

THE ATLANTIC SALMON RESEARCH TRUST



NEWSLETTER No. 7 — JULY, 1974

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SECTION I — GENERAL

Programme of Work 1974/75

The Trust is providing funds to support the following specific items in its programme for the financial year beginning 1st July 1974:

- a) The continuing investigation of rearing young salmon in warmed water; the early results being obtained by the Salmon Research Trust of Ireland show encouraging rates of growth.
- b) An investigation into diseases of young salmon by a Research Fellowship in association with the Unit of Aquatic Pathobiology of the University of Stirling, to be carried out at the Salmon Research Trust of Ireland's rearing station and laboratory in Co. Mayo.
- c) A Research Studentship with the Department of Forestry and Natural Resources at Edinburgh University to study the effects on salmon spawning streams of differing land use, e.g. forestry, intensive stock rearing, varying types of agriculture.
- d) A Research Studentship with the Unit of Aquatic Pathobiology of the University of Stirling to determine the types of cellular response that can be elicited in salmon smolts or parr by different types of irritant and germ: this will provide a standard, hitherto lacking, on which to base the findings of all diagnostic work on salmon.
- e) A Research Assistantship with Liverpool University to complete a study of rearing young salmon in mountain tarns.
- f) Continuation of training courses in salmon culture and hatchery management, including latest techniques.
- g) The capital cost, spread over five years, of a new laboratory at the Salmon Research Trust of Ireland's research station in Co. Mayo.

The annual cost of this programme is nearly £10,000 which represents 80% of the Trust's assured annual income from Deeds of Covenant, etc.; additionally, within its overheads the Trust continues its work in the dissemination of information (e.g. this Newsletter) and in the fields of co-ordinating action where most needed, internationally and otherwise, to help conserve salmon stocks (e.g. meetings of the International Advisory Group: preparations for the Law of the Sea Conference). Despite stringent control which has succeeded in keeping administrative overheads at a low level notwithstanding the general rise in costs, to maintain the whole task for the year will require use of capital unless the Appeal Fund receives substantial additional donations.

1973 Catch in United Kingdom and Ireland

The following table gives the provisional figures for the catch (in metric tons) of salmon and grilse in England and Wales, Scotland and Ireland for 1973 (figures in brackets show 1972 catches):

	Salmon	Grilse	Total
England and Wales	302 (295)	151 (147)	453 (442)
Scotland	1060 (982)	867 (711)	1927 (1693)
Ireland	316 (246)	1793 (1790)	2109 (2036)

According to the Fisheries Report issued by the Department of Agriculture and Fisheries for Scotland, which gives actual numbers of fish, in Scotland 52,596 (49,165) salmon and 7,384 (6,285) grilse were caught by rod while the commercial net catch was 174,093 (161,405) salmon and 277,498 (243,444) grilse: the total salmon catch was just above the average for the period since 1952, and the grilse catch was well above the average—in fact one of the highest in recent years.

West Greenland Fishery—1973 Catch

Provisional figures for 1973 give the "high seas" catch off West Greenland, i.e. outside Greenland's 12 mile national fishery limit, as 761 metric tons, which compares with 720 and 1,240 metric tons for 1972 and 1971 respectively. But with the addition of 1,574 metric tons caught inside Greenland's fishery limits the Greenland Fishery yielded 2,335 tons of salmon, a figure far greater than the annual catch in any one of the salmon producing countries and almost equal to a third of the year's total catch of salmon (excluding grilse) in the whole of the North Atlantic region. The "high seas" catch was 74 tons below the limit set for 1973 in the gradual phase-out of this fishery, but the "inshore" catch exceeded its limit by 43%.

High Seas Fishing

International Commission for Northwest Atlantic Fisheries (ICNAF)

The annual meeting of ICNAF was held at Halifax, Nova Scotia, during the first two weeks of June; the major item concerning salmon was a proposal by Denmark that the figure of 1,100 metric tons set in 1972 as the yearly limit for the salmon catch off Greenland, by local Greenlanders, be raised upwards to 1,400 tons, to take account of the higher catches in 1972 and 1973 when the existing quota was exceeded by 20% and 43% respectively.

The Danish argument was based on the economic hardship facing the Greenland fishermen through failure of their traditional cod fishery, due to changed climatic conditions, and because of a serious fall-off in their other major source of income, sheep-raising. Whilst sympathetic to their plea, delegates from Canada, the United States and the United Kingdom were insistent that an increase in the salmon catch could not be justified on these grounds, that salmon breed stocks remained threatened and that the 1972 Agreement, which in itself was not an ungenerous settlement, must stand.

