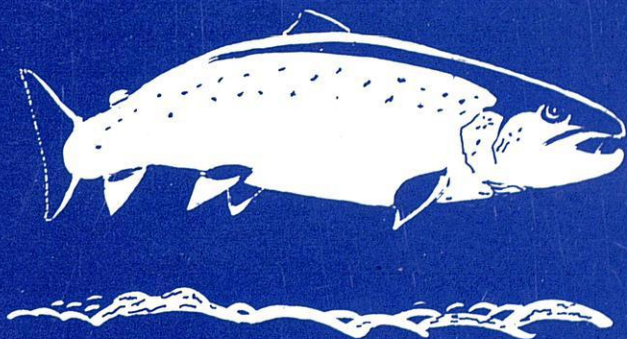




ATLANTIC SALMON TRUST

# PROGRESS REPORT

December 1986



The Atlantic Salmon Trust  
Moulin, Pitlochry  
Perthshire PH16 5JQ  
Telephone: Pitlochry (0796) 3439

Patron: HRH The Prince of Wales

GENERAL COUNCIL

President: \*The Duke of Wellington  
Vice-President: \*Vice-Admiral Sir Hugh Mackenzie  
Chairman: \*Mr. David Clarke  
Vice-Chairmen: \*Mr. D. W. Nickson  
                  \*Sir Ernest Woodroffe

Members: \*Ambassador Claude Batault  
          Mr. John Bennett  
          The Rt. Hon. The Lord Biddulph  
          \*Mr. Gordon Bielby (representing the  
          Water Authorities Association)  
          Mr. R. A. Buck  
          \*Dr. W. M. Carter  
          Lady Cleminson  
          Captain A. A. Compton Farquharson  
          of Invercauld  
          \*The Hon. Mrs. Jean Cormack  
          Mr. J. F. Cullman 3rd  
          \*The Hon. E. D. G. Davies  
          Mr. R. J. Deterding  
          Mr. J. Golding  
          \*Sir William Gordon Cumming  
          \*Mr. N. W. Graesser  
          \*Mr. G. D. F. Hadoke  
          Sir Stephen Hammick  
          Dr. G. Harris  
          Mr. S. P. L. Johnson  
          The Rt. Hon. Lord Keith of Castleacre  
          Mr. D. Landale  
          The Rt. Hon. The Viscount Leverhulme  
          Mr. D. E. Longe  
          Major Colin Mackenzie  
          \*Mr. M. D. Martin  
          \*Dr. D. H. Mills  
          \*Mr. I. Mitchell  
          \*Lord Moran  
          \*Mr. Moc Morgan  
          Mr. A. Oglesby  
          Mr. Cranley D. Onslow  
          Mr. I. G. Rolland  
          Mr. J. R. W. Stansfeld  
          Mr. Philip Tallents  
          \*Mr. W. A. C. Thomson  
          Mr. Michael G. T. Webster  
          \*A representative of the British Field  
          Sports Society  
          A representative of the Spey Fishing Trust

Director: \*Rear Admiral D. J. Mackenzie  
Deputy Director: \*Mr. Alex Prichard  
Secretary: \*Mr. E. Earl  
Treasurer: \*Mr. M. O'Brien

\*Members of Committee of Management



## HONORARY SCIENTIFIC ADVISORY PANEL

- Sir Ernest Woodroffe, B.Sc., Ph.D., F.Inst.P., F.I.Chem.E.  
(Chairman)
- Mr. I. R. H. Allan, M.A., C.Biol., F.I. Biol.
- Professor Ron Edwards, B.Sc., D.Sc., F.I.Biol., F.I.W.P.C.,  
F.I.F.M. (University of Wales Institute of Science and  
Technology)
- Mr. G. D. F. Hadoke, M.A., M.Sc.(Econ.), F.I.F.M.
- M. M. Halliday, Ph.D. (Joseph Johnston & Sons Ltd.)
- G. Harris, Ph.D. (Welsh Water Authority)
- G. J. A. Kennedy, B.Sc., D.Phil. (Department of Agriculture for  
Northern Ireland)
- Mr. E. D. Le Cren, M.A., M.S., F.I.Biol., F.I.F.M.
- D. H. Mills, M.Sc., Ph.D., F.I.F.M. (Department of Forestry and  
Natural Resources, Edinburgh University)
- Mr. I. Mitchell, B.Sc. (Tay Salmon Fisheries Co. Ltd.)
- D. J. Piggins, B.Sc., Ph.D. (Salmon Research Trust  
of Ireland Inc.)
- J. Solbe, B.Sc., C.Biol., F.I.F.M., M.I. Biol. (Water Research  
Centre, Marlow)
- D. Solomon, B.Sc., Ph.D., M.I.Biol., M.I.F.M.
- Miss E. Twomey, M.Sc. (Department of Fisheries and Forestry,  
Dublin)
- Observers: Mr. B. Stott (Ministry of Agriculture, Fisheries  
and Food)
- Mr. W. Shearer, B.Sc., M.Sc., C.Biol., M.I. Biol.  
(Department of Agriculture and Fisheries for  
Scotland)

### INTERNATIONAL CONSERVATION ORGANISATIONS WITH WHICH THE TRUST IS IN CONTACT

- France: Association Internationale de Defense du Saumon  
Atlantique
- Belgium: Belgian Anglers' Club
- Ireland: Irish Game Fish Protection Federation
- Norway: Jeger og Fiskerforbund and Laksen of Oslo
- Sweden and  
Scandinavia: Theodor Dalensson, Scandinavian Atlantic Salmon  
Group
- Spain: Asturian Fishing Association of Oviedo
- U.S.A.: Restoration of Atlantic Salmon in America Inc.
- Canada and  
U.S.A.: Atlantic Salmon Federation

INDEX

	Front Cover
General Council	1
Honorary Scientific Advisory Panel	2
Index	3
Chairman's Foreword	4
Director's Report	5
John Ashley-Cooper	6
The Third International Atlantic Salmon Symposium	10
The Salmon Bill	12
17th Annual Study Course, Institute of Fisheries Management	13
Note of Meeting between the Trust and the EEC Commissioner and Director General for Fisheries	14
Europe	15
Honorary Advisory Scientific Panel	17
The Thames Salmon Rehabilitation Scheme	20
Fisheries Research and the Water Research Centre	22
Report from Welsh Water	24
Wessex Water Authority	25
Northern Ireland Fisheries River Blackwater Drainage Scheme	26
Report from Canada	30
Review of Current Literature on Salmon Research and Development	33
Plas Madoc Appeal	35
Auditor's Report	36
Balance Sheet	37
Income and Expenditure Account	38
Source and Application of Funds Statement	39
Notes to the Accounts	41
Banker's Order	43
Deed of Covenant	Back Cover
Publications	



## FOREWORD

Since I wrote the Foreword to the last Progress Report the Trust has been extremely busy. I must especially thank Lord Moran who has worked very hard on the Salmon Bill. When first introduced it was described by Lord Lansdowne as "a wee timorous beastie". During its passage through the Lords and then the Commons it was considerably revised. Although it is not all that we could wish for, it has finished up as a very different "kettle of fish".

The Symposium at Biarritz was acknowledged to be a great success. Attendance was high and no less than 16 nations were represented. Dr. Mills, the Chairman of the steering committee, worked extremely hard and much credit is due to him. We must congratulate the French on their enthusiasm and support. Monsieur Vibert, Ambassador Claude Batault, AIDS President Bill Higgins and many others raised considerable sums to support the Symposium, and gave much of their time. Amongst those attending and playing major roles were Wilfred Carter of the ASF, who chaired the Opening Session, and Richard Buck of RASA and a US Commissioner on NASCO, who gave the Closing Address. Last, but by no means least, we owe a great debt of gratitude to our Deputy Director, Alex Prichard, who liaised with everyone and kept us all in order.

The Honorary Scientific Advisory Panel has a busy programme over the next few years. It has kept up a great momentum in the past which it continues into the future. Our thanks are due to the Chairman, Sir Ernest Woodroffe, and the Panel for their very considerable work.

I would refer to the Accounts which are published in this Report. I think that it can be said that they show that the Trust is in sound financial heart. However, I must point out that we do rely for an appreciable portion of our income on the success of the Fishing Auction, so ably run by Alex Prichard, and other fund raising efforts. I must thank Michael O'Brien, our Treasurer, and Peter Tomlin, our Accountant, for all their work on our behalf. I should also like to thank the Fishmongers' Company for all their support financially and otherwise, and Eric Earl, the Trust's Secretary.

Lastly, I would pay tribute to our Director, John Mackenzie, who has not only steered the Trust successfully through a very busy patch but has also undertaken boring jobs such as towing the Trust's display caravan for many hundreds of tedious miles!

Thank you all for your support, and I wish you a happy and prosperous 1987.

David Clarke  
Chairman

## DIRECTOR'S REPORT

The last few months have seen the passage of the Salmon Bill through Parliament and an account by Lord Moran is in this Progress Report. The Trust welcomes the formation of the Salmon Advisory Committee, under its Chairman Professor George Dunnet, the Regius Professor of Natural History at Aberdeen University. The Trust has been asked for nominations to serve on the Committee and awaits the decision of Ministers.

The Third International Atlantic Salmon Symposium was a considerable success with representatives of some 16 countries attending, and the Papers will be published in 1987. The findings are included in the Report. Some critics may say that the Trust is taking sides, to which I would reply that it is a change of emphasis which is required. Wild salmon are no longer a prime source of food, and with the fantastic growth of salmon farming, it is a time for change, a change which was foreseen but not acted upon in Lord Hunter's Report in 1965. Anglers, too, must guard against greed, and some of the larger catches of hen fish just before spawning are certainly not in the spirit of conservation. There was a general feeling at Biarritz that the UK was lagging behind other countries, notably Canada and Norway, in matters of conservation.

The Honorary Scientific Advisory Panel has an exciting programme over the next few years and more Blue Books are promised shortly. The programme of Workshops is of particular note. An account of the work of the Scientific Panel is in the body of this Report.

The appearance of the Trust's caravan at game fairs has helped to spread the gospel. My only plea is for anyone who could possibly help in the caravan next year to come forward.

The Fishing Auction catalogue, in its nice bright red cover, is now available and the Auction promises to be as successful as last year's. Catalogues are available from the Moulin office (0976 3439) or from Alex Prichard (0990 21270).

Finally, an assurance to all our subscribers. Although your names are now in our computer we are not going to sell the subscriber list, so hopefully you will not be bombarded by such organisations as R..... D..... as a result of our efforts!

