

Dr Warren's Diary A new PhD supervisor's log

Episode 1
May 2007

Background

In November 2003 I submitted my PhD thesis (Department of Geography, University of Wessex) and 2 weeks later flew to the United States to start a post-doctoral position at Middletown Institute of Technology (Department of Biological Science). In April 2004 I returned to Wessex for my thesis viva and was passed with minor alterations to my abstract. I then returned to my post-doc in Middletown where I was responsible for the day-to-day running of the laboratory, the research project I was working on and publishing my PhD thesis. During this time I gained some experience assisting with the supervision of 2 PhD students, 2 masters students and 7 undergraduates who were working in the laboratory. This however was on an informal basis.

In October 2005 I took up a 5-year Research Councils UK Academic Fellowship at The University of Barchester (Department of Environmental Sciences). The remit of this post is to generate research money and outputs whilst the teaching aspect of academia is increased year by year until 2010 when the position converts to a Lectureship; when a full teaching load is taken on.

In the first 12 months of the Fellowship I spent most of my time working on papers for publication and applying for grants. The papers from my post-doctoral work were accepted for publication. However, I had a paper from my PhD thesis work rejected from two journals. This has caused a rethink in the PhD thesis publication strategy and consequently I still have thesis work unpublished. After numerous rejections in September 2006 I had a breakthrough with my grant applications. I was awarded US\$20,000 by a National Committee for field work in South America. This was quickly followed by a Research Council Open competition CASE PhD studentship award (one of 36). This award was for a student to work on the samples collected during the National Committee funded field work and is held in collaboration with a museum in London. On the back of this I convinced The University of Barchester Science Faculty, Department of Environmental Sciences and one of the Botanical Gardens to co-finance a second PhD studentship. This time to work on samples I had collected during field work on another project from a site in December 2005. Although funding for the student stipend has been agreed no funds have yet been secured to cover the costs of any additional field work or laboratory consumables.

This left me for the first time with my own field project to run and studentships to award/supervise.

The two projects

1) CASE studentship joint with the museum. Principal supervisor: Warren. Co-supervisors: Two at Barchester (Charlotte and Gary), one at the museum (Bob). Initial field work funded by National Committee, additional field work and laboratory consumables funded through the research council studentship. Note: research council funding is only available to UK passport holders or fees only for EU citizens.

2) The University of Barchester studentship with contribution from the Botanical Gardens. Principal supervisor: Warren. Co-supervisors: Two at The University of Barchester (Stephanie and Gary), one at the Botanical Gardens (Peter), and one at the University of Moulinsart (Paula). Initial samples in storage at Barchester, but no money to cover any additional costs.

Studentship recruitment and selection

Advertising for the two studentships began in September 2006, prior to any guarantee of funding. The adverts were put together with the help of my co-supervisors and other members of the department also going through the process for their own projects. These were advertised by Barchester at recruitment fairs, fliers to other university departments and on the web. In addition, as principal supervisor, I wanted to make sure that I recruited the best possible candidates therefore I proactively promoted the projects on e-mail list servers and specialist web sites.

Response was varied. About seventy-five percent of the applicants were either not eligible or unsuitable for either of the projects and were easily rejected at the 'first cut'. This left 15 applicants whose CVs required consideration. Next I went through the CVs in details and in consultation with co-supervisors (principally Stephanie who had overseen the student recruitment procedure for the department the previous year). This resulted in six of the applicants' references being taken up. Four were then invited for interview on the basis of these reports and their CVs.

Interviews were held in April 2007. Of the interviewees 3 were UK based and invited to attend an interview day at Barchester, the fourth was from Argentina and a telephone interview was therefore arranged. The formal interviews at Barchester were conducted by a departmental panel (which I was not part of but included Gary). Bob, Stephanie and I were able to informally interview candidates and show them the facilities at Barchester during the day. Two of the candidates were outstanding and there was a

disagreement between the formal and informal panel regarding the ranking of these two. Following discussions with Gary and Stephanie I decided to offer the research council project to the candidate that I had thought to be the stronger of the two (Wayne); the Argentinean candidate was ineligible for this funding. I phoned him that evening at home and he accepted on the spot.

The telephone interview was a few days later and conducted by myself, Gary and another member of Barchester staff not involved with the projects. This was a slightly strange experience sitting in a room talking into a microphone in the centre of the table. Even so the candidate came across as extremely enthusiastic and well qualified with a reasonable grasp of spoken English. The official verdict was that this candidate was also appointable.

