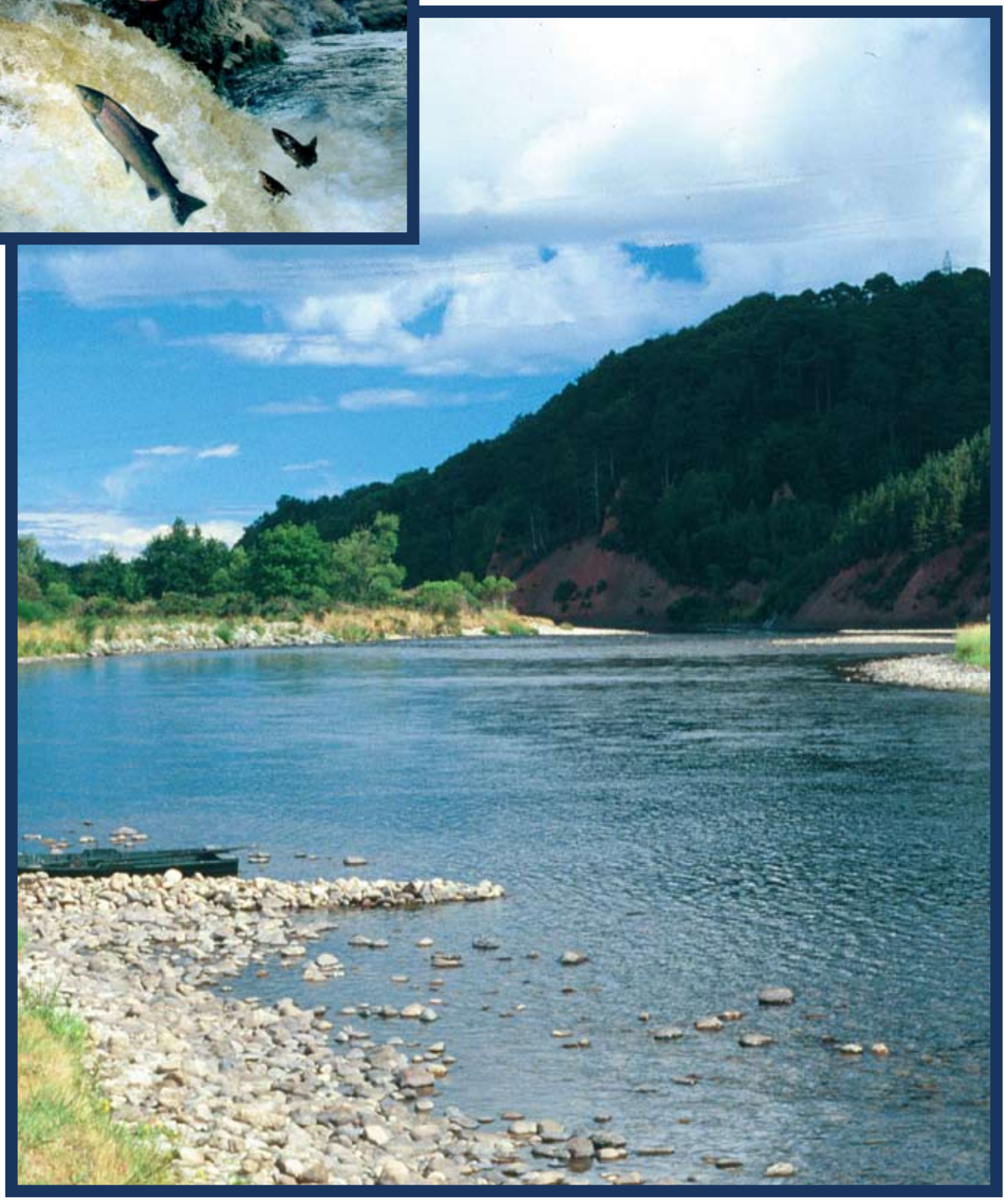
Annual Report 2007

Spey Fishery Board



www.speyfisheryboard.com

Contents

		Page
Spey Fishery Board Members, Staff and Structure		3-4
Acknowledgements		5
Chairman's Foreword		6
Part 1	**Statutory Remit of the Spey Fishery Board**	
	1.1 Constitution	7
	1.2 Aquaculture & Fisheries Bill 2006	7
	1.3 A Fisheries Trust for the Spey	9
	1.4 Strategic Framework for Scottish Freshwater Fisheries Management	9
	1.5 EU Water Framework Directive	10
	1.6 Core Paths	10
	1.7 Water Abstraction	10-11
Part 2	**Fisheries and Conservation**	
	2.1 River flows 2007	13
	2.2 Salmon and grilse catches	13
	2.3 Sea trout catches	15
	2.4 Salmon Conservation Policy	16
	2.5 Sea Trout Conservation Policy	18
Part 3	**Spey Catchment Management Plan**	
	3.1 Spey Catchment Management Plan	20
	3.2 Angling, canoeing and access	20
	3.3 Northern Periphery Programme	21
Part 4	**Management Report**	
	4.1 Stock enhancement 2007	23
	4.2 Monitoring stock enhancement	26
	4.3 Obstacles to fish passage	27
	4.4 CASS LIFE Project	27
	4.5 Pollution incidents	30
	4.6 Sawbill ducks	30
	4.7 Moray Firth Seal Management Plan	31
	4.8 Fishery protection	31
	4.9 Staff training	33
	4.10 Administration	34
Part 5	**Spey Research Trust Report**	
	5.1 Assessing Juvenile Data	35
	5.2 Juvenile Surveys 2007	35
	5.3 Future Juvenile Surveys	37
	5.4 Rotary Screw Trap	38
	5.5 Salmon Go To School	41
	5.6 Thermal Discharge Project	41
	5.7 Contract Surveys	42
Part 6	**Consultations**	
	6.1 Paul's Hill wind farm	43
	6.2 River works	43
Part 7	**Publicity**	
	7.1 Spey Fishery Board website	44
	7.2 Briefings	45
	7.3 Talks and Presentations	45
	7.4 Committees	45
Part 8	**Financial Summary**	46

Spey Fishery Board

Chairman:	***Alan Williams,*** Carron Fishings
Lower Proprietors:	***Toby Metcalfe,*** Mandatory for Crown Estate Commissioners ***Grenville Johnston,*** Mandatory for Atlantic Salmon Conservation Trust
Upper Proprietors:	***Major General Gordon Lennox,*** Mandatory for Brae Water Trust ***James Litchfield,*** Tulchan Estate ***Sir Edward Mountain,*** Delfur Fishings ***Oliver Russell,*** Mandatory for Ballindalloch Trustees ***Dr. Catherine Wills,*** Knockando, Phones and Lower Pitchroy ***Anthony Tinsley,*** Wester Elchies Fishings
Co-optees:	***James Thomas,*** Lower River Angling Associations ***Grant Mortimer,*** Upper River Angling Associations
Invitees:	***Stewart Mitchell,*** Scottish Environment Protection Agency ***Paul Timms,*** Scottish Natural Heritage
Clerk:	***William Cowie,*** R. & R. Urquhart

Research Committee (Spey Research Trust)

Chairman:	***Anthony Tinsley,*** Wester Elchies Fishings
Members:	***Bob Laughton***, SRT Biologist ***Alan Williams***, Carron Fishings ***Roger Knight,*** SFB Director ***Dr. Catherine Wills,*** Knockando, Phones and Lower Pitchroy ***Peter Graham,*** Bidwells ***Dr. Colin Bean,*** Scottish Natural Heritage ***Dr. Alastair Stephen,*** Scottish & Southern Energy ***Ross Gardiner,*** FRS Freshwater Laboratory

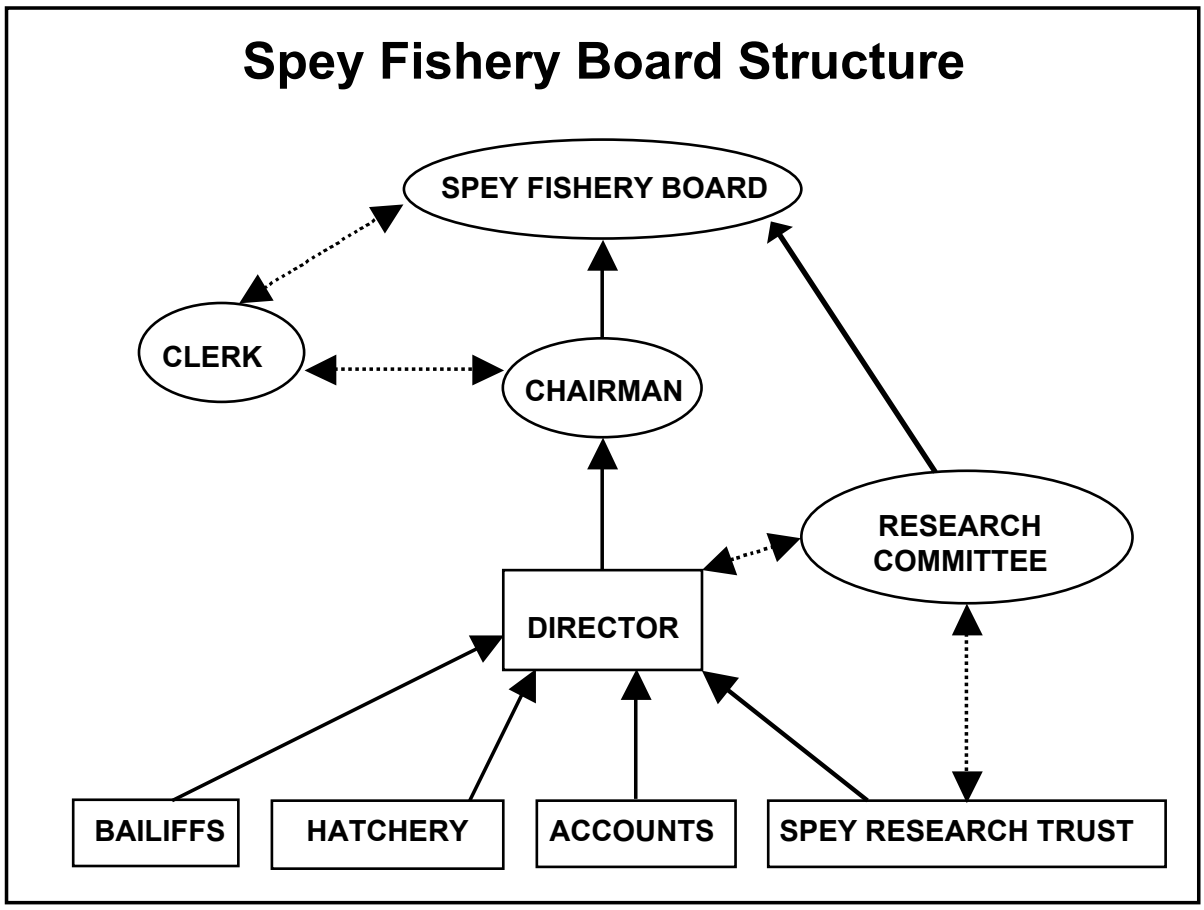
Publicity Committee

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

Cover Photo: Brae Water Beat 3 (Photo: Bob Laughton)

Spey Fishery Board Staff

Director:	Roger Knight
Accounts Manager:	Alison Maxwell (Part-Time)
Hatchery Manager:	Jimmy Woods
Hatchery Assistant:	Alistair Grant
Bailiffs:	Duncan Ferguson Lindsay Grant Richard Whyte 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)



Acknowledgements

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Colin Reid, Euan Reid, Ian Tennant, George McIntosh, Ian Stronach (Snr),
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Willie Mearns (Delagyle)
Ian Gordon, Bill Drury, Sandy Smith, Euan Mellis, Orn Sigurhannson (Knockando)
Ian Borthwick (Carron)
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Robbie Stronach (Tulchan)
Lionel Main, Simon Crozier, Roddy Hastings (Castle Grant)
Andrew Allen (Kincardine)
James Thomas (Chairman, River Spey Anglers' Assoc. & Co-Optee to the Board)
Kenny Fraser (Strathspey Angling Improvement Association)
Malcolm Newbould (Wester Elchies Fishings)
David Craig (Scottish Canoe Association)
Mel McDonald (River Spey Anglers' Association)
Graeme Mackenzie (River Spey Anglers' Association)
Mike Ewan (Rothes & Aikenway)
Kevin James (Aberlour Angling Association)
Jim Watt (British Alcan, Spey Dam)
Diageo
John Adams (Fochabers Community Woodland Association)
Frank Clark (Gordon Castle and SFB Publicity Committee)
Ian Neale (www.speycaster.net)

Chairman's Foreword

The 2007 season was different to its predecessors in a number of ways, some positive and some maybe not so. The overall catch of Salmon was almost exactly 10,000, less than 2006 but still above the ten year average and similar to 2004. Only 2006 was significantly better than 2007 in the last ten years. The return or release rate was 71% which was the same as 2006. Our Voluntary Catch and Release Policy has enjoyed a success since its introduction more than five years ago which has probably exceeded what anyone foresaw. Everyone involved is to be congratulated on this, not least our ghillies who have been one of the most significant contributors. I am sure that the increased spawning activity that results from Catch and Release will, over time, make a significant contribution to the number of fish returning to the Spey. There were fewer fish in the early months of the season and some of the later returning specimens exhibited signs of the anasakis parasite. One that occurs naturally in salt water and it is to be hoped that this will not have impaired their ability to spawn. The Sea Trout Catch was considerably less than 2006 and further evidence of a long term decline in Sea Trout numbers. Only the release rate was an encouragement and exceeded 50% for the first time. The Spey will participate in the Moray Firth Sea Trout Project and it is to be hoped that some of the enigma which surrounds this species might be clarified in the next few years.