Merry Christmas to you all.



JOHN ASHLEY-COOPER

(By Aylmer Tryon)

John Ashley-Cooper, considered by many to have been the finest salmon fisherman of his generation, died in his sleep at the end of June after a happy if unsuccessful day's fishing on the Bolstad River in Norway. A fitting end for a great fisherman, the Bolstad being the river of Leviathans.

All fishermen know the frustration of office ties in cities, when rain without beckons to Highland rivers in spate, and so can sympathise and understand his feelings after being captured whilst serving with a commando unit, when his thoughts dwelt on his beloved salmon. Thus on his eventual release he decided to devote as much time as possible not only in their pursuit but in assisting in the survival of the species.

He was a man of great intelligence and thoroughness and was thus able to contribute advice and suggestions to the Atlantic Salmon Trust, serving first on the Appeal Committee and subsequently on the Council, where his great experience and wisdom were eagerly sought.

Fortunately, in recent years he wrote several books: "A Salmon Fisher's Odyssey" and "A Line on Salmon", which will benefit young and old and take their rightful place in fishing literature, and before he died completed "A Ring of Wessex Waters".

Those of us who had the privilege of fishing with him and who admired his skill and cheerful, modest approach will agree with a friend who said to me recently, "You know, salmon fishing will never be quite the same without John". I shall always remember him wading deep into the heavy waters of the Spey, casting immense distances with his huge rods and enjoying every cast. He was indeed the perfect fishing companion, and I shall miss too his carefully considered advice.

We offer our sympathy to his family and many friends.

THE THIRD INTERNATIONAL ATLANTIC SALMON SYMPOSIUM  
BIARRITZ, 21 - 23 OCTOBER, 1986

(By Dr. D. H. Mills, Department of Forestry & Natural Resources,  
Edinburgh University)

Almost 200 delegates from 16 countries were welcomed by Dr. Richard Vibert, President d'Honneur of L'Association Internationale de Defense du Saumon Atlantique, in his opening remarks at the start of the Third International Atlantic Salmon Symposium on 21st October, 1986. After Dr. Vibert reviewed the advances in salmon conservation since the Second Symposium in Edinburgh, a message to the assembly from His Royal Highness, Prince Charles the Prince of Wales was read out by His Grace The Duke of Wellington. His Royal Highness was encouraged on learning of the large number of countries to be represented at the Symposium and considered it an important step forward which can only help us to understand and respect each other's interest in the salmon. He stressed that we must be prepared to yield a little to each other's demands in order to achieve a mutual agreement on what needs to be done.

The Opening Address was to have been given by Madame the Secretary of State, Michele Alliot-Marie, but unfortunately an airport strike in Paris prevented her attendance. However, in her absence, her father, the Mayor of Biarritz, presented her speech which showed her appreciation of the value of the salmon to the community and to tourism, and also a deep understanding of the environmental hazards affecting its survival.

Appropriately, the first speaker in the first session, devoted to the status of exploitation throughout the Atlantic salmon's natural range, was Dr. Malcom Windsor, Secretary of NASCO - the organisation which evolved from the Resolution passed at the Second Symposium in Edinburgh. The setting up of NASCO had involved much arduous work and considerable diplomatic skill, and the assembly expressed its gratitude to Dr. Windsor for putting this important conservation organisation on a firm footing. Dr. John Spenser of the Fisheries Directorate-General of the EEC, the second speaker in this session, confirmed the importance of NASCO and described how the Commission fitted into NASCO and the salmon conservation scene generally and provided some revealing figures on the Community's annual expenditure on salmon conservation. It was most gratifying to have the EEC represented at the Symposium and most reassuring to know that the conservation of salmon was high on the list of priorities of the Fisheries Directorate-General.

The Status of Exploitation theme continued on a country-to-country basis and delegates had a good review of the problems facing each salmon producing country from Spain to Iceland and from Canada to Norway. The main message appeared to be a need for more reliable catch statistics. One striking fact which did appear, and was probably not previously fully appreciated by many present, was the



marked differences in ownership of the salmon resource in the various countries. A point not always taken into account by administrators when considering either a common conservation policy or in measures to reduce commercial fishing, which Dr. Wilfred Carter suggested should be considered by delegates as a general salmon conservation issue. There was some discussion concerning a wider use of salmon tagging schemes similar to those at present implemented in Canada and Spain and shortly to be introduced in France. It was felt that they could help in the more reliable collection of catch statistics as well as controlling illegal fishing.

Another subject which received a great deal of airing at this stage was catch-and-release, a policy adopted widely in North America where salmon anglers have a seasonal bag limit and are prohibited from selling their catch. While the Canadians had no evidence to show that the release of fish caused them any subsequent harm, there was some concern from some quarters that the handling of fresh-run fish which were then released might result in their becoming infected with fungus.

The second day of the Symposium was set aside for a session on science and management, starting with the value of long-term catch data, continuing with papers on smolt production, exploitation rates, stock enhancement and restoration schemes, and ending with a review of the situation from an angler's point of view. Drs. Power and Bielak considered that historical records can ultimately be of major significance, not only as indicators of past and present stock and fishery characteristics, but also as indicators of potential future production. The limitations in the use of present catch data were admirably summarised by both Mr. Shearer and Mr. Gareth Edwards who pointed out the needs for better information on fishing effort, spawning escapement and the timing of the runs of fish. It was agreed that the only realistic method of assessing individual stocks of anadromous fish is in the river with traps and counters. Neither method is foolproof, but Messrs. Shearer, Prouzet and Gudjonsson all showed that traps and counters can produce invaluable data on the numbers and seasonal distribution of fish.

The present position of stock enhancement was well reviewed by Dr. Kennedy but a word of warning on the choice of stock material for enhancement was given by Dr. Thorpe who illustrated his advice with examples showing marked differences in behaviour of introduced young fish compared with the indigenous stock. Those concerned with restoration schemes, such as those on the Connecticut and Jacques-Cartier rivers, so well described by Dr. Jones and Prof. Frenette, have obviously much to ponder on as a result of the information presented in the papers by Drs. Kennedy and Thorpe.

One aspect of the salmon's life cycle which has always intrigued everyone involved with salmon is its life at sea, and no-one could have been disappointed with the accounts of salmon research on the high seas off Greenland, Faroes, the Newfoundland Banks and

Labrador so expertly presented by Drs. Møller Jensen, Jakupsstovu and Reddin, respectively. The description of the behaviour of salmon to which depth sensitive acoustic tags had been attached by Dr. Jakupsstovu was fascinating, while the investigations carried out by Dr. Reddin, which revealed that salmon abundance for North American and some European stocks may be related to sea surface temperatures, confirmed many people's views about the cyclical abundance of salmon being related to oceanic conditions. Future lines of research on salmon on the high seas was the subject of a paper by Dr. Horsted given by Dr. Møller Jensen in his absence. His "dream" of an extensive simultaneous fishing experiment over a very wide part of the ocean area in which salmon are likely to occur was intriguing but, when one realises that it costs £6,700 a day to keep an ocean-going research vessel at sea, one can appreciate that the likelihood of this occurring is rather remote, as he himself admitted.

The subject of illegal fishing kept cropping up during the various discussions and it was therefore appropriate to have a session on this topic and learn that indeed it is a common problem throughout many salmon producing nations. Norway seems now to be in control of the problem, and is shortly to ban both drift netting and the use of monofilament, while Canada is still having local problems with the Red Indian community and the Poyle Fisheries Commission with the poaching element; and the drift nets off the Republic of Ireland appear to be out of control. Once more, the use of a tagging scheme was raised but it was shown that it is not always foolproof, as illustrated by the partial non-observance of this by the Indians in Quebec and New Brunswick.

In the Closing Address, Richard Buck soundly condemned the United Kingdom and the Republic of Ireland for not taking firmer action in conserving its salmon stocks. As he says - "Drift netting is condoned and illegal operations continue unabated", while "In Canada, the in-river angling catch limits have been drastically reduced; drift netting has been banned; inshore commercial netting banned entirely in certain areas, and seasons cut back in others; a Government netting buy-back program has been in force.....". He goes on to ask, "Is it possible that the fisheries bureaucracies in the EEC-UK-Irish complex do not fully comprehend that the other NASCO members have already begun the long and arduous task for reversing the trend towards over-exploitation?". In conclusion, Richard Buck states that we are all the stewards of the salmon and hold the resource in trust and as trustees surely we do not have the right to deplete it in such a way that future generations cannot benefit from such a valuable commodity. Some may take issue with his condemnations and say that we have a history of salmon conservation dating back to the 12th century, 500 years before the Pilgrim Fathers landed in America. Others may well ask why it is that the present annual catch of Atlantic salmon in the USA is little more than 2 tons - surely a reflection of the lack of salmon conservation in the face of industrial development and greed. No wonder it is that certain countries are faced with the



arduous task of restoring their salmon stocks, while others with a long tradition of conservation legislation have managed to maintain their stocks at a more acceptable level.

In the summing-up of the Symposium I ranged widely over the subjects covered by various speakers. I drew attention to the need for better catch statistics, of methods to control illegal fishing, of the dangers and difficulties of leaving the resource to be exploited by recreational fishing only and of the future impact of salmon farming and ranching on wild salmon stocks. I referred to the Resolution which would be proposed after my summing-up and then proposed four recommendations which I had formulated in the course of my summary, as follows:

1. That NASCO investigates the value of a salmon tagging scheme such as is in operation in eastern Canada and Spain with the view that it recommends its adoption by all member countries for both a more reliable collection of catch data and a more effective control of illegal fishing.
2. That all methods of enmeshing salmon such as drift nets and fixed hang nets (excepting the operations off Greenland) should be phased out and the fishermen relying on these methods be given opportunities to participate in the salmon fisheries of related industries, including salmon farming and ranching.
3. That we should support the recommendation of the Rapporteur to the EEC Sub-Committee on Fisheries that Community funds should be made available to improve and co-ordinate national salmon fishery inspectorates.
4. Following the action taken by Canada, recommend that each nation, through its salmon conservation bodies and sport fishing organisations, encourage the introduction of a reasonable daily and season rod-catch quota, prohibit the sale of their catch and consider the adoption of a catch-and-release philosophy.

The Resolution was then read out and proposed by Mr. George Higgins, President of L'Association Internationale de Defense du Saumon Atlantique and seconded by Mr. David Clarke, Chairman of the Atlantic Salmon Trust. After some discussion from the floor the Resolution was adopted. It was stressed during discussion that this Resolution in no one way wished to see all commercial fishing banned but simply regulated more effectively. It was also appreciated that at certain times of the year (e.g. the spring in Scotland) anglers may catch more fish than the nets.

