

Catalogue of the papers and correspondence of

JOHN ALAN GULLAND FRS

(1926-1990)

Compiled by Timothy E. Powell and Peter Harper

**Deposited in the College Archives,
Imperial College of Science and Technology,
London**

NCUACS 28/4/91

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J A Gulland
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GENERAL INTRODUCTION

PROVENANCE

The papers were received in May and September 1991 from Mrs F. A. Gulland

OUTLINE OF THE CAREER OF J. A. GULLAND

John Alan Gulland was born in Hurstbourne Priors, Hampshire, on 16 September 1926. He was educated at Marlborough College and, following wartime service in the Royal Navy, Jesus College Cambridge where he read Mathematics. In 1951 he joined the Fisheries Laboratory at Lowestoft working on the calculation of fish populations. He remained at Lowestoft until 1966 when he joined the Fisheries Department of the United Nations Food and Agriculture Organisation based in Rome. He took early retirement in 1984 as Chief of the Marine Resources Service and moved to Imperial College London as Senior Research Fellow for Environmental Technology, working in Dr J. Beddington's Renewable Resources Assessment Group.

Gulland served as consultant to a number of overseas and international fisheries management organisations, including the International Whaling Commission for which he was an advisor 1964-86. This association had begun a year earlier in 1963, when Gulland was one of four scientists (the 'Group of Four') asked to investigate the impact of whaling on stocks of blue whales. The report of the Group resulted in a ban on the hunting of blue whales in 1965. He also served on the Canadian Royal Commission on Seals and Sealing 1984-86 which assessed the impact of the annual seal cull on seal populations.

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For his contributions to the mathematical analysis of the dynamics of fish populations and commercial fisheries Gulland was elected to the Fellowship of the Royal Society in 1984. He was awarded honorary degrees by the universities of Rhode Island and Helsinki and in 1990 received the American Fisheries Society Award of Excellence. Gulland died on 24 June 1990.

DESCRIPTION OF THE COLLECTION

The material is presented in the order given in the List of Contents. The collection comprises correspondence and papers from Gulland's period as Senior Research Fellow at Imperial College London, 1984-90.

Section A, Publications, is chiefly drafts by Gulland, some unpublished, with related correspondence. It includes documentation relating to Gulland's work as editor of the second edition of the book *Fish Population Dynamics*. There is also a sequence of editorial correspondence relating principally to journals for which Gulland acted as a member of the Editorial Board and as referee.

Section B, Consultancies, consists of material relating to six organisations for which Gulland acted as consultant or advisor. These include the European Community which Gulland advised on fishing fleets for the 1992-96 Multiannual Guidance Programme, and the Canadian Government for whom Gulland acted as consultant on a number of projects, most notably the Royal Commission on Seals and the Sealing Industry in Canada.

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Section C, Visits, conferences and lectures, consists chiefly of papers documenting some of the many overseas visits made by Gulland after his departure from the FAO, among them a visit to Antarctica in 1985 for a conference on the Antarctic Treaty.

Section D, Correspondence, is the contents of Gulland's correspondence files for the period 1984-90. Papers relating to references and recommendations have been removed from the sequence and presented in a separate subsection which is subject to restricted access.

Section E, Biographical, is very slight. It includes a number of photographs of Gulland.

ACKNOWLEDGEMENTS

We are very grateful to Mrs Gulland for making the material available and for her advice and encouragement.

T. E. Powell
P. Harper
Bath 1991

SECTION A PUBLICATIONS A.1 - A.80

A.1 - A.55 Drafts

A.56 - A.80 Editorial correspondence

DRAFTS

A.1,A.2 'Fisheries management: a biological, economic or political problem?' Latest bibliographical reference 1984.

A.1 34pp ms draft.

A.2 FAO communications from Gulland dated 1972 and 1983-84. Those 1983-84 chiefly record his critical views on the 1984 'World Conference' organised by the FAO and on what he felt to be the politicisation of the FAO. The material also includes 'World Conference on Fisheries Development and Mis-management', a satirical 'Briefing Document'. Kept with preceding as illustrative of the political problems involved in fisheries management.

A.3,A.4 'Interaction with fisheries', *Ambio* **15** (1986). This was a special issue dealing with marine mammals for which Gulland wrote an article on interaction between marine mammals and fishermen.

A.3 14pp typescript with ms corrections; proof copy with ms corrections.

A.4 Correspondence with editor.

Publications

- A.5 'Management and uncertainty; the example of South Georgia'. Submitted to International Council for the Exploration of the Sea (ICES) *Journal du Conseil* 1986.

13pp typescript with ms annotation by R J H Beverton, editor; correspondence with Beverton.
- A.6 'Some considerations of the dynamics of *Notothenia rossii* round South Georgia'. Submitted to ICES *Journal du Conseil* 1986.

