



The Lough Hyne / Ine Collection

RIA/LH/1 -12

Special List/ Liosta Speisialta: A041

Catalogued by Martin Fagan.

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Overview and background information.

The Lough Hyne/Ine Collection is made up of documents arising from the scientific expeditions carried out at Lough Ine marine lake, Cork from the 1940s until the 1980s. These expeditions were carried out by teams of British scientists and students led by Professor Jack Kitching and Professor John Ebling.

Lough Hyne.¹

Lough Hyne is a ‘semi-enclosed marine lake’ located close to Skibbereen, Co. Cork. Its unusual geography and multiple marine habitats create environmental conditions which support rich biodiversity. Its importance was recognized in 1981 when it was designated Europe’s first Marine Nature Reserve.

Professor Louis Renouf of University College Cork first conducted marine biological research at the lough in 1923. Wooden huts were constructed at the site in the early 1930s which led to the arrival of overseas researchers, the most significant being Jack Kitching and John Ebling. From 1946 onwards they led teams of students from Britain on yearly research expeditions to the site. These expeditions, which continued until 1986, were usually split into two summer sessions. Kitching purchased land adjacent to the lough in the 1950s and built two small laboratories known as the Glanafeen and Dromadoon laboratories. Their research was published in a series of papers, drafts of which exist in this collection.

In 1975 Dan Minchin of the Irish Department of Agriculture and Fisheries began to study scallops and their predators at Lough Hyne and this led to renewed interest in the lough from U.C.C. In 1987 the university built a new lab, named after Renouf, close to the Rapids and at the same time Kitching donated his two labs to the university, which were renamed the Kitching and Bohane laboratories. Major reconstruction work was undertaken at the lough in 2006 to repair the 1852 Famine wall at the Rapids and the site continues to operate as a marine biological research area.

John ‘Jack’ Alwyne Kitching.²³

Jack Kitching, the ‘distinguished experimental zoologist’ and ‘one of Britain’s greatest marine biologists’, was born on 24th October 1908. He read biology at Trinity College, Cambridge, graduating in 1931. He lectured in zoology at Birkbeck College London and completed his PhD there in 1933. He was an accomplished diver and using home-made rudimentary diving gear was the first biologist to study a kelp forest underwater. Having spent one year in the University of Edinburgh he moved to Bristol College in 1937 where he lectured in Experimental Zoology. In 1938 he took up a Rockefeller Fellowship at Princeton University. He worked on projects for the Allies’ air forces, together with a group of physiologists, during the war years. This work was undertaken at the National Research Council of Canada at the University of Toronto and in recognition of his work there and services to the RAF he was awarded an OBE in 1947. He returned to Bristol in 1945 and was to spend a total of 23 years at that university. In 1960 he was elected a Fellow of the Royal Society for his work on protozoa and marine ecology and in 1963 was appointed to the newly established chair in biology at the University of East Anglia. He also acted as Dean of the School of Biological Sciences from 1967-70.

¹ A brief history of scientific research at Lough Hyne, U.C.C. website <http://www.ucc.ie/en/bees/research/loughhyne/> Accessed 12/4/12

² Obituary of Kitching in *The Times*, 17/4/1996.

³ Norton, Trevor, ‘Jack of all Trades’ in *Biologist* 50(5), (2003), 236-237

His first involvement with Lough Ine/Hyne marine lake occurred in 1937/8 when he brought a group of students, including John Ebling, on a field trip there. From 1946 onwards he led annual expeditions of students to the lough and the bulk of the material in this collection stems from this activity which continued until 1986. His commitment to this research led to the purchase of land next to the lough and the construction of a laboratory and permanent camp in the 1950s. Throughout his career he published papers on Lough Hyne and continued to publish long after his retirement in 1974. In the late 1980s he donated his two laboratories at the lough to University College Cork, one of which was renamed in his honour. His research work at the lough was marked by the award of an honorary doctorate in 1983 from the National University of Ireland. He died on 1st April 1996.

Francis 'John' Govier Ebling.⁴⁵

John Ebling was born in Bristol on 21st June 1918. His undergraduate and postgraduate studies in zoology, particularly marine biology, were undertaken at the University of Bristol. It was there that he first met with fellow Lough Ine/Hyne participants such as Jack Kitching, Jock Sloane, Ron 'Bass' Bassindale and Harry Croft. In 1948 he took up a lectureship in zoology at Hull University and two years later moved to the University of Sheffield where he was to become Professor of Zoology in 1968.

His acumen in biology was said to be 'polymathic', ranging 'from marine ecology to clinical dermatological practice'. He was part of the first expeditions to Lough Ine/Hyne in 1937/8 as a student and subsequently managed the yearly expeditions with Kitching. He was actively involved in the resulting scientific publications. The vast majority of the letters in this collection are a result of the collaboration between Ebling and Kitching. In 1948 he married Erika Graetzer, a biologist, who accompanied him on many of the early expeditions to the lough and who collaborated with him throughout her life. He earned international renown, in particular, for his research in endocrinology and skin physiology and he was co-editor of the *Textbook of dermatology* which was published in 1968.

He served as national vice-president of the Institute of Biology, from 1980-83 and in 1984 was awarded the Institute's Charter Award in recognition of his services to biology. He also served as Treasurer of the Society of Endocrinology from 1961-66 and was co-editor of the *Journal of Endocrinology* for over ten years. He retired from his post at Sheffield in 1982 but remained as Emeritus Professor in the Department of Dermatology until his death on 29th May 1992.

⁴ Obituary of Ebling in *The Times*, 8/6/1992

⁵ Randall, V., 'Commemorative Symposium for John Ebling' in *Biologist* 40(4), (1993)

Provenance and Archival History.

The bulk of the collection is made up of documents generated by Kitching and Ebling during the course of their Lough Hyne/Ine research. It also includes some related material such as an An Taisce report into the lough and draft material from Professor Trevor Norton who was an expedition member. In 2003 Professor Norton of the Port Erin Marine Laboratory and University of Liverpool offered the collection, then in his possession, to the Royal Irish Academy. The donation to the Library was made in two deposits and took place in 2004 and 2006.

Scope and Content.

The collection consists of the following - lengthy correspondence between Ebling and Kitching; correspondence with other team members, academics, Irish land-owners etc; handouts and instructions given to expedition participants; diaries/journals kept by expedition members; raw scientific datasheets; draft articles and scientific notes; maps, charts and tables of scientific results; a small number of scientific photographs and illustrations of limpets etc; printed articles and reports on the expeditions; report from An Taisce on the scientific importance of the lough; obituaries of Kitching, Ebling and Renouf; drafts of Trevor Norton's memoir of the expeditions.

Arrangement and Coding.

The original order of the collection has been largely unaltered. Kitching maintained an ordered correspondence file, arranged by date and including carbon-copies of his replies - this arrangement has been maintained. The collection has been assigned the code RIA/LH and has been divided into twelve sections each of which has been assigned a number e.g. RIA/LH/6 = 'File containing obituaries and memoirs'.

Access.

The collection is modern, with the bulk of the material dating from the 1950s, 1960s and 1970s. Kitching and Ebling corresponded frankly with each other and certain passages in their letters refer to third parties and are therefore of a sensitive nature. It has been decided, therefore, to keep the collection closed and subject to the 100 year rule. Permission to access to the collection is at the discretion of the Librarian of the Academy and prior approval should be sought by researchers.

Related collection and further information.

The papers of Emeritus Professor Francis John Govier Ebling (1918-1992) University Library, University of Sheffield.

<http://www.shef.ac.uk/library/special/ebling>

Information on the current status of research at Lough Hyne can be found on the University College Cork website,

<http://www.ucc.ie/en/bees/research/loughhyne/>

Lough Hyne Collection Catalogue.

RIA/LH/1

Lough Hyne correspondence file kept by Dr. Jack A. Kitching and arranged by date. This file is predominantly made up of correspondence between 'John' [Dr. Francis John Govier Ebling], and 'Jack' [Kitching] but includes a small number of letters from Ebling and Kitching to other individuals. Includes original and carbon-copies of letters.

Ebling's addresses include the Departments of Zoology at Sheffield and Hull Universities. Kitching's address includes the Department of Zoology at Bristol University and the School of Biological Sciences at the University of East Anglia, Norwich. Their correspondence is almost entirely concerned with their work on Lough Hyne including discussions on dates and transport; discussion regarding accommodation of participants and catering, programmes of research to be undertaken, selection of personnel for each excursion, transport and supply of provisions and scientific equipment, transport of specimens; agreeing budgets and signing off of accounts of each trip, insurance of equipment; efforts to secure funding from universities and other scientific bodies, processing of scientific data; preparation of reports and papers on Lough Ine; printing of articles and presentation of papers to conferences; liaising with other universities and especially with Professor Renouf of University College Cork; building of structures at Lough Hyne; the purchase of a small plot of land at the lough from the O'Donovan family; dealings with local suppliers in Cork and Skibbereen; dealings with local landowners the O'Donovan family and with John Bohane. The following descriptions include details which are above and beyond those recurring themes.

Note to researchers: 'John' = Ebling, 'Jack' = Kitching. Other correspondents are identified throughout.

1946 - 1970, 1974, 1985 - 1988, 1992

1946.

to Kitching, from Ebling, 22/9; regarding cost of the Cape excursion and including provisional account [extant]

1947.

to Ebling, from Professor Renouf, St. Philomena's, Tivoli, Cork, 25/7; regarding a piece of work entitled 'Lift up your gates' and personal news.