## RESOLUTION

It was resolved that:

"In view of the greater income and employment potential of salmon angling and its appreciably smaller harvest of limited salmon populations, each national government of salmon producing countries is urged to declare a salmon policy which will institute, as a conservation measure, within its area of jurisdiction, management programmes to reduce commercial harvesting of salmon with a view to increasing salmon stocks and improving recreational salmon fisheries."

DIRECTOR'S NOTE - At a meeting of the Management Committee of the Trust on 2nd December, 1986 it was agreed that the Trust notes the terms of the Resolution and the Recommendations.

### THE SALMON BILL

(By Lord Moran)

The progress of the Bill up to the end of April was described in my account, with the Director's update, on pages 6-11 of the May 1986 Progress Report.

It had been remitted to a Standing Committee of 20 members of the House of Commons. That Committee had 15 sittings between 22nd April and 12th June. Perhaps inevitably, the proceedings had more of a political flavour than those in the House of Lords, but Sir Hector Monro, Sir Geoffrey Johnson Smith and Mr. Cranley Onslow put the conservation case strongly.

Sir Hector Monro moved an amendment proposing the extension of the annual close time for netting in Scotland from 168 to 196 days. This the Government resisted, but clause 3 of the Bill will give the Scottish Secretary the power to increase the weekly close time "after consulting such persons as he considers appropriate". On 10th June the Government did announce that they had decided to establish a standing advisory committee on salmon conservation to cover the whole of Great Britain and "report to fisheries Ministers as a whole". Mr. Gummer said it would have an independent chairman (later it was announced that this would be Professor George Dunnet, Regius Professor of Natural History at the University of Aberdeen) and would "be asked to examine specific problems in relation to salmon which are referred to it by Ministers". He went on to suggest "that the committee should, in the early stages, consider some aspects of the availability of information on the status of salmon stocks, including the effects



of predators and of fishing at low-water levels" and should "examine closely and as rapidly as possible - it will need some experience of the change in the law to do it - the effect of the law on poaching". He added that the Government "hoped to find the resources for some scientists who will be able to do further research at the behest of the advisory committee".

In the course of his statement Mr. Gummer said, "I do not see salmon as a food resource in the wild. It is only incidentally a food resource".

In February I had raised in the House of Lords the problem of the netting of salmon in estuaries in the guise of fishing for sea fish. The Government accepted that there was a problem, and decided to add to the powers of sea fisheries committees to regulate fishing in order to protect salmon. They introduced an amendment to this effect on 12th June. On the same day a new clause was proposed to enable the Welsh Water Authority to introduce a tagging scheme, but the Government resisted this, Mr. Mackay saying, "I really think that tagging is something that can be done only on a United Kingdom basis or not at all".

In the meantime the Government had told Lord Home that they could not accept his suggestion that a person found in possession of salmon should be obliged to explain where he got them. And when I asked at the end of July why none of the measures to restrict drift netting for salmon off the north-east coast of England, announced on 7th November, had yet been brought into force, I was told that "the Government will ..... endeavour to ensure that the statutory procedures are completed in time for all the measures to be in force by the start of the 1987 season".

The Commons gave the Bill a third reading on 23rd October. Efforts to write the advisory committee into the Bill, thereby making it statutory, and to give the Minister enabling powers to introduce tagging, strongly supported by Welsh members, were resisted by the Government. Mr. Gummer said, "I believe that tagging has within it such inherent difficulties that it would make the problem worse because it would make people rely on the tags and, by relying on the tags, have a false sense of security". But he stressed the Government's concern with conservation, and pointed out that only 11% of the salmon eaten in this country were wild salmon, the rest being either farmed or imported.

The Commons' amendments were all accepted by the Lords - I told the House of the resolution and recommendations passed by the Biarritz Symposium - and the Bill received the Royal Assent on 7th November. It is now the Salmon Act.

17th ANNUAL STUDY COURSE, INSTITUTE OF FISHERIES MANAGEMENT.  
COLERAINE, N. IRELAND, 9 - 11 SEPTEMBER, 1986

(Report by G. Hadoke)

Ever since its establishment some years ago the Institute of Fisheries Management has held its annual Study Course, or Conference, on the mainland, but the 17th Course was held in the University of Coleraine, Co. Londonderry, from 9th to 11th September, 1986. The Trust was represented at the Course by its former Director, Gerald Hadoke, and other members of the Trust's Honorary Scientific Panel were present, including Mr. John Solbe, the IFM Chairman, Dr. Gersham Kennedy of the Northern Ireland Department of Agriculture and Dr. D. J. Piggins of the Salmon Research Trust of Ireland.

Although the 3rd International Atlantic Salmon Symposium was to be held the following month, the Course was attended by over 200 scientists, fish farmers, managers and bailiffs, and some excellent papers were given on salmonid and other subjects. Unfortunately, it is not the practice of the Institute to publish each paper before the Course so the time allocated for discussion during the meeting was limited. However, it is intended to publish all the papers presented in due course.

Of particular interest to the Trust were the papers given by Dr. C. E. Purdom of MAFF on "Fish genetics on the farm and elsewhere" and Dr. Andrew Ferguson, Queen's University, Belfast on "Genetics and the management of natural salmonid stocks". Dr. Ferguson has been most helpful to the Trust in its current campaign to learn more about the genetic strains in major river populations and to monitor the results of the introduction of farm-produced juvenile salmonids into existing river populations. Dr. Kennedy reviewed the state of progress of the Northern Ireland Department of Agriculture's River Bush Salmon Research Scheme, a scheme somewhat unique in this country, which was designed over ten years ago to see how the populations of the river can be properly managed through a combination of controlled escapement and knowledge of juvenile and adult survival rates. In the Menzies Memorial Address, Dr. Piggins tackled the subject of a review of the position of Atlantic salmon today and of course drew on his extensive knowledge gained at the Salmon Research Trust of Ireland and the International Council for the Exploration of the Sea. Perhaps one of the most thought-provoking talks was that given by Dr. B. Scott of Bradan Mhara Ltd., who asked very pertinent questions of the fish farmers present as to exactly what they were trying to produce and for whom. His talk on the need for expertise in marketing seemed to sound the right note.

It was a very good Course, with interesting papers on many subjects concerning all kinds of fish and fishing, and the local Northern Irish Branch and Mr. John Solbe are to be congratulated on an excellent meeting.



NOTE OF MEETING BETWEEN THE TRUST AND THE EEC COMMISSIONER  
AND DIRECTOR GENERAL FOR FISHERIES

(By A. Prichard, Deputy Director)

On the 21st July, through the good offices of Lord Moran, a meeting was arranged in London between Mr. David Clarke, Lord Moran and Mr. Alex Prichard representing the Trust, and Commissioner Antonio Cardoso e Cunha of Portugal, now responsible for fisheries in the European Commission, and Mr. Eamonn Gallagher, the Director General who deals with fisheries. The representatives of the Trust raised a number of issues which they believed to be of particular importance in the management of North Atlantic salmon stocks, particularly such matters as the pressure on the salmon harvesting nations, the problem of drift netting, the level of illegal fishing in the producing nations and the need for an Atlantic Salmon Management Plan which the Trust had put forward repeatedly in various fora in Brussels. Finally, the Third International Atlantic Salmon Symposium was referred to and the hope of the Trust that the Commission would be well represented at this important meeting.

Commissioner Cardoso and Mr. Gallagher gave a detailed expose of the political constraints under which the Fisheries Directorate General had to work and, in particular, the extent to which they could concern themselves with matters which were clearly the affairs of individual Member States of the EEC. The EEC representatives acknowledged that the Atlantic Salmon Trust was an important repository of reliable information on the salmon, and they undertook to make best efforts to ensure that they were represented at the forthcoming Symposium. On the subject of the Management Plan they suggested that if the European Parliament were to recommend the adoption of the policies set out in this Plan, this would have considerable influence on the manner in which the Fisheries Directorate General conducted its affairs in the field of salmon management.

The meeting was of the greatest interest to the Trust, both in that it enabled its representatives to bring home to the two most senior men in Brussels the main preoccupations of bodies concerned with the conservation and enhancement of salmon stocks, and also that it gave the Trust a clearer understanding of what could be expected from the EEC and from the EEC's negotiations in NASCO. Additionally, it pointed the way to lines of activity which the Trust might take up for the future in furtherance of its aims to improve the management of salmon stocks in the North Atlantic.

For some years the Trust has made best efforts to induce the European Community to adopt an Atlantic Salmon Policy, and to this end has built up strong connections with both the European Parliament and the Commission. In 1983 the Trust was instrumental in organising Hearings on the salmon before the Fisheries Sub-Committee of the European Parliament and considerable progress was made, but unfortunately General Elections for the European Parliament intervened and a new start had to be made. In January 1986 the Deputy Director was invited to address the Fisheries Sub-Committee, in the course of which he provided information on the situation of the Atlantic salmon and made certain suggestions as to how the EEC might contribute to the improvement of salmon stocks in the North Atlantic. In accordance with their established practice, the Sub-Committee on Fisheries of the European Parliament produced a draft report on the protection and management of salmon stocks. The Rapporteur was Ms. Joyce Quin, MEP, and the report (PE 105.284) was circulated in July and discussed by the Sub-Committee in October. The report, although it does not cover every single point which the Trust has been pressing, is a very good one, and if it were implemented it would have a substantial effect on the management of Atlantic salmon. It contains a large number of recommendations which the Trust has been putting forward for a long time, including such major points as the belief "that Community funds should be made available to improve and co-ordinate national salmon fisheries inspectorates....". It also recommends monitoring amounts of salmon landed and sold, and that further work should be encouraged on a salmon tagging scheme showing where and how fish are caught. It recommends that Community finance should be introduced for smolt rearing schemes, for the re-stocking of rivers and sea ranching, and urges that there should be no introduction of non Atlantic species of salmon to Community waters without general agreement among the Member States. There are also recommendations on pollution, illegal fishing, engineering schemes, restrictions on legal seasons for commercial fishing and the possibility of salmon quotas and many other points of the highest interest to the Trust. Due acknowledgment is given in the paper to the assistance provided by the Atlantic Salmon Trust in furnishing information, statistics and so on.