3pp ms draft with 5pp ms and typescript appendix; 2pp typescript draft 'The net annual increment, and Antarctic stocks'; ms calculations.
- A.7 Correspondence, 1985-86, re paper by Gulland, S Garcia and E Miles submitted to *Marine Policy* 1986.
- A.8-A.12 'The potential of Kuwait fish stocks'. Report probably compiled for the Government of Kuwait. Latest bibliographical reference 1986.
- A.8,A.9 Typescript draft with ms correction. 2 folders.
- A.10-A.12 Background material.
- A.10 'By-catch', 'Newaiby'.
- A.11 'Gargoor'.
- A.12 Miscellaneous.

Publications

- A.13 Letters on whaling to *New Scientist*, January and June 1987.
- Letters on problems of fisheries scientists and ELEFAN to *Fishbyte*, 2 and 18 February 1987.
- A.14 'Natural mortality and size'. *Marine Ecology* **39** (1987), 197-199.
- 9pp typescript + figure; proof with ms corrections; correspondence with O Kinne, editor.
- A.15 'Seals and fisheries; a case for predator control?' *Trends in Ecology and Evolution* **2** (1987).
- 4pp typescript with ms annotation by A Sugden, editor; correspondence with editor re publication of the article and reply by S J Holt.
- A.16 'Beyond MSY [Maximum Sustained Yield]: a consideration of definitions of management objectives', CCAMLR [Commission for the Conservation of Antarctic Marine Living Resources] 'Selected Scientific Papers' 1987 (WG-CSD-87/12).
- 19pp typescript + figures; faxes re publication; correspondence arising with R J H Beverton 1988.
- A.17 'The impact of seals on fisheries', *Marine Policy* July 1987.
- 9pp typescript; correspondence with J Nicholson, editor.

Publications

- A.18 'Falklands fishing', *Marine Policy* July 1987.
2pp typescript with ms corrections; covering letter.
- A.19,A.20 'The management of the fisheries of the North Sea; looking towards the 21st century', *Marine Policy* 1987.
- A.19 25pp typescript.
- A.20 Correspondence with editor; figures; ms notes.
- A.21 Invitation from N Kurti to contribute to anthology on food and drink, with Gulland's contribution on verso, 1987.
- A.22-A.24 'On the estimation of natural mortality' by Gulland, C P Mathews, M Samuel and J U Lee. Submitted for publication in *ICES Journal du Conseil* **19** 1987.
- A.22 19pp typescript + references. With ms annotation.
- A.23 Tables, figures etc.
- A.24 Correspondence with C P Mathews and M Samuel, co-authors, and R J H Beverton, editor, 1987-88.

Publications

- A.25-A.38 *Fish Population Dynamics*, second edition (John Wiley & Sons, Chichester). Gulland had edited the first edition, published in 1977, and in 1984 was asked to edit a second edition as part of a general series on population dynamics. It was published in 1988. Gulland contributed a preface and a chapter on 'The problems of population dynamics and contemporary fishery management'.
- A.25 Incomplete typescript draft of preface with ms annotation; 3pp typescript list of contents; 'Progress' lists; review from *Journal of Applied Ecology*.
- A.26-A.29 Correspondence with publishers 1984-89. This sequence also includes 1987 correspondence re a book 'Problems in the management of marine fisheries' which Gulland was to write for them.
- | | | | |
|------|---------|------|---------|
| A.26 | 1984-85 | A.28 | 1987 |
| A.27 | 1986 | A.29 | 1988-89 |
- A.30-A.38 Correspondence with contributors 1985-88.
- A.30 Smith, T D
Shepherd, J G
- A.31 Pope, J G
Beddington, J
Cushing, D H
- A.32 Sissenwine, M P
Larkin, P A
- A.33 Garrod, D J
Garcia, S

Publications

- A.34 Csirke, J
- A.35 Allen, K R and Kirkwood, G P
- A.36 Brander, K
- A.37 Pauly, D
 Sainsbury, K J
- A.38 Beverton, R J H (withdrew from the project)
- A.39,A.40 'The end of whaling?' *New Scientist*, 29 October
 1988.
- A.39 8pp typescript with extensive ms annotation and
 correction (not by Gulland); 18pp typescript
 'tidy copy' with covering letter.
- A.40 Correspondence relating to and arising from
 article, chiefly with J Cherfas of the *New
Scientist* 1987-88. Includes copies of Cherfas's
 articles to which Gulland responded.
- A.41,A.42 'Mean length as a simple tool in stock
 assessment'. Latest bibliographical reference
 1988.
- A.41 5pp typescript; annotated 8pp typescript +
 appendix and figures; brief correspondence
 1988.
- A.42 Ms and typescript notes, graphs and
 calculations.