Local Authorities have a requirement to designate Core Paths which follows from the Scottish Land Reform legislation. These Core Paths can be over land or water. The River Spey flows through three Local Planning Authorities: the Cairngorms National Park; the Highland Council; and at the bottom of the river the Moray Council. Each Local Authority has followed a different method of Core Path designation and at different times. They have all given consideration to the designation of the River Spey as a Core Path and the Board has resisted this designation in each case. The only other "User Group" to make any significant use of the River besides Anglers are Canoes and Rafts. The Canoeists and Rafters, by their own admission, only want the River to be designated as a Core Path in order that they should have access to Public Money and Grants to facilitate their use of the River. It is the Board's position that the designation of the River as a Core Path will do nothing to enhance the species for which the River is designated as a Special Area of Conservation and that the River does not fit the specification of what a Core Path should be. The Board will continue to resist any such designation.

This year has also seen the advent of another threat to the River in the form of increased Water Abstraction. The Spey already loses considerable quantities of water at the upper end of the Catchment. These losses are occasioned by the water taken at Spey Dam which is channelled unnaturally and in a westerly direction to Fort William and water which is taken by Scottish and Southern Energy from the upper reaches of the Truim and the Tromie and diverted into the Tay system. There is a proposal to allow Scottish and Southern Energy to reduce the amount of Compensation Water which they allow into the Spey and to increase the amount which they take to the Tay. In addition the growing conurbation of Aviemore needs more water than its existing leaky supply can provide and bore holes are being drilled to abstract more water which may result in lowering the ground water table in that area. The Board is very concerned at these developments and has instigated a thorough review of all Water Abstraction in the Spey to be undertaken by Professor George Fleming and Envirocentre and this report is eagerly anticipated.

Finally I would like to thank everyone who has worked for and helped the Board in 2007. We have had a successful year and a solid one in pursuance of the Board's objectives.

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 has recently been 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. 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) Bill

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 had intended to make changes to the system of managing freshwater fisheries in Scotland through this Bill, but it was not possible to develop legislative proposals in time. The Scottish Government has said it intends to bring forward another fisheries bill sometime in the next Parliamentary session.

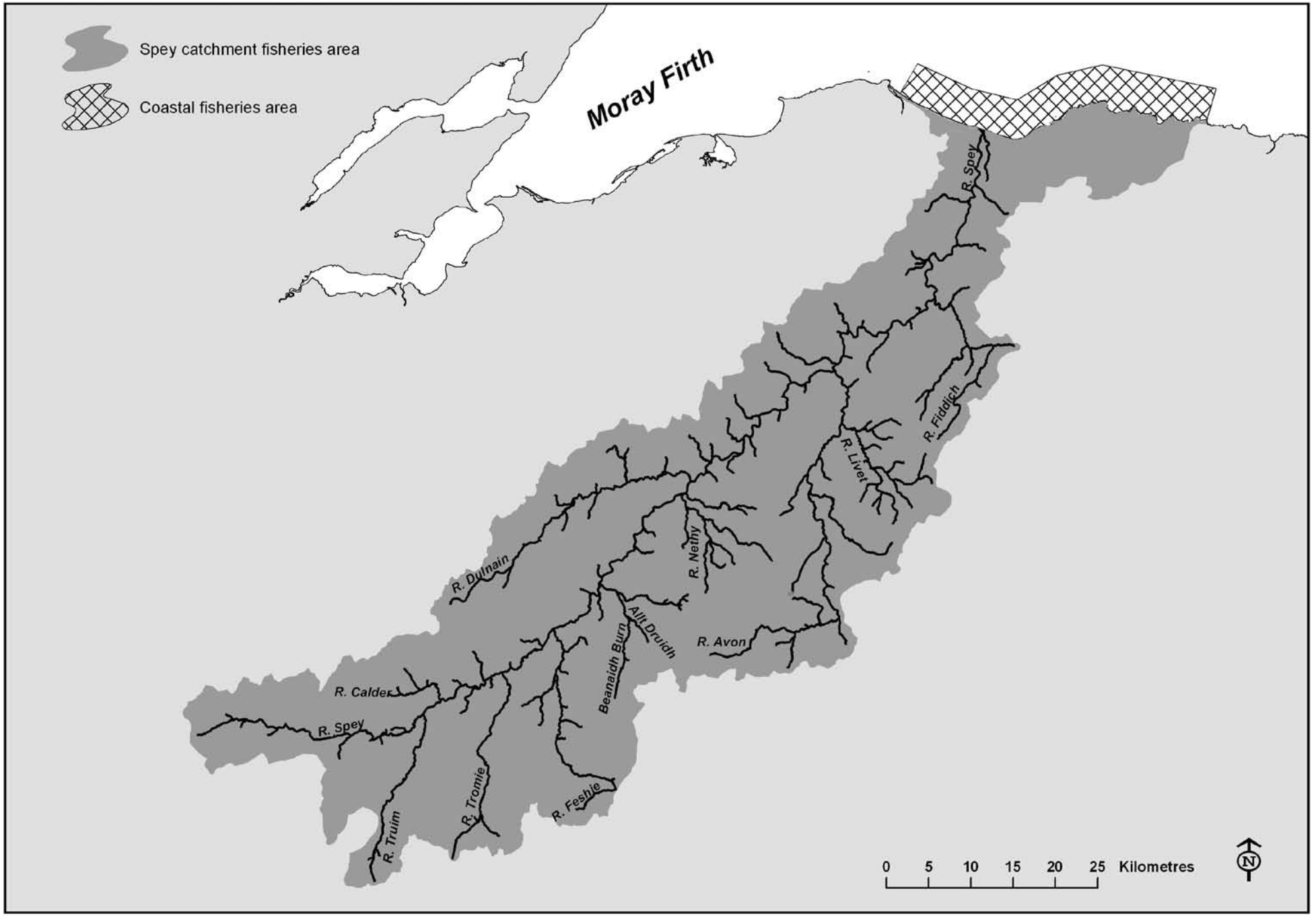


Figure 1. The River Spey catchment and Spey Fishery District

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 proposes 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. Work on this has continued and the SRT has been altering its constitution to comply with RAFTS guidelines. It is also proposed to change the SRT's name to the Spey Foundation, and to adopt the framework illustrated in Fig. 2.

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 on 28th 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. There are, however, gaps within it and much work needs to be done before it is finalised. In particular, we feel that policy development, the future of mixed stock netting stations and the funding of the management of all fish species have not yet been adequately addressed. The Board's policy is to continue to monitor the situation and to work with the Association of Salmon Fishery Boards (ASFB) and RAFTS to achieve an evolution rather than a revolution in how Salmonid Fisheries in particular are managed.

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 Planning to achieve 'good ecological status' of freshwater, groundwater and coastal water bodies.

SEPA has made progress towards sub-dividing Scotland into sub-basins, where catchments of similar types are grouped and managed collectively. The Spey has been 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 meets several times a year to develop this process.

1.6 Core Paths

Under the Land Reform (Scotland) Act 2003, there is a legal right to 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. The most contentious proposal has been to include the River Spey as a Core Path.

Moray Council have since proposed the designation of their canoeing access and egress points on the River Spey and the paths leading to them as Core Paths. They are also proposing that the River be a Promoted Path, on the basis that it is promoted on the Scottish Canoe Association's website. The CNPA, however, are considering the designation of the Spey as a Core Path in order to release funding for the development of access and egress points for canoeists, as well as to develop educational resources and because they believe their Core Path network would be insufficient if the River Spey were excluded. Highland Council have to date prevaricated and are waiting to see the decisions taken by their neighbouring authorities.
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. The SFB will continue to monitor the situation closely in 2008.

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 abstractions from Spey Dam by British Alcan and at the Dipple Wellfield (by Scottish Water) near Fochabers. The SFB believes that the River is currently losing 30% of its water as a result.

In September 2006, SEPA and Scottish & Southern Energy 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 under the Water Framework Directive whilst also maintaining Scotland's renewable energy policies.

In April 2007, Scottish Water also began digging exploratory boreholes south of Aviemore, 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 is 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 will have an adverse impact on the ecology of the River Spey and the species within it, including Atlantic salmon, sea trout and fresh pearl mussel. 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 and their likely impacts upon the River. Envirocentre will produce their report in January 2008 for consideration by the SFB.

A substantial amount of water is abstracted at Spey Dam (Photo: Bob Laughton)

Loch Einich supplies Aviemore and its surrounding area with water (Photo: Roger Knight)

The Spey Research Committee visited the Tromie Dam in August 2007 (Photo: Roger Knight)

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

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.

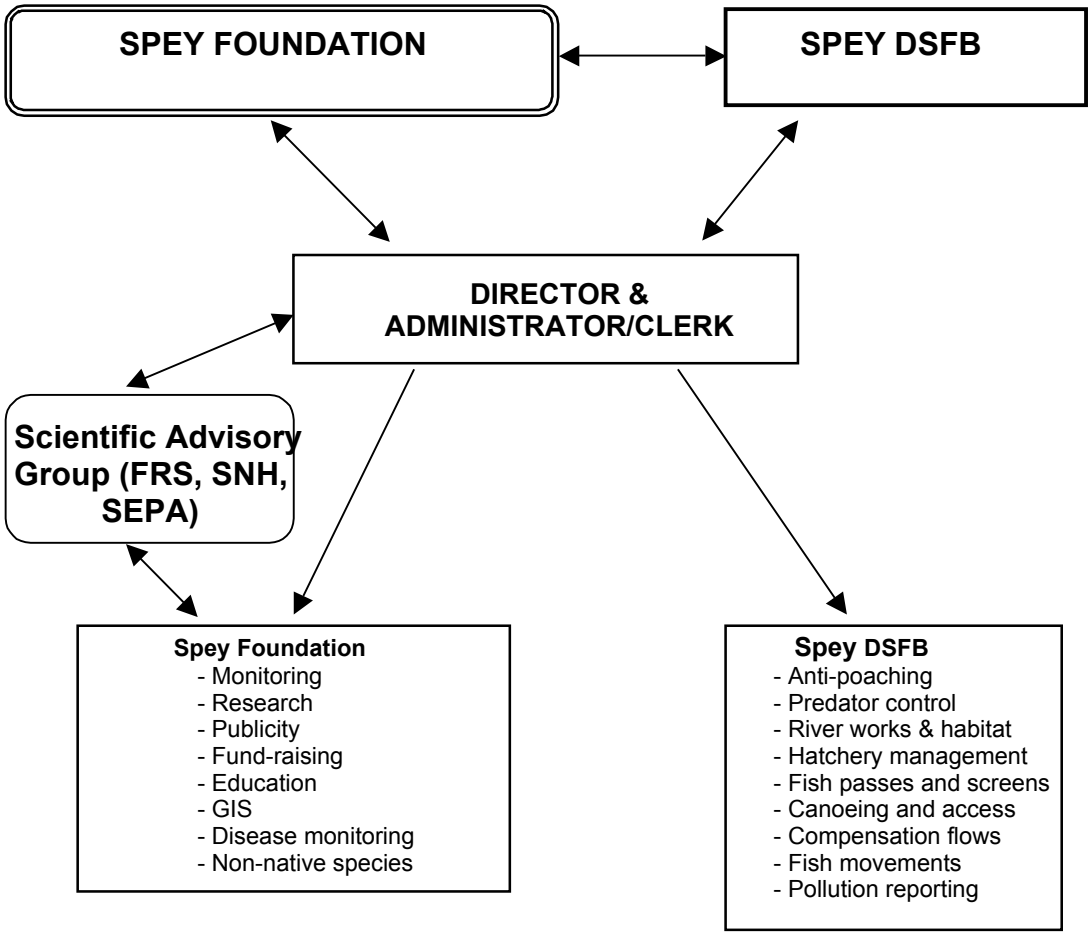


Figure 2. Proposed management and administrative framework of the Spey Foundation and the Spey Fishery Board, and their respective duties

Part 2

Fisheries and Conservation

2.1 River Flows 2007

River heights in the early part of the 2007 fishing season were low, with the river in April looking more like that expected in August. From mid-May onwards, though, the situation changed, with a wet summer that produced higher than average river heights until September. Hence, rod fishing conditions in the early part of the season were poor. The situation improved in May and June and produced excellent fishing until the end of the season. The river dropped to low levels for the second half of October, which caused some problems for the catching-up of hatchery broodstock, before returning to high levels throughout November and December. This may have caused damage to burns and tributaries, with an adverse impact on spawning egg survival rates.