The Trust is following very closely the progress of these recommendations through the various stages of the European Parliamentary process, and it is to be hoped that the final stage will be reached in January 1987 when the report will come up before the plenary Session of the European Parliament.

The significance of the European Parliament's views on an Atlantic Salmon Management Plan is that it is very probable that the European Commission - the executive arm of the Community - would be constrained to take official cognisance of it with important consequences on the conservation and enhancement of salmon stocks.



## HONORARY SCIENTIFIC ADVISORY PANEL

The Trust is very honoured in having such a distinguished body of scientists to serve voluntarily as its Scientific Advisory Panel. They meet once a year to discuss the impact of developments in fishery science and management on the promotion of conservation and recommend actions where appropriate. Their discussions stimulate research into salmonid matters generally, e.g. economic survey, genetic work, counters, etc. They respond generously when consulted on the scientific and management aspects of issues of some immediacy that arise between meetings. At these meetings they draw up plans for future Blue Books, symposia, workshops, etc. At the last meeting in June 1986 an exciting programme was agreed for the next three years.

### Workshops

Time	Place	Organisers	Subject
Sept. '87	Montrose	AST/DAFS	Counters
April '88	Lancaster	AST/NW Water	Water Schemes: The Protection of Fisheries
Sept. '89	Bristol?	AST/Wessex Water	Fish Movement in Relation to Water Flow

Views on the accuracy and reliability of automatic counters differ widely and the Counters Workshop will provide the opportunity for the experts to exchange views and experiences. The objective is to assess whether, and in what circumstances, recent advances in the technology and operation of counters are such as to make them reliable tools for practical fishery management. Participants will visit the DAFS Logie counter, which features some of the latest technological developments. It is thought that this Workshop will have particular relevance to the Government Advisory Committee's remit to study the status of salmon stocks.

The object of the Water Schemes Workshop is to gather as much information as possible as to the effectiveness or otherwise of the mitigation measures that have been adopted for the protection of fisheries as a result of hydro schemes, reservoirs, water extraction, barrages, etc. A Blue Book will be produced giving the lessons learnt, thus helping to avoid mistakes being repeated in any future schemes.

By September 1989 a great deal of salmon tracking work will have been done in many rivers, including the Trust's own project, referred to below. This Workshop is designed to draw together all the experience that people have gained and to provide at least some of the answers to what really makes the salmon run.

### Blue Books

Blue Books are published under five categories: (i) the Progress Report; (ii) accounts of national fisheries; (iii) Bensinger Liddell reports; (iv) reports of workshops; and (v) state of knowledge, e.g. genetics, water quality, etc. The present position on Blue Books is as follows:

Available: see Publications section.

Printing: "Salmon Facts", 1986 edition.

Final stages of editing: "Salmon in Spain", "Salmon in Norway".

Projected:

1. "The significance of water quality in the conservation of salmon and trout" - John Solbe.
2. "The evaluation of damage by pollution, etc. to juvenile salmonid habitats" - Gersham Kennedy.
3. "Contribution of research to conservation and management" - David Solomon.

### Projects

1. The Trust has started a project to track salmon in the Tay, Helmsdale and Aberdeenshire Dee in order to examine the relationship between water flow and the movement of adult salmon. The Trust has employed Mr. John Webb to run the project, overseen by Dr. Hawkins, the Director of DAFS' Marine Laboratory in Aberdeen. A small steering committee, of the Director (AST), Professor Mordue of Aberdeen University, Dr. Hawkins, Dr. Solomon and Mr. Ian Mitchell, has been set up to guide the project. The first year is being funded by the Trust from money raised at the Hopetoun Sale, and it is hoped that other interested bodies will help financially to enable the Trust to continue the project for at least three years.
2. The Trust has awarded a grant of £1,000 to Dr. S. E. Hartley of the Department of Biological Science, University of Stirling, towards the cost of a project to investigate genetic variation in stocks of Atlantic salmon. Using enzymes that cut DNA molecules at specific places to generate characteristic patterns of fragments, the project aims to assess the extent to which variation in the fragment patterns of DNA molecules from mitochondria can be used to identify the geographic origin of salmon in the UK.

The Trust is concerned that there might be undesirable genetic effects from stocking a river with ex-farm juveniles. A letter has been written to DAFS expressing this concern, and in reply DAFS note the Trust's view and point out that they themselves are



initiating research into the genetic differences of salmon stocks. At the last meeting of the International Council for the Exploration of the Sea, Dr. Mills, representing the Trust, asked the Anadromous and Catadromous Group to consider the inter-relationship of wild, ranched and farmed salmon, and this was accepted.

#### IFM/AST Studentship

The Trust, with the help of the Fishmongers' Company, is sponsoring an IFM/AST Studentship.

#### AST/The Honourable The Irish Society

The Trust is giving a Fellowship for 1985/86 in conjunction with The Honourable The Irish Society to Mr. Winfield to help carry out a feasibility study of the installation of a salmon counter on the Lower Bann.

### THE THAMES SALMON REHABILITATION SCHEME

(By Peter J. Gough, Thames Water)

The return of Atlantic Salmon to the Thames catchment since the commencement of the salmon rehabilitation scheme (SRS) in 1979 has provided a welcome indication of the potential of such restoration programmes. The decline of the Thames as a salmon river was relatively rapid and paralleled that in many other rivers during the 18th and 19th centuries. Industrial revolution, urbanisation and the concomitant vast increase in the input of pollutant together with the manipulation of the river by the construction of weirs to enhance navigation combined to cause the reduction, and finally the cessation of the runs of fish. Available records are rather vague, but suggest that the annual run up until the late 1700's was probably many thousands of fish. By 1833 this run had been completely eliminated.

The recovery of the Thames has been described by Dart, and the initiation of the SRS by Bulleid. (Proceedings of the 10th and 14th IFM study courses respectively.) The objectives of the first phase of the programme were to achieve, by means of the stocking of juvenile fish, a return of adult fish to the Thames and to make use of these in a small scale propagation programme. Average annual releases since 1979 of 61,000 yearling parr and 14,000 smolts have been carried out, with the bulk of these fish being purchased from a variety of commercial smolt farms in Scotland, Wales and England. The first returns initiated by these releases were known to be in the river in 1981, however a sampling programme did not start until 1982. It quickly became clear that, notwithstanding the scepticism of many people, there were many

salmon in the river and fish were caught by electrofishing in many lower river sites. The total for 1982 was 128 salmon by all methods and up until 1985 the annual catch was consistently close to 100 fish. This year has seen an increase in the size of the run with over 150 fish caught by the end of October by a reduced sampling effort.

The vast majority of the salmon caught have been grilse with few 2 sea-winter fish to date. Efficient sampling by trapping at Molesey Weir (the second weir which upstream migrating salmon encounter, 5 miles above the head of tide) commences each year only when the river flow falls to near summer levels in May, and frequently subsequent increases in flow during the summer restrict the trapping efficiency. The effects of this are that early running salmon, which are known to be present, are not sampled at all although they may be caught later in the year by electrofishing. In addition to this, many fish are able to ascend the weir in conditions of higher flow, so rendering the trap catch a minimum estimate only of the number of salmon. Restricted mark-recapture results have suggested during the last two years that our catch may represent as little as 40% of the overall run.

Throughout the summer when the grilse run is at its peak and until the angling season closes at the end of September, trapped fish are examined and, after tagging, released upstream of Molesey Weir. The majority of these fish disperse and take up lies within the upstream weirpools where they provide a resource for local anglers. As yet they do not appear to be very adept at catching them. Throughout October and continuing until the winter months an electrofishing programme to obtain broodstock is operated. Up to 50 fish are captured and held, previously in private fish farm sites but more recently in floating reservoir cages prior to their stripping. It is unfortunately not possible to rear the progeny of these fish ourselves at present, however numerous agencies have generously and adequately done so for us. Each year larger numbers of stockable juveniles derived from Thames-returnees have therefore been produced. It is considered that in the absence of supplies of salmon of a "southern river" genome, such selective breeding from fish which have successfully returned to the Thames may eventually help to initiate a Thames "strain". It is anticipated that if this is achieved, return rates from stockings would increase.

The batch-marking of smolts prior to their release in the Thames has routinely been carried out since 1981. This was initially intended merely to prove that returning adults were indeed the result of our stockings, however further more valuable information is now being obtained. In conjunction with MAFF, many of our fish are now being microtagged: these tagging programmes will, it is hoped, ultimately provide information on the merit of various juvenile fish rearing protocols and the contribution of each nursery tributary towards the return of adult fish. Recent tag recoveries from outside the Thames system have been reported from the north-east fishery (two fish), Donegal, and Greenland (one fish each).

It is considered that the objectives of phase one of the SRS has been amply achieved, and that even with the limited resources available significant advancement towards those of phase two has been made. To progress further requires a substantial financial investment and with this in mind a charitable Thames Salmon Trust under the Chairmanship of Sir Geoffrey Johnson-Smith has been established. It is the declared objective of this Trust to promote the return of naturally sustained runs of salmon and sea-trout to the Thames catchment. One of the first objectives of the Trust will be the establishment of a hatchery large enough to produce sufficient stock-fish to increase the annual catch of adults to 1,000 fish. Current estimates suggest that an annual production of 100,000 S1 smolts and 150,000 yearling parr will achieve this goal.

Natural spawning has occurred at a number of sites within the catchment, however the success of this remains unproved and the scale far too small. Encouragement of natural recruitment is of considerable importance to the Trust and initially would be promoted by the installation of fish passes at many lower river weirs. The opening of the river to enable salmon to penetrate to potential spawning sites in the tributaries is not likely to be sufficient, however. Careful appraisal of these sites has suggested that only certain restricted areas are physically suitable for successful spawning and the Trust will therefore need to consider the improvement or even the creation of spawning sites.

The progression from a river devoid of salmon in 1970 to one in the 1980's where there is a regular run of over 200, and fish are regularly seen and caught, has surprised many people. Given the necessary finance, time and will to succeed it is clear that the magnitude of the run could be significantly increased and progress made towards the production of a naturally sustained stock. The financing of this is likely to be by means of sponsorship from a commercial organisation for whom an association with such a high publicity, clean environment project would be desirable. Amongst those to gain substantially from such an investment would be the general Thames area public. The presence of a thriving salmon stock will clearly demonstrate to them the new-found quality of the River Thames in a way which no statement about the chemistry of the water could ever do.