1948.

to Kitching, from Ebling, 25/7, 7/8, 12/10, 20/10, 29/11; he has travelled to the Aran islands with Desmond; mentioning work undertaken by Renouf; discussing his lecture series at Hull and his need for more funding and equipment; 'Espinasse is unlike Harris in many ways and is more level-headed than Reiss but does not have the tenacity and strength of J.E.H.'; he is prepared to present a paper to the Challenger Society; regretting that Dick is not coming on the summer expedition but is glad that Bass will do so; identifying mistakes in a 1946 distribution map.

to Ebling, from Kitching, 21/7, 22/7, 26/7, 11/10, 27/11; regarding costs and transportation of sealed cases which are being held up by the Water Guards at Fishguard; enclosing cheque for expenses taken from a grant from the Colston Research Society; outlining the scope of an article for 'Nature'.

to The Station Master, Fishguard, from Kitching, 22/7, 26/7; regarding delays in granting clearance for cases to pass through customs.

to Professor Renouf, from Ebling, 1/8; reflecting on the previous year's excursion and enquiring about U.C.C.'s involvement or share of the accommodation; mentioning Polunin, Chapman and Partin.

to [], from Kitching, 25/9; asking the recipient to let Russell know if he is coming to the Challenger Society meeting.

to [], from Ebling, October 1948.

1949.

to Kitching, from Ebling, 26/1, 1/2, 8/2, 'Tuesday', 24/2, 8/3, 16/3, 23/3, 25/4, 11/5, 12/6, 7/6, 17/6, 25/8, 4/9, 14/9, 12/10, 13/10, 18/10, 26/10, 1/11; regarding a joint abstract for the Challenger Society; thanking him for the copy of the satisfactory letter to Orton; 'Espinasse doubts that the college will fund his activities at Lough Ine; while noting that it is better that he be independent of Hull University he believes that the university's attitude towards this type of thing is 'short-sighted and barren'; wondering if they are to attend the S.E.B. Council?; regarding mistakes in the mathematics of certain maps; Mrs Donovan is prepared to accommodate members of the team again; discussing communication from Renouf adding that they are the major contributor of money to the station and objecting to the fact that the 'Éire Revenue' are to benefit so much; he has decided not to go to Reading as he wishes to be free to chase his own ideas and he did not feel inclined to take up the junior position at Sheffield; mentioning Buch's paper; regarding Dick's and Jock's future involvement in with the project; postcard depicting Cork city by Judges' Ltd of Hastings.

to Ebling, from Kitching, 25/1, 7/2, 31/3, 8/4, 26/4, 2/5, 10/5, 2/6, 8/6, 8/9, 15/10, 22/10; regarding request from Russell for an abstract of a paper for the Challenger Society; F.C. Fraser of the Challenger Society has offered to pay for travelling expenses; discussing changes to an article provisionally entitled 'Exploration of the Lough Ine Rapids'; thanking Erika for translation work; arranging a meeting with the American editor of 'Ecology'; Harris is less optimistic about the 'subsidy situation'; Mrs Sloane has decided not to join in the next trip but Sheila Lodge, an algologist at Port Erin is to join the expedition and is recommended by Dr. Margery Knight; listing those wishing to travel to Lough Ine; regarding grants from the Challenger Society and the Royal Society; discussing the use of chemicals and the recommendations of Winkler and Alsterburg adding that he has discussed the matter with Mackereth, a chemist at Wray and Mortimer.

to [Michael Mortimer], from Ebling, undated; confirming that that Mortimer attended the 1949 expedition to Lough Ine

1950.

to Kitching, from Ebling, 12/1, 13/1, 19/1, 24/1, 8/2, 23/2, 24/2, 5/3, 13/3, 14/3, 17/3, 6/4, 18/4, 22/4, 28/4, 1/5, 9/5, 24/5, 26/5, 16/5, 19/5, 5/6, 7/6, 13/6, 14/6, 17/6, 20/6, 2/8, 24/8, 9/10, 25/10, 13/11, 16/11, November, 21/11, 6/12, 14/12; regarding funding from [University College Hull]; regarding proofs for the School Science Review; Shiela is bringing Mr Droop as an assistant algologist; regarding accommodation with Mrs Donovan; regarding Miss Scholes' travel arrangements; discussing an unsatisfactory situation regarding fees and poor account keeping by Renouf; requesting slides for his talk on Lough Ine to St. John's College York; suggesting that they give a paper at the September S.E.B. at Plymouth and noting that he has spoken to Colin Nicol of Cambridge on the subject; having met with Eastham he has decided to go to Sheffield in October and 'Espinasse agrees that it is the best decision'; regarding an air-lock device for collecting boulders and including prototype diagram; regarding an apparatus for drying and weighing sediments; discussing difficulties which may arise with Renouf regarding the publishing of research on sponges by Burton; judging it unwise to send a draft letter to Renouf on the subject and suggesting another strategy to get round Renouf; regarding the possible purchase of a site beside the rapids noting that he has discussed the matter with Mr Boland of Skibbereen; regarding yearly accounts and expenses and the Sheffield grant

to Ebling, from Kitching, 16/1, 1/2, 22/2, 8/3, 15/3, 18/3, 22/3, 15/4, 24/4, 29/4, 3/5, 4/5, 8/5, 7/6, 19/6, 1/8, 2/8, 21/8, 18/9, 11/10, 28/10, 20/11, 5/12/16/12, 21/12; regarding lab fees which have been discussed with Renouf and possible charges from U.C.C.; regarding the statement of finances for the Royal Society; Renouf's quarrels regarding finance threaten the future of the Station; mocking Renouf's senior researchers and taking a dim view of Renouf's war with U.C.C.; Burton is to provide extracts from a monograph for the Ray Society but does not want them to be shown to Renouf; hoping that Renouf will give Burton the sponge material; regarding the consignment of samples from Ireland to England via the British Museum which enjoys special importation privileges; enclosing a record of a meeting of senior members of the Lough Ine programme which discussed proposed papers and research; including a draft programme for Lough Ine papers at the Ecological Society's meeting; regarding 'troughs in oxygen tension in Codium Bay'; regarding the purchase of concrete blocks from Fullers; the secretary of the Ecological Society requested a summary of their recent meeting; regretting that they may have to look for another journal as the Journal of Animal Ecology refuses to give them more than 75 pages - suggesting alternative publications; complementing him on acquiring a research grant from Sheffield; they can no longer get a grant from the Colston Research Society; he doesn't favour another article for the School Science Review but Jock states that 'Discovery' pays well.

to Kitching, from Anne M. Legg, circa June; noting dates on which she will be free to travel to Ireland.

1951.

to Kitching, from Ebling, 8/1, undated, 13/1, 17/1, 24/1, 5/2, 10/3, 21/3, 10/5, 16/5, 28/5, 8/6, 19/6, 3/7, 22/6, 12/10, 24/10, 29/10, 29/10, 31/10, 7/11, 15/11, 4/12, 11/12; discussing plans to develop the site at Lough Hyne; regretting that Bass can not participate in that year's program; forwarding criticisms from Renouf about Burton's work on sponges; discussing chemicals and sediments; Berrill of McGill has requested a sample specimen; regarding the production of maps; discussing difficulties with Renouf concerning that year's finances; describing his European trip

to Ebling, from Kitching, 16/1, 3/2, 2/3, 17/3, 9/5, 17/5, 31/5, 11/6, 20/6, 27/6, 11/10, 27/10, 5/11, 15/11, 16/11, 5/12, 7/12; thanking him for the distribution of animals on boulders; Finbarr Crowley is willing to come down to Lough Ine and estimate the cost of materials for huts; concerning the purchase of land at Lough Hyne; enclosing draft of paper and requesting criticisms before the Symposium; enclosing provisional list of participants; Harvey and Cooper at Plymouth have made some useful comments on his paper; praising Ebling's university for its financial contribution; Gilson has offered equipment; Jock and Kitching are pleased with the Lough Ine Rapids III draft; noting that if Renouf maintains his stand regarding fees then the expedition would have to be reduced both in terms of time and personnel; discussing the dwindling money available from the Colston Fund and the resulting effects on next years expedition

to Reg, from Ebling, 11/1; concerning the purchase of concrete blocks from Fuller's of Skibbereen.

to Fuller & Co Ltd, Skibbereen, from Kitching, 3/4; concerning the supply of concrete blocks; typewritten copy of all correspondence in 1950

to Kitching, from Elisabeth Davenport, 3 Sheldon Avenue, Vicars Cross, Chester, 7/3; thanking him for allowing her to accompany the expedition.

to Ebling, from Louis Renouf, 12/11; enquiring if Ebling and Kitching have received his letters.

to Professor Renouf, from Ebling, 15/11, 10/12; expressing surprise at the contents of Renouf's letter and problems over last years finance; responding to Renouf's belief that their contribution to the station is insufficient; believing that the students cannot be expected to pay more.