2.2 Salmon and grilse catches

With the cooperation of all proprietors, ghillies, angling associations and hotels, an assessment of 2007 catch returns has again been possible. Rod catches saw 10,042 fish caught, slightly higher than those of 2005 (9,700) and 2004 (9,820). However, the slow start to the season meant that the excellent catches from July through to September were not sufficient to exceed the 11,378 caught in 2006. The total catch, though, was still a healthy increase on the 10 year average (1992-2001) of 9,100 (Fig. 3).

The low water in the early part of the season produced a reduction in spring catches compared to the long term trend. Between 11th February and 30th April, only 570 fish were caught, in comparison to 1,186 in 2006, 930 in 2005 and 1,100 in 2004. For the first time in recent years, this has brought catches below the 10 year average (1992-2001) of 600. A notable feature of the season was the significant numbers of grilse and some salmon reported with bleeding or “red” vents, a trend also noted throughout Scottish rivers. It is believed to be caused by the nematode worm, anasakis. Catches improved throughout May, June and July, and peaked in August which saw the largest monthly catch of 3,223 (Fig. 4).

Over 10,000 salmon and grilse were caught in 2007 (Photo: Ian Neale)

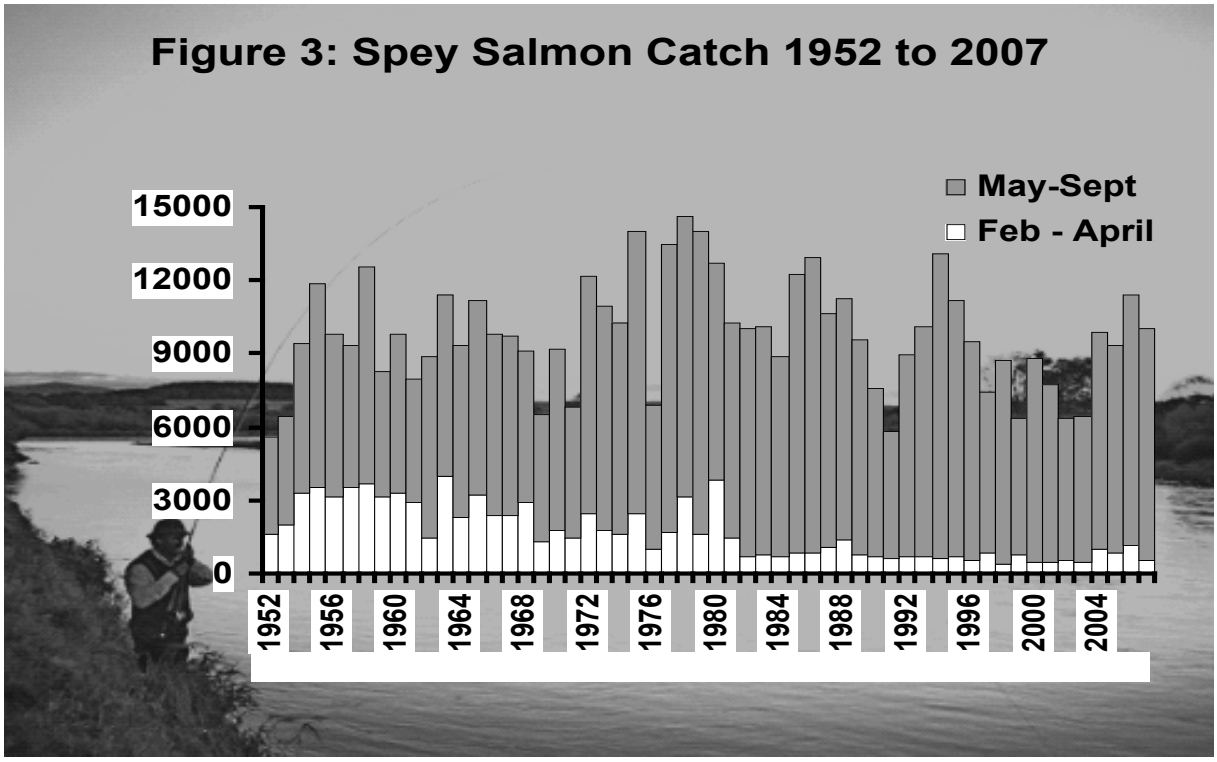


Figure 3. Annual declared rod catch of wild salmon and grilse from the River Spey, 1952-2007. The 2002-2007 catches are from returns made to the SFB by proprietors.

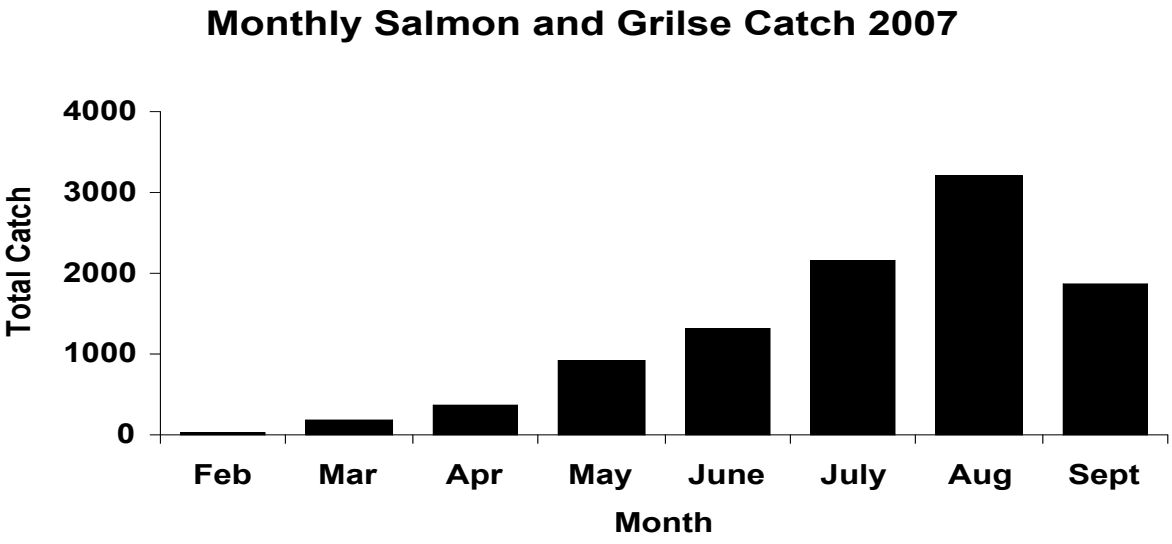


Figure 4. Declared monthly rod catch of wild salmon and grilse from the River Spey in 2007, calculated from returns made to the SFB.

2.3 Sea trout catches

The 2007 rod catch for sea trout was 2,199, substantially below the 3,286 caught in 2006 and similar to the 2005 catch of 2,270. It was also 53% below the 10 year average (1992-2001) of 4,590 (Fig. 5). The poor numbers of fish evident since 1997 in comparison to the 1980s and early 1990s remain a cause for concern.

As for both 2006 and 2005, monthly catches (Fig. 6) show that most sea trout (42%) were caught in June (932). July was the second most prolific month, with 585 caught (27%). Overall therefore, 69% of sea trout were recorded in these two months.

2,199 Sea Trout were caught in 2007, 53% below the 10 year average (Photo: Ian Neale)

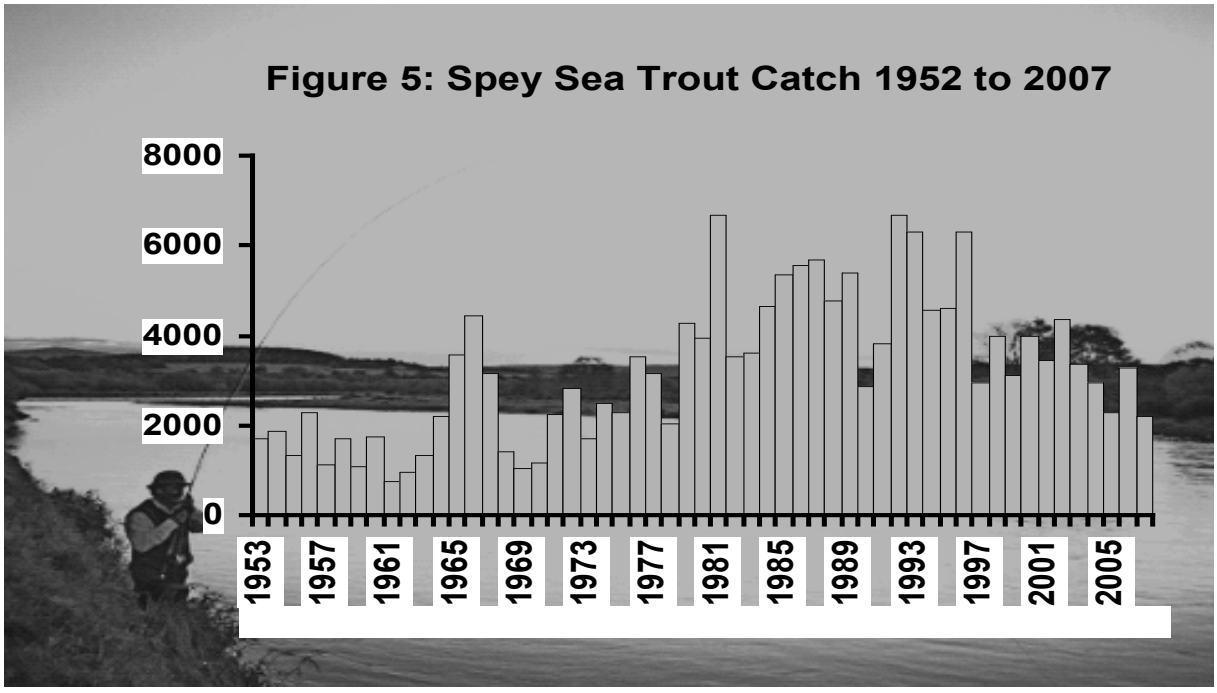


Figure 5. Annual declared rod catch of sea trout from the River Spey, 1952-2007. The 2002-2007 catches are from returns made to the SFB.

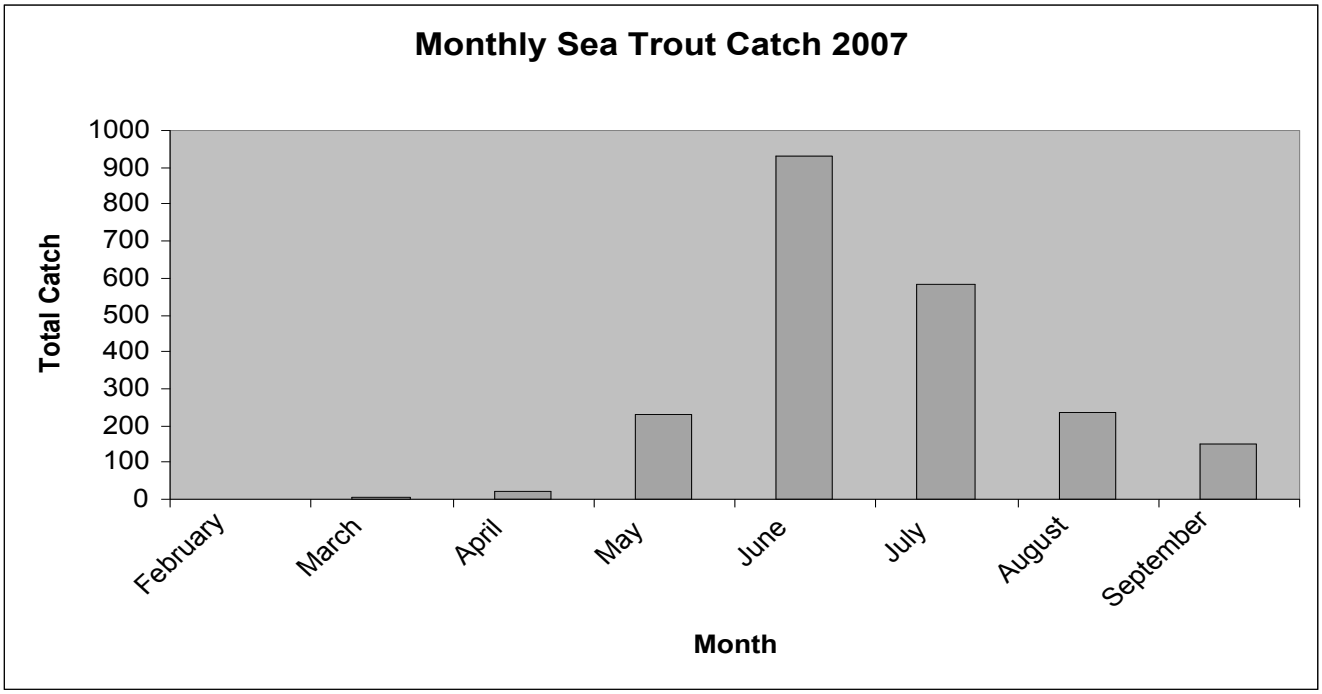


Figure 6. Declared monthly rod catch of sea trout from the River Spey in 2007, calculated from returns made to the SFB.