This meant that a decision had to be made between the next top candidate from the campus based interviews and the telephone interviewee. This was when it struck me how much this decision would impact on these people's lives; particularly with one of the candidates being from abroad. I was initially slightly unnerved by this realisation until Stephanie pointed out that these were all grown ups who had made the choice to apply for this project. Once calmed down I phoned the Argentinean candidate (Christina) and offered her the second project. She immediately accepted but I told her to read the information on the project and think about it over night at least. She confirmed her acceptance the following day.

Additional notes

I will also be co-supervising a PhD student at Barchester (primary supervisor Gary) and a masters student at the University of Christminster (primary supervisor Peregrine).

Episode 2
September 2007

Preparation for arrival of students

Having recruited Wayne and Christina I now had 6 months to prepare for their official start date of 1st October. I divided the tasks I had to do into two types: i) preparation for the arrival of the students, and ii) things I had to get done before they started encroaching further on my time. The latter of these categories included the submission of two research papers¹, and conducting the field work that was funded by the National Committee. However, the field work became an advanced taster of PhD supervision when Wayne accepted my offer to support him on the field work if he could cover the cost of his flights himself.

General preparation

The laboratories were my major concern regarding general preparedness for the arrival of the students. Firstly, there was no cold store to keep samples in and secondly, there was no equipment to carry out preparation procedures. I got the department to agree to purchase the necessary equipment and it arrived slowly over the course of the summer. In addition, a number of estates works needed to be carried out as I was taking over on old laboratory. Most of these have now been carried out and the majority of the equipment is now in place. One outstanding item is a particular chemical that we require which now requires a Home Office licence to purchase. This restriction has come in since I was last in the UK and I was unaware of it until I tried to order the product. Now we will have to wait to see if they grant us a licence, until then no samples can be processed. The upshot of this is that we are still a little way from being able to process samples.

The University of Barchester has a policy of planning academics' activities year to year through an online time accounting system (TAS). This works by forecasting what you plan to do for the year and then at the end inputting what you actually did. For the first time on this system I had to input the amount of time that I thought that I was going to spend supervising students. I was shocked to discover that each student was only allowed 1.5 weeks per year supervision. Therefore, (based on a 37 hour week) the student is entitled to 55.5 hours supervision over the course of a year, divided by three supervisors this equals 18.5 hours supervision each. This seems to me a ridiculously short amount of time to train a student and manage a research project. I intend to

¹ I felt I should have all the work from my PhD at least submitted for publication before I took on my own students!

keep a record of the amount of time I actually spend working with the students to include in my TAS return next year.

Preparation for Wayne

Development of Wayne's project was well underway with preparation for the National Committee funded field work to South America. I was very pleased when Wayne agreed to join me for one month of this field work. I flew out a month in advance of Wayne to set up the project and conduct some additional work with some colleagues from Australia. After the initial 2 weeks of work I took a 2 week holiday and did some travelling as a tourist before Wayne's arrival. Getting back to work it turned out that much of the activity I had thought to be happening in my absence (preparing equipments and permits) had not happened. Consequently, we had to find alternative manufacturers to make the equipment we required and had major difficulties in importing vital equipment from the USA.

To overcome these problems required much negotiation and visits to various offices and cities to obtain signatures and permits required for our work. This was extremely frustrating for myself and Wayne who had little to do but wait around whilst I, and my local college, carried out the negotiations. I did manage to find some work for Wayne in the local University's laboratories collecting reference data for us to take back to the UK. However, his poor Spanish skills and the repetitive nature of this work meant it was a difficult and not very interesting experience. However, it was a great comfort to me that this vital data was being gathered whilst I was 'wasting' my time chasing documents. After 20 days of frustration we managed to obtain enough signatures and stamps for the customs officials to release our equipment. This left 8 days of field work time to conduct a months work!

These 8 days were completely filled with solid physical activity (hiking, camping in sub-zero temperatures and collecting samples). Wayne met this challenge head on enjoying, I think, the change from inactivity and laboratory based work. I considered extending the field season by a further week or two to allow us to get more done but, due to personal circumstances and a mental exhaustion born out of chasing paperwork neither I nor Wayne could really face it! In the end we rescued the field work from the brink of collapse and recovered the minimum amount of samples required for Wayne to have a PhD project. Thankfully there were no major incidents regarding our return to the UK and now all the material is waiting in the new cold store (that was installed whilst we were in the field).