1952.

to Kitching, from Ebling, 24/1, 31/1, 14/2, 18/2, 21/2, 5/3, 7/3, 18/3, 19/3, 24/3, 28/3, 31/3, 9/4, 26/4, 14/5, 22/5, 25/5, 28/5, 4/6, 11/10, 20/10; offering to travel to the Belfast symposium; commenting on a letter which he received from Renouf; believing that mapping is not the best means of presenting the 1951 results; discussing a budgetary strategy for that year's excursion; mentioning the trip to Copenhagen with Bullough and Zeuthen; noting that he spent a day at the Dutch marine station at Den Helder; Thora James of the Botany Department of Bristol spoke to him about the possibility of making a scientific programme for television; noting Bass's comments about Knight-Jones; regarding Miss Wilson's travel plans.

to Ebling, from Kitching, 11/1, 12/1, 16/1, 25/1, 30/1, 12/2, 14/2, 4/3, 6/3, 11/3, 12/3, 18/3, 21/3, 25/3, 28/3, 28/3, 8/4, 25/4, 7/5, 8/5, 8/5, 26/5, 3/6, 10/6, 8/10, 18/10, 5/11; Gilson has loaned him equipment; enclosing Mike's report on the '1950 Polyzoa'; Dr Bull of Cullercoats has requested a paper for the symposium being organized by the Zoological Section of the British Association; Plymouth are offering to lend equipment; praising the tact shown in Ebling's letter to Renouf and adding that this years expedition may well be a very small one; reporting on his friendly conversation with Renouf but concluding that they must resist his attempts to 'soak us for as much as we will pay'; Jock agrees with proposals for two papers to be given in Belfast; discussing the hydrography of the Lough; noting the numbers to attend that years excursion; he is not inclined to tell Renouf what he paid Sonny for the land; discussing provision of tents, noting that they do not want to have to rely on the Irish Army for them; making arrangements for his dinghy to be shipped to Cork; enclosing tables for the distribution of Saccorhiza; discussing the B.A. programme adding that while they are friendly with Renouf their work is not in any way connected to his; he will look up Nelson about Mytilus; discussing plans for building huts on the site; Sheila cannot attend this year; Crisp praised Ebling's paper; correcting an acknowledgement in a paper concerning Renouf and Burton of the British Museum, adding that the latter acted with extraordinary decency;

to Professor Renouf, from Ebling, 24/1; noting that Kitching is having difficulties in attracting students who could afford the expedition; expressing thanks to Eastham adding that he will mention the contribution from Sheffield to Harris.

1953.

to Kitching, from Ebling, 27/1, 6/2, 25/2, 23/3, 27/3, 7/5, 19/5, 27/5, 5/6, 9/6, 10/6, 14/6, 13/6, 17/6, 19/6, 20/6, 23/8, 27/8, 27/8, 2/10, 8/10, 9/10, 19/10, 26/10, 4/11, 11/11, 16/11, 18/12; returning the Royal Society advertisement noting that they should wait until they are in a better position to apply; Bass will be a great loss to Bristol and Lough Ine; agreeing that Renouf seems to be attempting to open up the financial problem again; noting the contents of Gray's letter and helpful offer of assistance; discussing in detail the future of the station and Renouf's relationship with U.C.C. and the possibility that he may be about to make a foolish move; discussing the use of different brands of photographic paper and the use of photographs for a forthcoming book; Mrs Donovan cannot put up any students and is difficult to deal with - enclosing a letter from [Mrs.] Donovan in which she states that they are taking a leaf out of Renouf's book regarding finance; discussing a dispute with Sonny [Donovan] and his mother over payment; settling a dispute over car expenses

to Ebling, from Kitching, 17/1, 27/1, 5/2, 7/2, 23/2, 13/3, 24/3, 14/5, 22/5, 28/5, 29/5, 1/6, 8/6, 11/6, 15/6, 18/6, 26/9, 5/10, 13/10, 22/10, 9/11;

discussing research on Codium, Patina and Saccorhiza; he has spoken to Jock about a semi-popular article on Lough Ine in a journal such as 'Endeavour'; enclosing a letter from Renouf adding that the 'show of petulance is probably due to his not having remembered to object to our proposed date of arrival'; he had a cordial phone call with Renouf and notes that the lease on the station is up in March 1954; it might be easier to get an article into 'Discovery' than 'Endeavour'; regarding the supply of fluorescein packs as supplied by the R.A.F.; discussing a dispute over reimbursement of his car expenses;

to Mrs Donovan, from Ebling, 14/6; regretting that she cannot keep two students this year

to Gerald Sonny O'Donovan, Glannafeen, Skibbereen, from Ebling, 3/10; letter of apology; including copy of letter from Donovan, 15/9; complaining about being asked for receipts.

1954.

to Kitching, from Ebling, 18/1, 11/2, 10/3, 25/3, 17/5, 14/5, 25/5, 26/5, 31/5, 3/6, 17/6, 26/8, 30/9, 4/10, 12/11, 26/11, 14/12, 14/12, 20/12; enclosing letter from Orton as requested [not extant]; making proposals for Lough Ine paper 5; he plans to discuss the analysis of Saccorhiza with Jowett their chief statistician; they should inform Renouf of their arrival out of courtesy; O'Rourke arrived at Lough Ine with a nice group of students; he went sailing with Cormac O'Ceallaigh in Dublin Bay; he is prepared to give a paper to the Ecological Society and has corresponded with Le Cren; regarding the provisions bill from Fields

to Ebling, from Kitching, 23/1, 12/3, 24/4, 29/5, 2/6, 3/6, 4/6, 9/6, 19/6, 14/7, 30/7, 16/9, 10/11, 30/11, 16/12; he has had satisfactory contacts with O'Rourke and it is probable that satisfactory arrangements will be made with U.C.C.; requesting a list of Lough Ine Expedition property; they should remain on friendly terms with Renouf without giving him the opportunity to appear to mediate between them and the new regime; he plans to meet with Professor O'Rourke privately; Potter initially proposes to travel if he receives a country grant but later withdraws as his R.N.V.R. training precludes him from attending; regarding the setting up of an official register of equipment; regarding the Barlogue Laminarian Paper and possible help from Sheila; Professor Purchon was annoyed that he was not acknowledged in Lough Ine Rapids III.

to Sonny Donovan, Lake View, Skibbereen, from Ebling, 16/6; offering to pay £2.10s rent for use of the camp

1955.

to Kitching, from Ebling, 12/1, 22/1, 6/2, 17/3, 15/4, 18/4, 19/4, 4/5, 6/5, 7/5, 10/5, 20/5, 4/6, 11/6, 22/6, 27/6, 25/6, 20/9, 22/9, 5/10; hoping to get Pat Scholes as a caterer; ; concerning the creation of maps - including draft maps; discussing the proposal to have Burton join them on an expedition; debating if a systematist or Burton should join the expedition; mentioning his draft of the Barloge paper; regarding Alga cards

to Ebling, from Kitching, 21/1, 29/1, 3/2, 7/2, 16/3, 13/4, 16/4, 4/5, 5/5, 13/5, 8/6, 23/6, 28/6, 11/7, 26/9, 12/10, 22/11; regarding payments to O'Rourke; regarding the Barloge paper.

to Ebling, from C.E. Shaw, British Transport Commission, Temple Meads Station, Bristol, 23/6, 27/6, including replies dated 24/6, 28/6; regarding transport of the personnel and equipment of the University of Bristol scientific party

to 'Fergus', from Ebling, 15/9; regarding the festschrift to commemorate Bailey Butler's fiftieth year of lecturing.

1956.

to Kitching, from Ebling, 20/1, 3/2, 17/2, 23/2, 14/3, 24/3, 21/4, 24/5, 11/6, 7/6, 17/5, 19/6, 22/6, 22/6, 27/6, 23/8, 4/10, 22/10, 23/10, 11/12, 17/12; concerning Sheila's quanti-bloodification tests; noting that Johnnie's quantification is marvellous and that he ought to have been a botanist; he is forwarding Kitching's instructions to Gilson; regarding provisions for that year's trip; he is writing to Jack Grainger at Whitsun and will enquire about Dr. Naylor; regarding transport and new equipment including sub-aqua equipment; he is pleased that the Duhigs' are joining them; asking him to drop a card to Clevedon.

to Ebling, from Kitching, 4/1, 16/1, 18/1, 23/1, 9/2, 15/2, 2/3, 12/3, 28/3, 18/4, 23/4, 8/5, 23/4, 8/5, 28/5, 15/6, 18/5, 19/6, 20/6, 26/6, 29/8, 21/9, 7/11, 10/12, 12/12, 15/12; regarding correspondence from O'Rourke concerning that year's trip; Pat Scholes has agreed to act as caterer for the expedition; Minns of Manchester Grammar School might make collections of patina; offering his own and Jock's opinion on the Barloge paper; discussing difficulties which will have to be overcome with regards to the Donovans and transport arrangements to be made with John Bohane; Professor R.D. Purchon's work on molluscs should be acknowledged; he had a long conversation with Dr Mary Parke concerning algologists and she recommended Dr. Margaret Naylor of the University of Hull; the Duhigs have asked to join the expedition; it may be difficult to get Nat Burchall to transport them; regarding upkeep of the Glannafeen hut and the creation of a Dromodoon laboratory fund; concerning the expansion of the hut at Glannafeen which was discussed with John O'Sullivan; regarding the next paper on the Hydrography of the South Basin; regarding the Duhig's payment to O'Rourke; Bass has resigned from senior membership due to family responsibilities but Michael will rejoin when he completes his National Service.

to Miss Hilda Davies, Wayside, Portbury, Bristol, from Ebling, 28/3.

to H.C. Gilson, editor of the *Journal of Animal Ecology*, Ambleside, Westmorland, from Ebling, 21/4; enclosing a paper from the joint authors.
to Mrs Sylvia Gilpin Brown, The Laboratory, Citadel Hill, Plymouth, from Kitching, 24/3; enclosing early draft of the paper on the fauna of Laminarian algae in the Barloge area.
to Mrs O'Donovan, from Kitching, 5/6; regarding the provision of a camp-site.
to Ebling, from Gerald O'Donovan, 10/6; regarding the camp site in the graveyard.
to Mr Gerald O'Donovan, Lake View, Glannafeen, Skibbereen, from Kitching, 11/6; regarding the camp-site and cartage.