When it came to the vote amongst the members of the Commission only Japan supported the Danish proposal; it was opposed by five members, Canada, France, Iceland, the United Kingdom and the United States, the remaining eight members abstaining or not being present for the vote. The proposal was thus firmly rejected, and Denmark, having expressed regret for the excess catches which had already been incurred, affirmed her intention now to abide by the terms agreed in 1972.

North East Atlantic Fishery Commission (NEAFC)

The annual meeting of NEAFC is being held in Bonn as this Newsletter goes to press, but it is not expected that salmon will occupy much of its business. The situation in the North East Atlantic is not quite as bleak as forecast in the last Newsletter, because in the event there were only two objections (from Denmark and West Germany) to last year's agreement on a prohibition of fishing for salmon outside national fishery limits from 1st January 1976, instead of the greater number needed to render the recommendation entirely null and void. The agreement therefore continues to bind all members of the Commission except those two, Denmark and West Germany, who formally objected to it.

Law of the Sea Conference

The Trust was largely instrumental in there being set up a Working Party under the Chairman of the Salmon and Trout Association to draw up for presentation to the Minister of Agriculture, Fisheries and Food an agreed view on the place and policy to be accorded to the problem of salmon fishing in the sea at the forthcoming United Nations Law of the Sea Conference; other members of the Working Party were the Chairman of the Fisheries Committee of the British Field Sports Society and the Chairman and Vice Chairman of the Association of Scottish District Salmon Fishery Boards.

After discussion and informal talks with officials of the Ministry of Agriculture, Fisheries and Food the Working Party submitted the following views to the Minister, the Rt. Hon. Mr. T. F. Peart, M.P.:

"Anadromous fish such as salmon are a special group and should receive special treatment under the law of the sea. The country of origin of the fish, that is to say, the country in whose rivers the fish spawn, and the country which has taken measures to preserve these fish often at great cost should have the right to the harvest with due consideration being given to 'grazing rights'.

Legislation should therefore be adopted in order to reflect this position with respect to anadromous fish as follows:

- i) fisheries for anadromous fish should only be allowed within those parts of the sea under the jurisdiction of a coastal state;
- ii) the country of origin should be responsible for management and should have preferential rights to harvest consistent with its responsibility for the maintenance of stocks;
- iii) when fisheries for anadromous species originating in one country are conducted by other countries within their fisheries' jurisdictions, such fisheries should be regulated by agreement with the country of origin and in a manner which will take into account its preferential rights."

Ulcerative Dermal Necrosis—UDN

According to the Department of Agriculture and Fisheries in Dublin the incidence of UDN in Irish rivers in the spring of this year was at a lower level than a year previously. Most of the diseased salmon reported came from the rivers Blackwater, Lee, Bandon and Maigue but even in the first three there was less disease than for a number of years past. The four Fishery Districts on the east coast, Dundalk, Drogheda, Dublin and Wexford, were virtually free of the disease, and in March the Shannon basin seemed clear, only to have diseased fish reported from the River Maigue in April; the River Moy and the Foyle system were also slightly infected but many rivers have given clean, healthy catches of salmon.

Reports from Scotland do not give such an encouraging picture as the above Irish one; the number of fish lost in 1973 as a result of UDN was similar to the losses over previous years and although there is some indication of a decline in the effects of the disease with an improvement in the survival rate of affected fish, there are again reports of serious outbreaks of the disease in the spring of this year, particularly the Aberdeenshire Dee which seems as badly affected as ever.

New Canadian/United States Research Venture

The International Atlantic Salmon Foundation (I.A.S.F.) has announced the "go-ahead" for a new salmon research complex near St. Andrews, New Brunswick, to be known as the North American Salmon Research Centre. The capital cost, over one million dollars, is being found by I.A.S.F. and the annual operating costs will be met by the Canadian Government Department of the Environment; when in operation the work of the centre will be managed and controlled by the Huntsman Marine Laboratory of St. Andrews, N.B.

The long term aim of the Centre will be to identify and breed particular strains of salmon which can best contribute to the restoration of Atlantic salmon to the rivers of the North-Eastern United States and of Canada.

"Taking Stock", a Report by the Association of River Authorities

Just prior to being superseded on 1st April this year by the new National Water Council the Association of River Authorities of England and Wales issued the above report, which had been prepared by a Working Party the Association had set up because of its serious concern about the state of salmon fisheries in recent years in England and Wales.

