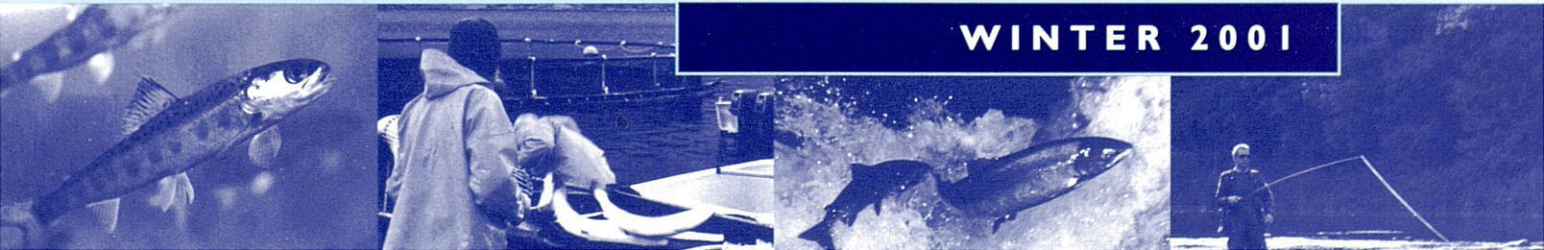




Atlantic Salmon Trust Report

WINTER 2001



The Atlantic Salmon Trust is a voluntary organisation whose primary aim is to promote the conservation, protection and improvement of wild Atlantic salmon and sea trout stocks in the countries bordering the North Atlantic Ocean for the public benefit.

It seeks to support the improvement and integration of scientific knowledge and management methods, and works for positive action in the interests of salmon and sea trout to be taken both at public and private levels, on the basis of the best available information.

To achieve this, the Trust:

- advises Government Departments, Members of the Parliaments and Assemblies, and fishery authorities
- promotes and sponsors practical research
- organises workshops to investigate specific problems
- issues regular and special reports and publishes the results of its work

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From the Chairman



It will not be easy to sum up the year 2001, even when full catch figures become available, since the extent of fishing effort was constrained by the effects of the Foot and Mouth outbreak, and water conditions later in the year were very variable. Nonetheless, there were some encouraging signs, particularly at the beginning of the year, when a number of rivers had good numbers of early-running fish. As in 2000, grilse began by showing well, unusually early in some cases, but the run seemed to go through early and summer and autumn salmon seem to have been less abundant than might have been hoped. Even so, there have been encouraging reports of spawning activity.

In the field of salmon management, activity continued at a high level throughout the year. Both north and south of the Border, the detailed following up of the reviews of salmon and freshwater fisheries is still taking considerable time and effort. This is unlikely to abate, particularly in the light of the legislation and planning that is being prepared for the implementation of the EU Water Framework Directive, which will have a bearing on almost every aspect of the conservation of stocks and the operation of fisheries.

In Scotland, the subject of salmon farming and other aquaculture has had a high profile throughout the year, including the widely reported television documentary. The call for a public enquiry, even though rejected by the Scottish Executive, led to the establishment of a "rolling" parliamentary enquiry which will keep the subject

under continuing review and which is already attracting significant testimony. Consultation continues on the Executive's proposals for early strengthening of the regulation of aquaculture and the long overdue development of a comprehensive formal aquaculture strategy is just beginning. The Trust, in co-operation with the other wild fishery interests, is playing an active and constructive part in all of this work. Developments are described elsewhere in this report, especially in an article on the Tripartite Working Group, by the Director of the Association of Salmon Fishery Boards. We continue to maintain that the voluntary collaboration initiated by the TWG, without whose efforts the situation would have remained damagingly static, must without delay be underpinned by an effective regulatory system and appropriate legislation. After the welcome news of the Government's decision to support the funding of compensation payments for the closure of the English North East Coast drift nets, progress on the ending of mixed stock fisheries has been slower than had initially been hoped, but a successful outcome is still being sought. A report on these negotiations, which are being conducted by the North Atlantic Salmon Fund (UK), is on page 9. Other mixed stock fisheries have not been neglected. New representations have been made to the Scottish Fisheries Minister to seek a reduction in the impact of the coastal fixed nets that take mixed stocks. Encouragingly, there are also signs of progress in Ireland, where the Fisheries Minister announced at the beginning of January that the imposition of quotas for the drift net fishery would be implemented during the forthcoming season.

Support of scientific work, both by the Trust's own Biologist and through grants to other organisations, continued throughout the year. In November, the Trust conducted a well-attended workshop to improve the quality of the part that rod catch data – despite being affected by variations in conditions, fishing effort, and angler effectiveness – can play in the assessment of river stocks. Dr Richard Shelton is editing the proceedings of this workshop which will be published in the Spring. (An account is given on a later page.) This year, the Atlantic Salmon Trust and the Atlantic Salmon Federation are organising the Sixth International Atlantic Salmon Symposium, at Edinburgh University between 15th and 18th July. It will focus on the problems that salmon and sea trout face in the coastal and immediate offshore zones during their seaward and return migrations.

In *Scale Readings*, our summer newsletter, I outlined our intention to broaden the aims and objectives of the Trust to reflect more accurately what it is we do. I also indicated that we would set up a management structure more appropriate to the future conduct of the Trust's business. All this entailed a comprehensive review of the existing Memorandum and Articles of Association of the Trust. A wholly revised document, which had earlier been agreed by the Charity Commissioners, was approved at an Extraordinary General Meeting on 20th February.

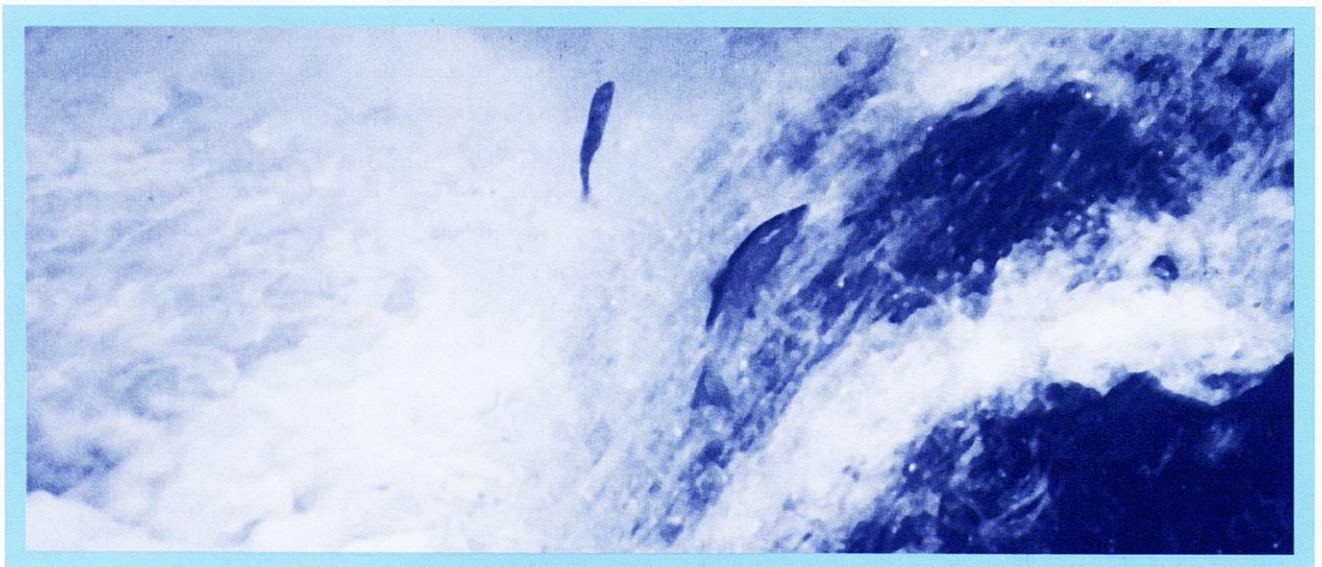
Among other aspects, the principal objectives of the Trust are set out as follows:

- To promote the conservation, protection and improvement of wild Atlantic salmon and sea trout stocks in the countries bordering the North Atlantic Ocean for the public benefit.
- With this aim:
 - To conduct, assist in conducting, and stimulate laboratory and field research
 - To develop and refine principles and methods for the management of salmon and sea trout stocks

A description of the new management structure is shown on page 21. As regards funding, it will be appreciated that, in common with most other charitable organisations, the Trust is affected by the current economic downturn. This, in consequence, has an impact on the resources available for its activities. In this situation, the Trust is especially grateful to all those who continue to make donations, especially on a regular basis, and/or support it through the Postal Fishing Auction. Without this immensely valuable support, the Trust would be unable to undertake much of its important work in the fields of research and conservation.



