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SURSA University of Stirling Stirling FK9 4LA





Interviewee: Dr Donald McLusky, Dates: 1967 - 2010 Role(s): Senior lecturer in Biology Head of Department of Biology Head of Biological & Environmental Science



Interview summary:

Summary of content; with time (min:secs)

0-06.31 In 1966 Donald McLusky (DSM) was a PhD student at Aberdeen University. His supervisor, Fred Holliday (FGTH), the newly appointed 1st professor of Biology at Stirling University, invited DSM and 3 other PhD students (Peter Tytler (PT), Graham Maybank and Neil Macfarlane) to form a research group in his new department. They were later joined by Dr John Stewart (JS) as the 1st of the biology lecturers to be appointed. In September 1968 DSM became an assistant lecturer with the task of constructing the Animal Biology course (25A4) to be introduced in September 1969. DSM describes his approach to designing the 25A4 course, emphasising the uniqueness of the Biology degree at Stirling, which required the Botany and Zoology elements to be compressed into semester units.

07.33 DSM explains that FGTH's experience teaching Biology to Medical students at Aberdeen made him the main contender for the 1st Biology Professor.

10.00 DSM describes his role as a postgraduate demonstrator in practical classes to medical students run by FGTH. There follows an amusing anecdote in which he meets one of his former students, who was the surgeon who replaced his hip (40 years later)!

12.40 Another amusing account of his initial training as an assistant lecturer, involving Professor Tommy Dunn of the English Department at Stirling.

13.00 The development of the Department of Biology <u>Teaching</u>. Initially FGTH gathered together a team of known people (JS, DSM, PT and later Neville Dix, a fellow student at Sheffield University) so as to hit the ground running. To introduce more specialist and advanced courses, staff recruitment widened thus Janus Antonovics was engaged to cover genetics. He notably later became a fellow of the Royal Society.

16.00 Aquatic Research ._Again DSM focuses on the role of FGTH, principally from his background in Marine Biological research. He began working at the Aberdeen Marine Laboratory where he established important contacts there and at the satellite Freshwater fisheries Laboratory at Pitlochry. The International Biological Programme (IBP) which was the start of the Ecosystem

approach to Biological research, particularly in aquatic research, was sponsored by the UK Government. The Loch Leven project which was within the IBP was in Stirling's backyard. FGHT seized the opportunity and provided research projects and postgraduate students to enhance the project. Through working with key partners: Nature conservancy Council for Scotland, Freshwater Fisheries Laboratory, and the Universities of Edinburgh and Glasgow FGTH was able to advance the status of his department in Aquatic Science.

18.59 DSM highlights Andrew Walker as an interesting example of the unconventional approach to student recruitment by Stirling University.

20.27 DSM describes how FGTH's career was significantly influenced by the contacts made within the IBP project, leading to influential national managerial positions. He became, for example, the chairman of the Joint Nature Conservation Council and chairman of Northumbrian Water as well as being appointed to the Boards of the Nature Conservancy, Shell, and British Railways; His role changed from hands-on research scientist to the management of Biological Science on a National scale.

23.21 The Scottish Freshwater Group (SFWG), initially involving the participants in the Loch Leven project, was set up by DSM and Peter Maitland (Glasgow University) Their objective was to continue collaborative research in Fresh water Biology after the end of the IMP project. Meetings were held a Stirling, where lecture theatres could be hired at no cost during semester time. This encouraged impoverished postgraduate students to participate.

25.16 DSM describes a significant event at one SFWG which resulted in Ron Roberts (future director of the Institute of Aquatic Biology) choosing Stirling University as the home of the Aquatic Pathobiology Unit within the Biology Department.

26.46 A concluding remark concerning the importance of Stirling being neutral to the completion between Glasgow and Edinburgh, thus providing a place where these rivals could meet.

27.21 Marine Biological Research. A key event was the transfer of the Scottish Marine Biological Association's (SMBA) Millport Laboratory to Dunstaffnage near Oban at about the same time as the establishment of the University of Stirling. The new director Ron Curry and one of his principal scientific officers John Blaxter were former colleagues of FGTH. Once again FGHT seized his chance and a formal link was formed. A research lecturer (PT) was appointed and he was based at the SMBA. There quickly followed several PhD students registered at Stirling but supervised by SMBA staff, who became honorary lecturers and contributed guest lectures to honours courses at Stirling. Ron Curry and John Blaxter became honorary Professors. This was a mutually beneficial link for many years, but sadly came to an end.