The Working Party's terms of reference were:

- (a) to examine the practices and customs relating to the trapping and netting of migratory fish.
- (b) to investigate the effects of such practices on the well-being of migratory fisheries.
- (c) to review matters relating to the taking of migratory fish and to recommend ways of improving the fisheries in England and Wales in the light of change.

The report gives full details of commercial and rod fishing for salmon as practised today in England and Wales, with a comprehensive review of all factors currently affecting these fisheries; it concludes with a valuable list of recommendations, action on which it is hoped will be taken by the new National Water Council and Regional Water Authorities.

A report on similar lines covering Scotland would complete the salmon picture for the United Kingdom as a whole, and as it is probable that common ground would be found for many of the recommendations their value would be re-inforced.

Increased Coastal Netting Danger to Salmon Stocks

On 1st July a Deputation from the Salmon and Trout Association led by Mr. Francis Corbin met Mr. Norman Buchan, Minister of State for Fisheries at the Ministry of Agriculture, Fisheries and Food to urge on him the danger to salmon stocks, not only from high seas fishing, but also from increased coastal netting, particularly off the Northumbrian Coast.

The Deputation urged that nylon monofilament nets should be banned because of the damage they cause to salmon which escape through the net, and that the number of commercial nets operating offshore should be reduced.

The need to take action was even more urgent now because of all the other new pressures on salmon stocks. These include increased bank erosion leading to silting of the spawning redds, increased abstraction leading to reduced river flows, pollution, and disease.

Mr. Buchan told the Deputation that he had asked for research to be carried out by the Northumbrian Water Authority with help from Ministry scientists on the effect of monofilament nets on salmon and salmon stocks.

One of the Deputation, Mr. George Gawthorn, Chairman of the South-West Water Authority, and Chairman of the Working Party which produced the recent report "Taking Stock" on the conservation of salmon, said there was a great deal of illegal netting and all too many netting licences were held by people who were not professional fishermen—for example, bank managers, company directors and even male nurses—who had little or no interest in conservation.

The Deputation urged that Water Authorities should have the power to stop the netting for a period when rivers were running low and salmon collected by thousands in the estuary but were unable to ascend the river and were an easy prey for the netsmen.

The Minister said he thought Water Authorities already had adequate powers but promised to look into this. Mr. Mills suggested there should be staggered closed periods of some hours several days a week to allow the salmon a free run past the nets.

Mr. Corbin thanked the Minister for receiving the Deputation and Mr. Buchan said he would look into the points raised and if need be they could have a further meeting.

The 1974 Canadian Season

Early reports indicate good runs of salmon already into Canadian rivers, including substantial numbers of large 3 year-at-sea fish which is an encouraging reversal of the downward trend of recent years; but high water conditions have prejudiced angling.

Science Reference Library

Section II—RESEARCH—in this issue has been compiled by the Science Reference Library, (formerly the National Reference Library of Science and Invention), which is part of The British Library (British Museum). The Science Reference Library has two branches in London, in Holborn and Bayswater, and has as its policy the stimulation of developments and discoveries in any branch of the natural sciences and technology. The Library is primarily intended for use by science graduates, engineers and technologists, research workers, patent agents and other professional readers; the literature it holds and its other resources are freely and informally available to all who care to use them, but a charge is made for photocopies.

SECTION II — RESEARCH

Compiled by The Science Reference Library section of The British Library

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SALMON AND TROUT

A guide to selected literature and sources of information

SCOPE

This guide lists a selection of works, mostly published since 1930, that deal with the biology, culture and capture of salmon and trout. It does not include works on their use as food.

The guide is arranged in two sections: the first lists works that are largely or entirely devoted to salmon and trout, the second lists works which include information on these species but are of wider scope, covering fish and fisheries in more general terms.

An introduction to salmon and trout can be found in:

Jones, J. W. *The Salmon*. London, Collins, 1959.

(B) GB 19(S1)

Forst, W. E. and Brown, M. E. *The trout*. London, Collins, 1967.

(B) GB 19 (S1)

All the works cited are held by the Science Reference Library and their SRL shelfmarks are shown. Items held at the Holborn Branch are marked with an asterisk, the remainder are at the Bayswater Branch.

