How I Became a Marine Biologist – Dr Frank Evans

From the beginning of WWII in 1939 until 1942, I was evacuated with my Croydon school to Bideford in Devon, where I learnt to sail a boat. Then, at the age of sixteen and with a clutch of the GCSE equivalents of the time, I left to join the Merchant Navy. For the next seven years I progressed through a seagoing apprenticeship to become a ship's officer. In 1949 I came ashore to sit for my First Mate's Certificate, a qualification a step below that of a ship's captain. But by then my long-held wish to follow the sea had diminished and, having married the year before, I began to consider a career on land. My new certificate confirming my ability to take a ship from one port to another had little value among a city's bricks and mortar and I r ealised that to leave the sea I had to search for alternative qualifications.

At school I had found an interest in biology and so I applied for a position in a biology course at London University, principally so that, supported by my wife's teaching salary, I could live cheaply at home. Queen Mary College accepted me for their intermediate B.Sc. course, a one -year course of the time designed for students without A levels. I took zoology, botany and chemistry and was then admitted to the zoology honours course with chemistry as my subsidiary subject. I was still an innocent abroad in university affairs and was unsure what a zoology degree involved.

On the first day of term our professor assembled us and asked us in succession what special subject we wished to choose. I heard a clutch of names spoken and then the student next to me said "marine biology". I immediately thought: I'm a sailor, that's the one for me. The honours zoology courses in London colleges were quaintly old-fashioned in that it was required of undergraduates that they spend three years on their studies while the courses themselves occupied only two years, one year of vertebrates and one year, invertebrates. The third year was supposed to be spent in revision and following one's special subject. In my second year in the honours course a fellow student and I conceived the idea that observations of pelagic animals by research vessels were biased by the presence of the vessel itself. We resolved to test this theory in practice.

We planned to drift silently across the Atlantic, using the North Equatorial Current, from Dakar to Barbados, taking samples on the way. The preparations for the transatlantic voyage of the yacht Petula would fill a book (a book and film exist about the voyage itself). Sufficient to say that we wrote a prospectus, begged and borrowed the equipment we needed, illicitly commandeered an office in the Natural History Museum, complete with the essential free telephone, did the same in the Royal Geographical Society and generally bluffed our way through troubles. On one occasion we encountered a member of the Museum staff who said he was looking for a million pounds to establish a marine geology unit and to start a journal (which he later did under the title Deep-Sea Research). We plugged into his philanthropic backers through the Natural History Museum in Brussels and got funding from them for the voyage and the price of a yacht. I bought the Petula in 1952 near the end of my second year in the honours course and it was obvious that any oceanographic venture was from now on going to occupy all my time.

I declared that consequently I would abandon my degree forthwith. Happily, my tutor, Professor Gordon Newell, later a very good friend, realised that although I had had only two years in the honours class, with my intermediate year I had spent three years in the university and consequently was qualified to sit finals. He arranged my entry for the degree, although it was too late to pay a late entry fee. On hearing that I was to take the exam one of our lecturers remarked that with so little time I must be swotting hard. I am slightly ashamed to recall that I replied that unfortunately I was too busy for that. I have no explanation for the good second class honours

degree that I achieved. Our ship, the Petula, lay at Southampton and we spent much time fitting her out. She was fifty years old but in good condition.

I had bought her from Col. H G Hasler the leader of the Royal Marine commando raid by canoe on Bordeaux in 1942 that formed the basis of the film Cockleshell Heroes. He agreed to accompany us round to Faversham in the Thames, on the way to visit our Belgian backers. AH2017-2 (UK Summer) Page 37 It was in December and we hit a force ten gale in the Channel; the short voyage took four days. Later, we attempted to leave our berth in Faversham Creek but ran aground. This was a most fortunate accident as we were not yet really ready for voyaging.

We remained in a mud berth until May when we began slowly to make our way west towards Plymouth and the Atlantic. All this while preparations continued. As an example, we dedicated the ship's after cabin to stores and racked it out to hold over three hundred Kilner jars, all filled with drinking water, to be successively replaced by plankton samples. The Kilner jars, generously donated by the manufacturers, were sealed with specially made copper rings, not steel that would rust. Finally we sailed from Plymouth in August 1953, our crew now consisting of two marine biology graduates and a meteorologist.

Arriving in Dakar we built a raft to tow astern of the boat, which would allow us to undertake a programme of measurement of sea and air temperatures at graded distances above and below the sea surface in an investigation of heat exchange. From Dakar we sailed for the West Indies at the end of November 1953. At sea we visited the raft each day for air and sea temperatures whenever the sea state permitted. (Right: Frank Evans, Marine Scientist)

Although lacking a radio we ran a weather station for the Met. Office, searched for Sahara dust, counted Aitken nuclei, measured pH and water density, charted the current, fished, filmed, and took plankton samples every six hours. The voyage lasted eighty three days, travelling under just the jib, at a speed of one knot. On reaching Barbados in February 1954 we packed and despatched our samples, sold the Petula and came home by air to our quarter of an hour of fame. We had funding for a further year of research of our material, after which I applied for and was awarded a post as lecturer in marine biology in the Dove Marine Laboratory of Newcastle University.

I had become a marine biologist.