23.31 DSM describes the demise of the Oban link citing two factors: 1. The mutually advantageous merger of marine lab with the newly emerged University of the Highland and Islands. 2. The unfortunate TV announcement by Professor Roberts.

36.40 Resources at Stirling in the early days._ Compared to conditions in Aberdeen, as a PhD student, the teaching and research provision at Stirling was **luxurious**.

38.07 Aquarium facilities were available from the start. PT had set up a small research aquarium in Pathfoot, while plans for a larger facility in the new T70 building (Cottrell Building) were underway. When it was opened in 1971 it provided a unique resource for marine and freshwater biological research in Universities. At the same time an animal house, shared with Psychology, was built. Both facilities were subject to Home Office restrictions and were not open to the public.

43.54 DSM's Personal Research. His initial research on an estuarine amphipod, *Corophium volutator*, at Aberdeen expanded to become an major ecological study of the Forth Estuary, leading to the publication in 1971 of 'The Ecology of Estuaries', which became a standard text for undergraduate students. Through his contacts with the Forth River Purification Board (later called SEPA) his research expanded to monitor the improvements in control of polluting effluents affecting the mudflats the Forth Estuary. This involved a significant and long-term contract with BP, which owned the oil refinery and Chemical plants at Grangemouth. These were major polluters of the lower estuary. His task was to monitor the impact of their new systems for controlling pollution. This study

was the longest and most consistent of its type. Over 25 years his work showed a slow return of the estuary to relative cleanliness.

51.00 Here DSM describes the impact of the new university of the Stirling's ailing sewerage system, with interesting consequences.

51.54 DSM reveals that the main result of this clean-up was an increase in diversity of the intertidal fauna but with a reduction in biomass. An interesting consequence was a reduction in the abundance of birds feeding on the mudflats.

56.28 The Longannet Project. The investigation of the impact on the fish population of the Forth estuary caused by extraction of cooling water by the power station at Longannet was another significant research project.

58.44 The University was ambivalent about DSM's research which it classified as applied and somehow of lesser value than 'pure' research. However there was considerable interest and appreciation of the work by local politicians and others in the community. This was understandably irritating and bemusing to DSM.

1.00.00 DSM discusses the value and significance of three books arising from his life's work on Estuarine Ecology.

1.02.23 DSM displays his "Gong", a Lifetime Achievement Award from the Estuarine Association for his work on Estuarine Ecology.

1.04.44 Key positions held at the University. In 1985 DSM was briefly head of department in the interregnum between the departure of Professor Muntz and the arrival of Professor Sargent.

1.05.46 DSM describes the unusual circumstances leading to the appointment of John Sargent. Matters came to a head, when following normal procedures, the successful candidate declined the offer. The Principal, Sir Kenneth Alexander, decided to head hunt to fill the void. An elaborate "plot" involving Dr Pat Grant, the director of the Institute of Marine Biochemistry (IMB) in Aberdeen, DSM and PT resulted in John Sargent becoming the new head of department.

1.14.01 DSM assesses the impact of the arrival of Professor Sargent and his research team from the IMB on the research profile of the Department.

1.15.06 DSM resumed as HOD following John Sargent (promoted to Dean) and his replacement Nick Price in 1995.

1.16.09 His main tasks as HOD were balancing the department budget in the face of University wide financial constraints, and managing the merging of Chemistry and Physics with Biology to form the department of Biological Sciences. He praises the cooperation of the remaining staff of Physics (Professor Alan Duncan and Dr Jack Wolsey) but expresses exasperation with the fractious Chemistry staff. "It was a difficult time"!

1.19.40 DSM's answer to the financial constraints was to have an open policy so that all academic staff were made aware of their individual contributions to the department budget. This was particularly revealing and supportive of staff dedicated to teaching, who were looked down on by the research elite, in that the FTEs (full time student equivalent), based on the student fee income, were the main source of departmental income. In contrast were research grants which could be substantial sums generated but much less in net income to the budget. Thus most teaching staff were effectively paying their way while research staff were, by implication, in deficit as far as the Departmental budget was concerned.