H F O Bewsher



News



Salmon, both wild and farmed, have been much in the news throughout 2001. The following articles cover the span from the aftermath of Foot and Mouth Disease, through the potential

impact of the Water Framework Directive and proposals for the regulation of salmon farming, to the progress of efforts to end mixed stock drift netting.

England and Wales

Developments in 2001

By Tim Hoggarth, Deputy Director

Foot and Mouth Disease

The year was dominated by the knock on effects of Foot and Mouth Disease (FMD). Whilst restrictions on access to rivers were extensively reported throughout the season, AST contacts with the main government agencies and departments also indicated that they all suffered from diversion of resources away from work related to fisheries in order to support control measures in England and Wales. The Environment Agency (EA) had reported a drop of 30% in licence applications, which reflected a shortfall of £5M in the budget. Additionally there had been staff restrictions with regard to fieldwork, access, surveys, and anti poaching, with many staff being seconded to the foot and mouth task force. In Cumbria, for example, all fisheries work

had effectively ceased. Of further concern were reports that the chances of financial compensation for fisheries and riparian owners were highly unlikely, although they might benefit from rate relief initiatives. The Trust's attendance at fairs in England and Wales was also subjected to the effects of the epidemic. The May Chatsworth Angling Fair was postponed to an extremely wet and muddy re-run in October. The Welsh Game Fair was sadly cancelled and the CLA Game Fair relocated from Woburn Abbey to Shuttleworth Park.

The Water Framework Directive

The Water Framework Directive came into force in December 2000, and consultation on its implementation has been in progress through the year 2001. Major topics have included a proposal for River Basin District structures, including the management of cross border rivers between England, Wales and Scotland, and the establishment of the EA as the sole competent authority. The Trust has contributed to the consultations, both on

its own account and through the Moran Committee. An excellent summary of the latter submission, by Chris Poupard, was included in the August edition of *Trout & Salmon*.

The Department of the Environment, Food & Rural Affairs

The Atlantic Salmon Trust was invited to comment on the Objectives set out for the newly formed DEFRA, which brings responsibility for the Environment and for Agriculture and Fisheries together in one Department for the first time. Among other elements of its contribution, the Trust identified a significant deficiency, in that whilst one Objective made reference to the need to promote and sustain fisheries (among other natural resources), the subsequent annex of Provisional Key Strategic Priorities only mentioned offshore fisheries. Bearing in mind the fact that the Government had previously welcomed the findings of Professor Lynda Warren's Salmon & Freshwater Fisheries Review, and had accepted (in whole or in part) 190 of the Review Group's 195 recommendations, the Trust was anxious to ensure that the work of the Group and the subsequent Government Response would not be disregarded. It therefore strongly recommended that the issue of freshwater fisheries should be specifically included in the Provisional Key Strategic Priorities. The Trust also suggested that the relevant Objective should be clarified by the inclusion of the following wording: *"to ensure the conservation and maintenance of the diversity of freshwater fish and their aquatic environment and enhance the contribution of the associated fisheries to the economy"*.

Predation by birds

The Annual Review of Fish Eating Birds for 2000-2001 showed that, for cormorants, 79 licences had been granted to shoot 506 birds. 28 licences were refused. Licences were only exercised in

respect of 199 birds. For goosanders, 1 licence had been granted to shoot 5 birds, 5 licences had been refused and no birds were shot. In the case of herons, 15 licences to shoot 62 birds were granted, 13 licences were refused and 33 were exercised. No applications were made to shoot mergansers. Many of the licences listed as refused were deferrals due to problems associated with FMD. Flooding and FMD problems were responsible for the failure to exercise a number of licences that had been granted. Following the formation of DEFRA, there have been a number of changes in the organisation affecting licensing procedures. In future all such matters will, for England, be dealt with by the newly created Wildlife Management Team (which will form part of the Rural Development Service, based in Bristol) and, for Wales, by the National Assembly.

Salmon stocks

The annual assessment of salmon stocks for 2000 by CEFAS (the Centre for Fisheries and Aquaculture Science) made interesting reading. Rod licences for migratory fish were issued to 18,807 anglers but, significantly, the number of net licences fell from 437 to 389. Reported catches for the year were all up. Rod catches were up from 12,492 to 17,354, with an increase in releases from 5,447 to 7,355 fish. Netmen also declared significant increases, up from 34,167 to 50,975, of which the North East drift net component rose from 26,833 to 43,332. Unreported and illegal catches were estimated to be around 38 tonnes.

A change of leadership

Finally, and on a sad note, we record the retirement of Chris Poupard as the Director of the Salmon & Trout Association. At the same time we offer our warm congratulations to Paul Knight, who moved from the Deputy's chair to take over as Director in January 2002.

Scotland

Changes still in the offing

By Jeremy Read, Executive Director

In the previous Winter Report, Andrew Wallace (Director, Association of Salmon Fishery Boards) described the passing in January 2001 of the Salmon Conservation Act. This has extended

the range of the powers which can be made available to District Salmon Fishery Boards to regulate the management of exploitation, subject to Ministerial approval of their request, and has also made provision for Ministers to apply measures on their own initiative. At the time of writing, several applications by Boards have been made, and are still under consideration.



The Green Paper

Andrew Wallace drew attention to the parallel consultation on the whole spectrum of Scottish freshwater fish and fisheries, which had been launched by the issue of "Protecting and Promoting Scotland's Freshwater Fish and Fisheries". He described how the major angling and fisheries management organisations had responded to this initial consultation document, both on their own account and through the "Angling for Change" group. The Group's proposals for a comprehensive management and regulatory structure, covering all freshwater species and fisheries, were outlined in *Scale Readings*, our summer newsletter. They were based on the concept of building on existing strengths, by bringing together District Salmon Fishery Boards, river improvement associations, angling clubs and other interested organisations, to plan for and co-ordinate the management of fisheries on an area basis.

Following this consultation, which attracted a very wide range of submissions, the Minister published in August a Green Paper entitled "Scotland's freshwater fish and fisheries: Securing their future". This gave qualified support for the "Angling for Change" proposals, although these were not very clearly described, but did no more than invite further views on their content and possible implementation. An integral part of these proposals was the replacement of the current Protection Orders by a comprehensive system dealing with the management and maintenance of rights in all freshwater fisheries. The Green Paper treated this separately, announcing the intention to review the

objectives of Protection Orders by 2003, with a view to repealing the 1976 Act and introducing a new system "when an opportunity arises".

Other principal intentions that were announced included:

- the introduction of a bill to consolidate existing salmon legislation (this was originally intended to have been achieved before Devolution)
- regulations to control transfers of live fish between catchments and to ban the introduction of exotic species (including a prohibition on the use of live-bait for fishing)
- a ban on the sale of rod caught salmon
- research into reducing the effects of seal predation, and consultation on licensing procedures for licencing the shooting of seals and fish-eating birds
- updating guidance on stocking practice
- reviewing the freshwater fisheries research programme
- consideration of the means of forming DSFBs or comparable bodies in all salmon fishery districts
- reviewing the enforcement provisions for salmon and freshwater fisheries legislation

Consultation on the Green Paper continued until the end of October, and no decisions had been announced at the time of writing. However, it seems that the various actions, whatever their final form, will be not be introduced as a single package, but will be implemented at different stages. Some will require primary legislation, whereas others will only need Statutory Instruments, or administrative action.

Land Reform

The draft Land Reform Bill was described in *Scale Readings*. The principal issues for salmon fishery management were those affecting access to water, and the proposed provision for crofting communities to be able to acquire land, and the salmon fishing rights over adjacent water, by compulsory purchase. These proposals were repeated without significant change in the actual Bill, except for a reduction to one year in the time allowed between the acquisition of the land and that of the associated fishing. At the time of writing the Bill is being considered by Parliamentary Committees. The Trust has again represented its concern over the possibility that a community, although able to purchase fishings with public assistance, may lack adequate financial resources to support continued operation, with a potentially damaging effect on the management and conservation of a river. The uncertainty arising from the Bill is also acting as a disincentive on investment in fishery maintenance and improvement, and risks inhibiting voluntary contributions in support of the work of Fisheries Trusts.

Aquaculture

Several issues are running concurrently. At the end of June, the Scottish Executive published a new consultation paper outlining its proposals for improvements to the regulation of aquaculture. One major aspect of these proposals was a dependence on the Area Management Agreement (AMA) process to provide local solutions to sea lice problems, with a statement that the need for mandatory controls would be reviewed at a later date.

In the article that follows, Andrew Wallace examines in detail the significant progress made by the Tripartite Working Group, which developed the AMA process, and the problems that are being experienced. In the context of the Executive's proposals, the Trust, in common with other wild fishery interests, responded by emphasising that the AMAs, which are voluntary agreements, need to operate within, and be supported by, a formal regulatory framework. The consultation paper suggested that SEPA should be able to regulate for the control of the *process* of rearing fish, rather than relying purely on imposing effluent discharge limits. In support of this, the Trust has continued to support proposals that acceptance and implementation of approved Codes of Practice, for disease prevention and avoidance of escapes, as well as for lice control, should be mandatory across the whole of the industry.