## FISHERIES RESEARCH AT THE WATER RESEARCH CENTRE

(By John Solbe, a member of the Trust's Honorary Scientific Advisory Panel)

The Water Research Centre (WRC) is the central research organisation of the UK water industry. It is funded by subscription from the 10 Water Authorities in England and Wales, Water Companies, the Department of the Environment for Northern Ireland and some of the Scottish River Purification Boards and Regional Councils. It also attracts contract income from, for example, the DoE and has other subscribing Members.

For 50 years the WRC and its predecessor, the Water Pollution Research Laboratory, have carried out research on the effects of pollution on fish. This note summarises this and other aspects of WRC's recent studies on salmonid and non-salmonid fish, but, for obvious reasons, does not cover commercial aspects of the Centre's work.

The work can be divided into a number of general areas:

- standards for freshwater life
- dissolved oxygen requirements for salmonids in estuaries
- fisheries problems in the water industry
- fish farm effluents
- the use of fish as indicators of pollution incidents upstream of potable-supply intakes

In addition, the Centre is able to offer its members an investigatory service where laboratory studies are required following pollution incidents.

### Standards for Freshwater Life

Largely funded by the Water Directorate of DoE, for both salmonid and non-salmonid fish we have been defining the toxicity of common pollutants to fish under various conditions. With heavy metals, for instance, it is important to study toxicity over a range of hardness values (toxicity is greater in soft waters). For all pollutants it is necessary to study effects at oxygen concentrations below 100% ASV (fully air-saturated water) because this added stress exacerbates toxicity. Some years ago we also studied the effects of certain pollutants on salmon smolts under conditions resembling those in estuaries but we are now interested in the adults as they return from the sea.

### Dissolved Oxygen Requirements of Migrating Salmonids

Laboratory studies are impracticable for tackling the problem of defining the oxygen requirements of adult salmon in polluted estuaries. We need to observe the animal in its natural habitat and to follow its progress through the estuary. In order to define the conditions through which the salmon are moving we could

model the estuary mathematically, using the model to predict the water quality at every point passed through by the fish. This would be possible, but not as satisfactory as arranging for a transmitter attached to the fish to telemeter the information to us directly. This has been our technique. In collaboration with the North West Water Authority and the University of Aberdeen we have been tagging and tracking salmon and sea trout in the Ribble estuary since 1982. The tags are ultrasonic; the interval between "bleeps" is proportional to oxygen concentration. The tag has to be attached to the outside of the fish, so that the sensor membrane can be in contact with the water. A track begins with the capture of the fish, anaesthesia and tagging. After a recovery period the fish is released and tracked by two crews of two or three people in small open boats, listening to the tag via headphones and logging the signals. We continue to follow until we lose it, or until it has reached fresh water or, of course, it has decided to head back to sea. In the laboratory a small computer decodes the stored information and we transcribe the data onto graphs, etc. There is still some way to go on this project but progress is encouraging.

#### Fisheries Problems in the Water Industry

At present we are working on two principal aspects: prescribed flows for fisheries and the management of large reservoir put-and-take fisheries. For the former, we are examining data from fish counters and flow-gauging weirs, in an effort to define the conditions under which fish make significant upstream movements. For the latter, our technique is to use a workshop to pool the fishery managers' experience and then to collate and precis this knowledge for general use. More often than not, such workshops ask far more questions than they answer!

#### Fish Farm Effluents

Our commitment here is to help the water industry to define the effects of cage-rearing of salmonids in fresh waters. We are concerned more with the potential impairment of water supplies than with the growth of the fish per se.

#### Fish as Pollution Monitors

For several years the WRc has been developing systems capable of warning drinking water intake works of approaching pollution. One monitor which is now produced commercially uses the response of captive rainbow trout. The fish, placed in channels in a building some distance upstream of the intake proper, live in a flow of the river water to be monitored. Their gill movements are automatically monitored. If this respiratory action speeds up significantly, or dies away to nothing, an alarm can be sounded, samples taken and the intake closed until inquiries show that the pollution has passed. The action taken by the water undertaking depends on the sensitivity of the particular supply. The theory is that the fish will respond to a far wider range of polluting conditions than we can provide instruments for, but it is not envisaged that the Fish Monitors will ever stand alone, without the back-up of physico-chemical sensors.

## REPORT FROM WELSH WATER

(By Alan Winstone, Senior Fisheries Scientist, Welsh Water)

### Illegal Fishing Activities

Poaching has continued on a large scale throughout 1986 in spite of increased efforts from bailiffs and close liaison with the police. The poachers themselves are highly organised in both landing and disposal of catches and resort to intimidation and assault when necessary. On the River Wye in 1986, 80 nets have been seized by bailiffs, five persons have been arrested and a number of dinghies also seized. In addition two persons have been drowned whilst engaged in poaching activities.

In north Wales the illegal taking of salmon in the River Dee estuary under the guise of sea fishing is considerable. Individual catches by netsmen are not large (2 - 3 salmon), but the cumulative effect of large numbers of boats along the 20 - 30 miles of estuary is significant.

The River Conway has attracted the attention of both local and "foreign" poachers. A total of 10 persons from the Hereford and Monmouth areas have been arrested in possession of dinghies and 16 gill nets on three occasions. More than 50 salmon valued in excess of £1,000 were taken by one gang, whilst 76 lb of salmon and sea trout and two salmon were taken on other occasions.

### Microtagging

A total of almost 58,000 salmon smolts and parr have been microtagged by Welsh Water in 1986, involving the Rivers Wye, Usk, Dee and Taff. The aims of the tagging studies are to determine the levels of exploitation in both high seas and homewater fisheries and evaluate the efficacy of restocking programmes and practices. So far five microtagged adult salmon have been recovered, all from tagging carried out on the River Usk by MAFF in 1984. One fish was recovered from the Usk Drift Net fishery and four from the Irish West Coast Drift net fishery.

### Catch Statistics

The 1985 salmon and sea trout catch statistics have recently been published. The total declared salmon and sea trout catch was 8,876 and 20,868 respectively by anglers and 3,465 and 5,097 respectively by commercial instruments. The rod catch is based upon a catch return rate of 62% and should be regarded as a minimum catch figure. This represents 117% and 96% of the 5-year average (1980-84) for salmon and sea trout respectively. The commercial catch is based upon monthly returns required under a byelaw from netsmen and represents 59% and 51% of the 5-year average (1980-84) for salmon and sea trout respectively. Overall high river flows throughout the summer of 1985 resulted in reduced net catches and increased rod catches compared with 1984.



## Fisheries Review

A triennial review (1983-85) has recently been published by Welsh Water covering all major aspects of fisheries and conservation work during this period. This includes a general survey of activities and sections on improvement and development, fisheries maintenance work, conservation, fish culture, recreation, investigations, catch data, finance and licensing, fish mortalities and enforcement and protection.

## Salmon Stocking Policy

Welsh Water has decided that only salmon of local origin will be used for restocking purposes. The introduction of salmon for restocking from outside Welsh Water's area will be prohibited under Section 30 of the Salmon and Freshwater Fisheries Act 1975. Only salmon used for the re-establishment of extinct or non-viable stocks, e.g. recovering industrial rivers, will originate from other sources. In addition any salmon stocking within Welsh Water's area will be from the closest available source.

The aim of this policy is to conserve present salmon stock integrity in the light of increased availability of juvenile salmon from farmed sources. An information sheet has been prepared explaining the reasons for this policy which will be distributed to fishery owners and angling clubs.

## Rod Licence Survey

A recent one-day survey of over 2,000 anglers in Wales has shown that licence evasion is apparently at a low level, representing 3.3% of anglers surveyed, with almost two-thirds of these being coarse fishermen. Over half of the river anglers were fishing for salmon, whilst on stillwaters trout and coarse fish were of around equal importance. It was also found that 5.6% of river anglers were considered by bailiffs to be fishing for salmon and sea trout whilst in possession of a non-migratory trout licence. This abuse of the licensing system is mainly restricted to the mixed stock rivers (salmon, sea trout and brown trout) of Gwynedd and south west Wales and represents around 19% of the river trout anglers surveyed.

## WESSEX WATER AUTHORITY

The Wessex Water Authority has just published a report entitled, "An Investigation into the Alleged Decline of Migratory Salmonids". The Report is in two parts, the first summarising the results of a field project and the second the findings of a panel of Authority specialists chaired by the experienced Regional Fisheries Advisory Committee Chairman, Major J. M. Mills.

The Report is in many instances unique, since it endeavours, as the Trust has pleaded with Authorities for so long, to carry out work to assess just what constitutes the salmon and sea trout resource. The Report is also unusual in that that the Authority experts consider, as a result of the statistics and field work, that the Authority's first priority should be to maintain the existing fisheries and its second priority to improve these fisheries. Restocking of rivers should be terminated, not only because of its cost and doubtful demonstrative benefit, but also because of the "desirability of conserving wild populations with their high genetic diversity and local genetic adaption and of the potential for deleterious influences on wild stocks of injections of hatchery reared fish into their breeding populations". This matter of genetics in salmon is, of course, one in which the Trust is very concerned at the moment, and on which it has published that very authoritative Blue Book by Professor Wilkins, entitled "Salmon Stocks: A Genetic Perspective".

The Report reveals that the salmon of the Avon and Dorset Division are interesting in that, unlike those in many rivers in the United Kingdom, the majority stay only one year feeding as juveniles in the river before migrating seaward, where it is estimated that 84% of all fish stay two or three winters before returning to their native rivers. There are indications that, like the River Wye, the populations of the larger fish, those which have spent three or four years at sea, have declined, and it is suggested that selective fishing of the larger fish by rods, though not by nets, may have caused a genetic change among the fish. Surprisingly, but again in accord with the Trust's general view about the effect of present day high seas exploitation, the experts consider that deep sea fishing, although contributing to the change in the runs of fish, was not the prime factor.

It is a very balanced Report on salmon fisheries, and with its numerous tables, graphs and excellent maps of spawning counts, it is one that must be of great interest to all those people concerned with salmon conservation.

The Report is available from Wessex Water, Passage Street, Bristol BS2 0JQ, and costs £3 + 40p postage.

NORTHERN IRELAND FISHERIES  
RIVER BLACKWATER DRAINAGE SCHEME

One of the aims of the Trust is to stimulate Fisheries Authorities to develop and improve the salmonid fisheries over which they have control. In the course of this work Fishery Authorities have also to maintain the fisheries and to ensure that the impact of other land and user pressures do minimal damage. The Department of Agriculture for Northern Ireland, which has authority for the development of fisheries as well as responsibility for agriculture (unlike in the Republic of Ireland which has a Department for Fisheries and Forestry), has therefore to resolve the problem of alleviating the effects of drainage on the future well-being of stocks of fish in rivers subject to these digging operations. The need for cooperation among farmers, drainage engineers and the Fishery Authorities thus became a matter of great importance.