Publications

- A.43 'How many Minke whales are there in the Antarctic?' ?Submitted to *New Scientist*. Latest bibliographical reference 1988.

5pp typescript with ms correction; 2pp typescript draft 'Minke whales'.
- A.44 'Tuna and international institutions'. Submitted to *Marine Policy* 1988.

3pp typescript; correspondence.
- A.45 'Comments on "The state of worldwide fisheries statistics": a model', *Marine Resource Economics* 6 (1989).

3pp typescript; correspondence with J G Sutinen, editor, and M A Robinson.
- A.46-A.49 'The use of spreadsheets in fisheries research' by Gulland and D J M Gibson. This was prepared as a circular for the Marine Resources Service of FAO.
- A.46,A.47 45pp typescript + list of contents and list of tables. 2 folders.
- A.48 Typescript drafts of sections of the article annotated by Gibson.
- A.49 Correspondence re article 1986-87, 1989; etc.
- A.50 'Principles of length based methods'. Possibly incomplete draft of chapter of planned book. Latest bibliographical reference 1989.

Typescript drafts.

Publications

- A.51 'Stock and recruitment: some notes for a statistical examination'. Nd.
3pp typescript; ms notes.
- A.52 Typescript and ms drafts on calculating catchability.
- A.53 Gulland's annotated copy of 'Comments on: Report on the trawling survey around the Falkland Islands (1985-1986)'. Nd.
- A.54 'Uncertainty and management'. ?Letter to *The Times*. Nd.
2pp ms.
- A.55 Ms notes for draft on international perspectives in fisheries management. Nd.

Publications

EDITORIAL CORRESPONDENCE

Aquatic Living Resources

1987-89

The journal was launched in 1987. Gulland was a member of the Scientific Committee.

A.56 Invitation to serve and papers re new journal.

A.57 Correspondence and papers re first meeting of Scientific Committee, Paris, 7 December 1988.

A.58,A.59 Refereeing. 2 folders.

Butterworth Scientific Ltd

1987

A.60 Re possible book on the history of the International Whaling Commission

Cambridge University Press

1988-90

A.61,A.62 Refereeing. 2 folders.

International Council for the Exploration
of the Sea (ICES)

1985-89

Gulland refereed for the Council's *Journal du Conseil*.

A.63,A.64 Refereeing. 2 folders.

Publications

- Marine Ecology Progress Series* 1985-90
Gulland was a member of the Editorial Board resigning 1990.
A.65-A.69 Chiefly re refereeing. 5 folders.
- Marine Policy* 1976-89
The journal was launched in 1976. Gulland was a member of the Editorial Board.
A.70-A.72 Correspondence and papers re Editorial Board business and meetings 1976-89. 3 folders.
A.73 Book reviews.
A.74 Refereeing.
- Natural Resource Modeling* 1985-88
The journal was launched in 1985. Gulland was a member of the Editorial Advisory Board.
A.75 Chiefly re editorial policy.
- Proceedings of the Royal Society, B* 1990
A.76 Request for contributions.

Publications

Trends in Ecology and Evolution

1986-89

The journal was launched in 1986. Gulland was a member of the Advisory Editorial Board 1986-89.

A.77-A.79 Correspondence and papers re Editorial Board business. 3 folders.

A.80 Refereeing.

SECTION B CONSULTANCIES B.1 - B.79

CANADIAN GOVERNMENT B. 1 - B.14

EUROPEAN COMMUNITY B.15 - B.58

INTERNATIONAL CENTRE FOR
OCEAN DEVELOPMENT B.59

INTERNATIONAL INSTITUTE FOR
ENVIRONMENT AND DEVELOPMENT B.60

NATURAL ENVIRONMENT RESEARCH
COUNCIL B.61 - B.68

PROJECT PROSPERO B.69 - B.79

CANADIAN GOVERNMENT 1984-88

B.1-B.6 Royal Commission on Seals and the
Sealing Industry in Canada

B.7,B.8 Task Group on Newfoundland Inshore
Fishery

B.9-B.14 Caricom Marine Resource Survey
Project

Consultancies

Royal Commission on Seals and the Sealing Industry in Canada

The Commission was established in 1984 'to conduct a full inquiry...into seal resource management and the seal industry in Canada'. Gulland was invited to join the Commission. It held its first meeting in September 1984 and released its Report in December 1986.