1957.

to Kitching, from Ebling, 14/1, 16/2, 22/2, 23/2, 24/2, 25/2, 15/3, 22/3, 25/3, 11/4, 11/5, 27/5, 29/5, 13/6, 28/6, 7/10, 10/10, 16/10, 29/10, 19/11, 28/11; thanking him for Gilson's letter; regarding the publication of Paper VI and the Distribution Paper; concerning chairs made by William Walley; concerning the Duhigs who plan to join that year's expedition; he met Smyth in Dublin but Gatenby kept out of his way probably because he was a guest of Smyth; the appointment of Humphreys is seen as a victory for the Jesuits over the Knights of Columbanus; discussing future financial arrangements; providing information on the department at Sheffield.
to Ebling, from Kitching, 15/1, 13/2, 22/2, 18/2, 25/2, 27/2, 13/3, 25/3, 10/5, 20/5, 28/5, 15/6, 18/6, 24/6, 23/9, 15/10, 16/10, 11/11, 26/11, 7/12; regarding reporting of species, the distribution paper and distribution maps; Jock has recommended Doreen Cake for the expedition; Eastham has promised £15 from the department towards colour plates for Paper VI; concerning the construction of a building which is being undertaken by O'Sullivan; enclosing an abstract of Paper V for 'Biological Abstracts'; identifying corrections to be made to Paper V; O'Rourke has told him that Carmel Humphries has the Dublin Chair; concerning John Bohane's boat; reporting on the 1957 expeditions and plans for associated reports; enquiring about Eastham's retirement, the Sheffield Chair and facilities at the department.

1958.

to Kitching, from Ebling, 14/1, 13/2, 25/2, 14/3, 29/3, 2/5, 17/5, 20/5, 6/6, 10/6, 29/8, 27/10, 30/10, 11/11, 25/11, 26/11; regarding expenses and equipment; regarding reprints of paper by Blackwells; they should talk to Donelan about procuring formalin; concerning the Mytilus, Nucella, Barloge, Sertularia transfer and Algal-fauna papers; including draft map of the shoreline of Barloge Bay; returning a paper on mussels; noting that Richards gave them a better deal in printing Paper VI than Gilson did for Paper V adding that Paper VIII must go in the *Journal of Animal Ecology*; he has asked the Research Fund Committee for money; Chester Jones has suggested that he might like to travel to the United States in a few years.
to Ebling, from Kitching, 15/1, 4/2, 10/2, 28/2, 8/3, 13/3, 26/3, 28/3, 10/4, 26/4, 6/5, 19/5, 23/5, 6/6, 25/6, 25/8, 26/8, 7/10, 3/11, 21/11, 26/11, 8/12; regarding the attendance of Margaret Duhig and Tom; Elizabeth Davenport is finished with the algae and wonders if she should produce a paper; thanking him for the valuable contribution from the Sheffield University Research Fund; regarding plans for 1958 which have been discussed with Round and Jock; regarding personnel for the expedition; David Beard wishes to continue his research on Elminius which he discovered in Lough Ine; regarding future rights-of-way through Donovan's farm should it be sold and general transportation of materials at the site, adding that the Bohanes will help them out; regarding bank accounts; regarding a title for a paper; expressing thanks for the department's contribution and also to Chester-Jones; they cannot get any money from the Colston Research Society as there is already an application from his department; regarding the printing of photographs; Harris has offered £15 towards the cost of the plates;
to Kitching, from 'Michael', Department of Zoology, Hatherly Biological Laboratories, Prince of Wales Road, Exeter, 3/10; commenting on a draft paper; noting that he is finding his way in his new position.

1959.

to Kitching, from Ebling, 18/1, 26/1, 28/2, 26/5, 17/6, 26/6, 24/9, 26/9, 23/10, 29/10, 4/11, 9/11; he plans to give a paper at the Congress of Cosmetic Chemists; regarding the use of stainless steels [belemnites] such as those used by Segrove and Colman at Robin's Bay; enclosing a south of Ireland tide-table; he is pleased with the draft of Paper IX and is working on the Carrigathoma figures; Renouf might be jealous of their achievements but has been most charming to Ebling; hoping to go to the first International Congress on Endocrinology; he is certain that John O'Donoghue will be able to sort out the difficulties in Ireland; announcing that his wife, Erika, has given birth to a boy;

to Ebling, from Kitching, 22/1, 29/1, 23/2, 28/4, 19/5, 17/6, 5/8, 11/9, 23/9, 23/9, 30/9, 9/10, 21/10, 3/11, 6/11, 14/11, 1/12, 2/12, 11/12, 17/12; regarding the contribution to the Camp Fund; Round is working on the diatoms; mentioning the work which is being undertaken by Dr. Burrows of Liverpool; listing the individuals who will attend the 1959 expedition; he discussed the printing of figures with Coombe; noting that Renouf was 'abominably rude' to him when he met him in September; discussing work on 'Lough Ine VII' in considerable detail; presuming that his papers will go to the Journal of Animal Ecology; sending the Patella cards for 1958/9; discussing 'Lough Ine IX'; he sent a letter to Margaret Duhig having first consulted with Bass and Jock; sending congratulations to Ebling and Erika, from himself and Evelyn; he has allowed Dr Burrows and Dr Dixon to use the findings on paracentrotus algae; enquiring if Dr Burrows of the Hartley Botanical Laboratories in the University of Liverpool will join the expedition?; enclosing a proof of 'Lough Ine VIII' which should be forwarded to Gilson.

1960.

to Kitching, from Ebling, 4/4, 26/4, 3/5, 6/5, 19/5, 30/5, 1/6, 22/6, 27/6, 28/6, 10/8, 17/8, 28/10, 4/11, 12/11, 16/11, 29/11; congratulating him on his fellowship; both he and Segrove looked at Patella in Robin Hood's Bay; noting that he spoke with Goodwin of Aberystwyth who did work with Orton on the gonad pigments of Patella; regarding reprints from the Journal of Animal Ecology; regarding transport of baggage and materials; forwarding copies of correspondence from Gerald O'Donovan regretting that he cannot transport baggage and suggesting that John Bohane will help; regarding the acknowledgement of Dr. F.S. Segrove in the Sertularia Paper; Gilbert Kennedy is willing to collaborate on the study of the shell and foot pigments of Patella; requesting Gill Lester's address; suggesting corrections to a draft of 'Lough Ine Paper X';

to Ebling, from Kitching, 5/3, 29/4, 4/5, 9/5, 11/5, 17/5, 30/5, 7/6, 8/6, 23/6, 28/6, 22/8, 13/9, 19/10, 4/11, 19/11, 26/11, 30/11; regarding the Patella and Paracentrotus papers; suggesting that they follow Alsterberg's method as Beadle's method is too elaborate; thanking him for the Lough Ine reprint; discussing methods of collecting samples; regarding the transport of chemicals; regarding paracentrotus dumps and oxygen cards; regarding storage arrangements at Glannafeen Lab; regarding papers on the fauna of undergrowth algae and sertularia; regarding the use of sodium fluorescein as an indicator, mentioning Harvey's statement and the use of the substance by Jones and Segrove; enclosing a copy of Clark's key to the genera of British polychaetes; David Beard mentioned someone called Ballantine who has done a lot of work on British limpets; commenting on Lough Ine Papers X, XI and XII; he will send a copy of the Flora List to Dr Burrows;

1961.

to Kitching, from Ebling, 20/1, 24/2, 21/6, 8/5, 6/6, 21/6, 12/8, 17/8, 24/8, 26/8, 27/8, 4/9, 2/10, 4/10, 12/10, 17/10, 21/10, 24/10, 1/11, 3/11, 15/11; he found Ballantine to be very cooperative and intelligent and his work at Plymouth is very complementary to theirs - suggesting that they send him their manuscript in due course; he is working on a review of 'Topical medication of the skin' to be presented to the British Pharmaceutical Conference; enclosing a draft of Paper XIII on the Lough Ine limpets; requesting the draft Patella paper; detailing camp contributions; enclosing photographs of 'P.aspera' from Lough Ine [not extant]; statistical points in the draft paper were discussed with Miss Davies; European Endocrinological Societies are organising a meeting in Geneva but he does not wish to miss the Lough Ine expedition again; concerning the Lough Ine accounts; asking him to examine Moore's paper and check if it has been referenced correctly; thanking him for the reprints of Evans and Fischer-Piette and Gaillard and suggesting alterations to the Patella Paper; enclosing detailed draft accounts from the expedition; enclosing copy of 'Lough Ine XII' which has been sent to Gilson; they have moved to a new house at 53 Canterbury Avenue, Sheffield.

to Ebling, from Kitching, 10/1, 14/2, 23/2, 5/5, 8/6, 24/6, 9/8, 25/8, 28/8, 25/9, 10/10, 13/10, 18/10, 31/10, 15/12; enquiring if he met Ballantine; he has discussed transport to Lough Ine with Moira; Coombe believes that there will be a delay in publishing the Sertularia paper; regarding the attendance of Burrows and Round at the next expedition; Goss-Custard may have to cut short his trip, Miss Harrison has cancelled and Gavin Johnstone has taken her place; noting that Ebling is to speak to the Zoological Society; Sonny Donovan is said to have lost his car and the balance of power might now reside with Mrs Donovan; recommending they use the Hilger & Watts survey apparatus; Hella Hasted has died and Renouf is fairly ill; Germans are said to have bought land on Bullock Island and this may result in undesirable developments; discussing changes to 'Lough Ine XIII'; querying the 1960 expedition accounts; regarding the building of a store; it is unlikely that Sonny [O'Donovan] will negotiate for a strip of land on the road; he has passed the draft 'Lough Ine XII' paper to Jock and he hopes that Dr Davies and the recipient are satisfied with the suggestions made; regarding Lough Ine accounts; noting that Preece, a third year student, is interested in engines and wishes to work on the sea-water pump and the whole aquarium system.

to the C.I.E. Area Manager, Capwell Garage, Cork, from Kitching, 23/8; confirming travel arrangements for a party of nine persons to Skibbereen.

to H.C. Gilson, Freshwater Biological Association, Ferry House, Ambleside, Westmorland, from Ebling, 15/11; sending a paper on behalf of the joint authors for publication in the Journal of Animal Ecology.