The publication of a brochure on the River Blackwater Scheme by the Department of Agriculture for N.I. indicates very clearly how such cooperation was achieved and its enormous success in respect of work on the Blackwater. It is particularly significant that some of the drainage work was done by contract labour and not by the Department's own work force. Fishery staff, under the Department's Deputy Chief Fisheries Officer, Mr. R. J. D. Anderson, spent some 4 - 5 years before the scheme began gathering information about the fishery habitat, populations and other statistics, and after digging was completed the rehabilitation of the fisheries was monitored. It is of particular interest to the Trust that the work attracted funds from the EEC and from the Republic of Ireland, indicating that the Department in Northern Ireland is very alive to the help that the EEC can grant to governments to aid such salmon rehabilitation schemes.

The brochure is well worth study by anyone interested in salmon habitat improvement, as it is well-illustrated and gives excellent examples of various river habitats and the introduction of juvenile salmon into rivers. The photographs illustrate well how the cooperation between the drainage engineers and fishery staff succeeded, and they portray how in some cases drained streams were permitted to retain some meanders. All in all, the Department and its officers are to be congratulated on some really enterprising work which has been designed to offset to a great extent the adverse effects of drainage operations on salmonid populations and habitats.



## REPORT FROM CANADA

(By Lucien Rolland of the Atlantic Salmon Federation)

### The Federation is Formed

In January 1982 the International Atlantic Salmon Foundation (IASF) and the Atlantic Salmon Association (ASA) joined forces to form the Atlantic Salmon Federation (ASF). The new Federation quickly extended its conservation family to the grassroots level through a number of Regional Councils in Canada and the United States. This has enabled us to join most of the salmon conservation organisations into a strong, united and cohesive network, with plenty of clout where it matters.

### Winds of Change

As a consequence of strong private-sector leadership, there has been a major change in policies and programs to manage salmon in North America.

The result has been a decided improvement in the fortunes of the salmon. Excessive commercial fishing is being brought under control in Canada. (As a result, the number of large spawning salmon caught in nets in 1985 was 55% below the previous 5-year average, while there has been a reduction of 50% in the number of licensed commercial netters.)

In Canada, anglers have cooperated in a catch and release program to save large salmon, and this has been a substantial help in boosting the numbers of salmon spawning each fall. Increases as high as 75% have been reported for spawning populations in some major Canadian rivers.

In New England, restoration progress continues. The first salmon to return to the White River (a tributary of the Connecticut) was sighted at Stockbridge, Vermont, in late July. This is the first Atlantic salmon to have progressed that far since President George Washington sat in the White House!

At a meeting of NASCO at Edinburgh, in June, a significant development occurred: Canada agreed to close its commercial salmon season in Newfoundland on October 15 instead of December 31, thus ensuring that more salmon from New England would survive to return to their rivers of origin.

### Signs of Strong Recovery

The pattern of recent events is indeed positive. Salmon returns were much improved in 1985, and this year have again been exceptionally good in all areas. Many rivers in Quebec and new Brunswick are reporting catches double those of 1985.

Runs have been very good on the Penobscot in Maine (a total of 628 caught or released to July 31), and the St. Croix restoration program is coming along strongly, with 200 salmon counted through the estuary trap. Other Maine rivers have not done as well, and returns to the Connecticut, though less than expected, are the second best in the history of the restoration program.

Commercial catches in Labrador and Newfoundland have been very high, so much so that processors have refused to accept any more fish - a somewhat mixed blessing.

#### Success Spawns New Problems

While these events are positive and encouraging, our success in turning the fortunes of the salmon around has brought its own share of problems, and all is not rosy. The Indian fishery grossly exceeded its allocated quota again this year on the Restigouche and St. John Rivers. Only strong intervention by the province of New Brunswick and an announcement of injunction proceedings by ASF brought it to an end. There are still too many nets in the sea near Newfoundland/Labrador, and too many reports of serious infractions and inadequate enforcement in the commercial sector there. Nova Scotia's netters are taking the Federal Minister to court over the 1986 commercial fishery prohibition, while implementation of the proposed buy-out of commercial salmon licenses has been delayed by the refusal of fishermen to accept the government's financial offer.

#### Commercial License Buy-Back Proposal

In 1975 there was a total of 7,800 commercial salmon fishing licenses in Canada, almost 7,000 of them in the province of Newfoundland. A decade later, in 1985, that number had been reduced to 4,059, with the sharpest decrease (3,355) occurring in Newfoundland. This decrease came about through the introduction of new government policies limiting license transfers, death or retirement of fishermen and partial buy-out programs in some regions.

In 1986, as a continuation of this policy, the Canadian government introduced a voluntary license buy-back program in New Brunswick, Nova Scotia and Prince Edward Island. The offer, financed by the federal and provincial governments, provides for payments to fishermen in New Brunswick ranging from a minimum of \$15,000 to a maximum of \$45,000, and in Nova Scotia and P.E.I. they would range from \$8,000 to \$22,000. The actual amount each fisherman would receive is to be based upon his average catch during the period 1981-83, or the annual compensation payments paid during the ban period 1972-80.

The offer has been formally made to the Nova Scotia and P.E.I. fishermen but not yet to those from New Brunswick. Initial reaction ranges from acceptance (those fishermen entitled to receive the maximum payment of \$45,000) to rejection by many in the lower and middle range.

From conversations with people at senior levels of government, it is clear that they hope to have as many fishermen as possible accept the offer but the offer will not be made mandatory.

The situation also indicates that the remaining fishermen (those who do not accept the government offer) will put substantial pressure on the government to allow a limited commercial fishery next year, for the following reasons:

1. They claim it is discriminatory, under the Canadian Charter of Rights, to forbid commercial fishing in New Brunswick and Nova Scotia while allowing both commercial and recreational fishing in Newfoundland and Quebec.
2. The salmon recovery program is being successful and, therefore, stocks can support a limited harvest for the small number of commercial fishermen remaining after the 1986 license buy-back program.

We have been asked if ASF is willing to invest some additional funds in the buy-back program in the hope of convincing a greater number of fishermen to sell their licenses. We are interested in the idea primarily because we hope to get all the nets out and it will be much easier to do so now than after the recovery is complete and stocks are generally more abundant. At that time, the "value" of the licenses will increase substantially beyond \$45,000 each.

Union representatives of the commercial fishermen in New Brunswick and Nova Scotia are supportive of ASF involvement and convinced that our contribution could make an important difference in the outcome of the buy-back program. Government officials share that view. We have put together a draft proposal for consideration.

On the subject of a buy-out package for Newfoundland, there are no government funds available for this at the present time. Quebec appears to be proceeding cautiously with its own buy-out program: the Minister of Fish and Game recently announced that he hopes to get all of the commercial nets removed permanently from the Gaspé Peninsula area next year. We should try to take the first big step (New Brunswick and Nova Scotia) now, and then see what more can be done with Newfoundland and Quebec. It is entirely possible that the rapidly growing aquaculture industry (1985 - 30,000+ tonnes; 150,000 - 200,000 tonnes projected by 1990) may solve that problem for us in time by destroying the market for wild fish.

ASF will provide an additional \$2 million (Canadian) to be added to the total buy-out package. Source of the funds will be a bank loan, using the St. Andrews property as collateral. The \$2 million plus bank interest charges will be reimbursed in equal annual payments by the federal and provincial governments beginning December 1, 1987 through and including December 1, 1993. The additional \$2 million provided by ASF will be distributed as follows:



Note Total maximum payment to any licensed fisherman, including the ASF supplement is not to exceed \$45,000; e.g. federal government + provincial government + ASF = \$45,000.

Type of License		ASF Supplement	Total
<u>Driftnet</u>			
Miramichi	- 67	@ \$10,000	670,000
St. John	- 55	@ \$ 7,000	385,000
	<hr/>		
Total	122		
<u>Trapnet</u>			
Total	58	@ \$ 4,000	232,000
<u>Gillnet</u>			
Total	258	@ \$ 2,800	722,400
	<hr/>		
	438		\$2,009,400
			<hr/>

Note re Angler License Surcharge

1984 is the most recent year for which we have salmon angling license sales statistics. In that year, the numbers were:

	Resident	Non-Resident	Total
New Brunswick	12,637	3,842	16,119
Nova Scotia	5,029	761	5,790
			<hr/>
		Total	21,909
			<hr/>

Using those numbers

a surcharge of \$10 would yield: \$219,090  
a surcharge of \$12 would yield: \$262,908  
a surcharge of \$15 would yield: \$328,635

A 7-year program to reimburse ASF would require £285,714 per year, plus interest.

## REVIEW OF CURRENT LITERATURE ON SALMON RESEARCH AND DEVELOPMENT

(By Dr. D. H. Mills, Department of Forestry & Natural Resources, University of Edinburgh)

### General

A significant addition to the salmon literature was published earlier this year by the Institute of Terrestrial Ecology and Huntingdon entitled, "The Status of the Atlantic Salmon in Scotland". It covers the following subjects - biology, exploitation, management, legislation, and salmon farming. The Editors are David Jenkins and William M. Shearer. Copies may be obtained from ITE, Administrative Headquarters, Monkswood Experimental Station, Abbots Ripton, Huntingdon PE17 2LS.

### Behaviour

1. Behaviour of juvenile Atlantic salmon, Salmo salar L., in rapid- and slow-flowing sections of a small Norwegian stream. Heggberget, T.G. and Heggberget, T.M. (1986). Aquaculture and Fisheries Management, 17, 3, 191-194.

Through ultrasonic tagging, fish living in running water and in slow-flowing water in man-made weir basins were tracked over a period of 3-6 days. Results showed that the fish living in the weir basins changed position more frequently and moved over larger areas than fish living in running water. As a consequence of the different behavioural patterns of fish in rapids and in weir basins, densities of salmon are lower in the weir basins than in the rapids. Therefore, weirs creating large areas of slow-flowing water should not be established in rivers where an optimal production of Atlantic salmon is the goal.

- (2) Spawning of injured compared to uninjured female Atlantic salmon, Salmo salar L. Berg, M., Abrahamsen, B. and Berg, O.K. (1986). Aquaculture and Fisheries Management 17, 3, 195-200.