SRL SUBJECT INDEX HEADINGS

Some relevant SRL subject index headings, with corresponding classmarks, are:

	Bayswater	Holborn
SALMO	GB 19(S1)	—
SALMON	—	TE 43 Sa
Culture	EM 79(S)1	—
fisheries	EM 36(S1)	—

TROUT	—	TE 43 Tr
culture	EM 79(T10)	—
fisheries	EM 36(T1)	—
see also FISH	—	—
ecology	EQ 41	—
migration	FF 06	TE 72
passes	VV 51	—
pathology	GA 875	TE 63-64
physiology	EU 08	TE 60-61
FISHERIES	EL 50-EM 48	TF 0-99
FISHING	—	TE 75-92
equipment	EM 19-219	—
methods	EM 06-16	—

SECTION ONE

This section lists a selection of works that are largely or entirely concerned with salmon and trout.

BOOKS AND JOURNAL ARTICLES

General

- Berg, M. *Nord-norske lakseelver*. Oslo, Tanum, 1964. (B) EM 36(S1)
- Halme, E. and Orpana, V. *Lohenkasvattajan opas: lohikalojen lammiko—ja allasviljely*. 2. uusittu p. Poorvoo, Helsinki, Werner Soderstrom, 1968. (B) EM 79(S1)
- Hasler, A.D. *Underwater guideposts: homing of salmon*. Madison, London, etc. University of Wisconsin Press, 1966. (B) GB 19(S1)
- Houghton, A. T. R. *The Ribble salmon fisheries*. Altrincham, Sherratt and Son, 1952. (B) EM 36(S1)
- Kavraisikii, F. F. *Lososevyya (Salmonidae) Kavkaza i Zakavkaz'ya (Die Lachse der Kaukasusländer und ihrer angrenzenden Meere)*. 2 volumes. Tiflis, 1896-97. (B) GB 19(S1)
- Kendall, W. C. The fishes of New England. The salmon family. Part 1: the trout or charrs. *Boston Society of Natural History, Memoirs*, 1914, Vol. 8(1): 1-103. (P) CC 59 -E(34)
- Kendall, W. C. The fishes of New England. The salmon family. Part 2: the salmons. *Boston Society of Natural History, Memoirs*, 1935, Vol. 9(1): 1-66. (P) CC 59 -E(34)
- Koo, T. S. (Ed.) Studies of Alaska red salmon. *University of Washington Publications in Fisheries, New Series*, 1962, Vol. 1. (P) EL 86 -E(1)
- Loftus, K. H. and Regier, H. A. (eds.) Salmonid communities in oligotrophic lakes. Proceedings of a symposium held at Geneva Park, Ontario, 1971. *Fisheries Research Board of Canada, Journal*, 1972, Vol. 29: 611-989. (P) FP 91 -E(6)
- Menzies, W. J. M. *Sea trout and trout*. London, Arnold, 1936. (B) GB 19(S1)
- Moiseev, P. A. (Ed.) *Lososevye khozyaistvo Dal'nego Vostoka [Trout farming in the Far East]*. Materialy. 3-e Soveshchanie, 1960. Moskva, "Nauka", 1964. (B) EM 36(S1)
- Nall, G. H. *The life of the sea trout, especially in Scottish waters*. London, Seeley, Service & Co., 1930. (B) GB 19(S1)
- Netboy, A. *The Atlantic salmon: a vanishing species?* London, Faber and Faber, 1968. (P) GB 19(S1)
- Northcote, T. G. (Ed.) *Symposium on salmon and trout in streams. Held at the University of British Columbia, February 22-24, 1968*. Vancouver, University of British Columbia, 1969. (H. R. MacMillan Lectures in Fisheries.) (B) GB 19(S1)
- Pyefinch, K. A. A review of the literature on the biology of the Atlantic salmon (*Salmo salar*). *Freshwater and Salmon Fisheries Research*, 1955, No. 9. *TF 242
- Pyefinch, K. A. *Trout in Scotland: a story of brown trout research at Pitlochry*. Edinburgh, H.M.S.O., 1960. (B) GB 19(S1)
- Russell, E. S. *The overfishing problem*. Cambridge, University Press, 1942. (De Lamar Lectures, 1939.) (B) EM 50
- Simon, R. C. and Larkin, P. A. (Eds.) *The stock concept in Pacific salmon. Papers presented at a stock identification workshop, Seattle, April 8, 1970*. Vancouver, University of British Columbia, 1972. (H. R. MacMillan Lectures in Fisheries.) (B) EM 36(S1)