1962.

to Kitching, from Ebling, 4/4, 11/5, 28/5, 20/6, 24/8, 20/11, 19/12; discussing travel arrangements of Preece and medical insurance; discussing protocols to be made viz-a-viz the Donovans; thanking him for his offer of congratulations on his promotion; replying to the suggestion made by Jack Lewis regarding the reproduction of their data for his book; stating that the July season was the best for many years; mentioning 'The Great Hunger' by Cecil Woodham-Smith; noting that he likes the draft of 'Lough Ine XIII' and identifying a difficulty with a table; he has looked up the article by Balss in 'Tiereich on Decapoda Okologie' and will look later at the other articles.

to Ebling, from Kitching, 2/4, 26/4, 3/5, 15/6, 25/6, 21/9, 16/10, 4/12; regarding the distribution of Lough Ine reprints; Miss Cook and Miss Kelly have withdrawn from the July expedition; Preece wishes to travel second class and bring his motor-bicycle; Miss N. James has enquired about general medical insurance; discussing the distribution of crabs in detail; Bunny is unable to travel to Lough Ine due to arthritis and Jock cannot come owing to the extension of Wills Hall; O'Rourke met with him; Kitching does not believe a negative account given of Sonny [Donovan]; setting out arrangements which will reduce traffic through Donovan's farm; requesting a copy of the Castle Island map; he will attend a conference of the Congress on Steroid Hormones in Milan; enclosing a letter from Jack R. Lewis regarding changing symbols [not extant]; Jock and he have returned corrected proofs of 'Lough Ine XII' to the editor; Sonny agreed a contract to sell a roadside plot; enclosing population cards for Paracentrotus; he will be delighted to have Mary Taylor and Louisa as authors; enclosing a preliminary draft of 'Lough Ine XIII' [not extant]; recommending the magnificent drawings of Nucella in Fretter and Graham; asking for an abstract of identified German papers; noting the excellent thesis-work done by A.D. Hawkins, James Stewart and C. Mary Taylor in 1962 at Lough Ine.

to Kitching, from Roger Blackman, 70 The Warren, Heston, Hounslow, Middlesex, 23/8; enclosing cheque for £20 and looking forward to seeing him at Temple Meads.

to Professor J.E. Harris, from Kitching, 5/12; enclosing the Lough Ine report for 1962; reporting on forthcoming publications.

1963.

to Kitching, from Ebling, 30/1, 20/2, 8/8, 11/8, 5/11, 18/11; thanking him for the draft of Lough Ine XIII; enclosing draft accounts; sending drawings for Papers XIII and XIV; suggesting that the University of Bristol settle the 1962 account with the University of Sheffield contributing £15 towards the 1963 account; he is certain that Chester Jones will acquiesce; the grounds for the rejection of Paper XIV is most curious - 'Are they afraid we are getting too much concerned with behaviour, and is behaviour strictly un-ecological?'; reporting on the progress of Lough Ine noting that the party was very industrious; thanking Dr Naylor for sending the particulars of the Swansea aquarium; enclosing a graph of the Nucella experiments; noting that he developed the Institute of Biology Symposium on 'The Natural History of Aggression' in association with John Carthy and received good contributions from Harrison Matthews and Conrad Lorenz.

to Ebling, from Kitching, 2/2, 7/2, 13/2, 28/2, 10/6, 6/8, 14/8, 25/9, 30/10, 7/11, 18/11, 18/12; noting that Rosalind Chapman is to act as caterer for the expedition; enclosing analysis cards for Anomia; noting replacements to personnel; informing Ebling that he is to leave Bristol for East Anglia but he hopes that Lough Ine will 'continue as nearly as possible as at present'; adding that the numbers being taken in by the School of Biology is set to rise quite rapidly; planning to lecture in Miami on Lough Ine; suggesting that they concentrate their research on crabs; thanking Chester Jones for the generosity of Sheffield University; commenting on the offer from Cragg adding that he is willing to write a review for Cragg's journal or the Academic Press; enclosing correspondence from Cragg and arranging for a meeting at Christmas to discuss a possible review; list of titles of the articles written about Lough Ine. to Ebling, from Alison Edwards, Clifton Hill House, Bristol, 17/2; making travel arrangements.

to the Chief Education Officer, Wiltshire County Council, from Kitching, 1/3; confirming that R.R. Baker intends to attend a course in marine biology at Lough Ine.

to Ebling, from 'Caroline', 22 Lawrence Drive, Cobham, Gravesend, Kent, 1/8; thanking him for having organized the expedition.

to Ebling, from Alison Edwards, Willow Cottage, 2 Cheltenham Road, Winchcombe, Cheltenham, 4/8; thanking him for the expedition and enquiring if he plans to lecture to the Zoological Society.

to Ebling, from 'Louise' [Muntz], Department of Zoology, University of Bristol, 7/8; enclosing cheque and thanking him for the Lough Ine account; regretting that she had to leave early and noting that she may not have time to attend the following year's expedition.

to Ebling, from Dr. J.B. Cragg, The Nature Conservancy, Merlewood Research Station, Grange-over-Sands, Lancashire, 13/11; enquiring if he wishes to produce an overall review of the Lough Ine work for his Journal?; setting out the parameters for such a review; including reply from Ebling, 18/11; that he will discuss a possible review with Kitching and the other collaborators.

to J.B. Cragg, editor of 'Advances in Ecological Research', The Nature Conservancy, Merlewood Research Station, Grange-over-Sands, Lancashire, from Kitching, 28/11, 18/12; noting that any review for 'Advances in Ecological Research' would be a joint review and requesting more information; noting that he will meet Ebling to discuss the possibility of producing a review adding that they favour the idea; including reply from Cragg, 3/12; explaining his objectives for a review of Lough Ine.

1964.

to Kitching, from Ebling, 20/4, 26/5, 3/6, 8/6, 13/6, 19/6, 25/6, 8/8, 11/8, 25/9; noting that Bunny and her research student wish to join the next expedition; apologising for not having sent the graph of the crab paper; they had a good research trip to Yugoslavia; he has been working on his manuscript for the meeting at Canberra; he has spent most of his Beecham research money but has received £13,000 from the Fleming Foundation for Medical Research to continue his work on hair; Pattie Jones will not be joining the expedition; the Nualla drawings are now completed; stating that it would be impossible to produce the article for 'Recent Advances in Ecological Research' by February 1965 adding that Cragg probably didn't read his correspondence carefully; he has been talking to Hilda Davies about Nucella statistics; enclosing an amended manuscript of the crab paper; describing his Australian trip and noting that he is staying with Bill Stephenson at Brisbane and is going to Heron Island.

to Ebling, from Kitching, 10/1, 30/1, 28/2, 4/5, 13/5, 5/6, 10/6, 12/8, 9/9, undated; requesting observations on Lough Ine Paper XIV; Miss Leslie Nickels has offered to act as caterer; wishing to know if their proposed article with Cragg is to go ahead; suggesting that the diagram of crab catches 'smack too much of the Scientific American'; enclosing draft paper on Nucella; suggesting equipment needed for the expedition; he discussed the Nucella work with Pringle and he seemed impressed; suggesting that the submission deadline proposed by the Academic Press for the article for 'Advances in Ecological Research' is too tight; he is waiting for figures from Louise Muntz; reporting on their observations of crabs.

to Ebling, from Mrs E. Foster, secretary to J.B. Cragg, editor of 'The Journal of Animal Ecology', 16/1; sending original drawings for Lough Ine XIII.

to 'Louise' [Muntz], from Kitching, 14/5, 11/8; making travel arrangements.

to Mr M.R. Boland, of J Travers Wolfe & Co, solicitors, Skibbereen, from Kitching, 9/9; stating that he is anxious to purchase a field from Gerald Donovan adding that Donovan appears willing to sell it.

circular from Kitching, 21/12.

1965.

to Kitching, from Ebling, 27/1, 8/2, 15/2, 19/2, 5/3, 6/3, 9/3, 11/3, 15/3, 3/5, 17/5, 21/5, 4/6, 16/6, 26/6, 16/9, 5/10, 3/11, 6/12, 9/12, 13/12, 23/12; mentioning individuals who wish to join the expedition; agreeing with the financial arrangements for Lough Ine; detailing changes he wishes to make to Paper XV adding that the correlation and regression certificates have been worked out by their Department of Statistics; identifying a minor difficulty regarding payment for railway tickets; he is glad that Kitching liked his book on 'Aggression'; discussing funding received by students from the Local Authority, noting that not all authorities are consistent; promising to correct a mistake in a figure; accepting Crisp's suggestions for the paper on Nucella and his offer to use the Bangor computer; providing observations on limpets observed during their Mediterranean trip - adding that Fisher-Piette's statements are therefore difficult to interpret; providing suggestions for their review for Cragg; apologising for not having commented on the Exeter Geology Paper but suggesting that it is not substantial enough for the Journal of the Royal Irish Academy; suggesting that they seek Grainger's opinion; noting that Crisp has been very helpful in a business-like way; he is waiting for the reprints of Paper XIV; promising to send a trial graph to Vivien; noting his difficulty on settling on next years' dates as he has agreed to act as external examiner to Hull Training College; returning draft of Paper XVI and photostat of the 'Survival' paper.