- B.1 Papers re first meeting September 1984.
- B.2 Minutes of meetings 1985.
- B.3 Correspondence and papers re work of Commission 1986. Includes letter to the *Guardian* by Gulland, 15 July, following a leak of part of the draft Report, and the Commission Chairman's 'position paper'.
- B.4 Newsletter outlining the recommendations of the Commission Report, November 1986; memorandum on release of Report, 16 December 1986.
- B.5 Other Commission papers and background material. Includes copy of denunciation of Commission members Gulland and K R Allen as 'pro-exploitation' by S J Holt.
- B.6 Press-cuttings.

Task Group on Newfoundland Inshore Fishery

The Task Group was established in August 1987 to investigate the decline in the catch of cod in the inshore waters off eastern Newfoundland and Labrador since 1982. Gulland was a member of the five-man Group which reported in November.

...

Consultancies

- B.7 Correspondence and papers re Task Group.
- B.8 Data on catches of cod; ms notes.

CARICOM Marine Resource Survey Project.

This project was sponsored by the Canadian International Development Agency (CIDA) 'to provide the CARICOM [Caribbean Common Market and Community] member countries with resource-related information necessary for the development of regional and local fisheries management plans'.

CIDA approached Washburn & Gillis Associates Ltd to prepare a draft project formulation study. This draft was criticised and Gulland and S Sandeman were asked to review it. They concluded the criticisms were justified. Washburn & Gillis then submitted a revised study.

In 1989 Gulland again acted as a consultant on Caribbean fisheries management, for the International Centre for Ocean Development (see B.59).

- B.9 Draft terms of reference for Gulland and Sandeman's review of the draft study, 30 November 1987; contract and contract amendment.
- B.10 Background information for the review.
- B.11 Ms notes by Gulland and Sandeman on the study and on fisheries in the CARICOM area.
- B.12 Gulland and Sandeman's review of the draft study, with covering letters 2 February 1987 (should read 1988).

Consultancies

- B.13 'Caribbean Community and Common Market Living Resources Survey Formulation Study Volume I Final Report' by Washburn & Gillis Associates, March 1988.
- B.14 Correspondence re project February - October 1988. Includes Gulland's 'Additional comments' on the 'Final Report', 15 April.

EUROPEAN COMMUNITY

1989-90

In May 1989 the Commission of the European Communities established a Group of Independent Experts under the Directorate of Fisheries to prepare guidelines for the 1992-96 Multiannual Guidance Programme (MGP). It was to offer advice on how the over-capacity in the fishing fleets of European Community member states could be reduced. Gulland was the UK member of the Group and was responsible for drafting the Group's report.

- B.15 List of members of the Group.
- B.16-B.18 Papers for first meeting of Group, Brussels, 11-12 May 1989. 3 folders.
- B.19 Correspondence re Gulland's first draft of sections 1 (Introduction) and 2 (General Contributions) circulated July 1989.
- B.20-B.48 Data on fishing fleets.
- B.20-B.22 EEC data from previous MGP. 3 folders.
- B.23-B.48 Data supplied to Gulland by members of the Group 1989.
- B.23 Belgium.

Consultancies

- B.24-B.26 Denmark. 3 folders.
- B.27-B.29 France. 3 folders.
- B.30,B.31 Greece. 2 folders.
- B.32 Ireland.
- B.33-B.38 Italy. 6 folders.
- B.39,B.40 Netherlands. 2 folders.
- B.41 Portugal.
- B.42-B.44 Spain. 3 folders.
- B.45-B.47 United Kingdom. 3 folders.
- B.48 West Germany.
- B.49 Annotated agenda for second meeting of the Group, Brussels, 4-5 September 1989.
- B.50 Correspondence re Gulland's draft of section 3 (The present condition of the fisheries), circulated October 1989. Includes copy of the draft.
- B.51 Gulland's 'Re-draft' of sections 1 and 2 of Report, circulated November 1989.
- B.52 Gulland's draft of section 3 (Summary description of fleets and stocks), circulated December 1989.

Consultancies

- B.53 Correspondence re drafts circulated in November and December.
- B.54 Draft agenda for third meeting of the Group, Brussels, 9-11 January 1990.
- B.55 Gulland's drafts of section 4 (Conclusions) and the Executive Summary, circulated February 1990.
- B.56 'Brussels version' of Executive Summary and short final report, faxed to Gulland April 1990. With related correspondence and faxes.
- B.57 'Stock data'.
- B.58 Miscellaneous and background material.

INTERNATIONAL CENTRE FOR OCEAN DEVELOPMENT 1989

Gulland served as a consultant on a proposed project of assistance to fisheries management in the Caribbean on behalf of this Canadian-based Centre. Gulland had acted as a consultant to the Canadian Government on a similar project 1988-89 (see B.9-B.14).

- B.59 Copy of contract; Gulland's Report, 11pp typescript.