- Smirnov, Yu. A. *Losos' Onezhskogo ozera [Trout of Lake Onega]: biologiya vosproizvodstva, ispol' zovanie*. Leningrad, "Nauka", 1971. (B) GB 19(S1)
- Smith, M. W. and Carter, W. M. (Eds.) *International Atlantic salmon symposium. Proceedings of the international symposium on the Atlantic salmon: management, biology and survival of the species*. Huntsman Marine Laboratory, St. Andrews, New Brunswick, September 20-22, 1972. New York and St. Andrews, N.B., International Atlantic Salmon Foundation, 1973. (Special Publication series, Vol 4, No. 1.) (B) GB 19(S1)
- United States: National Science Foundation and Department of the Interior. *Pacific salmon. Selected articles from Soviet periodicals, translated from Russian*. Jerusalem, Israel Program for Scientific Translations, 1961. (B) EM 36(S1)
- Went, A. E. J. *Irish salmon and salmon fisheries*. London, Arnold, 1955. (Buckland Lectures, 1953.) (B) EM 36(S1)
- Wilimovsky, N. J. (Ed.) *Symposium on pink salmon. Held at the University of British Columbia, October 13-15, 1960*. Vancouver, University of British Columbia, 1962. (H. R. MacMillan Lectures in Fisheries.) (B) GB 19(S1)
- Zwillenberg, H. H. L. *Bau und Funktion der Forellenmilz*. Bern, etc., Huber, 1964. [With a summary in English.] (B) EW 33

Breeding, Nutrition, Diseases, Parasites

- Cherfas, B. I. (Ed.) *Genetics, selection, and hybridization of fish*. Jerusalem, Israel Program for Scientific Translations, 1972. [Translation of "Genetika, selektsiya i gibrizatsiya ryb", Moskva, "Nauka", 1969.] (B) GA 86
- Huet, M. *Textbook of fish culture: breeding and cultivation of fish*. In collaboration with J. A. Timmermans. West Byfleet, Fishing News (Books), 1971. [Translation, by H. Kahn, of "Traité de pisciculture", 4th ed., Brussels, 1970.] (B) EM 50
- Jensen, K. W. and Gaudet, J.-L. Bibliography on nutritional requirements of salmonoid fishes. *Bibliographie sur les besoins nutritifs des salmonides*. European Inland Fisheries Advisory Commission, Occasional Paper, 1968, No. 2. (P) EL 93 -E(2)
- National Research Council. Committee on Animal Nutrition. *Nutrient requirements of domestic animals*. No. 11: *Nutrient requirements of trout, salmon, and catfish*. Washington, D.C., National Academy of Sciences, 1973. (B) EB 63
- Pippy, J. H. C. A preliminary bibliography on parasites and diseases of Atlantic salmon (*Salmo salar*). Fisheries Research Board of Canada, Technical Report, 1968, No. 83. (P) EL 50 -E(19)
- Roberts, R. J. et al. *Diseases of trout and salmon: a practical guide for the fish farmer*. [Stirling, The University], 1972. [Issued for use in conjunction with courses given by the Aquatic Pathobiology Unit of the University.] (B) EM 79(S1)

Flies, Fishing

- Bates, J. D. *Atlantic salmon flies and fishing*. Harrisburg, Pa, Stackpole Books, 1970. *TE 43 5a
- Brandt, A. von. *Fish catching methods of the world*. Rev. ed. London, Fishing News (Books), 1972. *TG 16
- Stansby, M. E. (Ed.) *Industrial fishery technology*. New York, Reinhold; London, Chapman and Hall, 1963. (GB) EL 50
- Veniard, J. *Fly dressers' guide*. 4th ed. London, A. and C. Black, 1970. *TE 87
- Veniard, J. *Further guide to fly dressing*. 2nd ed. London, A. and C. Black, 1972. *TE 87

PERIODICALS

- Fishery Board for Scotland. Salmon Fisheries. (Ceased publication 1939.) (P) EM 36(S1) -E(7)
- Hokkaido Fish Hatchery. Scientific Reports. (P) EM 00 -X(15)
- Hokkaido Salmon Hatchery. Scientific Reports. (P) EM 79(S1) -X(1)
- International Pacific Salmon Fisheries Commission. Annual Report. (P) EM 36(S1) -E(5)
- International Pacific Salmon Fisheries Commission. Bulletin. (P) EM 36(S1) -E(6)
- International Pacific Salmon Fisheries Commission. Progress Report. (P) EM 36(S1) -E(4)
- Irish Republic: Electricity Supply Board. Fisheries Report. (P) EM 79(S1) -E(1)

- Ministry of Agriculture and Fisheries. Salmon and Freshwater Fisheries. Report.
(Ceased publication 1938.) (P) EM 36(S1) -E(8)
- Ministry of Agriculture, Fisheries and Food. Fishery Investigations, Series 1: Salmon
and Freshwater Fisheries and Miscellaneous. (P) EL 50 -E(2)
- Salmon and Trout Magazine (Journal of the Salmon and Trout Association).
(P) EM 36(S1) -E(1)
- Swedish Salmon Research Institute. Report (Laxforskningsinstitutet Meddelande).
(P) EM 79(S1) -S(1)
- Trout and Salmon. (P) EM 36(S1) -E(2)

SECTION TWO

This section lists a selection of works from the wider literature on fish and fisheries in which further information on salmon and trout can be found.