to Ebling, from Kitching, 7/1, 12/1, 20/1, 26/1, 11/2, 18/2, 19/2, 4/3, 8/3, 12/3, 15/3, 17/3, 9/4, 29/4, 20/5, 23/5, 24/5, 2/6, 10/6, 15/6, 17/6, 18/6, 28/6, 28/7, 22/9, 2/11, 11/11, 7/12, 14/12, 16/12; enclosing a draft of a portion of their Review; mentioning students who wish to join the expedition; identifying alterations to be made to Lough Ine Paper XV; having looked at Staiger's work he now believes that they have not treated the subject fully; enclosing an amended version of Lough Ine XV and a draft letter to the editor; enclosing a letter received from Crisp who is acting for the editor of the Journal of Animal Ecology [not extant]; Crisp has accepted their paper on Nucella but has made suggestions and has offered help on the regressions using the Bangor computer; sending a draft of Paper XIV; enclosing a letter from Dr. Coe of Exeter together with his report on the geology of Lough Ine - adding that the report might be too long to incorporate in their review for Cragg but suggesting that it might be sent to one of the Irish journals; enclosing a provisional programme for that year's expedition and suggesting that nominated recorders be assigned to each project; stating that Bunny and Trevor Norton have started some graph experiments and that John Bohane is well ahead with the outside circulation arrangements; enquiring if he received a copy of the report of Dr [Salwood] and Dr Coe of Exeter; Edward Lees has yet to receive a bill; regretting that Ebling has not [been given the D.Sc]; he will find it difficult to do anything about the review until a policy decision about the writing up of the work on diurnal migrations is completed and Vivien has finished her PhD; suggesting that Ebling correspond directly with Vivien on how she should prepare her material adding that it would be best for her to prepare the material herself; enclosing the first part of the 1965 report; enquiring about figures for Paper XV; noting that he has redrafted Paper XVI

to J.B Cragg, editor of 'Journal of Animal Ecology', Merlewood Research Station, Grangeover Sands, from Kitching, 12/3; draft letter to accompany a manuscript for the Journal of Animal Ecology; suggesting arrangements for figures.

to Louise Muntz, Department of Zoology, Reading University, from Kitching, 15/3, 2/6; enclosing a revised copy of Lough Ine Paper XV designed to take better account of Staiger's work; enclosing a preliminary plan of work; adding that their paper has been accepted by the Journal of Animal Ecology.

to R.J Abrahams, Biophysics Dept, School of Biological Science, University of East Anglia, Norwich, from J. Tolson, Queen Elizabeth Avenue, Glasgow, 24/5; referring to a letter from Mr Hillam; enclosing details of the Limpet Logger.

to Miss L. Beckingham and Miss M. Wolf, 34 Somerset, Street, Bristol, from Kitching, 30/5; inviting them to join the expedition and providing scientific information which should allow them to choose a research topic.

to J. Tolson, D-Mac Ltd., Queen Elizabeth Avenue, Glasgow, from Kitching, 2/6; concerning the use of a Limpet Logger for some marine research.

to Dr E.M. 'Bunny' Burrows, Hartley Botanical Lab, University of Liverpool, from Kitching, 2/6; enclosing a preliminary plan of work and enquiring what plans Trevor has for that summer?

to A.D. 'Tony' Hawkins, Dept. of Zoology, University of Bristol, from Kitching, 2/6, 1/12; enclosing a preliminary plan of work; sending a second draft of a paper on diurnal migration.

circular from Kitching, 23/9, 1/12; concerning diurnal migrations of *Paracentrotus*, *Marthasterias* and *Gibbula*.

to Louise [Muntz], from Tony [Hawkins], Marine Lab., Victoria Road, Aberdeen, undated; apologizing for the delay in returning papers; he met with Professor Hughes in Bristol at the weekend

1966.

to Kitching, from Ebling, 10/1, 18/2, 22/4, 6/5, 14/6, 21/6, 21/9, 22/11, 30/11, 13/12; enclosing figures for Paper XVI and discussing work on the 'Review'; noting that the diagrams and legends are now almost ready to go to Cragg and that he is waiting for Roy Burns' data; sending a bill for scientific expenses; clarifying certain figures and noting that the cave was not surveyed in full; thanking him for the amendments and additions to the Lough Ine Review; asking if Penelope Sneddon, the daughter of their consultant dermatologist, can join the expedition.

to Ebling, from Kitching, 19/1, 23/2, 7/6, 19/7, 16/9, 22/9, 24/11, 1/12; detailing corrections to be made to a section in a paper entitled 'Distribution of marine organisms in relation to predation and grazing'; enclosing Cragg's instruction and a re-draft by Dr. Coe; noting that the revised report from Selwood and Coe arrived after the retyping had been completed; discussing correspondence with Cragg regarding the Lough Ine review; reminding him to settle on the number of proofs to be published by 'Advances in Ecological Research'; asking him to clarify figures for the distribution of organisms in the Bullock Island cave; suggesting that the cost of the Elsan Sewerage system seems to be very high and adding that it might be better to install the self-contained Elsan's system; thanking him for his work he has put in with the Academic Press; enclosing a progress report on *Corynactis*; asking if the Innisfallen ferry is still running?

to Louise [Muntz], from Kitching, 3/1, 13/1, 19/7; enclosing draft of Paper XVI and seeking comments; arranging dates of expedition; offering reprints of Paper XVI which have been checked by himself, Ebling and Pratt.

to Dr. Coe, Department of Geology, University, Exeter, from Kitching, 4/2; requesting permission to use an almost verbatim extract from Coe's report on the glacial origin of the lough; the extract would be included in a review for *Advances in Ecological Research*.

to Tony [Hawkins], from Kitching, 21/2.

to Ebling, from Kenneth Coe, c/o Prof. Scott Simpson, Department of Geology, University of Exeter, 22/2; noting that both he and Dr Selwood are happy with the redrawn map of Lough Ine.

to Ebling, from ['Bunny'], Dept. of Botany, University of Liverpool, 24/2; sending a new check list of marine algae and highlighting interesting information.

to Dr [Louise] Muntz, Dept of Zoology, University of Reading, from Gillian M. Sandeson, secretary, Dept. of Zoology, University of Sheffield, 21/7; enquiring where she intends to meet up with the expedition.

1967.

to Kitching, from Ebling, 9/1, 12/1, 24/1, 14/3, 14/4, 31/5, 27/10, 8/11, 15/11, 1/12, 20/12; noting that the Innisfallen ferry schedule has not been changed; noting that Dr. Mordue fully understands why he was not successful in getting the position but would have liked to have come to East Anglia; he has asked Per Saugman about the reprints of Paper XVI but has not had a reply; Laurence is prepared to give them copies at cost price provided that Cragg agrees; suggesting that the compressor should be kept at Dromadoon; asking if Christina Grzegorzewska is accompanying the expedition?; enclosing a letter from Martin Knight adding that he has informed Knight that they will consider his proposals; noting that Rubert Riedl is a zoologist from Vienna and adding that Erika is willing to translate some pages from his book; making arrangements for the following year and noting that he is going to the Third International Congress of Endocrinology in Mexico City;

to Ebling, from Kitching, 11/1, 2/2, 8/2, 1/3, 9/3, 20/3, 3/4, 26/4, 27/4, 28/4, 1/5, 12/5, 29/5, 8/6, 16/6, 21/9, 2/10, 23/10, 3/11, 14/11, 22/11, 24/11, 4/12; making transport arrangements; he has asked Larkum to bring a diving party to Lough Ine adding that John Gamble of the Bangor Marine Station is also keen to come; thanking him for the copy of the letter to Mr Laurence of the Academic Press adding that he has passed Cragg's suggestions on to Laurence; regretting that they cannot appoint Dr. Mordue to the academic position because his field of interest is too similar to the work of a current member of staff and they cannot afford the duplication; he is glad that Erika will join the expedition; Cragg will probably not agree to 400 copies of Paper XVI;

noting those who are embarking on this year's expedition, adding that Bunny is also keen to join; he is encouraging Larkum to tackle the Whirlpool and Inflow area rather than the Western Trough; Lynn Sims is prepared to act as caterer; listing scientific apparatuses which he wishes to install including Grant temperature recorders, a twelve-probe digital recorder for temperature and Alkathene tubing; Mr Cooke is to take the position on the expedition vacated by Miss Kumud Shah; Bunny cannot join the expedition and Miss Winifred Price of the Botany Party will take her place; enclosing a mandate to open a joint bank account at the National Provincial Bank in London Street and asking that funds be placed in it to purchase camp beds; commenting on the success of that year's expedition and proposing that they conduct predation experiments in the following year; agreeing that Martin Knight should be allowed to undertake some mud microbiology; noting that he is asking Erika to translate a portion of a book by R. Riedl on illumination within caves; regarding reprints from the Academic Press one of which will be sent to co-authors and Louis Renouf; Dan Lennard is adamant that his bill for reprints has not been paid; to Professor Hughes, from Ebling; 14/3; noting that he has been on Kitching's research expedition to Lough Ine each year since 1961 and has had funding from Reading University for the past two years; he is now on leave of absence and wonders if he might be able to apply to Bristol for funding? to Ebling, from Martin Knight, Department of Biochemistry and Soil Science, University College of North Wales, Bangor, 9/10; regarding proposed microbiological work at Lough Ine.