Observations of spawning by uninjured and injured salmon indicated that uninjured fish usually spawned in the outlets, or inlets, to pools and on coarse bottom sediments, whereas injured females spawned in different places. Frequently, the spawning sites lay in very shallow water with a slow current and on a bed of sand or fine gravel. Subsequent excavation of the spawning redds revealed that about 28% of the eggs laid by uninjured females were recovered, compared with only about 8% of those laid by injured females.

- (3) The effects of intra- and inter-specific competition on the distribution of stocked juvenile Atlantic salmon, Salmo salar L., in relation to depth and gradient in an upland trout, Salmo trutta L., stream. Kennedy, G.J.A. and Strange, C.D. (1986). Journal of Fish Biology 29, 2, 199-214.

From this study it was concluded that high inter-specific competition from trout was responsible for restricting the distribution of salmon fry to shallow habitat area. Recommendations based on the findings are made for stocking and habitat management of salmonid waters.

### Stock Recruitment

- (1) Salmon studies in the Girnock Burn. Hay, D.W. (1986). Scottish Fisheries Bulletin 49, 17-21.

The work on the Girnock Burn has revealed that during the study period (1967-1984) there has been a decline in the numbers of adult salmon entering the stream to spawn. However, the number of smolts produced, although fluctuating, has not shown a similar trend.

### Stock Assessment

- (1) The relationship between catches and stocks in Scottish salmon rivers with particular reference to the River North Esk. Shearer, W.M. 91986). International Council for the Exploration of the Sea. CM 1986/M:5.

This paper describes the main sources of catch data which are available to assess the state of Atlantic salmon in Scotland and discusses the inadequacy of this material. In addition, recent data from the North Esk describing the proportion of the total stock which migrates into the river after the end of the netting season and the rate at which the stock is exploited after it enters the river are discussed in the context of the relationship between stock and net catch.

- (2) Salmon catch statistics for the River Dee, 1952-83. Shearer, W.M., 127-141 in The Biology and Management of the River Dee (ed. Jenkins) (1985). Institute of Terrestrial Ecology, Natural Environment Research Council.

Over the period 1952-83, grilse made a relatively small contribution to both the rod and line and net and coble catches. Since 1960, spring salmon net and coble catches have gradually declined, but no trend was evident in the corresponding rod and line catch. Each year, the rods caught between 40% and 78% of the total catch of salmon and grilse.

### Exploitation

- (1) Exploitation of reared salmon released into the Burrishoole River system. Browne, J. and Piggins, D. (1986). International Council for the Exploration of the Sea. CM 1986/M:21.

Total counts of salmon entering the Burrishoole River system in Co. Mayo are available. Using data from micro-tagging it is possible to derive figures for exploitation of reared smolts



released into the system. Estimates for exploitation by nets ranged from 76% to 88% for 1-sea-winter fish over the period 1981 to 1985.

- (2) Influence of stock levels, fishing effort and environmental factors on anglers' catches of Atlantic salmon, Salmo salar L., and sea trout, Salmon trutta L. Mills, C.P.R., Mahon, G.A.T. and Piggins, D.J. (1986). Aquaculture and Fisheries Management 17, 4, 289-298.

The most important single determinant of catch was found to be fishing effort measured in boat-days. The relationship between catch and stock was weaker, though a relatively high catch ability of sea trout at low stock levels was recorded. Stock levels, fishing effort and environmental factors accounted for much, but not all, of the variation in catch from month to month and from year to year. Most of the effect of rainfall, sunshine and water level was attributable to variations in fishing effort associated with these factors.

### Ocean Life

- (1) First observations on distribution, food and fish predators of post-smolt Atlantic salmon, Salmo salar, in the outer Firth of Clyde. Morgan, R.I.G., Greenstreet, S.P.R. and Thorpe, J.E. (1986). International Council for the Exploration of the Sea. CM 1986/M:27.

Post-smolt salmon (16.7 - 20.0 cm) were caught by pair trawling at night in the surface 10 m off the Kintyre Peninsula during June 1986, very shortly after their emigration from the rivers. They were feeding chiefly on 2 - 6 cm sandeels. Demersal trawl surveys in late May had revealed that dogfish were the only fish species present which were potential predators on juvenile salmon. From regular sampling off the River Lussa throughout June, only 84 (11%) of 763 dogfish had eaten fish, and none had eaten salmon. Their chief fish prey were sandeels, but of a size range greater than that taken by young salmon.

- (2) Experimental salmon fishing at east Greenland in summer 1985 and recaptures of tagged fish. Thorsteinsson, G. and Gudjonsson, T. (1986). International Council for the Exploration of the Sea. CM 1986/M:25(Ref. B).

In a joint Icelandic-Greenlandic fish finding survey in the districts of Skjöldungen and Angmagssalik in 1985 efforts were made to catch salmon in drift nets. Most salmon were caught in the Skjöldungen area, 71% of the fish were females. Four Greenlandic families in this area were found to be catching salmon with fixed hang nets for food only. The salmon fishing continues until October when the best catches are taken through the ice. The local people report that the salmon disappears suddenly in October.

During the cruise three microtagged salmon were caught and also four adipose fin clipped fish without microtags. One of the microtagged fish was from Iceland and two were from Ireland. In addition one salmon with a Norwegian tag was caught by a local fisherman.

#### Parasites

- (1) Infestations of Atlantic salmon, Salmo salar, by Gyrodactylus salaris in Norwegian rivers. Johnsen, B.O. and Jensen, A.J. (1986). Journal of Fish Biology 29, 2, 233-242.

Over the six years 1980-85, 212 Norwegian rivers have been examined for occurrence of Gyrodactylus salaris. It was found in 26 rivers and six salmon hatcheries scattered throughout the country. The distribution of G. salaris is connected with the stocking of fish from infected salmon hatcheries. The populations of parr have been drastically reduced in the infected rivers. In later years catches of ascending salmon in these rivers have also sharply declined. In 1984 salmon fishery losses were estimated at 250 - 500 t.

#### PLAS MADOC - VAT

In May 1984 the Commissioner of Customs and Excise decided that VAT amounting to £12,000 was chargeable on the sale of a game fishery on the River Conway. This decision was contested by the new owners and the matter was referred to a VAT Tribunal. The Chairman of the Tribunal, The Rt. Hon. Lord Granchester, CBE, QC, considered that under the provisions of the Sixth Directive of the Council of the EEC, a transfer of the bed of the river was involved and that VAT was not chargeable.

The Customs and Excise have appealed against the decision of the Tribunal and have asked the High Court to reverse the decision.

The Salmon and Trout Association has supported the original Appellants in bringing the case thus far. The legal costs in so doing already amount to almost the equivalent of the amount of tax involved. As the case goes through the courts, further costs will arise.

The Salmon and Trout Association is engaged in raising funds to assist in fighting this case which has implications for all owners of fisheries and is seeking the help of other organisations, in particular the Country Landowners' Association, many of whose members may be affected by the outcome.

The "Plas Madoc Appeal" has been launched and the money raised will be used to offset the costs of the case. Should it be won, and costs awarded to the original Appellants, then the funds raised would be used to fight similar cases.



The Chairman of the Salmon and Trout Association, David Swatland, is most grateful to the Atlantic Salmon Trust for this opportunity to explain the case and seek support.

Anyone who feels able to support this case should send donations to:

David Swatland  
Salmon and Trout Association  
Fishmongers' Hall  
London Bridge EC43 9RL

Further information can be obtained from the Director of the Association at the above address or telephone 01 2835838 or 01 6263531.



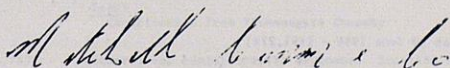
REPORT OF THE AUDITORS

TO THE MEMBERS OF THE ATLANTIC SALMON TRUST LIMITED

(A COMPANY LIMITED BY GUARANTEE)

We have audited the financial statements on pages 1 to 4 in accordance with approved auditing standards.

In our opinion, the financial statements, which have been prepared under the historical cost convention, give a true and fair view of the state of affairs of the company at 30 June 1986 and of the income and source and application of funds for the year then ended and comply with the Companies Act 1985.



MITCHELL CURRAN & CO  
Chartered Accountants  
167 King Street  
London W6 9JT

20 November 1986

THE ATLANTIC SALMON TRUST LIMITED  
BALANCE SHEET AT 30 JUNE 1986

1985

<u>ACCUMULATED FUND</u>		331,271
	At 30 June 1985	
	<u>Add:</u>	
	Covenanted and pledged donations:	
47,863	Covenanted donations, including tax recoverable	42,384
<u>4,928</u>	Pledged donations not under covenants	<u>3,116</u>
		45,500
52,791	Gains on disposal of shares and securities	21,723
2,454	Excess of income over expenditure for the year	<u>17,837</u>
<u>28,055</u>		416,331
331,271		
	<u>Add:</u>	
-	Transfer of Special Reserve (Note 1)	100,000
<u>331,271</u>	At 30 June 1986	<u>516,331</u>
<u>SPECIAL RESERVE</u>		
	Dulverton Trust: Scottish Headquarters:	
	At 30 June 1985	50,000
	<u>Add:</u>	
50,000	Contribution received during the year	<u>50,000</u>
50,000		100,000
	<u>Deduct:</u>	
-	Transfer to Accumulated Fund (Note 1)	<u>100,000</u>
<u>50,000</u>		-
<u>£381,271</u>	<u>TOTAL FUNDS AT 30 JUNE 1986</u>	<u>£516,331</u>
Represented by the employment of funds, as follows:		
<u>FIXED ASSETS</u>		
	Scottish Headquarters: freehold property at cost	41,831
	Office furniture and equipment: net book value (Note 2)	7,430
	Motor car: net book value	<u>5,824</u>
		55,085
<u>QUOTED INVESTMENTS</u>		
320,095	At cost (market value at 30 June 1986 - £491,228)	406,271
<u>BANK AND CASH BALANCES</u>		
	Schroder Investment Management Limited:	
	Special deposit account	8,935
22,620	Hopetoun Auction deposit account, including accumulated interest	24,546
<u>22,547</u>		
	Midland Bank plc:	
	Ordinary deposit account	10,000
12,000	Current account	1,900
2,664	Petty cash balance	<u>26</u>
<u>19</u>		45,407
59,850		
<u>THIRD INTERNATIONAL ATLANTIC SALMON SYMPOSIUM</u>		
	Joint deferred expenditures (Note 3)	7,975
<u>NET CURRENT ASSETS</u>		
	Stock of poems at cost	336
	Income tax receivable on covenants and investment income	7,270
6,844	Sundry debtors and prepayments	<u>1,740</u>
<u>2,921</u>		9,346
£ 9,765	<u>Deduct:</u>	
	Covenanted donations received in advance	635
1,292	Accountancy fee: accrual	2,000
2,000	Sundry creditors and accrued expenses	4,118
5,147	"Blue Book" sponsorship: deferred contribution	<u>1,000</u>
<u>-</u>		7,753
£ 8,439		1,593
1,326		
<u>£381,271</u>		<u>£516,331</u>