DICTIONARIES, GLOSSARIES, VOCABULARIES

- American Fisheries Society, Committee on Names of Fishes. *A list of common and scientific names of fishes from the United States and Canada*. 3rd ed. Washington, D.C., American Fisheries Society, 1970. (Special Publication No. 6.) (B) GA 848
- Boltovskoy, E. *Diccionario de la terminologia del plancton marino en cinco idiomas: ingles, espanol, aleman, frances y ruso*. Buenos Aires, Servicio de Hidrografia Naval, 1963. (GB) AA 102
- Holt, S. J. *Multilingual vocabulary and notation for fishery dynamics*. Rome, F.A.O., 1960. [In 21 languages.] (GB) AA 102
- Organisation for Economic Co-operation and Development. *Multilingual dictionary of fish and fish products. Dictionnaire multilingue des poissons et produits de la pêche*. London, Fishing News (Books), 1968. [In 15 languages.] (GB) AA 102
- Suisan Kagakusha. *Gyogyo yogoshu (Wa-Ei no bu)*. Tokyo, 1964-65. [Japanese-English glossary on fishing originally published in "Suisan Kagaku", removed and bound separately.] (B) EL 54

FISHES IN BRITISH WATERS

- The following are taxonomic and illustrative works.
- Conseil Permanent International pour l'Exploration de la Mer. *Faune ichthyologique de l'Atlantique nord*. (In 18 parts.) Paris, Blondel la Rougery (Copenhagen, Fred. Host et Fils), 1928-38. (B) GA 840
- Day, F. *The fishes of Great Britain and Ireland*. 2 volumes. London, Williams and Norgate, 1880-84. (B) GA 842
- Jenkins, J. T. *The fishes of the British Isles, both fresh water and salt*. 2nd ed. London, Warne, 1936. (B) GA 842
- Kennedy, M. *The sea angler's fishes*. 2nd ed. London, Stanley Paul, 1969. (B) GA 842
- Lythgoe, J. and Lythgoe, G. *Fishes of the sea. The coastal waters of the British Isles, Northern Europe and the Mediterranean: a photographic guide in colour*. London, Blandford Press, 1971. (B) GA 842
- Wheeler, A. *The fishes of the British Isles and North-West Europe*. London, MacMillan, 1969. (B) GA 842

PERIODICALS

- Advances in Marine Biology. (P) CC 73 -E(7)
- American Fisheries Society. Newsletter. (P) EL 639 -E(5)
- American Fisheries Society. Transactions. (P) GA 80 -E(3)
- Aquiculture (Tokyo) (P) EM 60 -X(1)
- Bulletin of Marine Science (Coral Gables). (P) CC 73 -E(13)
- Cahiers de Biologie Marine (Station Biologique de Roscoff) (P) CC 73 -F(2)
- Canadian Fisherman and Ocean Science (P) OJ 00 -E(20)
- Conseil Permanent International pour l'Exploration de la Mer. Co-operative Research Report. (P) EL 82 -E(11)
- Conseil International pour l'Exploration de la Mer. Journal du Conseil. *TD 05
- F.A.O. Fisheries Papers. (P) EL 50 -E(15)
- F.A.O. Fisheries Technical Paper. (P) EL 50 -E(17)
- Far Seas' Fisheries Research Laboratory. Bulletin. (P) EL 50 -X(13)