Consultancies

INTERNATIONAL INSTITUTE FOR
ENVIRONMENT AND DEVELOPMENT (IIED)

1986-87

- B.60 Correspondence re work for IIED. Includes Gulland's 'Notes on possible assistance in improving resources management in the fisheries of SIDA [?Swedish International Development Agency] priority countries' ,8 April 1987.

NATURAL ENVIRONMENT RESEARCH COUNCIL

1985

Gulland was a member of the NERC's Visiting Group to the Life Sciences Division of the British Antarctic Survey (BAS), Cambridge. The Group visited BAS in July 1985.

- B.61 Invitation to serve; correspondence re arrangements for visit.
- B.62-B.65 Papers for visit. 4 folders.
- B.66 Background information.
- B.67 'Report of the Visiting Group to the British Antarctic Survey: Life Sciences Division'.
- B.68 Material arising.

Consultancies

PROJECT PROSPERO

1988-89

Project Prospero was a programme developed by the International Federation of Institutes of Advanced Study (IFIAS) to improve the management of living marine resources by the integration of scientific, legal, economic and cultural information into the decision-making processes. Gulland served as a Co-ordinator of Section One 'Living Marine Resources Management Systems' and was 'Key Investigator' in the case study of an 'International Management Structure for Tuna'.

- B.69 'An international programme on modelling the effects of human activities on the exploitation of marine resources', draft of IFIAS initiative which led to Project Prospero; letter from Gulland to J C McGlade, head of the Project, confirming his interest in the initiative, 6 August 1987.
- B.70 Typescript drafts of introduction and two sections of prospectus for Project Prospero.
- B.71,B.72 Typescript draft prospectus for Project Prospero. 2 folders.
- B.73 Brochure for Project Prospero.
- B.74 Correspondence re Section One Mini Symposium on Methods of Fish Stock Assessment planned for 1990; 'Inventory of fishery management systems', c.late 1988, 7pp typescript.
- B.75-B.78 Correspondence, 1988-89 , re possible technical meeting on tuna and billfish management. 4 folders.

...

Consultancies

... Gulland took the idea of such a meeting, to form part of his case study on the management of tuna, from his experience at the Second International Billfish Symposium held in Hawaii August 1988 (see C.60-C.62). By June 1989 he felt he was unable to devote sufficient time to organising the meeting and asked to be relieved. The meeting took place at the end of October 1989.

B.75 1988 Sep-Oct B.77 1989 Jan-Feb

B.76 1988 Nov-Dec B.78 1989 Mar-Oct

B.79 Ms notes re Project Prospero; 'Project Prospero Quarterly News', vol.1, no.1, February 1989; brief correspondence re fee.

SECTION C VISITS, CONFERENCES AND LECTURES C.1 - C.95

1984

- C.1-C.3 Conference on Fisheries Management: Issues and Options, Anchorage, 13-16 November 1984. Gulland served on the Fishery Management Tools Panel and spoke on 'Fisheries management problems; an international perspective' and 'The tools of management: biological considerations'.
- C.1 Correspondence re arrangements and publication of proceedings.
- C.2 Programme; list of participants; Gulland's ms notes on proceedings; 5pp ms notes for first contribution.
- C.3 39pp typescript draft of second contribution.
- C.4-C.6 Visit to University of Washington, Seattle 16-23 November 1984. Gulland was invited to give a lecture at the University on his return from the Anchorage Conference. He spoke on 'Regional management: performance and prospects'.
- C.4 Correspondence re arrangements; ms notes.
- C.5 19pp typescript of Gulland's lecture.
- C.6 Transparencies.

Visits, conferences and lectures

1985

- C.7-C.10 Antarctic Treaty Workshop, Beardmore South Camp, Antarctica, 7-13 January.
- This was an unofficial workshop organised by the United States Antarctic Research Program to discuss the Antarctic Treaty system and the future of the continent.
- C.7 List of participants; programme for departure from New Zealand to Antarctica; background information etc.
- C.8 Photocopies of press-cuttings re Workshop; photograph of participants.
- C.9 Letter from A D Watts and press-cuttings re cricket match played during the Workshop. This match, in which Watts and Gulland played for the 'Beardmore Casuals' against the 'Godwanaland Occasionals', was the most southerly game of cricket ever played (only 400 miles from the South Pole).
- C.10 Miscellaneous memorabilia, including negatives of photographs taken [?by Gulland] during the Workshop.
- C.11-C.15 International Conference on the theory and application of length-based fish stock assessment methods, Mazara del Vallo, Sicily, 10-15 February. Gulland chaired the conference.
- C.11,C.12 Correspondence re arrangements etc., chiefly with J L Munro of ICLARM [International Centre for Living Aquatic Resources Management], 1983-84. 2 folders.
- C.13 Draft scheme for the conference; lists of participants and contributors.