While this consultation was in progress, the Parliament followed up the rejection of a public enquiry into aquaculture by setting up its own "rolling enquiry". This is being conducted by the Transport and Environment Committee, with support from the Rural Development Committee. It has the advantage that it will be able to keep a continuous watching brief on developments. It is taking evidence from all interested parties, and in December the new Minister, Allan Wilson MSP, wrote to the Committee outlining his plans for taking forward the conclusions of the review. In this letter, and in his oral evidence to the Committee, he has confirmed his intention of including proposals in the forthcoming Water Environment and Water Services Bill (the first stage in the implementation of the Water Framework Directive) to give SEPA the power to control the process of fish farming, as well as to review consents at any time, to serve enforcement notices and to issue stop notices, and to make the application process more effective and relevant. The mechanisms for dealing with the problem of sea lice have not yet clearly been established, but the "process" approach, which involves co-ordinated stocking and fallowing as well as the use of treatments, is being explored in this context. The door remains open for the enforcement of mandatory controls, and the Trust, with the other wild fishery organisations, is still arguing that these are essential.

Consultation is to be undertaken on how these changes might operate in practice, and the Trust and the other wild fish interests are continuing to press for effective and enforceable legislation to underpin the current and future achievements of AMAs. The publication of the first draft of the Water Environment and Water Services Bill is awaited with interest.

Finally, the Minister is conducting a series of discussions towards the development of a long-term Aquaculture Strategy for Scotland. This process was initiated by his predecessor, and the announced aim is to complete development in the Spring. The wild fishery interests, including the Trust have had the opportunity to put their views personally to the Minister in one of these discussions.

Stock restoration

As reported previously, a study was commissioned into the feasibility of a central facility for supporting stock restoration. The concept was that smolts from West Coast rivers should be grown on in the facility, in order to produce brood fish to supply eggs for stock restoration projects. The study has recommended

against the development of such a facility, primarily on the grounds of cost and risk, but its detailed examination of stock restoration principles and techniques will be put to use in planning for work on restoring stocks in a hopefully improved environment. The "Restoration" sub-group of the Tripartite Working Group has been reconvened, under Trust chairmanship, with the task of developing a system for advising and assisting Boards and proprietors on the planning and conduct of stock restoration projects, using local hatchery and rearing facilities.

The Tripartite Working Group

Progress & Problems

By Andrew Wallace, Director, Association of Salmon Fishery Boards

Background

The Tripartite Working Group (TWG) initiative was set underway two years ago, involving wild fish interests (represented by the Association of Salmon Fishery Boards (ASFB), the Association of West Coast Fisheries Trusts, the Atlantic Salmon Trust and the Scottish Anglers' National Association), fish farmers and the Scottish Executive.

In June 2000, members of this group signed the TWG Concordat, which identified 3 key areas of work including:

- the development and implementation of measures for the restoration and maintenance of healthy fish stocks of wild and farmed fish by looking at issues such as environmental standards and husbandry practices, availability and implementation of treatments, fallowing and rotational strategies and locational issues

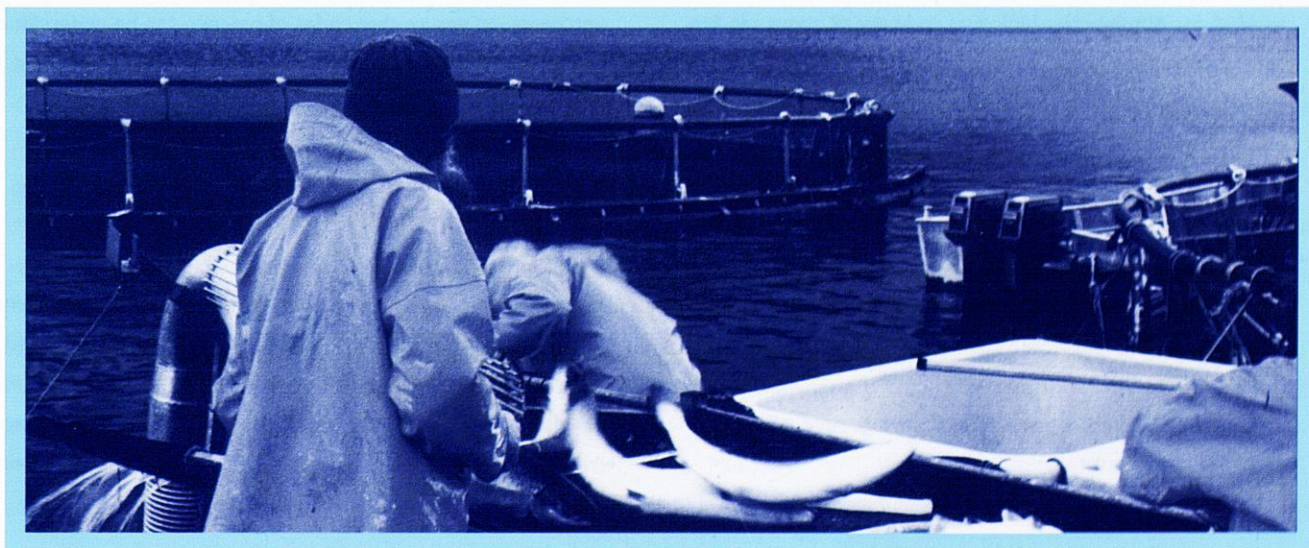
- the development of ideas for the regeneration of depleted wild salmon and sea-trout stocks
- the examination of how these ideas could be incorporated into Local Authority fish farm planning guidelines and framework plans as well as other consent procedures

The TWG quickly established a management group, consisting of Gordon Brown (Scottish Executive Environment and Rural Affairs Department), Gordon Rae (Scottish Quality Salmon) and Andrew Wallace (ASFB). Their work has largely been concentrated on the development of Area Management Agreements (AMAs), formed in an attempt to provide a forum within which information can be exchanged, and ideas developed, on how to improve fish health in wild and farmed fish populations.

Developments

So far six of these AMAs have been established (with three more in advanced stages of development) some of which are working well – others less so. After the initial push it quickly became apparent that AMA formation was likely to prove more difficult in some areas than in others.

In the middle of 2001 the TWG produced a strategy paper, identifying the need for a properly resourced post to make the TWG work and to maintain the momentum of the AMAs. To meet that need funding has been secured from Highlands & Islands Enterprise to establish a dedicated TWG development officer post, which will be commencing early in the New Year. It is envisaged that this work will continue for at least three years, and resources have also been identified for allocation at a regional level to assist in the development and effective



management of AMAs. The TWG is also active on other fronts including work on:

- stock restoration
- the development of projects targeted specifically at effective sea-lice management and developing a better understanding of the sea-lice problem
- the development of a new risk assessment of the possible importation and subsequent control of *Gyrodactylus salaris*

The current situation

The TWG, as an initiative, has attracted some criticism – principally along the lines that AMAs have no teeth and are confidential agreements between interested parties which have resulted in compromise and which are inadequately resourced.

Equally, the fact must be appreciated that TWG process is – in itself – the first formal recognition of the specific problems that salmon aquaculture has created for wild fisheries. With the considerable political capital invested in it by the Executive and the industry, and its focus on fish health – with particular emphasis on achieving zero ovigerous sea-lice on Scottish salmon farms – we are now finally in a situation where we have moved on, from arguing about whether we have a problem and what that problem might be, to the far more productive ground of improving fish health in our wild and farmed fish stocks.

Furthermore we now have a structure within which it is now possible for really useful information to be exchanged between the two sectors, within confidentiality parameters in which people can have confidence. It is therefore now possible within an AMA for our fisheries biologists to know all about sea-lice counts, treatment strategies and future operational developments in their area. There is also the potential to have some influence on those plans.

And finally we now have a structure which makes a small but important contribution to the process of drawing attention to some of the extremely intractable structural problems within the industry with regard to:

- compliance with industry codes
- co-operation and co-ordination of management with neighbouring farms
- the strategic planning of the industry at regional and national level

The way forward

So where does the TWG develop from here? The new development officer post will allow for the much needed progress to be made in a number of important areas.

