initial results so far indicate no adverse effects on Salmon or Trout populations. Water quality monitoring will continue until 2010.

The SRT were contracted to complete an invertebrate and fish survey of tributaries draining the proposed Rothes Windfarm extension site. Surveys were completed in late Spring and Summer 2008 and a report presented to the developers.

The SFB and SRT, in conjunction with the Deveron, Isla & Bogie Board and Trust, have also been involved in negotiations with developers Infinergy over a proposal to construct a wind farm at Dorenell. This is an area at the top of the River Fiddich in the Spey Catchment and close to the Black Burn in the Deveron Catchment. Negotiations to date have focused on the formulation and implementation of fishery management plans for the proposal, which have so far been well received by the developers. Work on this will continue throughout 2009.

6.2 River Works

During 2007 the SFB was consulted on 28 applications to undertake river works during 2008, slightly less than the 31 undertaken in 2007. However, some of these have been complex proposals, such as the proposal by Scottish Water to abstract more water from a borehole development near Aviemore, which have necessarily involved more work than might usually be undertaken. In agreement with SNH and SEPA, the standard recommendation remains to discourage works which disturb the river bed during October – May, when the risk of destroying incubating salmon eggs and juveniles is greatest.



River damage in February 2008 resulted in a section of the Speyside Way being washed away at the Brae Water, Fochabers. (Photo: Roger Knight).

Part 7

Publicity

7.1 Media Coverage

The publication of the Envirocentre Report on River Spey Abstractions received widespread coverage in both local and national newspapers and made the front page of the Badenoch & Strathspey Herald. The SFB Director was also interviewed by BBC's Reporting Scotland, which was shown on Scottish television news broadcasts.

In April 2008, SFB Head Bailiff Duncan Ferguson ran a successful fishing day for Aviemore Primary School, in conjunction with the Scottish National Angling Programme's Ian Robertson at the Rothiemurchus Fishery. This was an extension of the SRT's Salmon Goes to School Project, aimed at introducing children to angling and was filmed by the BBC. It appeared on Scottish television's Landward programme.



BBC's Landward programme filmed SFB Head Bailiff Duncan Ferguson teaching children to fish at Rothiemurchus Fishery in April 2008. (Photo: Ian Robertson)

7.2 Briefings

The SFB continues to produce Briefings which have been circulated to 600 individuals and organisations including proprietors, angling associations, ghillies, hotels and tackle shops. During 2008, the SFB's Publicity Committee decided to revise the list of those receiving paper copies of the Briefings, suspecting that many recipients would prefer electronic versions sent by e-mail instead. Questionnaires sent to all recipients produced an excellent response and a revised distribution will come into effect in 2009. The Briefings are also available on the SFB website (www.speyfisheryboard.com), along with other pertinent information.

7.3 Talks and presentations

In 2008 SFB and SRT staff gave the following talks and presentations:

- **17th January:** River Spey Anglers' Association AGM and Sporting Auction, Elgin
- **7th March:** RAFTS Conference, Birnham Institute, Dunkeld
- **27th March:** Rothes Angling Association AGM, Rothes
- **4th April:** Visiting delegation from the Orkla and Gaula Rivers, Norway
- **21st April:** Council Ranger Service – Electro-fishing and fish counter demonstration. Visit to hatchery and Conglass habitat scheme. (CASS LIFE Study Visit)
- **23rd April:** SNH Officers Training Day - Electro-fishing and fish counter demonstration, River Dullan.
- **15th May:** Speyside Council, Aberlour
- **11th June:** CASS Life Conference, Battleby, Perthshire
- **16th June:** Whale and Dolphin Conservation Society, Moray Firth Whale and Dolphin Centre, Spey Bay.
- **3rd August:** Electro-fishing Demonstration, RSPB Family Day, Abernethy Reserve.
- **15th -18th August:** Visit to Mosjoen, Norway, to discuss EU project funding, attend Sea Trout Festival and present talk on Salmon Fisheries Management on the River Spey.
- **6th November:** Minister for Environment Mike Russell MSP, Scottish Parliament
- **12th November:** Norwegian Delegation to NASCO
- **3rd December:** River Spey Ghillies annual meeting with the SFB/SRT, Ballindalloch
- **8th December:** Spey Users Group, Grantown on Spey
- **11th December:** Speymouth Anglers' Association, Spey Bay Hall