I found it very useful to have the opportunity to get to know Wayne and see how he worked. He impressed me greatly and applied himself well in tricky situations, demonstrating he could think on his feet. I hope that the experience with the delays

will not have dampened his spirits and enthusiasm towards the project before he starts. In reality he is off to a flying start having experienced the landscape, setting, made many contacts and become aware of the practical issues regarding the logistics and science of the project. He has funds already in place to return to the field with his studentship next year, I hope that I can obtain money so that I can accompany him!

Preparation for Christina

The preparations for Christina's project are less advanced. Initial samples are in storage here at the University of Barchester but there are still no extra funds in place to cover the costs of sample preparation or additional field work. Given my previous success I have submitted a pre-proposal to the National Committee to try and obtain funds from them for this. However, previous versions of this project have already been rejected for funding from two other grant awarding bodies. As a fall back Stephanie (project co-supervisor) has agreed that her lab will underwrite any additional costs from commercial work they are carrying out. I am slightly nervous about the funding of this project but feel confident that the science behind the project is exciting enough to attract funds with perseverance.

The other concern regarding Christina's arrival was the necessity for a student Visa. For my part this required some additional paper work but the university (which has c. 50% international PhD students) handled the rest very well and there were no problems. In addition, it was necessary to find somewhere for Christina to stay when she arrived. I made a number of enquiries and visited a number of properties on her behalf and I think found her a nice place to live. It is within walking distance of the university and shops, and she will be sharing with other Barchester PhD students although the rent is a little high. Hopefully it will be good for her settling in period at least. Tomorrow I will collect her from the airport and her adventure into UK academia will begin. I hope that I can deliver a PhD program for her that will be worth her moving half way around the world for.

Concluding comments

Now, on the evening before I collect Christina from the airport, I think I have the laboratory just about in order and facilities in place for the commencement of the PhD projects. I have submitted neither of the research papers I have been working on, but the final draft on my final paper based on my PhD research is with my co-authors. Exciting times.

Episode 3
August 2008

Looking back at the first year as a PhD supervisor I have lots of memories of events and can't quite believe that it has been almost a full year since I wrote my last entry. I guess this reflects one of the key things I have learnt about PhD supervision – it takes up a lot of time. Below are some examples of the events that have happened during this busy year.

1) First impressions and induction

I successfully managed to meet Christina at the airport and we seemed to get on well chatting about work and living in a new country for much of the journey to Barchester. Her spoken English was extremely good, but not fluent, and I learnt that she had arrived via her aunt in Portugal; I hoped that the, relatively, close proximity of family would make settling into life in the UK a little easier. Upon reaching her new accommodation we met her new house mates and found her room and key. Christina seemed very pleased with the set up so I gave her my mobile phone number in case of problems, wished her well settling in and left her to get on with things.

Due to a prior commitment to deliver a lecture at the University of XXX in France I was then away from Barchester for Wayne and Christina's induction week. When I returned I found that Wayne and Christina had been placed together in the same office and that they seemed to get on well. They both complained about the masses of paper work and training events that were still ongoing from the official program.

2) 'Lab' meetings

During my time as a PhD student I had found weekly lab meetings with other researchers very helpful in solving problems and discussing research. Therefore I decided to instigate this with my new students. Before the first of these meetings I asked Wayne and Christina to write a critical summary of two recent papers with opposing view points. The idea being to see how they would react when faced with conflicting reports from established member of the community. I was extremely pleased that they were both able to understand the data, synthesise the key arguments and discuss the conflicting view points. Wayne's report was very well written and put together and Christina's was in acceptable English of an advanced level for a non-native speaker; but not of publishable/thesis standard so a key area for improvement was identified.

Given the success of the paper review I continued to incorporate paper discussions into our weekly lab meetings. To keep interest I alternated between 'sexy' new papers and 'classics' chosen by myself and the students. After about two months Wayne and I were routinely having increasingly interesting and enthusiastic discussions about key issues related to the research stimulated by the papers. However, Christina seemed to be less keen to volunteer any opinion on the subject matter, although when questioned specifically she always seemed to have a good grasp of the issues. I therefore dismissed this as a problem assuming that she was somewhat shy.