- the development of AMAs throughout the West Coast
- the more effective monitoring and management of fish health and exchange of information between the industry and wild fish interests
- the development of trials and local projects to test ideas for better sea-lice control
- the identification and resolution of non-compliance by companies with the industry's own codes of practice on synchronised production and also on the co-ordination of treatment strategies to ensure and – if necessary – **require** fish farming companies sharing management areas to use the best management as well as treatment solutions to their problems
- the development of the highest standards of wild fish husbandry and management by Boards, Trusts and proprietors on the West Coast

It is also extremely important that we do not see the work of the TWG in isolation but as a valuable contribution to a much wider process, which involves many people and organisations operating on many different fronts. These include:

- the review of planning procedures for the industry
- the rolling Parliamentary enquiry
- the recent announcement by the Minister of the development of a strategic plan for aquaculture in Scotland
- the possible inclusion into the Water Environment Bill of a provision to ensure that codes of practice can be underpinned by legislation

Prospects for progress

So will a combination of effort on all these fronts make a difference?

Those who believe that we can spirit away the sea-lice problem over the next three years will almost certainly be disappointed. The sheer volume of farmed salmon on the West Coast and the difficulties of disease control in an extremely difficult operating environment lead one to the inevitable conclusion that progress is going to be steady rather than spectacular.

Until a strategic plan for Scottish aquaculture is developed – and we welcome the Minister's recent announcement on that front – many of these problems will persist. And until there are sufficiently powerful conditions of lease or consent to ensure that the free-rider problem (where some operators do not comply with the codes of practice) is avoided and all fish-farmers are required to co-ordinate and manage their production – with **all** their neighbours' interests in mind, this problem will run and run.

The TWG process, albeit that it is still very much in its infancy, has the potential to be an important cog in the machinery of

change for the Scottish aquaculture industry and current attempts to resolve some of its unquestionably serious environmental and structural problems.

Providing it is seen as a valuable part of a more extensive process and providing there is widespread commitment at all levels to the many different initiatives underway to tackle these problems, then there is a realistic expectation of witnessing the recovery over the coming years of our West Coast salmon and sea trout stocks.

North Atlantic Salmon Fund (UK)

End of year report

By Andrew Whitehead, Secretary of NASF(UK)

Developments

Talks with representatives of the North East Drift Netsmen began in March, and it soon became apparent that most if not all of the 70 Licence Holders operating Drift Nets off the Northumberland and Yorkshire coast would be prepared to be bought out, if the price was right. In fact, 69 out of 70 Licensees have indicated their interest in ceasing fishing, in exchange for fair compensation.

Accordingly, agreements between participating Netsmen and NASF(UK) have been drawn up by lawyers representing the Government and NASF(UK), and these are now in final form. At the beginning of September 2001 a confidential form, approved by NASF(UK) and the Department of the Environment, Food and Rural Affairs (DEFRA), was sent by the Environment Agency to each Netsman, inviting him to indicate the sum for which he would surrender his licence (the so-called de-commissioning scheme). The nature of the Net Limitation Order, in place in the area until 31 Dec 2002 and then to be renewed for a further 10 years, is such that the surrender of any licence for whatever reason renders that licence incapable of renewal. In other words, the qualification for annual renewal of a

drift net licence is to have had one in the previous year.

The deadline for the de-commissioning bidding was 17 September 2001.

It has become clear, perhaps predictably, that the first bid from the Netsmen has produced a total figure that is too high, both in terms of realistic market value and in respect of what we can reasonably afford. We are currently negotiating with the Netsmens' representatives to find a price that is acceptable to both sides, and they are being asked by letter from the Environment Agency to submit a further bid. We have the right to accept or reject any bid, based upon a range of agreed parameters, which include catch statistics, number of days fished and the age of the fisherman. If it should prove impossible to reach an agreement which would result in all 69 out of 70 Netsmen ceasing to fish, then the following alternative outcomes are possible:

- to buy off a majority. In order to produce effective conservation value for money, this majority would need to be about 56 nets (80%)
- to postpone the process and resume negotiations next year
- if neither of these options were possible, then we should inevitably have to reconsider our position. This might involve re-opening discussions with Government officials and Ministers.

How will the money be found

NASF(UK) has embarked on a major fund-raising exercise, with an initial target of £1,250,000. We are committed to paying off any Netsmen with whom we reach agreement in four instalments, of which two are of public funds. They are:

Tranche I	Private Funds	On signature
Tranche II	Public Funds	April 2002
Tranche III	Private Funds	September 2002
Tranche IV	Public Funds	April 2003

Thus, for example, if NASF(UK) were to match exactly the Government contribution of £750,000, then the total pay out would be £1.5m, and each tranche would be £375,000. If more, then NASF(UK) would have to pay the balance, or reject the bid.

Fund-raising is based on a multi-strand strategy:

- private approaches have been made to those rivers and areas which might be expected immediately to benefit from the closure of the NE Drift Net Fishery. These include Northumberland and Yorkshire rivers, and the Rivers Tweed, Forth, Tay, and Dee in Scotland. They are all being extremely supportive and are running fund-raising campaigns of their own
- other Boards in Scotland, and Angling Clubs and Associations throughout the UK have been asked for support. Letters have

gone to the entire membership of the Salmon and Trout Association

- fund-raising dinners, and gifts from individuals have produced about £150,000. Some additional gifts may be made when the exact size of the target is known. There are undoubtedly a number of private donors who are waiting to learn the outcome of our negotiations
- Charitable Trusts have donated £30,000

Including money pledged and due to be paid within the next year, we are well over half way towards our target. **NASF(UK) is required by DEFRA to produce a guarantee that £750,000 is available from the private sector before any of the Government funding is released.**

The status of the organisations involved

NASF(UK) Ltd. is not a Charity. The appeal by NASF (UK) for funds, with the primary object of ending commercial mixed stock fishing around the UK, is made in association with The Migratory Salmon Foundation (MSF).

MSF is a registered Charity (No. 1068311) with objects similar to NASF (UK) Ltd. The objects of MSF are directed towards conserving and protecting North Atlantic salmon and sea trout. Orri Vigfusson is the Chairman of the Trustees of MSF. The Chairman and Secretary of NASF(UK) are Trustees.

Features



This section illuminates two very different aspects of the Trust's work. One article describes the Trust's latest scientific workshop, aimed at improving our use of catch returns.

The other warns of yet another possible danger to our native salmon stocks, and emphasises the vigilance needed to guard against it.

Making sense of catch statistics

The AST Data Workshop

By Dr Dick Shelton

Filling in the catch record book at the end of a successful day's fishing is a pleasure that most serious anglers enjoy. Weights, times, weather, the condition of the river, the names of jolly companions, all help us relive those wonderful days that many still believe do not count against our allotted span! With the great reduction in the net fisheries for salmon, records of anglers' catches have assumed a new significance. For many rivers, they are the only evidence of the success or otherwise of local management, and in monitored systems they fill an important gap in the complex processes by which scientists assess the stocks of salmon in the system.

Early in November 2001, the Trust gathered together scientists from Norway, the Irish Republic, Northern Ireland, England, Wales and Scotland to discuss the ways of making more effective

use of catch statistics. The Workshop was kindly hosted by the Centre for Environment, Fisheries and Aquaculture Science at its Lowestoft Laboratory. The results of both net and rod-and-line fishing were discussed, but the emphasis was firmly on the latter.

One of the important early contributions looked at the problems that arise for the manager when the statistics of fisheries are unreliable, or fail to record occasions when no catch was achieved (which makes it more difficult to estimate the fishing effort expended in relation to the total catch). However, seeking credible ways of relating catch figures to actual stocks was everyone's main target. Here, it was clear that records of catches which are supplemented by independent measures of the numbers of fish returning are of particular value. Much time was spent discussing how catches can be related to stocks through an understanding of the behaviour of both salmon and anglers, including making allowance for differences in the standard of fishing skill. Interestingly,



recollection of the unique contribution to the science of salmon angling made by the late Hugh Falkus played an important part in this part of the discussion. So much for “asking the fish and fishermen”; how about “asking the catch data” in the absence of other information? Here, contributions were on thinner ice, but a statistical *tour de force* based on Scottish data showed that in future it might be possible to derive signals about the status of

individual populations within rivers, through the innovative analysis of selected angling records. The Proceedings of the Workshop will be published as a Blue Book in the Spring.

The take home message: angling records matter more than ever, so keep up the good work and do not forget to record the blank days!

Gyrodactylus

The hidden threat

By Jeremy Read, with acknowledgements to Dr Andy Walker.

It is not easy to imagine a Government order to poison an entire river, deliberately killing all fish life. Yet this is what has happened in Norway, in no less than twenty-five rivers. Why? It has been done in order to try to combat a minute parasite – no more than 2mm long – which is one of the most dangerous enemies of the Atlantic salmon. The parasite is *Gyrodactylus salaris*; it is one of a large number of species of the fluke *Gyrodactylus*, which live on the skin and gills of fish and amphibians. *G. salaris* has the unlovely distinction of being deadly to salmon, unless they come from an immune strain. The identification of individual parasites requires specialised knowledge, using high-powered microscopes (see the ugly illustration) or DNA techniques, but its effect is readily and disastrously apparent. It reproduces extremely rapidly, since its



offspring already contains the embryo of the next generation, and it can devastate a river by destroying huge numbers of fry and parr. It spreads from fish to fish, and although it only kills salmon, it can live and reproduce on rainbow trout, char and grayling. It can also survive for appreciable periods on brown trout and it can spread from all of these to salmon. There is a possibility, though as yet unproven, that it can survive on some coarse fish, and the Trust believes that precautions should be taken against this possibility.