7.4 Committees

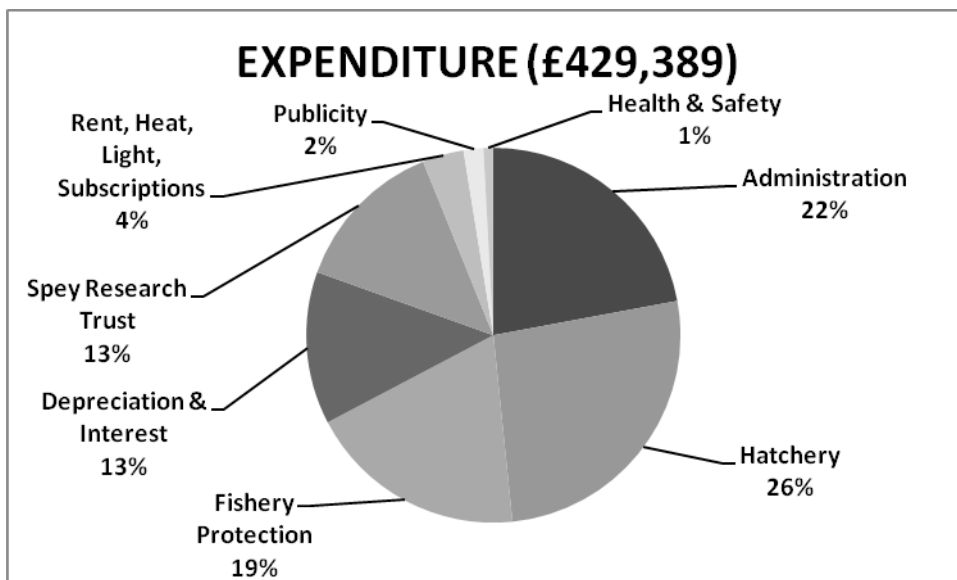
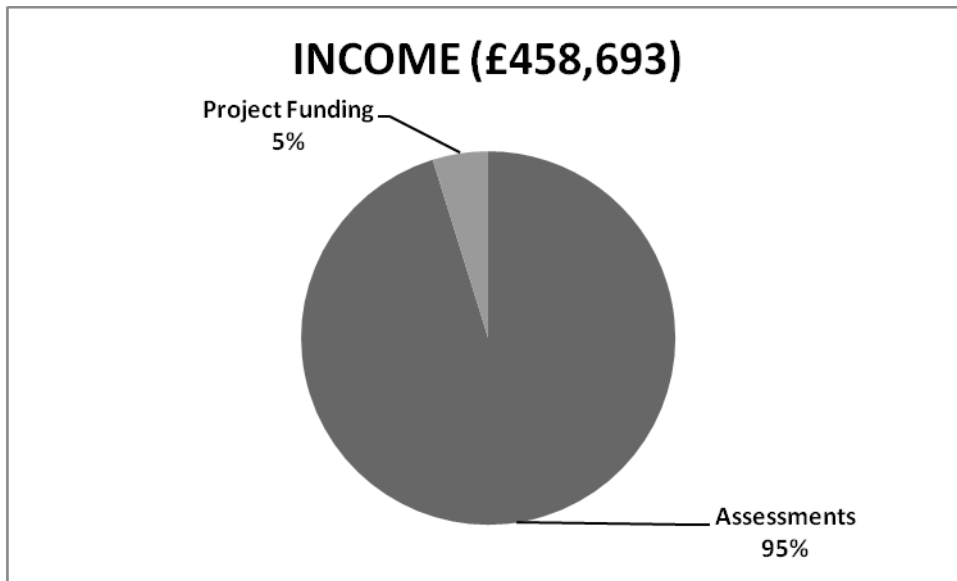
SRT Biologist Bob Laughton has remained as Chairman of the Scottish Fisheries Coordination Centre (SFCC) throughout 2008, whilst SFB Director Roger Knight continues to be Company Secretary of the Spey Fishing Trust Limited. Throughout 2008, SFB and SRT staff were also members of the following committees:

- Scottish Fisheries Coordination Centre Chairman
- Cairngorms Local Biodiversity Action Plan Management Committee
- Findhorn DSFB
- Thermal Discharge Project Expert Group
- Moray Firth Sea Trout Project Management Committee
- Findhorn, Nairn and Lossie Fishery Trust Management Committee
- Fisheries Management Planning Liaison Group
- RAFTS Management Group
- RAFTS Executive Committee
- Spey Fishing Trust Limited
- Genetic Analysis Project Steering Group
- North East Area Advisory Group for the Water Framework Directive
- Macallan Project Management Group
- Cairngorms Conserving and Enhancing the Park Advisory Forum
- Lower Spey Management Forum
- Moray Firth Sawbill Management Plan Group
- Feshie Management Plan Consultation Group
- Dorenell Wind Farm Project Group
- Grampian Partnership Against Wildlife Crime
- Institute of Fisheries Management Scottish Committee
- Scottish National Angling Programme Development Committee

Part 8

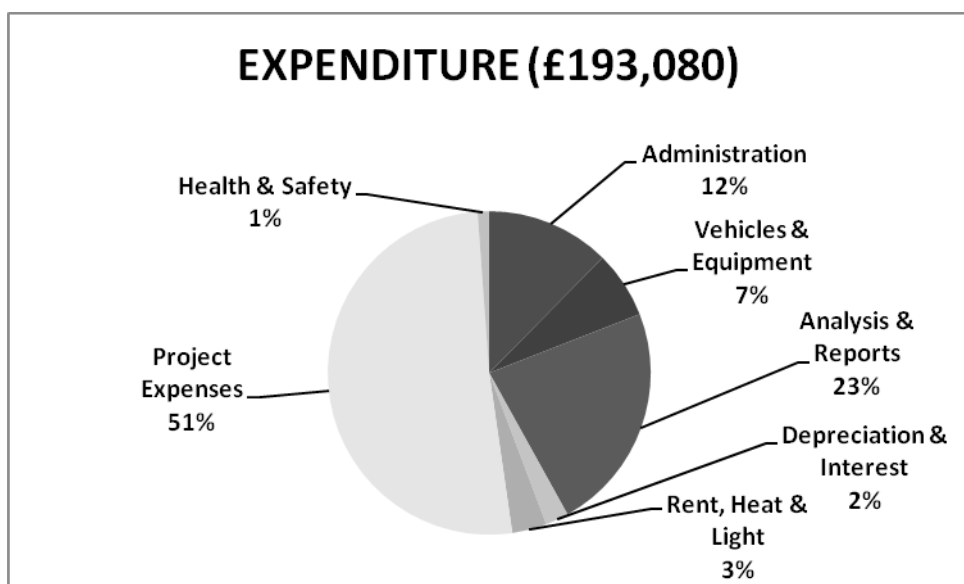
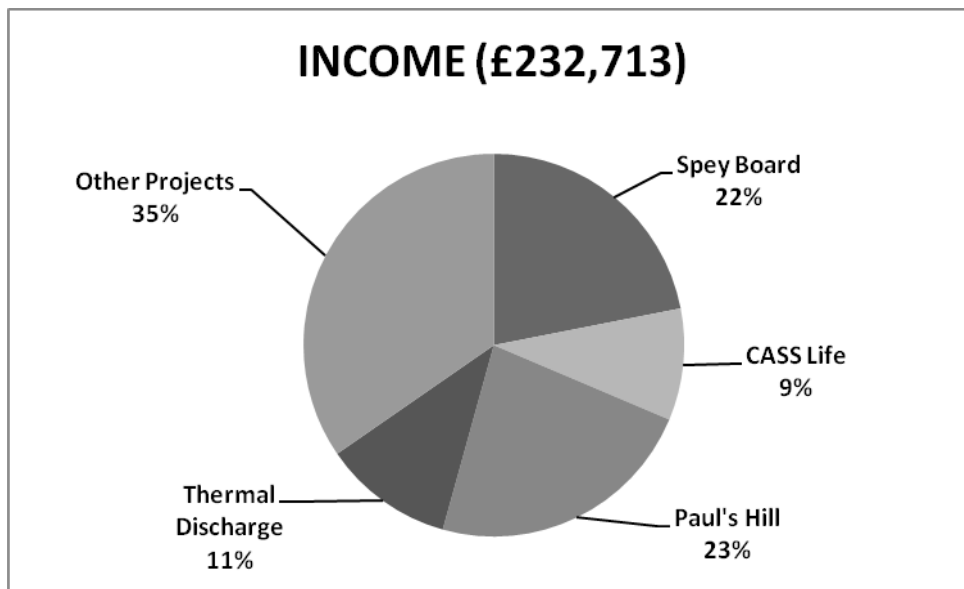
Spey Fishery Board Financial Summary