1968.

to Kitching, from Ebling, 6/2, 10/2, 29/3, 14/5, 7/6, 24/6, 25/9, 9/10, 9/11, 25/11, 18/12; noting that Louis Renouf has died; he is settling accounts for their trip but cannot get funding from his department because it is out of money; he has a programme which will do regression coefficients and constants and he is prepared to process the Nucella data; making travel arrangements which have been complicated by the work-to-rule; concerning the keeping of accounts; thanking him for the copy of his letter to John Gamble; making arrangements for a winter expedition.

to Ebling, from Kitching, 31/1, 12/2, 25/3, 26/4, 28/5, 5/6, 10/6, 12/6, 14/6, 26/7, 8/8, 23/9, 24/9, 14/10, 21/11, 27/11, 20/12, 23/12, 31/12; sending collected polychaetes and hoping that they will be able to use the grab again that summer; enclosing the 1967 report; he will arrange with Trevor Norton to have the cave work written up; Peter le Fevre has gone over to Ireland to check the digital recorders as John Bohane has reported that they have stopped; suggesting scientific tests for the following year; he is calibrating the oxygen electrode and will report when he has finished; reporting on his experiments with Nucella and asking Ebling if his computer can process the findings?; suggesting that they have separate accounts for scientific expenditure and the Lough Ine expedition; a cheque has been given to John Ede; enclosing a copy of a letter to Tony Larkum and hoping that Ebling approves of the policy on publications contained within; he has put the financial administration of the expeditions into the hands of Susan Frost, his secretary; noting that John Gamble is interested in coming to Lough Ine; arranging for a trip in December and noting specific tasks to be completed then; requesting graphs of shell capacity in Barloge Creek to be sent before he travels to Russia.

to Dr Louise Muntz, Dept. of Zoology, University of Reading, from Kitching, 11/1, 13/3; providing information on the participants of the 1968 expedition; wondering if he should write to the Royal Society regarding the travel expenses?

to Kitching, from 'Audrey', The University of Sheffield, 5/8; making travel and accommodation arrangements.

to 'Tony' [Larkum], c.c. Ebling, from Kitching, 24/9; noting that he does not approve of the idea of subdividing the work on Whirlpool Cliff adding that they do not subdivide between animal and plant interests.

1969.

to Kitching, from Ebling, 9/1, 27/2, 11/3, 21/3, 6/5, 14/5, 9/6, 13/6, 16/6, 23/6, 16/10, 23/10, 4/11; recommending that he deal with M. Brennan of British & Irish Ferries in Cork; discussing the possibility of travelling by air and comparing it with the cost of travelling by ferry; hoping that the University of East Anglia will cover transport costs; he has no objection to Connell and his colleagues republishing their Paracentrotus paper but adding that the copyright lies with the Journal of Animal Ecology - Connell should contact Per Saugman; enclosing a draft of the cave paper and outlining corrections; he has sent some figures to Crisp for printing.

to Ebling, from Kitching, 13/1, 20/2, 20/2, 24/2, 3/3, 7/3, 12/3, 19/3, 14/4, 29/4, 30/5, 6/6, 13/6, 24/6, 31/7, 1/8, 5/9, 8/10, 9/10, 20/10, 30/10 [c.c. Trevor], 17/12; arranging transportation; noting that he has had a definite request from one student named Peter Hunnam concerning the March trip; suggesting that they work on oxygen temperature profiles and grab samples; Jenny Miller, Hunnam and John Gamble have enquired about trips to Lough Ine; wondering if Trevor or another of the Lough Ine group might be interested in offering a paper to the Marine Symposium at Bangor; enclosing a letter from Gamble; he has had no further correspondence from Tony Hawkins; Dr John Harvey, an oceanographer at the School of Environmental Sciences at Bangor is interested in using a temperature and depth recorder at Lough Ine; discussing difficulties which have been caused by a lack of adequate account-keeping; promising to send on Muus' paper; stating that the cave work should be written up that summer, adding that Trevor is working on drafts; noting that some of the students are waiting for information from their Local Education Authorities; he has received a request from J.H. Connell to be allowed to republish the Paracentrotus paper in an ecological book to be published by Harper and Row; Gamble has confirmed that the diving party wish to cancel the visit; discussing in detail his work on the cave records; enclosing a revised draft of Paper XVII and noting his changes; he cannot get in contact with Dr. George and believes that he has not done anything regarding their Pachymatisma; noting that some of the alterations to Paper XVII suggested by Trevor have not been included.

to John Gamble, Marine Science Laboratories, University College of North Wales, Anglesey, from Kitching, 12/3; he has not heard from Tony Larkum for some time adding that there has been a divergence of opinion between them concerning research at Whirlpool Cliff; arranging dates for the Lough Ine expedition.

to Louise Muntz, Dept. of Zoology, University, Bristol, from Audrey White, Dept. of Zoology, University of Sheffield, 24/3, requesting payment of an account to be made payable to Ebling;

to Louise Muntz, Dept. of Zoology, University, Reading, from Kitching, 28/3; enclosing a statement regarding the status of several projects and requesting her opinion; adding that there are several projects ready for publication.

to Aer Lingus, Ireland House, 150 New Bond Street, London, c.c. Kitching, from Ebling, 6/5, 9/6; including reply from E.G. Liston, Aer Lingus, 6/6; enquiring about travel costs; making arrangements.

to Louise [Muntz], from Ebling, 28/7; regarding travel ticket to Cork via Swansea.

to Kitching, from 'Rosemary' Fieth, 36 Lancet Lane, Maidstone, Kent, 29/7; including reply from Kitching, 1/8; she must provide extra information to her County Education Officer in order to recoup expenses.

to Trevor [Norton], from Kenneth Rees, 23 Meades Lane, Chesham, Buckinghamshire, 10/9; he is interested in Norton's paper in the British Psychological Journal which he discusses in detail.

to [Ebling], from John Harvey, School of Environmental Sciences, University of East Anglia, Norwich, 24/10; explaining in detail his reasons for not attending Kitching's expeditions at Lough Ine in the future; noting that he could not contact Kitching after he had been asked to submit a paper to the Joint Meetings of the Challenger Society and Representatives from the Marine Laboratories; outlining his disagreement with Kitching over the issue; asking Ebling not to communicate the contents of the letter to Kitching.

to Kitching and Ebling, from John Harvey, September 1969; copy of an outline of a proposed paper for a Joint Meeting of the Challenger Society and Representatives from the Marine Laboratories to be held on 20/21 January 1970.

1970s - 1980s.

to Kitching, from Ebling, 9/1/1970; noting that Chester Jones has requested his opinion on Micromanipulators and if the de Fonbrune compares with the Leitz?

to Trevor [Norton], from Kenneth [Rees], 23 Meades Lane, Chesham, Buckinghamshire, 20/5/1970; thanking him for the reprint of his paper; reminiscing on Lough Ine; noting that in the 1930s grants were scarce; a trip to the lough this year is unlikely due to family commitments.

to Kitching, from Ebling, 15/6/1970; thanking him for the joint account; making transport arrangements involving Fullers and John Bohane.

circular, from D.D. Davies, B.F. Folkes, R. James, R.L. Jefferies, B.G. Lewis, G. Shelton, A.P. Sims, July 1974; concerning a collection to mark the retirement of Kitching from the University of East Anglia.

to Trevor [Norton], from Kenneth [Rees], 23 Meades Lane, Chesham, Buckinghamshire, 4/8/1974; offering to help Norton with his history of the Lough Ine project; offering to send photographs [not included].

to Trevor [Norton], from Kenneth [Rees], 23 Meades Lane, Chesham, Buckinghamshire, 29/10/1974; enquiring about the material he sent; commenting on his retirement from lecturing.

to Kitching, from Professor Máire F. Mulcahy, Department of Zoology, University of Cork, 8/2/1985; informing him that a wildlife ranger has been appointed to the West Cork area and that his area of responsibility will include Lough Hyne; adding that Declan O'Donnell, a biological graduate has been appointed; updating him on building and survey work at the lough; Mrs Renouf has died.

to Trevor Norton, from Kitching, University of East Anglia, 28/7/1987, 28/8/1987, 9/11/1987, 25/4/1988, undated; he has been working on a preliminary version of a paper on the Whirlpool Cliff and requesting Norton's and Tony Larkum's comments; enclosing a review about Lough 'Hyne' [Ine]; offering corrections to be made to scientific papers; enclosing a final version of the Whirlpool paper adding that he hopes to submit it to the Proceedings of the Royal Irish Academy and submit it via Jack Grainger.

to [Trevor] Norton, from Seán Murtagh, National Parks & Wildlife Service, Office of Public Works, 10/7/1992; enclosing a permit to carry out research at Lough Hyne; noting that the ranger, Declan O'Donnell, must be informed of their arrival and setting out other conditions.

to Kitching, from K Kenny, Contracts Manager, Telecom Eireann, Lapps Quay, Cork, undated; thanking him for his request for telephone service.

1 box

RIA/LH/2

File containing lists of members of the scientific expeditions to Lough Hyne.

1946 - 1983

Including original lists included in internal reports etc., photocopies of 'sign-in' sheets copied from the expedition diaries, typewritten lists compiled by Trevor Norton

1 folder

RIA/LH/3

File containing unbound, handwritten and typewritten day-diaries of the Lough Hyne expeditions kept by members of the expedition team.

1946 - 1947, 1964 - 1982

noting the members of each expedition; while these diaries do provide information on the scientific work carried out each day they are written in an informal style and therefore describe day-to-day life in the camps and social activities; the name of each recorder is identified at the head of each diary; including diaries for the following years - 1946 (fragment), 1947, 1964 - 1982; separate diaries for the first and second expedition of each year when applicable.

6 folders

RIA/LH/4

Typewritten drafts for Trevor Norton's work entitled 'Reflections on a summer sea'.

circa 2001

Norton's book based on his experiences working on the Lough Hyne expeditions from the 1950s onwards; including photocopies of etchings used for the publication [drawn by Norton's wife]; [this book was published in 2002]; including slip from Professor Norton, School of Biological Sciences, Port Erin, Isle of Man and University of Liverpool.