G. salaris was carried to Norwegian rivers through the transfer of rainbow trout from Sweden, where it is indigenous, and was spread, via the movement of salmon for restocking, from infected hatcheries to various rivers. Over thousands of years, Baltic fish have developed immunity, but other salmon have no such protection. Forty-one rivers in Norway, including some of the most famous, have been ravaged since the parasite was first detected in 1975. In some affected Norwegian rivers, like the Drammen, uninfested waters are protected by barriers such as hydroelectric dams, and runs have been maintained by releasing fry or juvenile fish into these clear areas. The only known means of eradicating the plague is to deprive the parasite of fish to live on, and this has led to the drastic remedy of attempting to kill the entire fish life of rivers with the organic compound known as rotenone (akin to the well-known *Derris* garden pest killer). If possible, salmon are saved for use as restoration broodstock once the river is clear of the parasite, but it may be necessary to use other stocks, with all the undesirable implications of the loss of native populations. And this draconian "cure" is far from infallible, especially in large rivers. Poisoning of the Laerdal was undertaken in 1997, but by 1999 *G. salaris* had reappeared.

The danger to UK rivers

G. salaris has spread outside Norway and infestation has been reported in Scandinavia, Finland and Russia and in western Europe as far south as Spain. The status in other European countries is unknown. UK salmon rivers are blessedly free from *G. salaris* at present, but the potential effect of an invasion is beyond imagining. There is no question as to whether our fish would be vulnerable. In an experiment, Scottish parr were taken to Norway and exposed to the parasite. They died. And few of our rivers would be amenable to the rotenone treatment. So what can be done to avoid the potential devastation of our already hard-pressed salmon stocks?

Countering the threat

Although contingency plans for use in the event of an outbreak are essential, prevention of entry must be the prime aim. Our first line of defence is the traditional one – the sea. *G. salaris* cannot live in salt water. So the only way that it could be brought into the country is through human activity. One possible source of transmission is on fishing tackle, waders, boots or clothing that have been exposed to fresh waters anywhere in Europe. The answer is disinfection, either by thorough drying (for at least

two days), freezing for a day, soaking in sea water, or treatment with solutions such as *Virkon* or *Wescodyne* (using concentrations recommended by the suppliers).

The other most likely route for the arrival of *G. salaris* is on fish. The importation into the United Kingdom of any live salmonid, or of eggs that have not been disinfected, is already banned. However, the Trust is concerned that the parasite might be carried in on coarse fish, especially since there are suspicions that some specimen fish are illegally imported.

Can possible entry routes be blocked? For clothing and fishing tackle, it has been suggested that we should follow the Icelandic example of requiring disinfection certificates for any gear brought into the country. But the number of points of entry to the UK (remembering that the whole of Europe is a possible source of infection) mean that enforcing this is not seen as a feasible option. However, it would be helpful if all proprietors were to ask fishing tenants if they have recently fished abroad, and if so, to insist on disinfection.

The way forward

But the main answer to the problem has to lie in education – in making anyone who has the potential to bring the parasite into the country, on tackle and clothing or on fish – aware of the potential disastrous consequences. A leaflet campaign was carried out some years ago and it has been recognised that the renewal of this information campaign should have wider coverage (not just among game fishers) including posters at ports of entry similar to those warning of the risk of rabies. Also the campaign needs to be reiterated at frequent intervals to avoid complacency. Both Government departments and fishery organisations are involved in the development and implementation of this information strategy. It is hoped that the new leaflets and posters will be issued within a few months. In addition, the Codes of Practice that are soon to be released by the Scottish Executive will form a key part of the communication process, providing practical measures to prevent the introduction of *G. salaris* and short checklists for groups carrying out high-risk activities. Contingency plans against the event of an outbreak are being refined – but all sides hope fervently that early and effective education will mean that such plans will never have to be brought into action. *Gyrodactylus salaris* must be kept out of our rivers.

Atlantic Salmon Trust Reports

The Trust continues to pursue its original prime purpose of conducting, promoting and funding practical research for the purpose of improving wild salmon and sea trout stocks. This work is carried out by our own biologist

and by a number of organisations to which we provide support and assistance. The following reports describe how this is achieved, and analyse the funding of the Trust's activities.

Biologist's Report

An outline of work in 2001

By John Webb – Field and Research Biologist

Maximising progeny numbers from natural and artificial Spawning – The Baddoch Spring Salmon Project

This collaborative project between the Atlantic Salmon Trust and the FRS Freshwater Laboratory, Pitlochry has been one of the main features of the AST's biologist's work since 1995.

The research is based on the use of DNA profiling or genetic pedigree analysis (i.e. genetic matching of offspring and parents) to follow the fortunes of known family groups from the egg to returning adult. A brief summary of the most recent developments in this work follows.

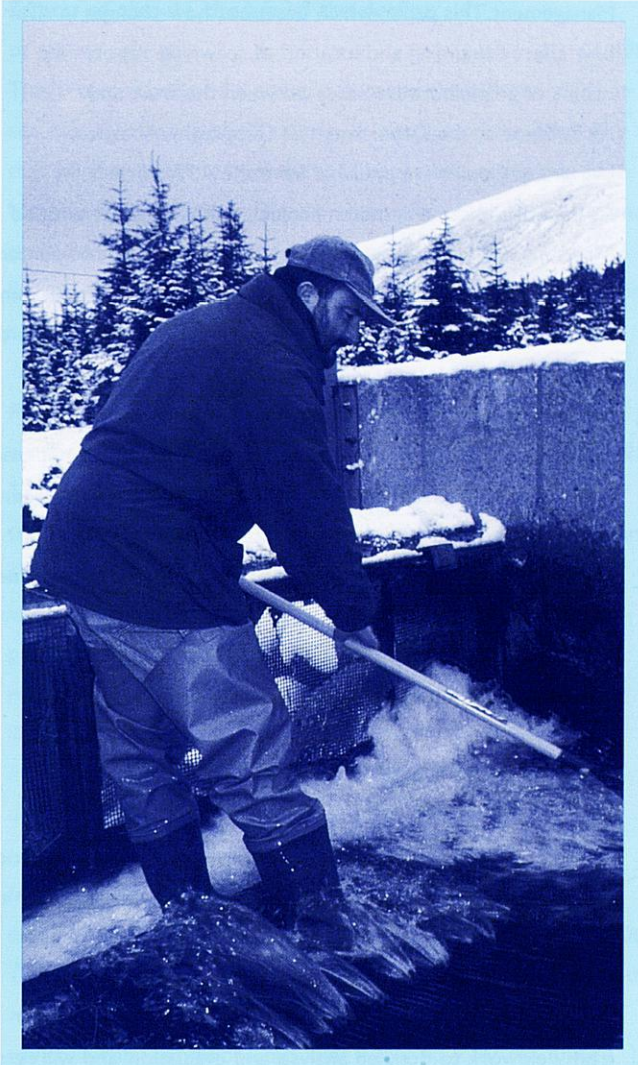
Family structure of juvenile migrations leaving an upland stream Laboratory DNA analysis of all of the adipose fin clips that were removed from the juvenile migrants as they passed through the traps has now been completed. The resulting data is now undergoing statistical analysis with the assistance of Dr Rob Fryer of the Marine Laboratory, in Aberdeen.

The Baddoch generates two main 'runs' of juvenile migrants that occur in the Spring (February-May) and the Autumn (September-December). The use of DNA profiling will give a unique insight into the structure of smolt and autumn parr migrations from an upland stream. A preliminary analysis of the data suggests that there can be very large differences in the representation of the various families among the main migratory groups monitored. For example, in the spring of 1999, a total of 41 experimental families were represented in the smolt run.

However, one family group constituted over twenty seven per cent of the run. Moreover, six families made up over half (59%) the total run. In contrast, some other family groups had failed to generate more than one or two migrants. The potential implications of this scale of imbalance between family groups of smolts upon leaving their home stream on subsequent adult returns are not understood and are subject to ongoing study (see the work on parr family structure below).

Family structure of Baddoch adult returns to their home tributary Monitoring and sampling of fishery returns and the home stream trap catches is continuing. DNA analysis of samples of scales or fin tissue taken from tagged returns will begin shortly after the completion of this year's spawning season. All of the clipped fish that return to the Baddoch this autumn are expected to be derived from the juvenile output generated by this project. The 'lifetime fitness' of each of the experimental family groups will then be assessed by investigating the relationship between the performance of families in freshwater (i.e. egg to smolt) and their subsequent return as adults to their native spawning tributary.