2.4 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 3). 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.

Gordon Castle Ghillie Euan Reid returns a grilse to the Castle Water beat (Photo: Roger Knight)

Until 30th June 2007, 69% of fish caught had been released, which was the same percentage as for that period of 2006. By the end of the season the release rate was 71%, as it had been in 2006 (Fig. 7). This is a very creditable 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, 7,144 salmon and grilse were released to spawn in 2007.

Despite the encouraging catches between 2005 and 2007, the SFB has decided to maintain a precautionary approach, and following discussions with the Spey Research Trust, the current policy will be maintained for 2008. The SFB will continue to monitor catches to ensure their accuracy.

SFB Director Roger Knight returning a grilse, August 2007 (Photo: Mrs Sally Rose Gordon Lennox)

Table 3. 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;
- Fishing effort;
- Where possible the numbers of hours and rods fished should be limited.

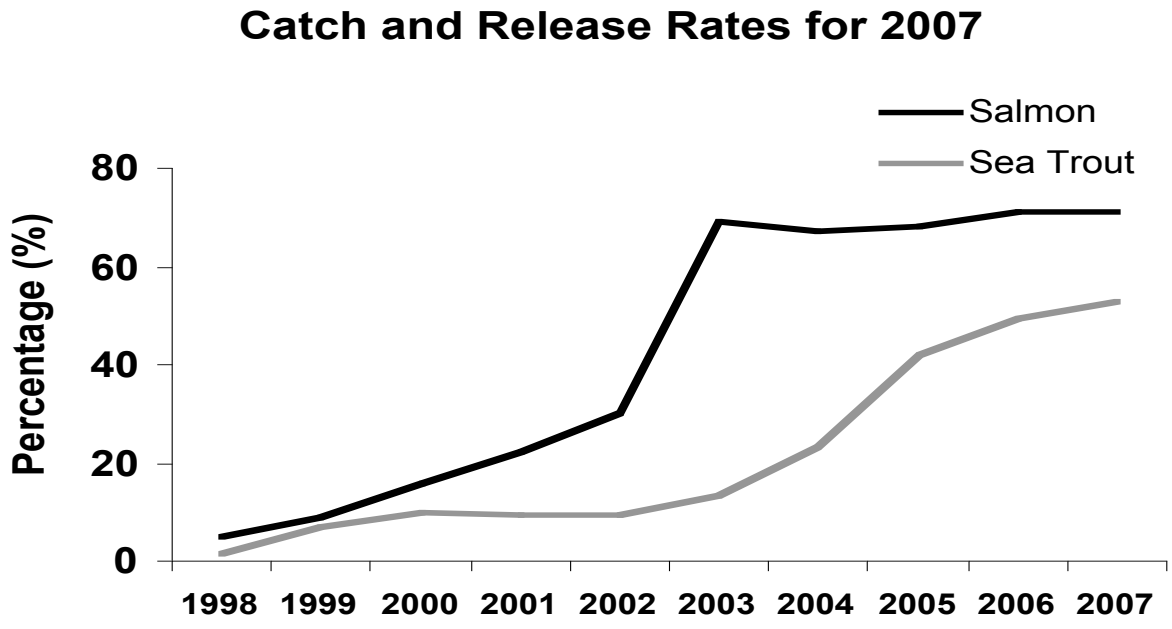


Figure 7. The proportion of rod-caught wild salmon and sea trout released on the River Spey, 1996-2007

2.5 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 improvement. Sea trout in the River Spey are poorly understood and often overlooked. However, catch statistics show that the Spey sea trout rod fishery is one of the largest in the UK, with a 10 year average annual catch of 4,590. By comparison only the Rivers Tywi and Teifi in Wales catch 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' Association, the policy was designed to encourage catch and release of finnock and larger adult sea trout (Table 4).

2007 saw the rate of catch and release increase to 53% from 49% in 2006 and 43% in 2005 (Fig. 7). In 2004 it had only been 21%. Whilst the overall upward trend is encouraging, there have been concerns that some angling associations, which together contribute 60-70% of the total sea trout catch, have not been adhering to the policy, particularly when it comes to explaining the policy to visiting anglers. Rather than altering the policy for 2008, the SFB has decided to maintain it and has worked hard throughout 2007 to promote a better understanding of the policy and the reasons for its introduction, in order to encourage greater compliance from all. Through a series of presentations, the aim was to explain that sea trout numbers were in decline and, whilst we had sport today, this might not be the case in the future unless active participation in the voluntary conservation measures were taken now. The SFB will reassess the situation in the course of 2008.

The decline in sea trout numbers in recent years has been seen by all 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. The aim is to recruit a Project Officer 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, which is expected to begin in April 2008 and will continue to work closely with other DSFBs within the region throughout the year.

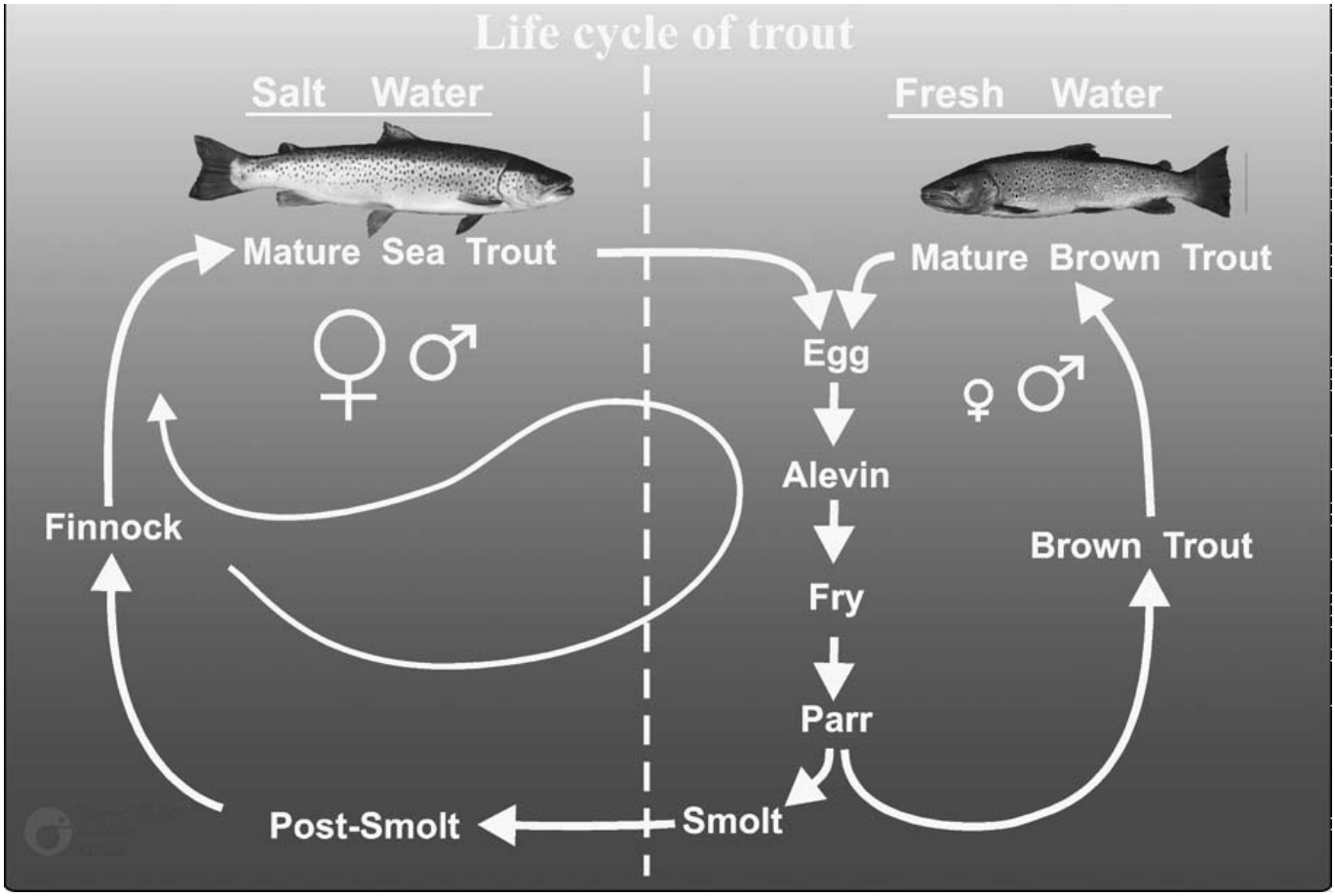


Figure 9. Shows the Life Cycle of Sea Trout

Table 4. Details of the SFB Sea Trout Conservation Policy

1. Finnock:	Release all fish of 10 oz. / 25 cm / 10” or less
2. Sea Trout:	Release all fish of 3 lb. / 50 cm / 20” or more
3. Bag Limit:	2 sea trout or finnock of takeable size per calendar day
4. Unseasonable Fish:	Release all unseasonable fish (smolts, stale fish, kelts, over-wintered finnock)

Part 3

Spey Catchment Management Plan

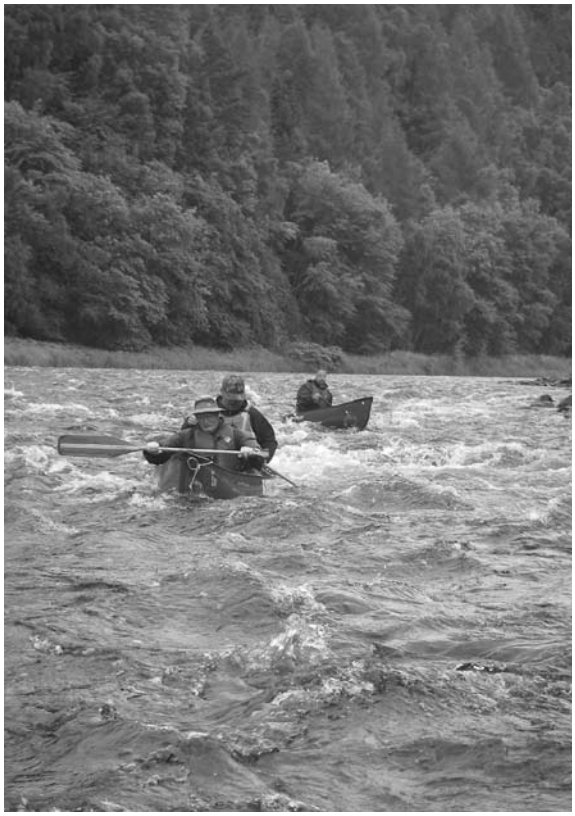
3.1 Spey Catchment Management Plan

Funding for this collaborative project with Scottish Natural Heritage (SNH), SEPA, Moray and Highland Councils was exhausted in October 2004. However, the SFB has continued throughout 2007 to pursue initiatives raised by the Management Plan, including angling, canoeing and access, and the Northern Periphery Programme.

3.2 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 is 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 responsible 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 2007 there continued to be some problems between fisheries and canoeing interests on the river, although these were more isolated than in the past. White water rafting is also becoming more popular on the river, particularly in the Ballindalloch and Knockando areas, and some problems have occurred. To aid the resolution of these issues, the SFB, Spey Fishing Trust, Cairngorms National Park Authority and Scottish Canoe Association held the now annual meeting of the Spey Users' Group on 4th December 2007 at the Ben Mhor Hotel in Grantown on Spey. Discussions were generally cordial and continued to explore possible compromises to areas of concern. Whilst there had been only a few instances of conflict during 2007, the main concern amongst ghillies and anglers has been the continued rise in the numbers of paddlers on the river, particularly along the Ballindalloch and Knockando beats. During the meeting the SFB renewed the call for the introduction of a regulatory system for paddlers to alleviate this pressure, but this remains unacceptable to the paddling fraternity as a whole. There has, however, been some positive progress with the development of the Ballindalloch access point, with SNH awarding the first of a two stage grant towards the design and implementation of the project. Work on this is continuing and we hope to see further progress in 2008.