1.20.49 At this time the department size was significant with some 200 students. The unfairness towards teaching staff, who were not promoted, was clear from this budgetary approach. This contrasted with the attitude towards research orientated staff.

1.21.45 There follows a discussion of the Research Assessment Exercise (RAE) and its influence on the activities of the department. In the 1990s academic staff were recruited for their research prowess. Many were very demanding of departmental resources, unaware that their net income did not justify such expenditure.

1.23.26 The controversial proposal that Principals have an adverse impact on the running of departments in their subject area is raised. DSM quotes the example of Professor Andrew Millar who, in his opinion, was not a good influence on the development of Biological Sciences.

1.25.01 DSM reflects on the changing attitudes to teaching and research in Biological Sciences from 1964 to 1990s. He regrets the loss of the role of professors in inspiring undergraduate students in the early stages of their careers. At Stirling students in the early years benefited from the enthusiasm of Professor Holliday. His inspirational teaching attracted students to his department from within the University. Many students majoring in Arts subjects took Biology as a minor or subsidiary subject.

1.26.11 The establishment of Environmental Sciences (ES) at Stirling. DSM was a key player in initiating the teaching of Environmental Science. Many Biology students were looking for an alternative subsidiary subject to Chemistry or Physics. Professor Meidner, the then HOD, was sympathetic to the demands of the students and in discussions with DSM decided to offer ES as this alternative.

1.26.50 DSM was ideally suited to lead this initiative. As an undergraduate at Aberdeen he studied Geology as the subsidiary subject to his Zoology degree. He digresses to tell an amusing anecdote about how he was persuaded, by the Professor of Geology to take Zoology as his path to a career in Marine Studies.

1.28.36 Professor Meidner, in response to students complaints and aware of rise in interest in environmental issues, approved the formation of an Eco/environmental course to compliment Biology

1.30.24 DSM together with Tony Redshaw (TR) from Management Sciences and Graham Heath (GH) from Chemistry (both with interests in ES) drew up the syllabus for a 1 year (2 semester) course in ES. The course attracted droves of student at the expense of the Chemistry department in particular. DSM was verbally abused by the Professor of chemistry and accused of being a traitor.

1.32.51 Eventually the University recognised the success of this subject area and appointed the first lecturer in ES, Rob Ferguson and later John Harrison, a meteorologist, was appointed, by this stage the involvement of the initial three (DSM, TR and GH) fell away and the department of Environmental Science was eventually established.

1.33.59 The Marine Biology Degree. This degree programme evolved from honours electives. Many students including Doug Allen, the famous BBC wildlife photographer, wanted to be known as Marine Biologists, but their degree was in fact Biology. Again student pressure led to the formation of this new degree. DSM describes how the Biology degree syllabus was changed to create the new degree programme.

1.37.33 The marine Biology field courses run at the Millport Marine Laboratory were very popular with students and motivated them to continue with studies in Marine Biology. DSM admits that he also enjoyed this way of teaching, which was very effective.

1.38.30 DSM describes, with great relish, the remarkable and little known visit in 1979 of the Queen Mother to Millport while Stirling students were there. In view of the earlier scandalous Queen's visit to Stirling the security arrangements were extreme but ended well with her enjoying tea and a chat with selected students.

1.46.12 The significance of the 10 year student exchange with Sweden is mentioned here. Also the knock-on effect on the curious recruitment of PhD students from Sri Lanka, who were funded by Sweden, is described!

1.49.59 In his concluding remarks DSM advocates openness and formation of external links to stimulate and promote academic development. Stirling University is a good example of the success of this form of networking.

1.50.00 Ends. The interviewers express their thanks for his contribution.

Interview No:	SURSA 090		
Interviewed by:	Christina Sommerville &	SURSA University of Stirling	

	Lindsay Ross	Stirling	CIDCV
Date of interview:	22 nd September 2017	FK9 4LA	JUNJA
Summary completed by:	Peter Tytler	info@sursa.org.uk	000000
Date:	6 th April 2018	www.sursa.org.uk	N WWWWW
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