- Far Seas' Fisheries Research Laboratory. S Series. (P) EM 00 -X(3)
 Fishboat. (P) EL 50 -E(5)
 Fisheries Experiment Station of Hyogo-Ken. Bulletin. (P) EL 95 -X(12)
 Fisheries Research Board of Canada. Bulletin. *TG 282
 Fisheries Research Board of Canada. Journal. (P) FP 91 -E(6)
 Fisheries Research Board of Canada. Technical Report. (P) EL 50 -E(19)
 Florida Dept. of Natural Resources. Marine Research Laboratory. Professional Papers Series. (P) CC 72 -E(3)
 Florida Dept. of Natural Resources. Marine Research Laboratory. Special Scientific Report. (P) CC 72 -E(4)
 France: Institut Scientifique et Technique des Pêches Maritimes. Revue des Travaux. (P) EL 82 -F(3)
 Freshwater Fisheries Research Laboratory (Tokyo). Bulletin. (P) EL 95 -X(1)
 Havsfiskelaboratoriet, Lysekil. Series Biology. Report. (P) EL 82 -E(4)
 Institute of Freshwater Research, Arottningholm. Report. *TG 252
 International Commission for the Northwest Atlantic Fisheries. Special Publication. (P) EL 50 -E(9)
 International North Pacific Fisheries Commission. Bulletin. (P) EL 86 -E(4)
 Investigacion Pesquera. (P) CC 73 -F(17)
 Journal of Fish Biology. (P) EU 08 -E(1)
 Limnology and Oceanography. (P) OL 00 -E(1)
 Liverpool, University of: Marine Biological Station, Port Erin. Annual Report. (P) CC 73 -E(17)
 Marine Biological Association of the United Kingdom. Journal. *TE 00
 Marine Biology. (P) CC 73 -E(15)
 Naikai Regional Fisheries Research Laboratory. Bulletin. (P) EL 86 -X(4)
 Nankai Regional Fisheries Research Laboratory. Report. (P) EL 86 -X(13)
 Netherlands Journal of Sea Research. (P) CC 73 -E(4)
 Oceanography and Marine Biology. (P) CC 73 -E(8)
 Oceans. (P) OJ 00 -E(16)
 Osaka Prefectural Freshwater Fish Experiment Station. Bulletin. (P) EL 95 -X(6)
 Prefectural University of Mie. Journal of the Faculty of Fisheries. (P) EL 95 -X(9)
 Prefectural University of Mie. Report of the Faculty of Fisheries. (P) CC 72 -E(5)
 Progressive Fish-Culturist. *TE 30
 Salzburgs Fischerei. (P) EL 93 -G(6)
 Scottish Marine Biological Association. Annual Report. (P) CC 73 -E(16)
 Scripps Institution of Oceanography. Bulletin. (P) OJ 00 -E(2)
 Seikai Regional Fisheries Research Laboratory. Bulletin. (P) EL 86 -X(2)
 Sport Fishing Institute. Bulletin. (P) EL 99 -E(19)
 Tohoku Regional Fisheries Research Laboratory Bulletin. (P) EM 00 -X(5)
 Tokai Regional Fisheries Research Laboratory. Bulletin. (P) EL 86 -X(5)
 Tokai University: Fisheries Research Laboratory. Report. (P) EL 95 -X(8)
 World Fishing. *TG 00

ABSTRACT JOURNALS

- Aquatic Sciences and Fisheries Abstracts. (Monthly: with author, geographic, species and subject indexes in each issue.) (A) CC 72 -E(6)
 Commercial Fisheries Abstracts. (Monthly: with author and subject indexes in each issue. Coverage includes fish biology and culture.) *TG 03
 Marine Science Contents Tables. (Bimonthly. Reproduces tables of contents of core journals in marine science.) (A) CC 72 -E(3)
 Oceanic Abstracts. (Bimonthly: with author and subject indexes in each issue. Divided into sections, of which Section A covers Biology/Fisheries.) (A) OJ 05 -E(8)
 Sport Fishery Abstracts. (Quarterly: with author and subject indexes in each issue.) *TE 30

INFORMATION CENTRES

Institutions, specifically concerned with salmon and trout, from whom information can be obtained include:

The Atlantic Salmon Research Trust Ltd.,
Morley House,
29 South Street,
Farnham,
Surrey.

International Atlantic Salmon Foundation,
P.O. Box 429,
St. Andrews,
New Brunswick,
Canada.

The Salmon Research Institute,
Radhusgatan 39,
852 31 Sundsvall,
Sweden.

Details of other organisations understood to be able to provide SDI or retrospective search services which may cover the topic of salmon and trout are available on request.

SECTION III—PROGRESS OF APPEAL

In the past the distribution of the Trust's Periodical Newsletters has been limited as an economy measure. The state of the Trust's finances now permits a fuller distribution of the Newsletters so that all donors can be informed not only of the work being financed by the Trust but also of progress with the appeal for funds—on which all the Trust's work ultimately depends.