Canoeists on the River Spey
Photo: Dave Craig, SCA)

During 2007 the SFB continued to contribute to the safety of canoeists on the Spey by removing fallen trees in areas of the river which are hazardous and have caused fatalities in the recent past.

3.3 Northern Periphery Programme

The NPP project has progressed rapidly throughout 2007 and Spey personnel are involved in two of the three themes, Theme 2: Habitat Restoration and Theme 3: Raising Awareness of Watercourses.

Theme 2: Habitat Restoration.

Work on the Conglass Burn was completed by early Spring 2007. The Spey Fishery Board in partnership with the Crown Estate, Highland Council, Moray Council and Scottish Natural Heritage have completed a series of major riparian habitat improvements to protect salmon and trout spawning areas along the River Conglass, near Tomintoul. This is an important tributary of the River Spey which has suffered from a range of man-made problems affecting the local fish populations. In particular the River Conglass has been affected by livestock overgrazing, river bank collapse, poorly sited forestry plantations and barriers to fish movements such as culverts. Supervised by Andy Wells (Crown Estate) extensive fencing works were completed to exclude livestock from the river bank and allow woodland regeneration along a section of the Conglass upstream of Ruthven Farm. In addition extensive areas of conifers were removed from alongside the river and replaced with native broadleaves.

Improving fish access to spawning sites also featured highly in the project. The complete removal of two poorly constructed culverts from the Glenmulliach Burn, a small but important trout tributary, should enable fish to reach formerly inaccessible spawning beds in the future. The large culvert beneath the A939 Lecht road on the Blair na Marrow Burn, was improved by the Moray Council through the installation of a series of baffles along its base. These help to deepen the water and slow down the flow to ease fish passage.

The Blair na Marrow Culvert (Photo: Bob Laughton)

Fencing works were undertaken along the River Conglass in 2007 (Photo: Bob Laughton)

Theme 3: Raising Awareness of Watercourses

After the success of the schools programme with Aviemore and Craigellachie Primary Schools, attention was turned to developing and trialling a series of adult education courses and study visits.

A further invertebrate identification training day was organised with Craig Macadam, Bradan Aquasurveys Ltd, for the Glenlivet Wildlife Group. Participants will be encouraged to collect samples from the Conglass and surrounding burns in the future.

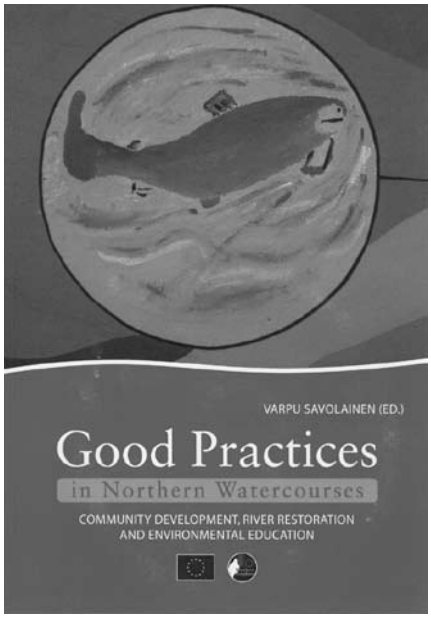
In conjunction with the Cairngorms National Park Land Based Business Training Project a one day workshop on "Fishery Management" was organised. The workshop was developed by Bob Laughton and Roger Knight and provided delegates with an insight into the research and management conducted on the River Spey. In addition case studies on non native species, access and canoeing-angling interactions were explored. We are grateful to Stephen Corcoran (Biodiversity Officer), Fran Pothecary (CNPA) and David Craig (Spey Canoeing Association Liaison Officer) for their presentations on these areas respectively. Delegates were encouraged to participate in two field study visits to build on the information delivered in the workshop. The first study visit looked at canoeing and angling issues on the Spey. Participants met with Alan William (SFB Chairman), Ian Gordon (Knockando Ghillie) and David Craig (Spey Canoeing Association Liaison Officer) to discuss managing interactions between anglers and canoeists on the Spey. The discussions were followed by a canoe trip from Knockando to Aberlour.

The second study trip included a visit to habitat improvements along the Conglass Burn, the SFB hatchery at Sandbank and the rotary screw traps on the Brae Water. An electrofishing demonstration was also included providing delegates with an insight into the practical aspects of fishery research and management on the Spey. The seminar and study visits were a great success and may well be repeated in the future.

The adult education programme ended with the innovative "Scottish Angling Leader Award Course". This course has been developed by the Joint Angling Development Bodies of Scotland and was run for the first time in Craigellachie on the 6th of May 2007. Ian Robertson (Scottish National Angling Programme Manager) facilitated the course and delegates from a range of fishery interest and youth groups attended. The course provided guidance in how to encourage young people to 'have a go' at fishing, and introduce young anglers to the sport in a safe, enjoyable and environmentally responsible manner, whilst understanding their roles and responsibilities as a volunteer.

NPP Conference NorWat Northern Periphery

The NPP project concluded with a conference in Aviemore during April 2007. Project participants from the four countries Finland, Sweden, Norway and Scotland gathered to review finds and share their experiences from the three year programme. The project was considered by all to be a resounding success with significant advances made in habitat enhancement techniques and environmental education. A well-produced and detailed account of the project, "Good Practices in Northern Water Courses", is available and a limited number of copies are available from the SFB Research Office. Contact Bob Laughton (research@speyfisheryboard.com).



The NPP publication on Good Practices

Participants in the NPP Canoeing Trip, March 2007 (Photo: Bob Laughton)

Part 4

Management Report

4.1 Stock Enhancement 2007

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 5). The Policy aims to boost natural smolt output from the Spey by targeting under-populated 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, the SRT has identified all man-made and natural obstacles within the catchment. The area of water above man-made obstructions is estimated to be 878,000 m2, and the area above natural obstructions is 200,000 m2, giving a total of 1,078,000 m2. Juvenile surveys carried out by the SRT suggest that most naturally accessible areas of the catchment are utilised by salmon (see Part 5), and therefore little enhancement is possible. Planting juvenile salmon at a density of approximately 2 fry/m^2, a target of 2 million fry is required to fully stock the target areas.

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 operates thanks to the generosity of Tulchan Estate, but under the supervision of the SFB. Until 2006, the shortfall had been made up by a contract with the Alvie Hatchery, Kincraig, but at the end of 2006 it was decided we could meet the requirement from our own resources. Following a review of the requirement and a decision not to continue stocking in some areas, a total of 1.8 million eggs are therefore produced annually by the Sandbank and Tulchan hatcheries.

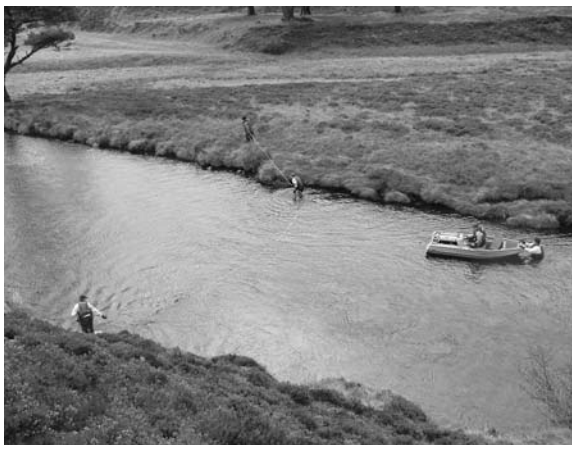
SFB Hatchery Manager Jimmy Woods and assistant Ali Grant worked tirelessly throughout 2007 to ensure the smooth operation of Sandbank Hatchery

Table 5. SFB salmon and sea trout Stock Enhancement Policy

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.

In October 2007, SFB Bailiffs collected sufficient broodstock to fill the capacity of the Sandbank and Tulchan Hatcheries. In addition, 2007 saw the collection of sufficient sea trout to produce 100,000 fry. In line with best practice outlined in FRS's 'Salmon and Sea Trout: To Stock or Not?' guidelines, juveniles were planted into the same areas of the catchment that their parents had originated from, to ensure optimal survival. Unfed and fed fry were planted out from April to July 2007 (Table 6).

The collection of broodstock was again made highly efficient due to the use of the electro-net and associated equipment purchased three years ago with a 50% grant from SNH. With the assistance of ghillies from Delagyle, Tulchan and Delfur estates, broodstock were collected from target areas throughout the catchment. The electro-net was used to great effect on the tributaries, whilst the main stem river saw the bailiffs employing the more traditional rod and line. This is because the size of the River Spey (particularly with the high water levels at the end of 2007) does not lend itself to electro-netting for health and safety reasons.
The SFB was also contracted to assist the Deveron and Findhorn DSFBs in the collection of their broodstock.



Catching broodstock from the River Feshie, October 2007 (Photo: Roger Knight)

SFB Bailiff Richard Whyte retrieves another fine specimen for the hatchery (Photo: Roger Knight)

A salmon leaping the Falls of Truim at the end of September 2007. (Photo: Roger Knight)

Table 6: Salmon Stock Enhancement in the Spey Catchment 2007

Stock origin	**Stocking site**	**Location details**	**Downstream Grid Ref**	**Un fed Fry Planted**	**Date**
Truim	Truim	River from confluence of Allt Coire Fhar u/s	NN 627792	50000	30/04/2007
Truim	Truim	Allt an Tuirc	NN623780	20500	30/04/2007
Truim	Truim	Burn beside A9 at Drummochter Pass	NN625780	40000	30/04/2007
Tromie	Allt Garbh Gaig, Tromie Dam	From confluence u/s	NH 757834	75000	01/05/2007
Feshie	Allt Mhor, Feshie	From falls u/s	NN 826966	71000	02/05/2007
Dulnain	Batten Burn	From A9 upstream	NN889238	61500	02/05/2007
Broodstock Source	**Stocking site**	**Access**	**Total**	**Fish type**	**Date**
River Avon	Burn of Brown, R. Avon	Inaccessible above falls	30,000	Fed fry	02/07/07
River Avon	R. Avon at Findouran Lodge	Accessible	270,000	Fed fry	03/07/07
Mainstem Spey	R. Spey, Spey Dam	Partly inaccessible above man-made obstacle	160,000	Fed fry	10/07/07
River Dulnain	Allt na Moireach, R. Dulnain	Inaccessible above falls	40,000	Fed fry	01/07/07
River Dulnain	Allt Ghiuthais, R. Dulnain	Inaccessible above falls	40,000	Fed fry	01/07/07
River Dulnain	Caochan na Gaibhre, R. Dulnain	Inaccessible above falls	40,000	Fed fry	01/07/07
River Dulnain	Allt an Tudair, R. Dulnain	Inaccessible above falls	40,000	Fed fry	01/07/07
Delagyle, mainstem	Knockando Burn	Inaccessible above man-made obstacle	200,000	Fed fry	12/07/07
Delagyle, mainstem	Ballintomb Burn	Inaccessible above man-made obstacle	65,000	Fed fry	12/07/07
Upper Arndilly	Mulben Burn	Inaccessible above man-made obstacle	100,000	Fed fry	12/07/07
Tulchan, mainstem	Gynack Burn	Partly inaccessible above falls	70,000	Fed fry	10/07/07
Tulchan, mainstem	Burn of Coire Seileach	Inaccessible above falls	10,000	Fed fry	10/07/07
Tulchan, mainstem	Glenmore Burn	Inaccessible above falls	10,000	Fed fry	10/07/07
Tulchan, mainstem	Allt Eoghainn	Inaccessible above man-made obstacle	10,000	Fed fry	10/07/07
Tulchan, mainstem	Allt a Chaorainn, R. Calder	Inaccessible above falls	20,000	Fed fry	10/07/07
Tulchan, mainstem	Allt Fionndrigh, R. Calder	Inaccessible above falls	20,000	Fed fry	10/07/07
River Avon	Tommore Burn, R. Avon	Inaccessible above man-made obstacle	20,000	Fed fry	26/07/07
Delagyle, mainstem	Allt Arder	Inaccessible above falls	40,000	Fed fry	26/07/07
Upper Arndilly	Dullan Water, R. Fiddich	Inaccessible above man-made obstacle	100,000	Fed fry	26/07/07

Table 7: Sea Trout stock enhancement in the Spey catchment 2007

Broodstock Source	Stocking Site	Access	Quantity	Fish Type	Month
Avon	Allt a Choileachain, R. Livet	From C Riches House u/s	15,000	Fry	April
Avon	Tommor Burn, R.Avon	From Culvert B9008 u/s	20,000	Fry	April
Avon	Allt Loin Beag, R.Avon	From Irish Bridge Culvert u/s	15,000	Fry	April
Avon	Allt na Cabar, Conglass Water	From Culvert at Blairnamorron A939	10,000	Fry	April
Avon	Glenmullie Burn, Conglass Water	From Forestry Culvert u/s	5,000	Fry	April
Avon	Chabet Water, R.Avon	From Road Culvert at Ballcorach u/s	35,000	Fry	April

4.2 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, as a result of a review of the areas to be stocked, this was reduced to 1.8 million. However, it is important to quantify whether this policy is yielding extra smolts and returning adults.