Visits, conferences and lectures

- C.14 Spiral-bound notepad used by Gulland for notes on proceedings. Most pages not used.
- C.15 Chairman's Report, 10pp typescript, with related correspondence 1985-86.
- C.16,C.17 Workshop to assess the implications of extended coastal jurisdiction for the management and development of world fisheries, University of Washington, Seattle, 7-12 July. Gulland spoke on 'Fishery management: how we can do better'.
- C.16 Correspondence re arrangements and publication of proceedings, 1984-87.
- C.17 16pp typescript draft of Gulland's contribution.

1986

- C.18-C.20 Royal Society Discussion Meeting on Predictability in Science and Society, 21-22 March. Gulland spoke on 'Predictability of living marine resources'.
- C.18 Correspondence re arrangements and publication of Gulland's contribution in *Proceedings of the Royal Society A* **407** (1986), 127-141.
- C.19 27pp typescript of Gulland's contribution.
- C.20 Figures and transparencies.
- C.21-C.28 International Whaling Commission Scientific Committee Special Meeting on Planning for a comprehensive assessment of whale stocks, Cambridge, 7-11 April. Gulland was a non-voting contributor and presented 'Notes on a comprehensive assessment'.

Visits, conferences and lectures

- C.21 Invitation; annotated provisional agenda.
- C.22,C.23 Papers presented including Gulland's. 2 folders.
- C.24 Working papers. Gulland prepared an 'Outline work plan' of 'Scientific work to be done as part of a comprehensive assessment'.
- C.25 Draft report of the meeting.
- C.26 Report of the meeting.
- C.27,C.28 Miscellaneous papers. 2 folders.
- C.29-C.32 Society for Underwater Technology Conference on Exclusive Economic Zones: resources, opportunities and the legal regime, London, 20 May. Gulland spoke on 'Fisheries and other biological resources'.
- C.29 Correspondence with organisers re arrangements.
- C.30 Conference handbook.
- C.31 12pp typescript of Gulland's contribution; ms notes; copy of 'The new ocean regime: winners and losers' by Gulland, *Ceres*, July-August 1979, 19-23.
- C.32 Transparencies.
- C.33 One-day panel symposium on the Future of the Earth's Oceans, University of Rhode Island, 2 July. Gulland was one of the seven panellists.
Correspondence re arrangements; programme.

Visits, conferences and lectures

- C.34-C.40 Benguela Ecology Programme Symposium 'Benguela-86', Capetown, South Africa, 7-12 September. Gulland contributed a paper on 'The effect of fishing on community structure'.
- Gulland planned to attend the symposium but later withdrew, being unwilling to visit South Africa as it might appear to be condoning the government's racial policy. His contribution was presented in his absence by D S Butterworth. Gulland also withdrew from the Editorial Board of the *South African Journal of Marine Science* which was publishing the proceedings, although he assisted in the editing of the proceedings informally.
- C.34 Correspondence re arrangements 1983-86, including correspondence re Gulland's withdrawal from the symposium and visit to London by member of the Benguela Ecology Programme, November 1986.
- C.35 Provisional list of participants and session speakers.
- C.36 26pp typescript of Gulland's contribution 'with revision March 87'.
- C.37 Figures; summary prepared by D S Butterworth for oral presentation of contribution; correspondence re Gulland's contribution.
- C.38-C.40 Correspondence with A I L Payne re editing of contributions to symposium proceedings. 3 folders.
- C.41-C.44 Visit to Australia and the Far East, September - October.
- Gulland visited the Western Australian Marine Research Laboratories, Perth, 22 September - 14 October, the CSIRO Division of Fisheries

...

Visits, conferences and lectures

- ... Research in Hobart and its Cleveland Marine Laboratories in Brisbane, 14 - 23 October, and the Australian Fisheries Service Canberra 24 October. He also visited Bangkok and Hong Kong (not documented).
- C.41 Brief correspondence re arrangements for Australian visits.
- C.42 Gulland's ms notes and background information.
- C.43 Correspondence arising from visit to Western Australian Marine Research Laboratories. Includes 14pp typescript of 'Gulland's Speech' on fisheries management delivered in Perth.
- C.44 Other correspondence arising, chiefly with F R H Jones of CSIRO Marine Laboratories, Hobart. Includes notes on 'Technical support to fishery management in Australia', 5pp typescript and 'Fishery Research in CSIRO', 4pp typescript with ms annotation, prepared by Gulland.
- C.45 Correspondence re arrangements for lecture to LSE M.Sc. course on Sea Use, 1986.
- C.46 'New Zealand Conference'. Contents of Gulland's folder so inscribed.

2pp ms notes; transparencies; tables. Latest reference 1986.
- C.47 'Seals'. Contents of Gulland's envelope so inscribed.