Family structure of juvenile Atlantic salmon parr in an upland stream Another aspect of this research has been to look in detail at the structure of juvenile salmon populations in an upland stream, and to examine to what extent the distribution of spawning by adults imposes structuring on the subsequent juvenile population produced. A preliminary analysis of the data suggests that there are significant differences in the patterns of distribution of juveniles of different ages derived from single redd sites. Older parr are more widely distributed than younger fish. Particular attention is being focused on the scale and timing of local movements of older parr (aged 2 years or



older) within smaller tributaries, and the possible influence that their behaviour may have on the structure of census trap catches. The results of this work may also have important implications for the design of sampling protocols for genetic studies of juvenile salmonid populations.

Output from the project In the formal reporting of scientific research, it is intended that the findings of the study will result in a series of papers to be published in the recognised journals (see "Publications" below). To bring the results into practical application, it is planned to produce and publish a guide to best practice in population management and restoration, intended to meet the needs of fishery managers and biologists. This will be published in 2003/2004, as part of the products of an EU-funded project (which the Trust is helping to manage) aimed at bringing together the whole range of current knowledge of salmon genetics and the implications for stock conservation and fisheries management.

Atlantic Salmon Trust Advisory Service

The Atlantic Salmon Trust's Advisory Service continues to operate. On average, between about 10 and 25 enquiries are received and dealt with per month. Two hundred and seventeen enquiries were processed during the year. Due to the outbreak of FMD, many of the field visits planned for the spring and early summer were postponed until later in the year.

AST Training

In the last twelve months a series of four catch and release training days have been arranged for ghillies, anglers and Fishery Board staff. Training in basic catch and release techniques, live fish handling and Floy tagging was given to four groups from the Don, Helmsdale, Naver, Spey and Deveron. Bookings for two additional courses have already been made for the 2002 season.

Meetings and presentations

- This year has seen my attendance at a number of meetings and public events. These included participation in the North East Rivers project 'Rivers and the Natural Heritage' seminar, the ASFB meeting on the Water Framework Directive and Fisheries Management, The Forth Fisheries Foundation, the AST catch data workshop, Spey Catchment Management Plan Strategy Steering Group, the ASFB Bailiff training sub-group. I also helped to man the Trust's display caravan at the Spey Fishery Board 'Salmon Day' and the Scone Game Fair.
- In late August I took part in an International Workshop in Gotland, Sweden, on the effects of releasing hatchery-reared fish in the wild. The Workshop marked the culmination of a co-ordinated research programme involving seven partner institutions from five countries (Sweden, Norway, UK, Spain and Canada) who have been engaged in a number of research projects over the past three years. The object of the work was to scrutinise how the domestication process affects the physiology and behaviour of reared fish, and their impact on wild fish. The main session themes of the workshop were:
 - a. Genetics, environment, behaviour and morphology
 - b. Physiology and behaviour
 - c. Performance in the wild.
 A summary of the main findings of the research, including some information on the effects of interbreeding between farmed and wild fish, will be published in a future AST report.
- A presentation entitled "*Development, implementation and biological implications of the catch and release policy for early running Atlantic salmon in the Aberdeenshire Dee, 1995-1999*"

was given at the special Institute of Fisheries Management conference on catch and release in early November.

The proceedings of the meeting will be published by the IFM in due course.

Publications

A paper entitled "*Dispersion of Atlantic salmon (*Salmo salar* L.) fry from competing families as revealed by DNA profiling*" by Webb et al., was accepted for publication in the Canadian Journal of Fisheries and Aquatic Sciences. This paper describes the first main results from the Baddoch DNA project and was published in the December 2001 edition of the Journal.

A paper entitled "*Flow requirements of Spawning Atlantic salmon in an upland stream: implications for water resource management*" by Webb et al. was published in the Spring 2001 edition of the Journal of the Chartered Institution of Water and Environment

Management. This paper, which describes how changes in river flow affect the timing and location of spawning, reports the results of a collaborative study between the Trust and researchers at the Department of Geography, Aberdeen University. Copies are available from the AST office.

As part of the same research project, a second paper entitled "*Assessing discharge use by spawning Atlantic salmon: a comparison of discharge electivity indices and PHABSIM simulations*" by Gibbins, Moir, Webb and Soulsby has been accepted for publication in the Regulated Rivers Journal.

A paper entitled "*Development, implementation and biological implications of the catch and release policy for early running Atlantic salmon in the Aberdeenshire Dee, 1995-1999*" by Webb, has been accepted for publication by the Institute of Fisheries Management, as part of the report of the conference mentioned above. The full volume will be published in 2002.

Support of Projects

How the Trust backs scientific and salmon management research

The Atlantic Salmon Trust continues to pursue its original task of promoting and supporting practical research, aimed at maintaining and improving wild salmon and sea trout stocks.

The Trust is directly involved in the conduct of the Baddoch Spring Salmon Project, which is a principal activity of John Webb, the Field and Research Biologist, and is set out below. The Trust also provides direct support from its own resources for projects conducted by other institutions. These projects are selected by its own Honorary Scientific Advisory Panel. In addition, the Trust manages the financing of projects sponsored by a number of other organisations. A summary of all this activity follows.

Continuing major project

Maximising progeny numbers from natural and artificial spawning – the Baddoch spring salmon project

This is the Trust's principal research project. The status of work is described in the report by John Webb. The project involves the

DNA identification of individual "families" of fish in the Baddoch Burn, an upland tributary of the Aberdeenshire Dee, in order to investigate and compare their behaviour, and their survival in fresh and salt water, in relation to their parentage and the location and nature of their stream habitat. It has progressed from fieldwork to detailed analysis and evaluation, and will result in significant guidance for work on population management, habitat restoration and stock enhancement. The fieldwork was supported for five years by generous sponsorship, but the Atlantic Salmon Trust is now solely financing the analysis and evaluation work.

Projects directly supported by the Trust:

a. In 2000/2001

Spawning flow requirements in upland streams* **£5,250*

This project examined how varying flow rates affect the timing and location of salmon spawning in upland streams. This will have implications for regulating water abstraction and compensation flows, and in determining when and where habitat enhancement to improve spawning will be justified by adequate water flow.

A report has been published, and the study has inspired further independently funded work.

Effects of climate change on the decline of spring salmon

£4,000

This project examined a possible factor in the high mortality at sea of early-running MSW salmon. It investigated the possibility that warmer water temperatures in upper tributaries may have had an adverse effect on the characteristics of the smolt run and the subsequent survival at sea of migrating salmon. No positive link could be established, and the elimination of this possibility is assessed as worthwhile.

River Eden – effect of water temperature on spawning dates

£1,000

This EA study is intended to follow up some of the findings of the 1999/2000 project in examining how water temperature can affect the time at which salmon spawn. Temperature recorders were purchased and installed, but observation of spawning was prevented by excessive water flows in 2000 and by FMD restrictions in 2001. The work is now planned for 2002. It is likely to be particularly significant in assessing the effects of major water abstraction which takes place in one of the areas under investigation.

Influence of environmental factors on the production and survival of juvenile salmon in the River Bush

£2,000

This grant, approved late in the period, helped to support a study which took advantage of a long term series of data on environmental conditions, including water flow, for the River Bush in Northern Ireland. It examined how and when these factors might have had an effect on the survival of salmon from egg to smolt. The report has yet to be assessed.

b. In 2001/2002

Maximising progeny numbers from natural and artificial spawning – the Baddoch spring salmon project

£27,000

This sum is the direct funding expected to be provided by the Trust, which is covering the whole cost in this financial year.

Predation and scavenging along spawning streams in Scotland

£4,000

This is primarily investigating the extent of predation by otters, especially at spawning time, and its significance in affecting spawning success, and the subsequent population levels.

Application of Continuous Plankton Recorder data to the interpretation of UK catch statistics

£6,000

Following the 1998 AST workshop on the Ocean Life of Salmon, this is seeking correlation between data on plankton distribution in the Northwest Atlantic Ocean and downward trends in catches and home water abundance. If conditions leading to changes in the food web can be deduced, this could identify one cause of increased salmon mortality at sea, and possibly lead to an ability to predict ocean survival.

The use of DNA to identify salmonid material in seal scats

£4,000

This study is aimed at validating the use of DNA analysis techniques in identifying soft remains from salmon and sea trout in seal faeces. It is hoped that this will lead to a more representative indication of the consumption of salmon and sea trout than the current technique of looking for otoliths (small bones in the head), and will result in better quantitative assessments of seal predation.



Principal projects financed in whole or part by other organisations

a. In 2000/2001

Maximising progeny numbers from natural and artificial spawning – the Baddoch spring salmon project £11,000

Shown in this section for 2000/2001 because part of the cost was met by sponsorship.