Although the number of subscribers has continued to grow and has now reached 1,345, the volume of response is rapidly decreasing despite the fact of our nets being cast ever wider. We have recently carried the Appeal to Eire direct from this Office; the initial response has been at about the same level as for other direct appeals from this Office, but it is hoped to improve results by local sponsorship which all experience proves to be essential for really worthwhile results.

The Trust is supporting a limited number of Research tasks (see Section I General Programme of Work 1974 sub paras (a) to (g), but there is still much to be done. This will require expenditure beyond our present means and further support from donors and help in the introduction of new subscribers is urgently required.

Since the last Newsletter the gross monthly receipts are as follows:

1973							
November	...	...	...	...	...	...	£2,101.78
December	...	...	...	...	...	...	440.52
1974							
January	...	...	...	...	...	...	365.11
February	...	...	...	...	...	...	344.46
March	...	...	...	...	...	...	503.67
April	...	...	...	...	...	...	1,210.03
May	...	...	...	...	...	...	245.12
June	...	...	...	...	...	...	163.47
Total for the period							<u>£5,374.16</u>

The change in income tax firstly from 38½% to 30%, then recently to 33%, gave rise to a potential loss in the first instance, to the Fund's gross income from Deeds of Covenant. This was partially offset by the Government's grant of Transitional Relief to Registered Charities; the latest increase of income tax to 33% has further reduced the initial potential loss.

An analysis of all subscriptions received since the beginning of the Appeal is given on the final page. The state of the Fund at the end of June 1974 is as follows:

	Gross Value
769 Single Donations	£33,964.56
523 Deeds of Covenant	74,490.44
53 Pledges and Bankers Orders	10,070.30
Total	<u>£118,525.30</u>

The Gross Annual Income from Deeds of Covenant, Pledges, Bankers Orders plus interest from securities and Deposit Account is approximately £12,500.

ATLANTIC SALMON RESEARCH TRUST LTD.
CONTRIBUTIONS RECEIVED to 30th JUNE, 1974

Counties			Rivers	
Beds.	£1,611	(£1,611)	Argyll Rivers	£1,780 (£1,780)
Berks.	189	(179)	Beaully	175 (175)
Bucks.	1,019	(1,019)	Brora	1,115 (1,115)
Cheshire	700	(697)	Conon	1,257 (1,257)
Cornwall	73	(73)	Dee	5,474 (5,324)
Cumberland	7,926	(7,887)	Deveron	555 (555)
Derby & Staffs.	573	(552)	Forss	71 (107)
Devon	1,559	(1,464)	Findhorn	900 (900)
Dorset	251	(251)	Eire Rivers	152 (—)
Essex	931	(926)	Helmsdale	833 (804)
Glos.	2,056	(2,053)	Lochy	3,003 (2,993)
Hants.	2,996	(2,966)	Naver	1,628 (1,628)
Hunts & Cambs.	882	(882)	Oykel)	
Kent	370	(370)	Shin)	1,952 (1,952)
Lancs.	344	(344)	Cassley)	
Leics.	400	(400)	S. Esk	231 (231)
Lincs.	1,858	(1,858)	Spey	2,228 (2,228)
London & Middlesex	808	(453)	S.W. Wales Rivers	85 (85)
Notts.	1,464	(1,464)	Tay	1,700 (1,700)
Norfolk	3,850	(3,850)	Thurso	297 (297)
Northumberland	934	(534)	Tweed	2,353 (2,353)
Northants.	100	(100)	Wye	2,237 (2,227)
Oxon.	6	(6)	Usk	209 (207)
Somerset	799	(—)		
Suffolk	1,036	(1,053)	Total Rivers	28,235 (27,918)
Surrey	2,988	(2,888)	Total Counties	49,116 (46,931)
Sussex	1,700	(1,700)	Business	33,035 (33,035)
Warks.	136	(86)	Miscellaneous	10,444 (8,663)
Wilts.	1,328	(1,328)		
Westmorland	7,850	(7,561)		£120,830 (116,547)
Wores.	319	(319)	Less Tax Loss	
Yorks.	2,060	(2,057)	on Cov. Income	2,305 (5,539)
Total Counties	£49,116	(46,931)	Gross Total	£118,525 (111,008)

Note:

- The amounts given include
 - Single Donations.
 - Seven year gross totals for Deeds of Covenant at the new rate of income tax at 33% and Pledges and Bankers Orders.
- Reductions in totals have been occasioned by the decease of donors of Deeds of Covenant or Pledges/Bankers Orders.
- The figures in brackets give totals at 31st October, 1973.
- The changes in the amount of income tax recoverable on Deeds of Covenant for item—Loss on Covenant income.