5pp ms notes; transparencies. The material is for a lecture c.1986 (refers to the controversy surrounding the 1986 Report of the Canadian Royal Commission on Seals on which Gulland served, see B.1-B.6).

Visits, conferences and lectures

1987

C.48 Visit to Kuwait, 31 January - 5 February.

Agreement covering participation in workshop on management of shrimp and fin fisheries. Gulland was to present a paper analysing sensitivity of shrimp models, review and edit papers presented for the workshop proceedings, and act as chairman/rapporteur for the workshop.

C.49 'World Fisheries; the current situation and problems of management', lecture to LSE M.Sc. course on Sea Use, 13 October.

Correspondence re arrangements; 16pp typescript draft of lecture with ms correction and annotation; ms notes.

C.50-C.53 'World Tuna Conference'.

This idea had been put forward at a meeting of tuna scientists at La Jolla, California in January 1984. Gulland as Chief of the Marine Resources Service of the FAO supported the idea. It was suggested such a conference might be held in 1987.

Correspondence and papers re possible conference, and associated material, 1984-85. 4 folders.

C.54 Ms notes and transparencies for unidentified lecture. Latest reference 1987.

Visits, conferences and lectures

1988

- C.55 'Fisheries management', lecture in Imperial College M.Sc. course in Ecological Management, 11 January.

Timetable for lectures 5-13 January; ms notes for lecture.
- C.56-C.58 Training course on stock assessment and fisheries management, Kuwait, 19-23 March.
- C.56 Revised timetable; examples; ms notes.
- C.57 Lectures 1 (Introduction), 3 (Growth), 4 (Mortalities), 5 (Mortality and mean length).
- C.58 Lectures 6 (Estimating growth from length data), 7 (Some other uses of length data), 8 (Production models), 9 and 10 (Yield per recruit).
- C.59 Ms notes for unidentified seminar, May.
- C.60-C.62 Visit to Hawaii, July - August.

Gulland visited Hawaii to attend the Second International Billfish Symposium on planning the future of billfish, Kailua-Kona, Hawaii, 1-5 August. On 26 July he gave a seminar on the Antarctic at the Honolulu Laboratory of the US National Marine Fisheries Service.
- C.60 Ms notes, transparencies and figures for seminar on Antarctic; ms notes of outline of talk on the role of a fisheries biologist in fisheries management.

Visits, conferences and lectures

- C.61,C.62 Second International Billfish Symposium. Gulland served as Moderator in the debate on management procedures.
- C.61 Correspondence re arrangements.
- C.62 Programme; list of participants and symposium recommendations; Gulland's report on symposium for *Marine Policy*; etc.
- C.63-C.66 International Institute of Fisheries Economics and Trade Fourth Biennial Fisheries Conference, Esbjerg, Denmark, 7-12 August. Gulland spoke on 'Fishery management; where do we want to go?'
- C.63 Correspondence with organisers re arrangements.
- C.64 Session programme; list of participants; correspondence arising including Gulland's report on conference for *Marine Policy*.
- C.65 15pp typescript draft of Gulland's contribution with ms annotation and correction; typescript outline; figures and transparencies.
- C.66 23pp typescript.
- C.67 JETRO [Japan External Trade Organisation] International Symposium on Bounties of the Sea and ideal utilisation of the world fishery resources, Tokyo, 18 November. Gulland spoke on the 'Current situation and future developments of world fish resources'.

Invitation; programme; ms notes; figures; etc.

Visits, conferences and lectures

- C.68-C.71 Mammal Society Symposium on Whales in a Modern World, London, 25-26 November. Gulland spoke on 'Commercial whaling: the past, and has it a future?'
- C.68 Correspondence re arrangements and publication of proceedings (selected papers, including Gulland's, were published in *Mammal Review*); programme.
- C.69 21pp typescript of Gulland's contribution with ms annotation + abstract.
- C.70,C.71 Other papers presented.

1989

- C.72-C.74 'Week of Fisheries', Horta, Azores, 6-10 March. Gulland spoke on the current situation in world fisheries and on 'Whaling and whale management'.
- C.72 Correspondence re arrangements.
- C.73 17pp typescript of Gulland's lecture on whales.
- C.74 Correspondence arising from remark of Gulland on whale stocks.
- C.75,C.76 Workshop for Strategic Planning for United States Antarctic Marine Living Resources Program, La Jolla, United States, April.
- C.75 Brief correspondence and papers re arrangements.
- C.76 Papers from the workshop.