The Trust contributed an additional £21,000.

The Shieldaig Sea Trout Project £4,600

Completion of support of trapping, electrofishing and habitat survey work on sea trout decline and rehabilitation in a West Highland river. The programme was financed by the Scottish Executive, Highlands and Islands Enterprise, and other organisations.

Investigation of salmon behaviour in Borland lifts £17,000

Examination of actual salmon movement during the operation of Borland lifts at hydroelectric dams in Scotland. It is aimed at the establishment of optimum design and operating regimes. This project is financed by Scottish Hydro Electric.

Kelt reconditioning £5,000

A project operating in conjunction with stream habitat restoration in the upper tributaries of the River Wye.

Feasibility study for a West Highland Salmonid

Stock Restoration Facility £5,000

This was the initial payment for investigation of the concept of a central facility for rearing captured smolts to maturity. The aim was to overcome the shortage of returning adult broodstock for use in stock restoration projects for rivers affected by salmon farming. The study was financed by the Crown Estate, Highland Council, Highlands and Islands Enterprise, Scottish Natural Heritage and the Atlantic Salmon Trust, and managed by the Trust.

b. In 2001/2002

Investigation of salmon behaviour in Borland lifts £20,000

Continuation of the previous year's project.

Feasibility study for a West Highland Salmonid

Stock Restoration Facility £15,800

This was the major portion of the cost of the study. The study recommended against proceeding with a central facility, but it will provide a significant input to planning for stock restoration. This is described further in the "News" section.

Kelt reconditioning

£6,000

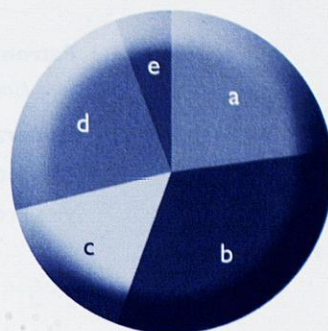
A continuation of the previous year's project.

c. SALGEN Project

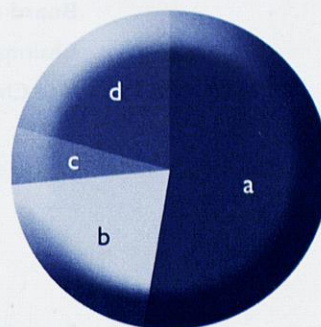
This is an EU-funded project, launched in October 2001, and running until April 2003, for which the Trust is acting as co-ordinating agent. It involves a major programme to review and collate international genetic studies in order to increase understanding and improve the effectiveness of wild stock conservation and rebuilding programmes in Europe. The total budget is 269,000 Euros (£164,000)

Financial Report for the Year to 31 March 2001

Income	£
a) Investment income	44,504
b) Donations	63,504
c) Postal fishing auction	30,358
d) Project funds from other organisations	45,057
e) Other income	11,146
Total	194,569



Expenditure	£
a) Advancement of salmon conservation	133,703
b) Projects sponsored by other organisations managed by the Trust	45,057
c) Information and publicity	12,585
d) Management, administration and finance	44,696
Total	236,041



Net Movement in Funds

Operating deficit	-41,472
Unrealised loss on investment portfolio valuation	-186,972
Gain on disposal of investments	1,952
Total	-226,492
Transfer from reserves	226,492

Balance Sheet

Assets

a) Tangible Fixed Assets	77,088
b) Net Current Assets	29,270
c) Investment Assets	1,189,551
Total	1,295,909

Reserves

a) Accumulated Fund	751,283
b) Investment Reserve	531,457
c) Property Revaluation Reserve	13,169
Total	1,295,909

The Trust continues to benefit from the generosity of many supporters. This allowed work to continue throughout the year in the conduct of research and in the promotion of conservation and better management of wild salmon and sea trout stocks. However, in common with many other Charities, the reduction in the value of investments due to the weakness in the stock market has been significant, and has dominated the financial results for the year. Losses have been written off against reserves, which continue to provide a strong balance sheet.

AST Direction and Management

Company registered in England. Reg. No. 904293

Registered Charity No. 252742

Patron: HRH The Prince of Wales

Honorary Officers

President: The Duke of Wellington
Vice Presidents: Dr. Wilfred M. Carter
The Lord Nickson
The Lord Moran
Rear Admiral DJ. Mackenzie

Board of Directors of the Atlantic Salmon Trust Ltd

Chairman: Colonel H.F.O. Bewsher
Vice Chairman: Major General John Hopkinson
Mr. James Carr
Mr. Robert Clerk
Mrs. Elizabeth Macdonald-Buchanan
Mr. Michael Martin
Dr. Richard Shelton
Executive Director: Mr. Jeremy Read
Finance Director: Mr. John Gray

Company Secretary: Mr. Timothy Hoggarth
(Deputy to the Executive Director)

Committee of Members

Mr. Malcolm Borthwick
Mrs. Annie Boyd
Mr. Jonathan Bulmer
Lt. Col. R.A. Campbell
The Rt. Hon. Dr. Jack Cunningham MP
Mr. Robin Greville Williams
Mr. Michael Hollingbery
Mr. Andrew Douglas Miller
The Earl of Eglinton & Winton
The Baroness Golding
The Lord Guernsey
Mr. John Lovett
Mr. Miles Larby
Mr. Moc Morgan
The Hon. Sir Charles Morrison
Mr. Edward Mountain
Mr. Robert Scott-Dempster

Committee of Members (continued)

Mr. Hugo Upton
Mrs. Anne Voss Bark
Mr. Robert Williamson

Invited Representatives of Other Organisations

ASF (Canada):	Mr. John E. Houghton
ASF (USA):	Mr. Donal C. O'Brien Jr
AIDSA:	Madame S. Tissier
ASFB:	Miss Jean Matterson
Countryside Alliance:	Mr. Richard Burge
Fishmongers' Company:	Mr. Anthony Duckworth-Chad
RASA:	Mr. Richard Buck
S&TA:	Mr. T.A.F. Barnes
Spey Trust:	(A Representative)

Honorary Scientific Advisory Panel

D.H. Mills, M.Sc., Ph.D., F.I.F.M., F.L.S. (Chairman)

J. Browne, M.Sc. (Still Waters Consultancy)

G.J.A. Kennedy, B.Sc., D. Phil., F.I.F.M. (Department of Agriculture and Rural Development)

E.D. Le Cren, M.A., M.S., F.I.Biol., F.I.F.M.

Professor John Solbé, M.B.E., D.Sc., C.Biol., F.I.Biol., F.I.F.M.

D. Solomon, B.Sc., Ph.D., M.I.Biol., M.I.F.M.

D. Summers, B.Sc., Ph.D., M.I.F.M.

J.L. Webster, B.Sc., Ph.D., C.Biol., M.I.Biol. (Scottish Quality Salmon)

K. Whelan, B.Sc., Ph.D. (Marine Institute of Ireland)

Professor Noel P. Wilkins (Department of Zoology, National University of Ireland)

J. Webb, M.Sc. (AST Field & Research Biologist)

Observers:

N. Milner, B.Sc., Ph.D. (Environment Agency)

E.C.E. Potter, B.A., M.A. (The Centre for Environment, Fisheries & Aquaculture Science)

A representative of the Scottish Executive Environment & Rural Affairs Department

International Conservation Organisations

with which the Trust is in contact

France: Association Internationale de Défense du Saumon Atlantique

Belgium: Belgian Anglers Club

Spain: Asturian Fishing Association of Oviedo

Germany: Lachs und Meerforellen Sozietat

U.S.A: Restoration of Atlantic Salmon in America Inc.