Throughout 2007 the SRT has continued collaborating with FRS to use novel genetic technology to assess the contribution of hatchery stocked fish to the rod fishery. Tissue samples were taken from all broodstock stripped, and DNA fingerprints of the families of progeny have been established. We are now beginning to collect DNA samples from some returning fish and are liasing with the FRS regarding the analysis of these genetic samples.

Choice of stocking location is also still under review. Stocking above natural waterfalls has been practised but recent concern about the effect this will have on resident trout populations was taken into account during our stock review. During 2006, 100,000 eggs had been carefully stocked into the Lour in planned density units. Electro-fishing surveys were then conducted during June to assess the success of the stocking exercise and the effects on the existing trout population. The SRT has continued to study this, in collaboration with Dr Phil Bacon (FRS), who made a return visit to the Lour Burn in 2007 and is continuing to assess the data collected.

SRT Biologist Jim Reid collecting measurements and scale samples from a large Trout during the catch-up of broodstock (Photo: Roger Knight)

4.3 Obstacles to Fish Passage

The process of identifying man-made obstructions to fish passage has 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%.

4.4 CASS LIFE Project

The process of removing or mitigating these obstacles has continued throughout 2007 with the EU LIFE Project, 'Conservation of Atlantic Salmon in Scotland (CASS)'. Because the Spey is a SAC the SFB is 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.

The SFB's component of the CASS LIFE Project focuses on removing or mitigating 13 major man-made obstacles to fish passage (Fig. 8). To improve monitoring of salmon stocks, a fish counter has been installed in a fish passes on the River Dullan, with two more planned, one for the River Truim and one at Spey Dam. The Spey programme also includes a public awareness component, which focuses on the extension of the SRT's Salmon Go To School programme, and demonstration site visits.

The total value of the work on the Spey is £573,274, of which 64% is being sourced from LIFE and SNH. The SFB is providing support for project management, the running of fish counters, juvenile surveys, and stocking above the obstacles. Project management is assisted by officers employed by SNH. During 2007 works were completed on the following projects:

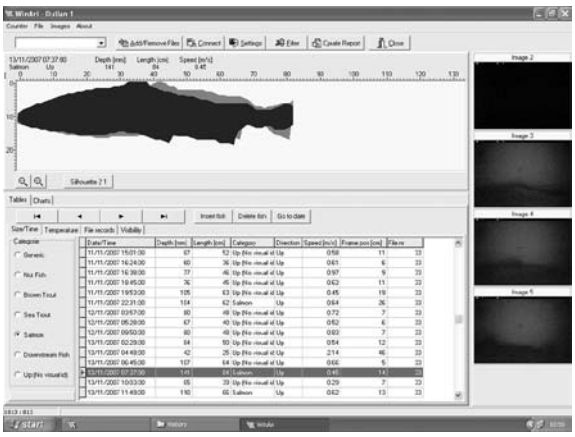
1. Spey Dam smolt trap: In collaboration with British Alcan Smelters, the original smolt trap used for monitoring smolt runs through Spey Dam was replaced in 2005 by a modern, light-weight version. This was put in to operation in 2006 and again in 2007. This resulted in 4,300 smolts being trapped, counted and subsequently released in 2006, with another 4,000 during 2007. This has been particularly encouraging as this number indicates a substantial increase in the numbers of smolts above Spey Dam. Currently we are planning to adapt the fish ladder at Spey Dam to accommodate an adult fish counter.

SRT seasonal biologist Alan Wickham examines the compartment for the fish counter at Mortlach Weir (Photo: Bob Laughton)

A salmon is photographed as it passes through the VAKI fish counter at Mortlach Weir

A CASS Life study visit to Mortlach Weir was undertaken by members of the River Spey Anglers' Association and ghillies from Delfur Estate in November 2007 (Photo: Bob Laughton)

2. Mortlach Weir: A project to alter two weirs on the River Dullan (a tributary of the Fiddich that provides cooling water for the Mortlach and Dufftown distilleries) is now complete and the results have been encouraging. Over the years the lower Mortlach weir had become undercut and as a result fish had difficulty ascending it. Despite having a fish pass, analysis of the upper Dufftown weir indicated that the design could be improved to allow better fish access. Given suitable flows, which are not always present, sea trout managed to ascend both weirs. However, over the years juvenile surveys have indicated that salmon only occasionally ascended the Mortlach weir and never progressed above the Dufftown one. The weirs are owned and operated by Diageo and with their support and funding through the CASS LIFE project, the SFB installed two new fish passes on the off-take weirs between 2005 and 2007 to improve fish access. As part of this project to encourage salmon to re-establish in the Dullan, some supplementary stocking with hatchery-reared progeny from the nearby Fiddich has been initiated and monitoring the success of the operation through electro-fishing has also been conducted. To further improve monitoring of fish stocks in the Dullan, the fish pass on the Mortlach weir was designed to accommodate a VAKI fish counter at the upstream end. The counter was successfully installed during July 2007 and has already provided new insights into fish passage in the Dullan, with fish soon being recorded ascending the fish pass shortly after installation. Digital images of fish ascending allow the species to be determined. The majority have been either sea trout or brown trout, although some salmon have also been detected. The majority of the trout have migrated soon after spates and typically at night. Two particular aspects of the project have been a surprise. Firstly the migration started much earlier than anticipated with trout progressing through the counter from July onwards. Secondly, the size range of the ascending fish were surprising, with trout of only 20cm successfully ascending the fast flowing waters of the fish pass. Despite the success so far, work still remains to improve the system to make it more robust and better able to deal with the high leaf load that occurs in the river during Autumn. Fish can also still ascend the weir under certain flows without having to use the fish pass and this requires assessment. The SFT will continue to work on this in 2008.



The VAKI counter provides excellent data for the SRT's biologists

3. Batten Burn Bridges: liaison with the Scottish Government and Network Rail to progress with improvements to the A9 and rail bridges over the Batten Burn continued throughout 2007, but without success. The existing concrete surfaces below the bridges currently deny fish access to the Burn above and it had been intended to install a series of baffles under these bridges to allow fish to pass through them. The slow progress led the CASS Life team to re-evaluate this project and they subsequently decided that the costs of the proposed works outweighed the potential benefits. It was therefore decided in November 2007 to cancel this project and reallocate the funding to one more worthwhile.

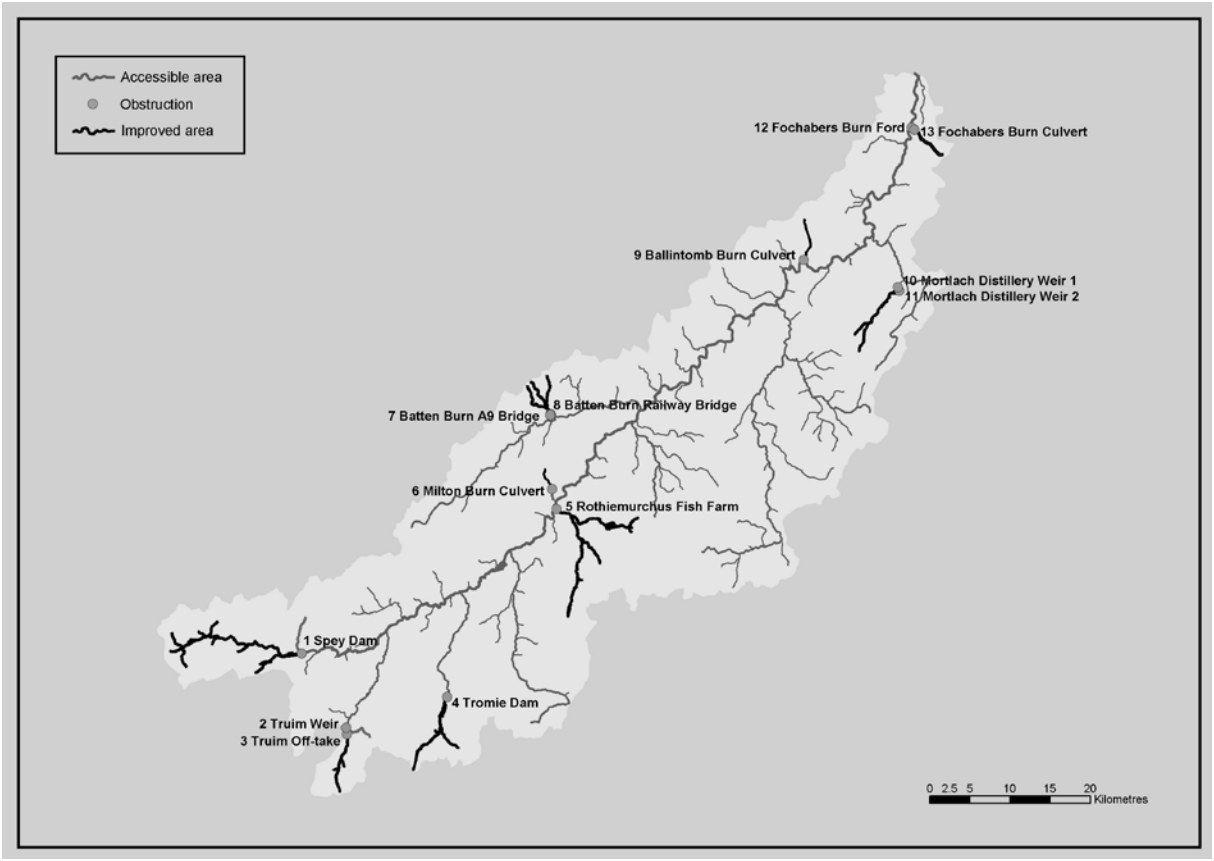


Figure 8: Map of the Spey Catchment showing the 13 major man-made obstacles identified for removal or mitigation under the CASS Life Project

4.5 Pollution Incidents

There were no serious pollution incidents reported in 2007.

4.6 Sawbill Ducks and Cormorants

Following an application to the Scottish Executive, the SFB was again awarded a licence from January-April 2007 to shoot 18 goosanders and 3 cormorants. No red-breasted mergansers were licensed to be shot due to concerns about their numbers within the inner Moray Firth, which is a Special Protection Area (SPA) for this species.

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 has continued to work with SNH and the Scottish Government to establish a Moray Firth-wide management scheme for sawbill ducks and cormorants, along similar lines to the seal management plan (see section 4.7). This resulted in December 2007 in a joint application to shoot sawbill birds and cormorants by the Spey, Ness, Beauly, Conon and Kyle of Sutherland DSFBs. It is the first time such an application has been submitted to the Scottish Government and it was coordinated by the SFB. Furthermore, the application has requested that the 2008 joint licence runs until the end of May, rather than April, in order to provide additional protection to salmon stocks during the annual smolt run. 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 for piscivorous birds of other relevant authorities against the obligations of DSFBs to conserve the fish stocks on which these birds prey.

SFB staff conduct regular counts of sawbill birds and cormorants on the River Spey by canoe (Photo: Dave Craig)

4.7 Moray Firth Seal Management Plan

2007 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 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 2007 the Scottish Executive 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 netsmen, who do not require licences, at netting stations in the Moray Firth. Among these the SFB shot five common and five greys, according to our licensed quota of 5 of each species.

Having operated as a pilot scheme for Scotland for the last three years, the Moray Firth Seal Management Plan will continue throughout 2008. 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.

Numbers of predatory seals are controlled under the Moray Firth Seal Management Plan. (Photo: Rob Harris, SMRU)

4.8 Fishery Protection

Angling on the Spey contributes £11.8 million each year to the local economy and provides 367 full-time 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 2007 the SFB continued to collaborate with the Grampian and Northern Constabularies. Grampian Constabulary launched Operation Salmo in February 2007, a nationwide police operation against salmon poaching that has seen greater cooperation between the SFB's Bailiffs, the police and the general public. We look forward to strengthening our already close ties with Grampian Police in 2008 in order to control the poaching of these superb fish. Meanwhile meetings between Moray Firth DSFBs and Northern Constabulary took place in July 2007, aimed at strengthening links between Police in the Highland region and the DSFBs' Bailiffs, to the same degree as those enjoyed by the SFB and Grampian Police. This led to a successful joint operation later that month between the SFB's Bailiffs and Northern Constabulary officers based at Aviemore, resulting in the arrest of offenders in Grantown-on-Spey who were later charged with poaching offences.