1 folder

RIA/LH/5

File containing published articles and papers and submitted reports arising for the scientific expeditions to Lough Hyne; including drafts and abstracts of articles.

1930s - 1990s

Including the following items -

Wilson, Keith, 'A bibliography of Lough Hyne (Ine) 1687-1982', photocopy; dated 22 December 1981.

List of articles relating to the work on the lough entitled 'Recent work at Lough Ine'; photocopy.

Renouf, Professor L., 'Animal life on the seashore'; bound printed copy; dated 1930.

Ebling, Hawkins, Kitching, Muntz and Pratt, 'The ecology of Lough Ine XVI, predation and diurnal migration in the paracentrotus community'; typewritten draft; dated 1966.

Kitching and Ebling, 'Ecological studies at Lough Ine', reprinted from 'Advances in Ecological Research volume IV'; bound printed copy; dated 1967.

Kitching, Muntz and Ebling, 'The ecology of Lough Ine XV, the ecological significance of shell and body forms in Nucella'; typewritten draft; dated 1967.

An Taisce, 'Lough Ine, Ireland's first national marine research park?'; printed copy; dated 1979.

Kitching, Larkum, Norton, Partridge, Shand, 'An ecological study of the Whirlpool Cliff, Lough Hyne (Ine)', handwritten and typewritten drafts including abstract.

Ebling, 'The exploration of the rapids'; printed copy; undated.

Kitching, Introduction and abstract to article on Whirlpool Cliff; printed copy; undated.

Larkum, Gamble, Norton and Kitching, 'The ecology of the sublittoral regions of Lough Ine I, The Whirlpool Cliff'; undated.

Typewritten draft dealing with the 'restriction of Sertularia to places exposed to considerable current' in Codium Bay; undated.

Typewritten draft entitled 'Corynactis in Lough Ine: Progress report (November 1966)'.

Typewritten draft entitled 'Distribution in the Lough Ine area' dealing with studies of *Corynactis viridis*.

Photocopy of a typewritten report on scientific research conducted in 1938 and 1946.

Typewritten draft entitled 'An outline of the geology around Lough Ine'.

Typewritten report entitled 'Report of work carried out by the Bristol (1938) party at Lough Ine Marine Biological Station'; dealing with the Lough Ine rapids.

Typewritten reports entitled 'General Interim report', 'Interim report. The canopy of sublittoral alga and its associated animal population', 'Interim report. Shore', 'List of species', 'The sublittoral fringe', 'The sublittoral boulders'; all reports deal with research at the Lough Ine rapids; dated June 1947.

Typewritten report entitled 'Lough Ine 1962. Contents and task numbers'; detailed scientific report.

Typewritten report entitled 'University of Bristol. Lough Ine diving expedition. 28th June - 10th July 1981'; prepared by John R. Turner, diving officer.

Typewritten draft article entitled 'Biological camp at the Lough Ine rapids'; including typewritten letter from Ebling, to Kitching offering his suggestions on the article; noting that the paper is not a scientific one and that the emphasis should be on the organisational and educational side.

Typewritten abstract on the hydrography of Lough Hyne prepared for the Challenger Society; including letter from F.S. Russell, Marine Biological Association, The Laboratory, Citadel Hill, Plymouth, to Kitching, dated 24/1/1949; requesting the abstract to be included in their Annual Report.

Typewritten notice announcing a talk to be given by Trevor Norton to the Marine Science Institute entitled 'The Ecology of Lough Ine'; talk to be delivered on 4/6/1979.

Typewritten draft programme noting the speakers who will present an account of Lough Ine to a meeting of the Ecological Society; noting the topics which each speaker will cover and photographs and films to be shown; speakers include Kitching and Ebling.

4 folders

RIA/LH/6

File containing obituaries and memoirs of Jack Kitching, John Ebling and Louis Renouf.

1980s -1990s

John Alwyne Kitching, 1908 - 1996

Printed pamphlet outlining the life and career of Kitching by M.A. Sleight, School of Biological Sciences, University of Southampton; detailing in particular his research into cell biology and marine ecology; printed by the Royal Society in 1997; including draft or typewritten copy of this article.

Photocopy of obituary of Kitching copied from 'The Times' newspaper, 17/4/1996.

Photocopy of newspaper clipping announcing that the National University of Ireland is to confer a honorary degree on Kitching in recognition of his work at Lough Ine; dated circa 1983.

Photocopy of letters-page of British newspaper featuring a tribute to the pioneering diving work undertaken by Kitching; letter from Trevor A. Norton and Joanna M. Jones, Port Erin Laboratory, Isle of Man; dated circa 1996.

Printed tribute to Kitching entitled 'Jack of all trades' by Trevor Norton, published in the Biologist 50(5), 2003; outlining his career and life under the headings protozoology, diving, survival at sea, marine ecology; also providing personal reminiscences; dated 2003.

Francis John Govier Ebling, 1918 - 1992

Photocopy of newspaper obituary to Ebling, written by V. Randall and I.W. Henderson; unidentified newspaper dated 8/6/1992.

Photocopy of newspaper obituary noting Ebling's life and career; mentioning his close professional relationship with his wife, Erika.

Photocopy of announcement of a commemorative symposium in honour of Ebling to be hosted by the Yorkshire Branch of the I.O.B. at Sheffield University; overview of Ebling's career by V. Randall; published in the Biologist 40(4), 1993.

Louis Percy Watt Renouf, 1887 - 1968

Printed obituary of Renouf extracted from the Year Book of the R.S.E. for 1967-68; obituary written by John Ebling; providing an account of his career; noting that Lloyd Praeger of the Royal Irish Academy suggested to him that Lough Ine was worthy of biological investigation.

Photocopy of article on Renouf by his daughter, Jean Hassett, Roseville, Strawberry Hill, Cork; entitled 'My father, the Naturalist'; extracted from the Sherkin Comment, issue 26, 2000.

1 folder

RIA/LH/7

File of newspaper clippings relating to Lough Hyne / Ine.

1958, 1975

Clipping of article entitled 'Lough Ine - call for making it Park area'; extracted from the Southern Star, 8/11/1975; bulk of article contributed by Dr. C. Duggan of An Taisce, Cork; outlining the scientific importance of the lough, the history of scientific research at the site and the threats to the ecological system; noting that An Taisce, Cork have recommended that it be designated a Marine Research Park.

Photocopy of poem entitled 'Lough Ine' by Fitzjames O'Brien; probably extracted from the [Ireland's] Own, 3/5/1958; 'If it were my lot in that fairy spot/ To live for ever, and dream 'twere mine/ Court might woo, and kings pursue/ Ere I would leave thee - loved Lough Ine.'

2 items

RIA/LH/8

File containing typewritten handouts/instructions distributed amongst expedition participants.

1947, 1950s - 1980s, 1994

Providing details of travel arrangements, equipment and clothing to be brought, personal insurance and finance; use of boats and camping arrangements; also outlining the scientific objectives of the expedition, procedures for recording organisms and collecting specimens, recommended reading for students, use and care of scientific equipment and maps of survey areas; including handouts for the following years - 1947, 1950, 1951, 1959, 1962, 1964, 1966, 1967, 1969, 1971, 1974, 1975, 1980, 1981, 1982, 1984, 1994.

2 folders

RIA/LH/9

File containing printed and hand-drawn maps, charts, tables and including draft diagrams to be inserted in reports/articles.

undated

Including the following:

Printed hand-drawn map of Lough Ine showing location of tide-posts and sounding marks.

Printed map of the Lough Ine Rapids showing high and low water marks of the Spring tide and soundings and submarine contours in metres below the standard level.

Graphs showing the quantity of *Nucella* recorded at Carrigathorna and the Rapids.

Table showing the symbols used at the Dromadoon laboratory.

Tables showing the quantity of *Laminaria* and *Saccorhiza* recorded.

Figure showing the depth and frond weight from Lough Ine Paper V.

Printed map showing the depth contours and underwater cliffs.

1 folder

RIA/LH/10

File of scientific notes and early drafts for articles.

undated

Including the following:

Draft figures and scientific observations for a publication on the Whirlpool Cliff including map of the cliff, transects, arrangements of photocells, irradiance at experimental sites, summary of algal distribution.

Draft map of the Rapids noting location of stations and laboratories.

1 folder

RIA/LH/11

File containing primary/raw scientific datasheets from the 1960s and 1970s.

1960s - 1970s

Including for example:

Notes taken during the observation of *Nucella*; 1963-64.

Data on light recorded in Bullock Cave, measured in photometers; 1967.

Lough Ine systematic reports on algae; 1968.

Observations on plants and animals recorded at Whirlpool Cliff.

Zonation in Barloge Creek recorded by Billetop, Suthers, Storey, Warn and Pestell, Graph to tasks no.1266.1 and 1290.1; 1969.

Investigation of Western Trough TS East Side recorded by K. Hiscock; 1970.

Littoral zonation study, task no.1362; 1970.

Revised list of *Cladopheras* from Carrigathera pools; 1975.

Task 1635 recorded by Bennetts, Cunningham, Metcalfe and Mitchell; 1975.

Observations on the sublittoral flora and fauna of Carrigathorna.

Sublittoral fauna of Lough Ine area cliffs by Keith Hiscock.

1 folder

RIA/LH/12

Folder containing scientific photographs and transparencies of scientific graphs.

undated

Including the following:

Six black and white photographs of limpet encrusted cliff face and rock; 24cm x 21cm.

Photograph of a metal triangular frame probably used for scientific work; upturned boat and sea in the background; 10cm x 7.5cm.

Photograph of two individuals conducting scientific calculations on a shoreline with a cliff background; features of individuals not clear; 7cm x 5cm.

Five transparencies of scientific graphs.

1 folder

The End.