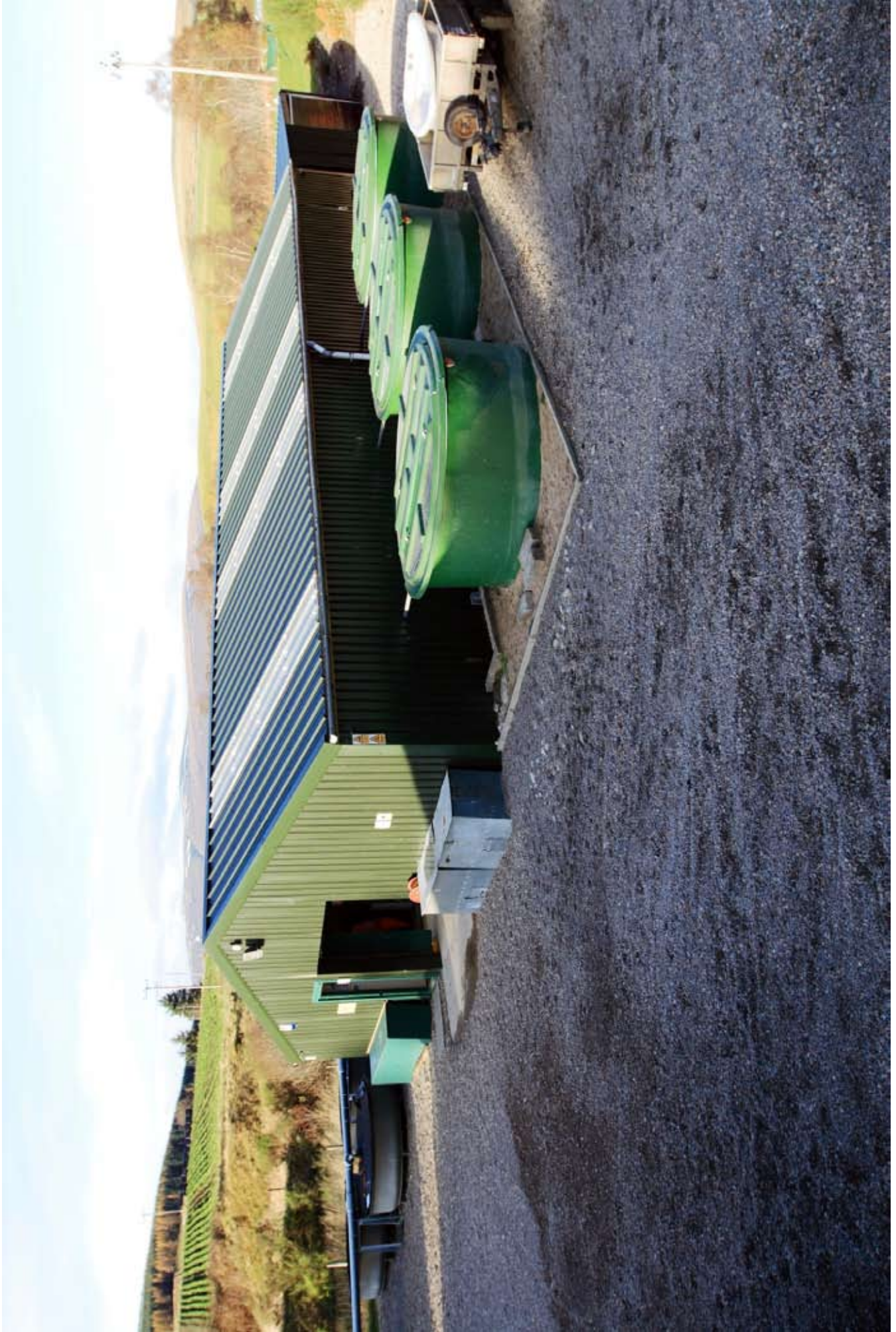
1st October 2007 – 30th September 2008



Spey Research Trust Financial Summary

1st October 2007 – 30th September 2008





The SFB Hatchery at Sandbank. (Photo: Jimmy Mitchell)

Notes

Notes