Coastal patrols between Findhorn and Fraserburgh were continued from April-September 2007 in collaboration with the Findhorn, Lossie and Deveron DSFBs. A total of 10 patrols were completed with the SFB's 17ft Rigid-hulled Inflatable Boat, during which four illegal gill nets were intercepted. Whilst the number of patrols carried out in 2007 was lower than the previous year, adverse sea conditions and other operational requirements prevented more patrols being undertaken.

The SFB's Bailiffs dealt with more incidents in 2007 than they had in recent years. Whilst poaching activity nationwide may be declining, 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 even more of a target for such illegal activity.

The SFB Patrol Boat and SFB Bailiff Richard Whyte at Lossiemouth Harbour after another coastal patrol. (Phtoto: Roger Knight)

4.9 Staff Training

2007 saw staff from both the SFB and the SRT undertake an extensive programme of training to ensure that they are competent to fulfil the many varied tasks we ask them to undertake. Furthermore, even if staff had had practical experience in a particular task, appropriate courses were undertaken to ensure that both they and the Board comply with current Health & Safety legislation. The training proved to be physically as well as intellectually demanding and included SFB Bailiffs Duncan Ferguson and Richard Whyte completing the arduous chainsaw Tree Climbing and Aerial Rescue course to qualify as tree surgeons. The SFB is grateful to Ballindalloch Estate for hosting the various chainsaw courses throughout the year and to Glenfeshie Estate for hosting the Quad Bike and Argocat courses in the Spring. The list of courses undertaken by SFB and SRT staff in 2007 included the following:

- Institute of Fisheries Management Certificate in Scottish Bailiffing, Keepering Duties and Law
- Sit-on All Terrain Vehicle (Quad Bike)
- Sit-in All Terrain Vehicle (Argocat)
- National Powerboat Certificate Level 2
- Environment Agency Electric Fishing Certificate of Competence
- SFCC Electro-Fishing Introduction and Team Leader Training Courses
- Canoeing Proficiency
- Information Technology
- Chainsaw:-
  - Maintenance, Cross-Cutting and Felling Small Trees
  - Felling Medium Trees
  - Individual & Multiple Windblown trees
  - Basic Tree Climbing, Aerial Rescue & Using a Chainsaw from a Rope & Harness

During 2006 SRT biologist Bob Laughton and staff were contracted by the SFCC and Inverness College to deliver training in electro-fishing techniques for both the SFCC Introduction and Team Leader training courses. Two courses were delivered in 2007.

SFB Bailiffs Duncan Ferguson and Richard Whyte undertook the arduous Chainsaw Aerial Rescue Course in 2007 to qualify as tree surgeons. (Photos: Roger Knight)

4.10 Administration

In November 2006, SFB Director Roger Knight made a recommendation to the Board that the financial administration of both the SFB's and SRT's expenditure should be brought in-house, having in the past been conducted by the Clerk to the Board and R&R Urquhart Solicitors. This recommendation was not a reflection on the excellent service from R&R Urquhart over the years, but rather because the SFB's and SRT's operational effectiveness was hindered by the finances being administered externally. The Board approved this recommendation and in May 2007 we welcomed Alison Maxwell, who joined us part-time as our Accounts Manager. Alison had been Financial Controller for Lossie Seafoods and has considerable experience in the establishment and conduct of accounting procedures. The SFB commended Alison for her hard work throughout 2007 which has established sound procedures for the administration of our expenditure. In November 2007, having taken full control of the majority of our financial administration, the SFB Director recommended to the Board that it was now time to take over the administration of our income as well as our expenditure to further enhance our operational effectiveness. The Board approved this recommendation and we look forward to administering our income, including the preparation of the Assessments, in 2008. We shall retain the services of Mr Will Cowie from R&R Urquhart Solicitors as Clerk to the Board.

SFB Bailiff Duncan Ferguson shows a cock salmon to visitors at the Sandbank Hatchery as part of the CASS Life programme (Photo: Bob Laughton)

Part 5

Spey Research Trust Report

5.1 Assessing the Juvenile Survey Data

Work progressed this year on producing a classification system for electro-fishing data from the Spey. Survey data can be collated into a percentile (quintile) structure (Table 9) to allow an estimation of the quality any given electro-fishing site to be calculated.

Juvenile surveys have been implemented on the Spey since 1990 and there is a large dataset to develop such an approach. Using timed data from the mainstem surveys and three fishing data (See table 8) from the tributaries classification tables were developed and are presented in Tables 10 to 12. Future survey sites can be compared with this classification and a survey site can be graded accordingly.

There is a real requirement to develop this approach, as presenting juvenile fish data in numerical form is often meaningless to contractors; they required knowing whether an area was good or poor etc for specific fish populations. This system provides a more understandable method for communicating the survey data. In addition trends in the quality of a site or series of sites on a tributary can be more readily assessed. This approached will be developed further when assessing the 2007 juvenile survey data.

The current system is based wholly on Spey survey data but datasets from Scottish Fisheries Co-ordination Centre (SFCC) allow comparisons with regional (Moray Firth), and national data to be undertaken.

5.2 Juvenile Surveys 2007

	Timed Sites	One Run Sites	Three Run Sites
Mainstem	48		
Tributaries		60	33
Lour	25		
Findhorn		39	
Contract	41		2

Table 8: Summary of electro-fishing for the 2007. 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; in area based fishing a discrete survey site is marked out and fished either once or three times.

Table 8 provides a summary of the electrofishing achieved throughout 2007. Despite a wet summer an extensive coverage of the catchment was achieved, including the mainstem 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 2007 survey was similar to previous years. The survey included 48 timed electrofishing sites along the length of the mainstem along with a further 93 tributary sites. A further extensive survey was made in the upper Lour to follow the fortunes of the salmon stocked in the burn in 2006.

Analysis of the juvenile data is underway however, an initial assessment shows that salmon fry were found at 82% of 143 sites surveyed, compared to 80% of the sites in 2006. Of these sites, 18 sites had been influenced by stocking of salmon fry in 2006 and 2007. The distribution of fry was slightly improved when compared with 2006. However, there was some evidence that distribution of fry in the upper tributaries such as the Calder, Feshie and Druie was poorer than previous years. A survey of the lower Gynack Burn indicated a substantial drop in wild salmon fry after the area had been dredged for flood alleviation purposes. Mainstem distribution of fry was good with only the middle, slow-flowing reaches showing a lack of fry. Lower tributaries and the smaller burns also indicated a good distribution.

Trout fry were found at 66% of the 143 sites in 2007, which improves upon the 50% recorded in 2006. Again some caution needed with this data. Distribution of trout fry in the mainstem fell further to only 2% of the 48 sites examined while there did seem to be a notable improvement in the distribution within some tributaries. Runs of sea trout were better in 2006 and this may have help improve the distribution in the tributaries and burns.

Table 9: Classification structure for juvenile electrofishing site data.

Percentile range	Classification	
0	F	Absent
0 to 20th percentile	E	Very Poor
20th to 40th percentile	D	Poor
40th to 60th percentile	C	Moderate
60th to 80th percentile	B	Good
> 80th percentile	A	Excellent

Table 10: Classification system for mainstem timed electro-fishing data (fish.min^{-1}) derived from 2002 to 2006 surveys.

Class		Salmon 0+	Salmon 1+
Absent	F	0	0
Very Poor	E	0.70	0.10
Poor	D	1.30	0.20
Moderate	C	1.97	0.35
Good	B	2.90	0.75
Excellent	A	11.65	4.05

Table 11: Classification system for the densities (m^{-2}) of juvenile salmon and trout age classes in the Spey tributaries, derived from 1990 to 2004 three run depletion data.

Class		Salmon 0+	Salmon 1+	Trout 0+	Trouth 1+
Absent	F	0	0	0	0
Very Poor	E	<0.07	<0.05	<0.09	<0.05
Poor	D	0.07 - 0.15	0.05 - 0.10	0.09 - 0.16	0.05 - 0.07
Moderate	C	0.15 - 0.37	0.10 - 0.17	0.16 - 0.30	0.07 - .10
Good	B	0.37 - 0.74	0.17 - 0.27	0.30 - 0.61	0.10 - 0.16
Excellent	A	>0.74	>0.27	>0.61	>0.16

Table 12: Classification system for the densities (m^{-2}) of juvenile trout age classes in the Spey tributaries, derived from 1990 to 2004 three run depletion data.

Three Fishing Runs				
Class		Trout 0+	Trout 1+	Trout 2+
Absent	F	0	0	0
Very Poor	E	<0.09	<0.05	<0.03
Poor	D	0.09 - 0.16	0.05 - 0.07	0.03 - 0.04
Moderate	C	0.16 - 0.30	0.07 - 0.10	0.04 - 0.06
Good	B	0.30 - 0.61	0.10 - 0.16	0.06 - 0.08
Excellent	A	>0.61	>0.16	>0.08

5.3 Future Juvenile Surveys

Work on this classification system is still in progress. The next stage will be to take future juvenile survey data and apply it against this criteria to further determine the status of the River Spey.

5.4 Rotary Screw Trap (RST)

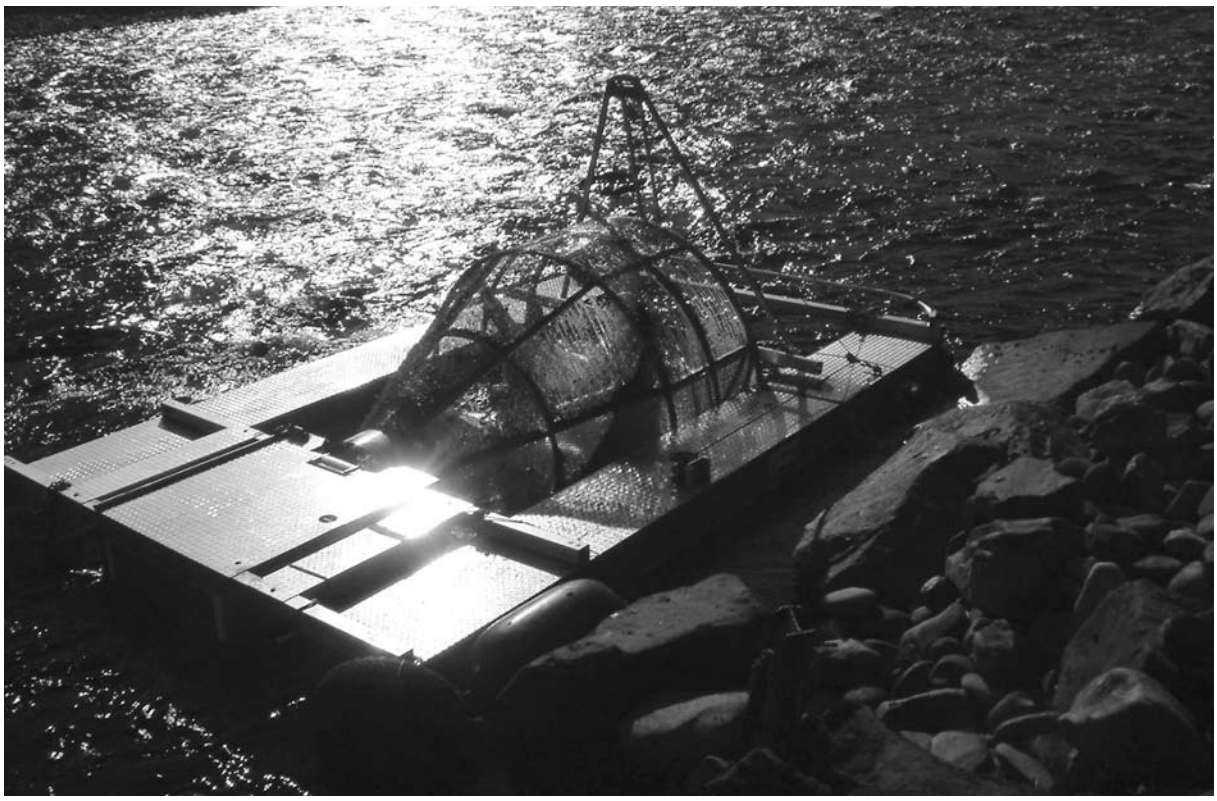
Two rotary screw traps were installed in the lower Spey during 2007. The relative dry spring lead to good sampling conditions and both traps were in operation from March through to June with only a few days lost to debris build up or spates.

Data from 2007 provided an interesting insight into the Spey salmon and sea trout smolt populations. Table 13 indicates that six species of fish, salmon, trout, minnow, eel, lamprey and stickleback were captured during 2007. Salmon were the most abundant followed by trout and minnows.

Table 13: Fish species captured by the rotary screw traps at Brae Beat 2 (RST1) and Brae Beat 4 (RST2) during March to June 2007.