Canada and U.S.A: Atlantic Salmon Federation

Ireland: Federation of Irish Salmon & Sea Trout Anglers

Atlantic Salmon Trust Publications

Title		£	Title		£
Atlantic Salmon: Planning for the Future (Proceedings of the 3rd International Atlantic Salmon Symposium, Biarritz, 1986)	edited by D. Mills & D. Piggins	45.00	Strategies for the Rehabilitation of Salmon Rivers (Proceedings of a joint Conference held at the Linnean Society in November 1990)	D. Mills	5.00
The Biology of the Sea Trout (Summary of a Symposium held at Plas Menai, 24-26 October 1984)	E.D. Le Cren	1.50	Salmon Fisheries in Scotland	R. Williamson	3.00
Salmon Stocks: A Genetic Perspective	N.P. Wilkins	1.50	The Measurement and Evaluation of the Exploitation of Atlantic Salmon	D.J. Solomon & E.C.E. Potter	3.00
Report of a Workshop on Salmon Stock Enhancement	E.D. Le Cren	1.50	Salmon in the Sea and New Enhancement Strategies (Proceedings of the 4th International Atlantic Salmon Symposium, St. Andrews, New Brunswick, June 1992)	edited by D. Mills	30.00
Salmonid Enhancement in North America	D.J. Solomon	2.00	Surveying and Tracking Salmon in the Sea	E.C.E. Potter & A. Moore	3.00
Salmon in Iceland	Thor Gudjonsson & D. Mills	1.00	Problems with Sea Trout and Salmon in the Western Highlands	edited by R.G.J. Shelton	3.00
Atlantic Salmon Facts	D. Mills, G. Hadoke & J.B.D. Read	f.o.c	Automatic Salmon Counting Technologies – A Contemporary Review	G.A. Fewings	3.50
The Atlantic Salmon in Spain	C.G. de Leaniz, A.D. Hawkins, D. Hay & J.J. Martinez	2.50	Salmon in the Dee Catchment: The Scientific Basis for Management (Proceedings of a one day meeting held at Glen Tanar House, 13 October 1994)	A. Youngson	3.50
Salmon in Norway	L. Hansen & G. Bielby	2.00	Spring Salmon	A. Youngson	3.00
The Automatic Counter – a Tool for the Management of Salmon Fisheries (Report of a Workshop held at Montrose, 15-16 September 1987)	A. Holden	1.50	Enhancement of Spring Salmon (Proceedings of a one day Conference held at the Linnean Society of London 26 January 1996)	edited by D. Mills	12.00
A Review of Irish Salmon and Salmon Fisheries	K. Vickers	1.50	Water Quality for Salmon and Trout (second, revised edition)	J. Solbé	3.50
Water Schemes – Safeguarding of Fisheries (Report of Lancaster Workshop)	J. Gregory	2.50	Salmon Fisheries in England & Wales	W. Ayton	3.50
Genetics and the Management of the Atlantic Salmon	T. Cross	2.50	The Industrial Fishery for Sandeels	A.D. Hawkins, J. Christie & K. Coull	3.00
Fish Movement in Relation to Freshwater Flow and Quality	N.J. Milner	2.50	Fish Counters (Proceedings of an AST/IFM Seminar held in Perth on 4 April 1997)	edited by A.V. Holden & G. Struthers	3.00
Acidification of Freshwaters: The Threat and its Mitigation	R. North	3.00	The Ocean Life of Atlantic Salmon (Proceedings of a Workshop held in November 1998) <i>Price reflects 50% discount available on orders placed by AST supporters</i> P+P: UK £2.50, Europe £3.50, Rest of world £5.00.	edited by D. Mills	29.75
			Habitat Restoration for Atlantic Salmon	David W.J. Smart	12.50

Additional Information

6th International Atlantic Salmon Symposium – 15-18 July 2002

Every five years or so, the Atlantic Salmon Trust and the Atlantic Salmon Federation – its North American counterpart – jointly organise an International Symposium on salmon matters. In 2002 this Symposium will return to Edinburgh, where it was last held in 1978. In that year it passed a resolution which resulted in the development of the North Atlantic Convention to regulate salmon fishing outside home waters, and the establishment of the North Atlantic Salmon Conservation Organisation (NASCO).

The 2002 Symposium is entitled “Salmon at the edge”. It will consider the problems faced by wild Atlantic salmon and sea trout in migrating to sea, in the coastal zone, and in returning to their native rivers, and will seek ways of addressing these problems. An additional session will examine other work offering encouragement for the future of salmon and sea trout stocks. Speakers have already been invited, but poster displays will be welcomed.

The Symposium will run from the morning of Tuesday 16th July (Registration possible pm Monday 15th) until mid-day Thursday 18th. It will be followed by an optional tour – Rivers and Research – which will include the Tay, the Aberdeenshire Dee and the North Esk.

The venue is the William Robertson Building of the University of Edinburgh, at George Square, close to the heart of the city. The building houses a tiered lecture theatre equipped with full audio-visual facilities. Accommodation has been reserved in the University Halls of Residence, about fifteen minutes walk from George Square. Additionally, hotel accommodation at special rates is being arranged by the Edinburgh Convention Bureau, which will handle all bookings. The basic registration fee, which includes the cost of a copy of the Proceedings, and lunch/tea /coffee on all three days, is **£125** until 31 March, and then **£140**.

Full details are on the registration forms, available now. To obtain information and a registration form, contact the Trust by mail, telephone or fax, or through the Symposium website www.salmonsymposium.org which contains the full programme.

Review of Scientific Literature in 2001

Limitations of space prevent the inclusion in this Progress Report of the annual review of scientific literature on salmon, for which the Trust is again indebted to Dr Peter Hutchinson of NASCO. It will be published on the Trust's website – www.atlanticsalmontrust.org – and copies may be obtained from the Moulin office.

“The Best Worker in Europe”

Ted Hughes was a staunch supporter of the Atlantic Salmon Trust. This is a unique opportunity to acquire a rare and special edition of his work, while helping a cause which he held dear. In 1985, the Trust published a limited edition of 156 copies of a poem specially composed by him, in which he contrasted the wonder of the migration and return of the salmon smolt with the desperate hazards that threatened it then, and still do. The numbered copies, hand-set and printed on mould-made paper, illustrated by Charles Jardine and signed by both Author and Artist, were for sale in aid of the Atlantic Salmon Trust's work for wild salmon and sea trout. **Only 50 copies remain unsold.** They are now offered, together with a newly drawn additional sketch generously contributed by Charles Jardine – also signed and numbered – at the price of £125. To order, please contact the AST office.

“In Search of Silver”

An illustrated anthology of international writing on salmon fishing, beautifully produced and compiled with the participation of our conservation partner, the Atlantic Salmon Federation. The standard price is £25, but copies ordered by supporters of the Trust will be supplied by Duncan Baird Publishers at a special price of £20, of which £5 will then be donated to the Trust. Telephone Rachel Barrance on 01962 841570, or contact the AST Office for an order form.

Additional Information

Display Caravan – Show Programme 2002

6-7 July	Game Conservancy Scottish Fair, Scone
26-28 July	CLA Game Fair, Broadlands
2-3 August	Highland Field Sports Fair, Moy

Visit the caravan at one of these shows to meet the team, get the latest information on our work, and pick up copies of our publications and posters.

“Wild Fishing in Wild Places”

A personal account of fishing from Norway to North America, and all points in between – the author is in the oil business. The profits from this lively and entertaining paperback, illustrated in colour, go to the North Atlantic Salmon Fund. Obtainable at £14.50 from:

Coch-y-Bonddu Books, Machynlleth, Powys, SY20 8DJ

(Tel: 01654 702837 or paul@anglebooks.com)

Farlow's, 5 Pall Mall, London, SW1Y 5NP

(Tel: 020 7839 2423 or farlows@farlows.co.uk)

Farlow's, 58 George St, Edinburgh, EH2 2LR

(Tel: 0131 225 7225)

Special Acknowledgement

The Atlantic Salmon Trust acknowledges with gratitude the very generous donations, totalling £1826, from the friends of the late John M Jeyes. These were made in his memory after his death in a tragic accident.

ARENA EVENTS · FISHING · GUN DOGS · TERRIERS · GO KARTS · PIPE BANDS

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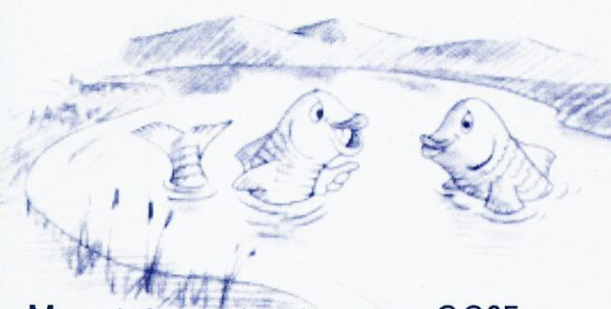
Scone Palace, Perth

Sat. 6th July & Sun. 7th July

09.30 - 18.00hrs

Adults £10 · Children 5-15 £1

Free Parking



More information from the GCSF

www.scottishfair.com

Tel: 01620 850577 Fax: 01620 850240 Email: info@scottishfair.com

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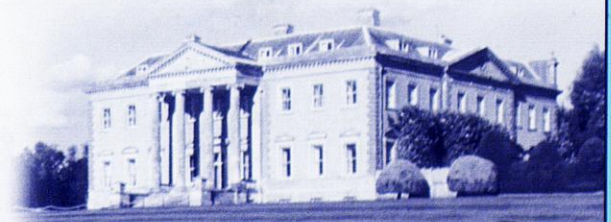


The CLA Game Fair
Broadlands, Romsey, Hampshire
Friday 26 – Sunday 28 July 2002

Advance Ticket Hotline – **01634 226211**

(Please quote B002 when booking)

Website – www.gamefair.co.uk



Broadlands





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