.....  
D. Clarke: Chairman

.....  
D. J. Mackenzie: Director

.....  
M. R. T. O'Brien: Treasurer



THE ATLANTIC SALMON TRUST LIMITED

INCOME AND EXPENDITURE ACCOUNT: YEAR ENDED 30 JUNE 1986

1985

GENERAL INCOME

21,067	Income from investments:		
	On quoted shares and securities, including income tax recoverable	29,826	
5,126	Bank deposit interest:		
-	On temporary investment of funds	3,761	
	On Hopetoun Auction investment deposit account	1,546	
<u>26,193</u>			35,133
	Income from other activities:		
5,265	Postal Fishing Auction: net proceeds	20,515	
2,382	Proceeds from lottery: Salmon and Trout Association	-	
-	Profit on sale of poems	1,331	
8	Royalties from sale of prints	393	
<u>7,655</u>			22,239
<u>£33,848</u>	<u>Total general income</u>		<u>£57,372</u>

EXPENDITURE

31,098	Direct costs of promoting salmon conservation and enhancement		35,694
	Special projects:		
	Bessinger-Liddell Fellowship	4,280	
	Council of Europe Nature Protection	612	
	Review of scientific literature	500	
	Marine laboratory research	500	
	Institute of Fisheries Management Studentship	400	
	Other projects	431	
2,565			6,723
3,449	Publication of "Blue Books": net cost (Note 4)	-	293
-	Progress Report: printing and distribution costs	-	4,405
544	Donations and grants	-	376
3,333	Accountancy charges	4,000	
	Less:		
3,333	Contribution from Fishmongers Company	4,000	
<u>16,743</u>			-
	General and administration expenses: Scottish Headquarters		15,650
	Prior year non-recurring items:		
1,928	Painting reproductions written off	-	
1,265	Office move to Scotland	-	
<u>3,193</u>			-
<u>£57,592</u>	<u>Total expenditure</u>		<u>£63,141</u>

(23,744) DEFICIT FOR THE YEAR BEFORE EXTRANEOUS INCOME ( 5,769)

Add:

	Provision for depreciation:		
	Scottish Headquarters: furniture and office equipment	856	
	Director's motor car	423	
<u>-</u>			( 1,279)
(23,744)			( 7,048)

EXTRANEOUS INCOME

28,961	General charitable donations and sponsorship	24,885	
22,838	Hopetoun Auction: net proceeds	-	
<u>51,799</u>			24,885
<u>£28,055</u>	<u>EXCESS OF INCOME OVER EXPENDITURE FOR THE YEAR TRANSFERRED TO ACCUMULATED FUND</u>		<u>£17,837</u>



THE ATLANTIC SALMON TRUST LIMITED  
SOURCE AND APPLICATION OF FUNDS STATEMENT

30 JUNE 1986

<u>SOURCE OF FUNDS</u>	<u>1986</u>	<u>1985</u>
Increases in Accumulated Fund:		
Covenanted and pledged donations	45,500	52,791
Gains on disposals of investments	21,723	2,454
	<u>67,223</u>	<u>55,245</u>
Contribution from Dulverton Trust	50,000	-
Net income from charitable activities	17,837	28,055
Add:		
Adjustments for items not involving the movement of funds:		
Depreciation	1,279	-
<u>Total funds generated from activities</u>	<u>£136,339</u>	<u>£ 83,300</u>

APPLICATION OF FUNDS

Expenditure incurred on "Scottish Headquarters":

Freehold property	41,424	-
Office furniture and equipment	8,286	-
	<u>49,710</u>	<u>-</u>
Purchase of Director's motor car	6,247	-
Net increase in acquisitions of quoted investments (cost)	86,176	90,143
Expenditures deferred to 1986-87 accounting periods:		
Third International Atlantic Salmon Symposium	7,975	-
Increase (decrease) in investment deposit accounts	(13,686)	( 6,642)
Increase (decrease) in net current assets (below)	(83)	(201)
<u>Utilisation of funds</u>	<u>£136,339</u>	<u>£ 83,300</u>

<u>Net current assets</u>	<u>Increase</u>	<u>Decrease</u>	<u>1985</u>
Stock of poems	336		(1,859)
Income tax recoverable	426		4,857
Sundry debtors and prepayments	-	1,181	( 315)
Sundry creditors and accruals	2,093		(4,945)
Cash and bank balances		757	2,061
"Blue Book" sponsorship: deferred income		1,000	-
	<u>£2,855</u>	<u>2,938</u>	<u>£( 201)</u>
		<u>2,855</u>	
		<u>£ ( 83)</u>	

THE ATLANTIC SALMON TRUST LIMITED

30 JUNE 1986

NOTES TO THE ACCOUNTS

1. Special Reserve

The contributions totalling £100,000 by the Dulverton Trust were specifically for the acquisition and equipment of a "Scottish Headquarters". The cost of the property at Moulin, Pitlochry (including restoration and modifications) and the office furniture and equipment totalled £50,117 as follows:

Purchase of property and modifications	41,831
Office furniture and equipment	8,286
	<u>£50,117</u>

2. Fixed assets

	<u>Freehold property</u>	<u>Office fur- niture etc.</u>	<u>Motor car</u>
Expenditure during the year	41,424	8,286	6,247
Provision for depreciation	-	856	423
	<u>£41,424</u>	<u>£7,430</u>	<u>£5,824</u>

3. Third International Salmon Symposium

The deferred expenditures of £7,975 relate to the costs incurred by the Trust to 30 June 1986 jointly with L'Association Internationale de Defense du Saumon Atlantique.

4. Publication of "Blue Books"

	<u>1986</u>	<u>1985</u>
Costs of publication	1,083	4,431
<u>Deduct:</u>		
Sponsorship contributions	-	890
	<u>1,083</u>	<u>3,541</u>
<u>Deduct:</u>		
Proceeds from sales	790	92
<u>Net cost</u>	<u>£ 293</u>	<u>£3,449</u>

5. Deeds of covenant and pledges over 4 to 10 years

Subject to any future cancellations by covenantors and pledged donors and to further changes in the basic rate of income tax (currently 29%), the gross amount of covenanted and pledged donations as at 30 June 1986 receivable in future years are estimated to be as follows (1985 comparative figure for covenants adjusted to a 29% basic rate of income tax):

	<u>1986</u>	<u>1985</u>
Covenanted donations	125,000	172,000
Pledged donations	5,000	8,000
	<u>£130,000</u>	<u>£180,000</u>





THE ATLANTIC SALMON TRUST LTD.

BANKER'S ORDER

Subscriber's  
Bank

To .....Bank Limited

Address & Branch .....

.....

PLEASE PAY to MIDLAND BANK plc, 20 Eastcheap,

London EC3M 1ED (40-02-31) for the credit of THE

ATLANTIC SALMON TRUST LTD. A/C No. 41013874 the

sum of £ ..... (.....pounds)

on the (i) ..... day of .....19..

and a like amount on the same day each (ii)

month/quarter/half year/year for a total period

of (iii) ..... years. Total number of

payments .....

Signed ..... Date .....

Name in Block Letters .....

A/C No. ....

Address .....

.....

- 
- (i) This date must be the same as or later than the date on which the Deed is signed.
  - (ii) Please delete and initial the inappropriate words.
  - (iii) Insert number of years. A covenant must run for a minimum of four years.
- 

PLEASE DO NOT send the Banker's Order direct to your Bank.



THE ATLANTIC SALMON TRUST LTD.

DEED OF COVENANT

Please insert I, .....  
full name and address in of.....  
address in of.....

HEREBY COVENANT with THE ATLANTIC SALMON TRUST LTD. that for a period of

(i) ..... years from the date hereof or during my lifetime whichever period shall be the shorter, I will pay ANNUALLY to the said Trust for such charitable purposes of or connected with the Trust as the Trust shall think fit such a sum as will after deduction of Income Tax at the basic rate for the time being in force leave in the hands of

the Trust a sum equivalent to (ii) £.....

(..... pounds) such sum to be paid from my general fund of taxed income so that I shall receive no personal or private benefit in either of the said periods from the said sum or any part thereof.

IN WITNESS WHEREOF I have hereunto set my hand and seal this

(iii) .....day of .....19..

SIGNED SEALED AND DELIVERED by the said

.....

in the presence of Witness .....

Address .....

Occupation .....

-----  
(i) Insert number of years. A covenant must run for a minimum of four years.

(ii) Enter the ANNUAL amount you wish to subscribe, in figures and words.

(iii) This date must be the same as or later than the date on which the Deed is signed.  
-----

The most convenient method of payment is by Banker's Order. Please complete the form overleaf and send it with your Deed of Covenant to The Atlantic Salmon Trust, Moulin, Pitlochry, Perthshire PH16 5JQ.





PUBLICATIONS

The Biology of the Sea Trout (Summary of a Symposium held at Plas Menai, 24-26 October, 1984)	by E.D. Le Cren	£1.50
Salmon Stocks: A Genetic Perspective	by N.P. Wilkins	£1.50
Report of a Workshop on Salmon Stock Enhancement	by E.D. Le Cren	£1.50
Salmonid Enhancement in North America	by D.J. Solomon	£2.00
Salmon in Iceland	by Thor Gudjonsson and Derek Mills	£1.00
A Report on a Visit to the Faroes	by Derek Mills and Noel Smart	£1.00
Problems and Solutions in the Management of Open Seas Fisheries for Atlantic Salmon	by Derek Mills	£1.00
Scotland's King of Fish	by Derek Mills	£1.85
Atlantic Salmon Facts	by Derek Mills and Gerald Hadoke	£0.50

FILMS AND VIDEO CASSETTES AVAILABLE FOR HIRE

"Will there be a Salmon Tomorrow"	- 16 mm Film and Video (VHS)
"The Salmon People"	- Video (VHS)
"Irish Salmon Harvest"	- Video (VHS)
"Managing Ireland's Salmon"	- Video (VHS)

Films and videos may be obtained from the Trust for private showing by Clubs, Fishery Managers, etc. A donation to AST funds is required in return.