Visits, conferences and lectures

- C.77 Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) meetings on Krill, La Jolla, USA, 7-20 June. Gulland was invited as an EEC Expert but was unable to attend for reasons of ill-health.
- Correspondence and papers.
- C.78-C.81 Fisheries Society International Symposium on Fish Population Biology, Aberdeen, 17-21 July. Gulland gave the opening address on 'Fish populations and their management'.
- C.78 Correspondence with organisers re arrangements and publication of Gulland's address in the *Journal of Fish Biology* **35** (1989), Supplement A.
- C.79 Announcement; programme; list of participants.
- C.80 Handbook of abstracts.
- C.81 10pp typescript of Gulland's contribution with ms correction and annotation.
- C.82-C.84 ICES [International Council for the Exploration of the Sea] Symposium on Multispecies Models relevant to Management of Living Resources, The Hague, 2-4 October. Gulland spoke on 'Do managers want multi-species models?'
- C.82 Correspondence re arrangements and possible publication of Gulland's contribution in the symposium Proceedings.
- C.83 'Summing Up' comments by M P Sissenwine.
- C.84 7pp typescript draft of Gulland's contribution with ms annotation and correction; 13pp typescript + figure for the symposium volume.

Visits, conferences and lectures

- C.85,C.86 International Symposium on Agriculture and Fisheries Development in Oman, Muscat, 15-19 October. Gulland spoke on 'Fisheries research: can this be organised to give value for money?'
- C.85 Correspondence re arrangements; ms notes; 6pp typescript of Gulland's contribution; 'Conclusions and recommendations on the fisheries sector'.
- C.86 Conference handbook.
- C.87-C.90 CCAMLR Eighth Annual Meeting, Hobart, Tasmania, 6-17 November. Gulland was to have attended this meeting as an EEC Representative on the Fishing Stock Working Group and Scientific Committee but was replaced for reasons of ill-health (see C.72).
- C.87 Papers from 1988 Meeting of CCAMLR.
- C.88 UK Delegation Report on 1988 Meeting by J A Heap, with comments by Gulland.
- C.89 Correspondence re Gulland's attendance and matters to be discussed at the Eighth Meeting.
- C.90 Gulland's ms notes; CCAMLR Newsletter December 1989.
- C.91-C.93 Meeting on British Marine Science and Meteorology: the history of their development and application to marine fishing problems, London, 23 November. Gulland spoke on 'Fish population dynamics and fisheries management'.

...

Visits, conferences and lectures

- ... The meeting, sponsored by the Buckland Foundation in conjunction with the Challenger Society for Marine Science and the Royal Meteorological Society, was originally to have been held in April 1988 but was subsequently postponed.
- C.91 Correspondence re arrangements for meeting in 1988.
- C.92 Correspondence re arrangements for 1989 meeting; report on the meeting.
- C.93 Ms notes for Gulland's contribution; 12pp typescript of contribution with ms correction; transparencies.

1990

- C.94,C.95 Fourth International Conference on Environmental Future on Surviving with the Biosphere, Budapest, 22-27 April. Gulland was to speak in the session on 'Use and abuse of the Seas' but was unable to attend the conference because of illness. His contribution was presented by N V C Polunin. The proceedings were published by Edinburgh University Press.
- Correspondence re arrangements. 2 folders.

SECTION D

CORRESPONDENCE

D.1 - D.32

D.1 - D.24 General scientific correspondence

D.25 - D.32 References and recommendations

GENERAL SCIENTIFIC CORRESPONDENCE

The contents of Gulland's correspondence files for the period 1984-1990, arranged in a chronological sequence. The correspondence includes references to visits, conferences and publications, not otherwise documented.

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E.1 Obituaries:

The Independent, 28 June 1990.

The Daily Telegraph, 30 June 1990.

The Times, 2 July 1990.

Fishing News, 6 July 1990.

Fishing News International, July 1990.

Fishery Bulletin, **88** (4), 1990.

Jesus College Cambridge Annual Report 1990

E.2 Brief biographical notes by Mrs F. A. Gulland.

Reminiscence by R. Gambell, International
Whaling Commission.

Memorial poem 'Craftsman in the silvery tide'
by J. F. Caddy.

Other tributes.

E.3 Order of Thanksgiving Service, Saint Bene't's
Church Cambridge, 2 July 1990.

E.4 Photocopy of certificate of honorary doctorate
of the University of Rhode Island 1973.

Photocopies of letter notifying Gulland of the
Award of Excellence of the American Fisheries
Society, 18 May 1990 and of cutting from
American Fisheries Society News of presentation
of award to Mrs Gulland.

Biographical

E.5 Photocopies of press-cuttings including two letters from Gulland to *The Times*.

E.6,E.7 Photographs of Gulland. 2 folders.

E.6 includes photograph of the headstone designed by Mrs Gulland for her husband with explanatory note by her on verso of the photograph.

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