Fish Type	Number	Mean Length (mm)	Size Range (mm)
Salmon Smolt	8035	125	64 -172
Salmon Parr	77	70	51 - 177
Salmon Fry	2	51	48 - 53
Salmon Adult	1	470	
Trout Smolt	358	157	83 - 237
Trout	41	112	53 - 277
Trout Finnock	4	308	300 - 315
Trout Sea	1	350	
Minnow	238	67	38 - 87
Lamprey Juveniles	42	118	85 - 147
Lamprey River	1	310	
Eel	17	243	38 - 352
Stickleback	29	53	40 - 69
Pike	31	111	96 - 137

Salmon smolts ranged from 64mm to 171mm and mean length was 125mm. Less trout smolts were captured but they exhibited a wider length range, 84mm to 242 and a longer mean length of 158mm. Four potential finnock, trout which have spent a short period at sea before re-ascending the river, were recorded. Scale analysis indicated that one individual (length 390mm) was 3.1+SM confirming it had been at sea and had spawning during winter. However, scales from the other two were inconclusive consisting mostly of replacements where age could not be determined accurately.

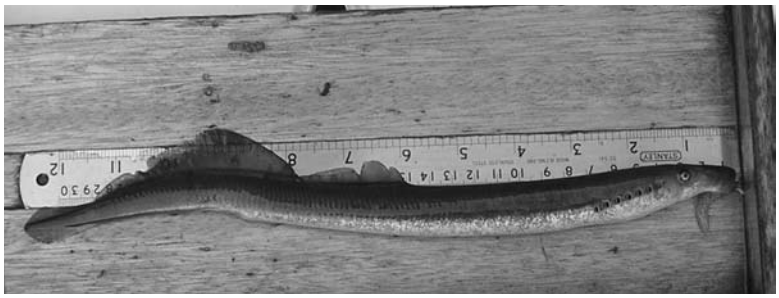


The Rotary Screw Trap at the Brae Water, March 2007 (Photo: Bob Laughton)

Similar to 2005 and 2006 minnows were the third largest group of fish captured with 238 individuals caught between March and June 2007. Mean length was calculated at 86mm, range 38mm to 87mm. Again similar to previous years many minnows were observed in spawning condition.

The capture of 31 juvenile pike in RST2, the lower smolt trap, during 2007 came as a surprise. Pike are present in the upper slower flowing reaches of the Spey from Grantown upstream 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 no reports of any juveniles or spawning activity.

The lower trap (RST2) is situated downstream from 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



Adult river lamprey captured in the RST2 at Brae Beat 4, River Spey. (Photo: Steve Burns)

One adult river lamprey was caught in the lower trap (RST2) on 20th April 2007 (Table 13). The fish was 310mm long and is thought to be the first definite capture of an adult river lamprey in the Spey.

Scales samples were collected each year from a proportion of the smolts captured. Approximately every tenth smolt captured throughout the study at RST1 was sampled and Table 14 indicates the percentage of scale samples obtained from the smolts captured in each year.

Table 14: Age classes determined for salmon and trout smolts during 2007.

Species	Age (Years)				No Age Determined	Total
	1	2	3	4		
Salmon Smolts	3	137	59	2	12	213
%	1.4	64.3	27.7	1.0	5.6	
Trout Smolts	1	7	10	1	2	21
%	4.8	33.3	47.6	4.8	9.5	

Table 14 summarises the age classes of smolts captured during 2007. Age data was not available from 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 was the next most prevalent with a small percentage of ones and fours also being captured. For trout two and three year old smolts were the most common.

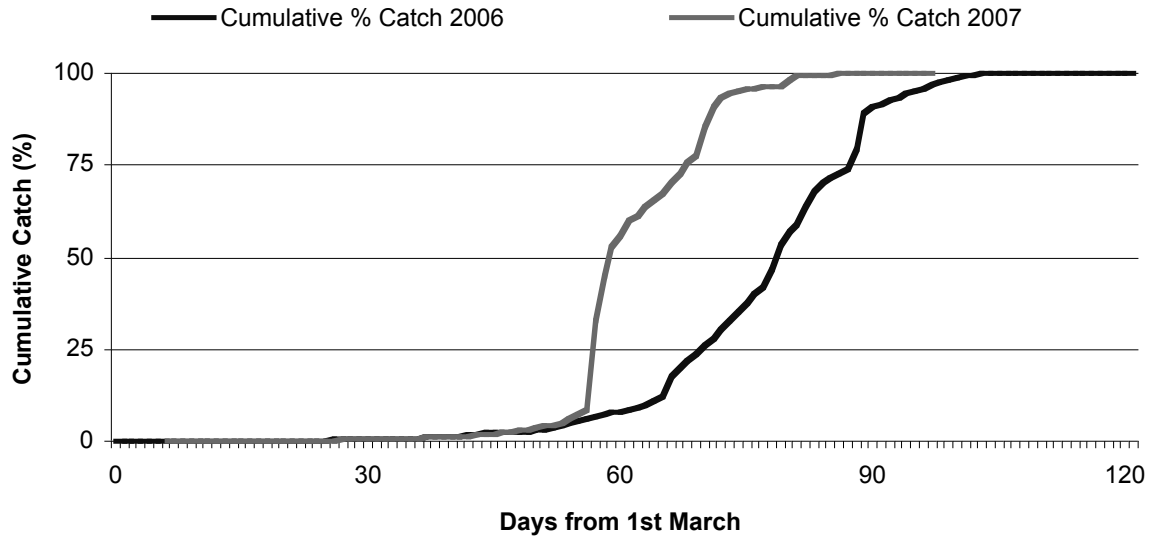


Figure 8 compares the cumulative salmon smolt catch with the time from 1st March in 2006 and 2007.

It indicates that there is a substantial difference in run time between the two years. During 2006 the run extended over a longer period with 50% of the catch being reached at 79 days after the 1st Match, while in 2007 the run was 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.

A proportion of the salmon and trout smolts were marked using a simple dye tattoo and then release upstream of the smolt traps. The numbers of these marked smolts recaptured was then recorded and used to develop population estimates for the Spey smolt output. Using the 2007 data and the Petersen Recapture model salmon smolt output was estimated in the region of 600,000 while trout was estimated around 27,000. However, this approach turned up as many questions as answers. The approach used in the study does not fit the Petersen model very well so other models are being tested. The sample design and set up requires refinement and there are considerable differences in the trap recapture efficiencies. No marked trout were recaptured so using the recapture figures for salmon as indicated here is dangerous. These factors and others need further analysis before an improved smolt out put estimate can be gained. However, a great deal has been achieved and we hope to re-install the traps and build on this in 2008.

The Rotary Screw Trap during a large spate in May 2007 (Photo: Bob Laughton)

5.5 Salmon Go To School

SETPOINT
Scotland North
Scottish Charity No. SC010349

Through the CASS LIFE project, the SRT is continuing to promote awareness of the Spey with its highly successful Salmon Go To School educational programme. Kingussie and Newtonmore Primary Schools participated the scheme during 2007. Both schools raised salmon fry in classroom aquaria and released them into nearby burns. This was followed by a "Bugs and Beastie" hunt in the Allt Laraidh with Newtonmore school in June.

5.6 Thermal Discharge Project

The Water Framework Directive allows cooling waters from whisky distilleries to elevate water temperatures by a maximum of 1.50C. 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 growth rates and smolt ages of juvenile salmon are accelerated downstream from distillery outlets, but this has little effect on the adult return time and age structure.

Monitoring of discharge temperatures continued a several distilleries within the Spey and Lossie catchments throughout 2007 and data was compiled and presented to the Thermal Discharge Expert Group. As a member of this group the SRT contributed extensively to the development of a derogation application for distilleries on the River Fiddich. This would allow the distillers to continue production at current levels but during the derogation period they must make substantial improvements to their discharge temperatures. The application was submitted to the EU by SEPA and we await further developments.

5.7 Contract Surveys

The SRT have conducted juvenile surveys for neighbouring Fishery Boards and in particular routine surveys of the Findhorn catchment have been completed since 1997. A further survey of 39 sites was completed on the Findhorn during 2007. A report on the findings is in preparation for the Findhorn Fishery Board

Part 6

Consultations

6.1 Paul's Hill Wind Farm

Monitoring water quality, invertebrate and fish populations has continued throughout 2007 under an agreement with the developers Paul's Wind Farm Ltd. Sediment monitoring was also initiated in the Allt Arder (Cally Burn). The construction of the wind farm was completed in 2006 and to date no adverse effects on salmon or trout populations have been detected in the burns being monitored.

6.2 River Works

During 2007 the SFB was consulted on 31 applications to undertake river works. This has been a significant increase on the 16 consultations undertaken in 2006. The Competent Authorities or statutory consultees involved in this process include the SFB, SNH and SEPA. SNH lead on the maintenance of the River Spey's SAC status and SEPA are responsible for water quality, with all involved working within a framework to discourage works which disturb the river bed during October – May, when the risk of destroying incubating salmon eggs and juveniles, or disturbing fresh water pearl mussels, is greatest.

The mouth of the River Spey at Spey Bay,
July 2007 (Photo: Jason Hysert)

Part 7

Publicity

7.1 Spey Fishery Board Website

In 2007 the Publicity Committee decided that the SFB's website was looking tired and out-dated. A specialist website designer was commissioned to revitalise the site and produce a more user-friendly website that could also be updated by the SFB and SRT staff without having to utilise the services of an external agency. The revised site, which still utilises the same web address (www.speyfisheryboard.com) went live on 15th November 2007. Despite some technical teething problems, SFB and SRT staff will be working to keep the website updated throughout 2008 with the latest news and developments.

The new and – we hope – more user-friendly SFB website

7.2 Briefings

The SFB continues to produce Briefings which are circulated to 600 individuals and organisations including proprietors, angling associations, ghillies, hotels and tackle shops. These are also available on the SFB website (www.speyfisheryboard.com), along with other pertinent information.

7.3 Talks and presentations

In 2007 SFB and SRT staff gave the following talks and presentations:

- 18th January: River Spey Anglers' Association AGM, Elgin;
- 28th February: Fisheries Management Workshop, Grantown-on-Spey
- 9th March: RAFTS Conference, Birnham, Dunkeld
- 12th March: Badenoch Angling Association, Kingussie
- 22nd March: Aberlour Angling Association, Aberlour;
- 23rd – 25th April: NPP Norwat Conference, Speyside;
- 18th June: Spey Users Group. Grantown on Spey;
- 8th August: Tomintoul Angling Association, Tomintoul;
- 3rd October: CASS Life Partners' Meeting, Birnham, Dunkeld;
- 21st November: River Spey Anglers' Association, Inchberry Hall
- 4th December: Spey Users Group. Grantown on Spey;
- 5th December: River Spey Ghillies annual meeting with the SFB/SRT, Ballindalloch

7.4 Committees

In April 2007, SRT Biologist Bob Laughton was appointed Chairman of the Scottish Fisheries Coordination Centre. In May, SFB Director Roger Knight was also appointed Company Secretary of the Spey Fishing Trust Limited. Throughout 2007, SFB and SRT staff were also members of the following committees:

- RAFTS Management Group
- RAFTS Executive Committee
- SEERAD Trusts Funding Committee
- Cairngorms Local Biodiversity Action Plan Management Committee
- Findhorn DSFB
- Thermal Discharge Project Expert Group
- Scottish Executive Fisheries Forum
- Moray Firth Partnership Fisheries Action Group
- Northern Periphery Programme Management Committee
- Cairngorms Integrated Land Management Forum
- Feshie Management Plan Consultation Group
- Lower Spey Management Forum

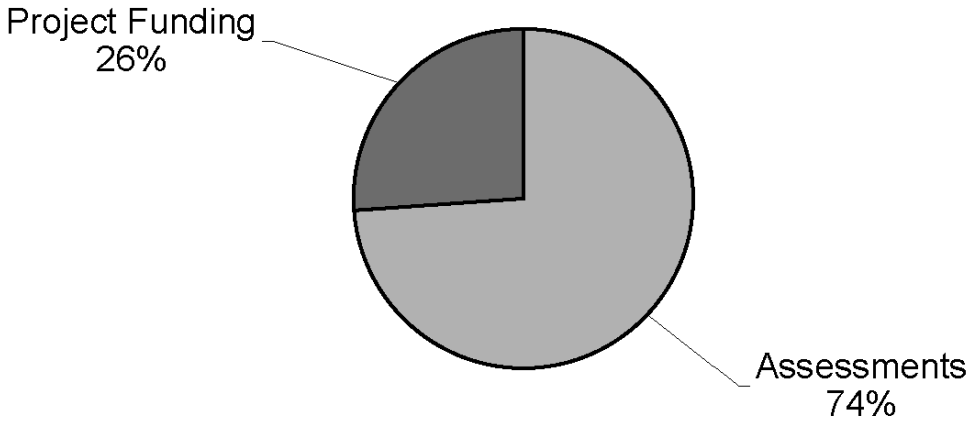
Part 8

Financial Summary

1st October 2006 – 30th September 2007

Total income (SFB and SRT) £570,574

INCOME



EXPENDITURE