In early December I was approached by Tina (a post-doc within the department) who had been out for a beer with Christina the previous evening. Tina had enquired of Christina as to how things were going regarding the project and settling in. Christina then mentioned that she was having difficulty understanding spoken English when spoken rapidly or in an 'excited' manner. The example given was that of the lab meetings. In the light of this revelation I have modified the way I run the lab meetings (without mentioning anything to Christina) trying to make a real effort to speak clearly and reiterating points if she looks puzzled. This seems to have helped and her engagement with the discussion of papers. I have also noticed a rapid improvement in her participation as she has grown in confidence and her ear has tuned into the English language.

Lab meetings are ongoing on an almost weekly basis. The meetings usually consist of a report from each of us regarding what we have done in the preceding week, any problems, plans for the next week and a paper discussion. The main limitation with this event is the size of the group. I would really like to bring in some extra people, or get other people in the department to participate, so that it is not just always the three of us.

3) Practical science

Having invested a lot of time (and departmental money) in getting the facilities ready for Wayne and Christina's arrival I was very keen to get them working in the laboratory. Initially progress was delayed as we waited for the final approvals of the safety forms and risk assessments from the HoD and safety officer. This did not seriously affect progress but did cause a degree of frustration.

Once we were all signed off I allocated a number of days when we could all be in the laboratory together. On the first day I ran through our standard sample preparation procedures whilst Wayne and Christina observed. Making sure that they followed the procedure on the protocol sheets as I progressed through the various stages. Wayne had not carried out this type of procedure before but Christina had processed many

samples at her previous job in Brazil. I quizzed them both during the day to see if they understood what I was doing and why. I was extremely pleased that Christina was able to offer me some advice based on her previous experience.

On the second day I set Wayne and Christina up with samples of their own to process and I became the observer. Christina is clearly an expert in sample preparation and able to adhere to all the health and safety requirements of the university despite them being somewhat stricter than she was used to at her previous university. Wayne was more tentative with the samples, unsurprisingly as this was his first experience, but he picked up the skills quickly and demonstrated a good competency. Following this success I asked them to arrange times when they could work together on preparations and to notify me when doing so. That way they could help each other out and I would be on hand if there were any problems.

Following preparation of samples the next step is to analyse the samples under the microscope. The microscope analysis is very much the 'digging holes' of science as it is labour intensive and requires long periods of concentration. Due to the various other activities that Wayne and Christina have been involved with they did not commence microscope analyses of samples until March. Like the preparation work Christina is a natural, committed to putting in long hours and able to draw on previous experience. Wayne on the other hand seems to be finding it very hard going, he is relatively new to this type of work and is consequently on a steep learning curve. Both are making good progress and it is satisfying to see them generating some data to get excited about.

The department appears to be pleased with the progress of the research group as they invested further funds at the end of the financial year increasing capacity for future recruitment.

4) General progress of research

I think Wayne and Christina have both been doing well over the first year. Both have presented research at meetings external to the university and seem to be engaging well with the wider scientific community. They completed their first year probation reports on time and preformed well in their mini-vivas. Wayne passed with no problems. Christina had to re-write a few sections but no significant scientific problems, I think this was good practice for her.

To summarise their performance over the year Wayne appears to be very strong academically but needs to put in more effort to improving his technical capabilities. I have every confidence that he has the aptitude to do this. Christina is technically

superb, she has been teaching me new things, but needs to work on her scientific writing English (a hard skill even if English is your native language). Again, I have no doubt that she will master this over the course of the next two years.

Regarding progress elsewhere in my academic life... The final paper from my PhD has been accepted and is now in press, I have obtained 3 new research grants; including one with money to take Christina into the field this summer and a large grant to work on a new project in SE Asia (I will get to do some hands on science, as opposed to writing applications/paper, which is very exciting). I have not recruited any new students for October 2008 due to a surprisingly poor calibre of applicants interviewed. I am now targeting obtaining funds for a post-doc researcher (2 grants submitted) and further PhD students for the lab possibly with the help of industry funding.

Work as an academic is proving to be ever more demanding and varied (I am writing this on a Sunday afternoon). The teaching load is increasing gradually and is fine when I know what to expect. However, one of the courses I am working on has had a number of 'hidden' tasks which were not explained to me when I committed myself. This has led to some bad feeling and a new guardedness when being asked to do teaching related jobs. I want to do teaching but I don't want to be taken advantage of to the detriment of my other responsibilities (i.e. PhD students, research projects). Time management is continuing to be a key challenge as more demands are placed upon me. The next big challenge is to organise the field work for the three of us for an extended >1 month period. We will find out then exactly how well we get on...!!!