

Placement Report – Eleanor Carlton

Managers: Dr Alexander Lovegrove, Dr Phillipa Gillingham and Dr Anita Diaz.

Number of days: 25

From March to August 2017 I took part in a SERT, investigating if similar factors affect ecology and archaeology in heathland environments. This SERT brought students together from different courses and different year groups. Working alongside archaeologists broadened my knowledge and understanding of the importance of heathlands. During this SERT I worked as a field research assistant, GIS digitising lead and site report editor.

We studied 18 different heathlands in Dorset and Hampshire, as these heathlands are located in a stronghold for remnant heathlands that once spanned a vast area of Great Britain. At each of the heathlands we surveyed ecological features using 5m quadrats, measuring heath structure and important indicators of heathland health, such as grazing presence, heather age, tracks presence and bare ground. At each of the heathlands we also investigated the condition of archaeological features present in the landscape, measuring the degree of damage to the monuments as well as the environmental measurements recorded in the ecological surveys.

In March, we had our initial team meeting with members of the SERT, including lecturers, researchers and students who are involved with this project. During this initial meeting, the key roles, responsibilities and practicalities were explained so that all team members knew what was expected of them. It was at this meeting that I was given the role of the GIS digitising lead; this role meant that before collecting data, the boundaries of the heathlands would need to be digitised in order to properly identify our survey locations. This role required me to co-ordinate the digitising of selected sites and collate these into a single GIS layer.

During the GIS training session we were told which elements of GIS we would be using during our placement and practiced digitising heathlands using ArcGIS. This training session allowed me to improve my technique with digitising boundaries. I had used GIS previously, but digitising something that we would be later using in the field really helped me to understand the technology more. Before we began the surveys in the heathlands, we attended a training day on Turbury Common, which helped me to develop my ID skills of heathland plants, learn the technique that we would be using to survey the heathlands during the fieldwork.

On the first day of our fieldwork, we visited Canford Heath. First, we completed a heathland ecology survey as a team to ensure that all team members were certain of how to complete these surveys and use the technology correctly. I used the mobile GPS device to navigate to randomly selected survey plots in the heathland. Loretta and I completed many ecological surveys together, measuring the heather, estimating vegetation composition and recording other ecological features of interest. We then travelled to Upton heath and completed more ecological surveys on the heathland. I learnt a lot on the first day of practical fieldwork, it was the first time that I had used the mobile GPS devices, widening my technological knowledge. Measuring and examining the heather helped to further my understanding of heathlands and taught me valuable ecological skills. I also learnt how best to move through wet heath and bog, as navigating direct routes to survey plots quite often proved impractical.

On the second day of our fieldwork, we visited Tadnoll Heath. I used the mobile GPS device to navigate to randomly selected survey plots in the heathland. Loretta and I completed many ecological surveys together, measuring the heather, estimating vegetation composition and recording other ecological features of interest. We then travelled to Winfrith heath and completed more ecological surveys on the heathland. I also learnt a lot on my second day of fieldwork. On Tadnoll and Winfrith heath I got the opportunity to use the tablet to record the ecological survey data. This was the first time that I had used these tablets, which seemed to work well and adapted to quickly. We also recorded the ecological survey data on paper to make sure that any inaccuracies that could have been accidentally recorded on the tablets did not affect the results.

On the third day of practical fieldwork we visited Studland & Godlingston heath. We swapped partners, so I was working with Jon on the archaeological surveys. Jon and I visited three archaeological features, one scheduled and two incidental. These archaeological features were a Bronze Age barrow, Agglestone rock and a WW2 bunker. On this day, I learnt many new skills, including how to spot and survey ancient monuments. I learnt how to estimate the level of damage to the archaeology and take readings whilst protecting the monument as best as possible.

On the fourth day of fieldwork, Jon and I didn't have any archaeology on our list so we went out to try and spot some. At Arne heath we found an earthwork, which we identified as a possible field boundary. At Stoborough heath we found another earthwork, which we identified as an abandoned tramway track. This was the first time I had recorded and earthwork, so this experience really helped me become more confident in spotting archaeology in the field.

After the fieldwork I went over the data collected on the tablets and transferred that data into an excel document. I selected the data that was needed in the site reports and converted it into an easy-to-read format with each site's data grouped together for ease of comparison. As site report editor, I divided up the sites and allocated sites to each of the team members, providing them with a completed site report of Canford heath to use as a template. The site reports consisted of an analysis of the survey results and commenting on the implications of the state of the heathland for the conservation of archaeology. This information was backed up with survey data and photographs taken in the field. Once everyone had returned their site reports, I compiled them with my own, edited them to make sure all the information was relevant, data checking, and correcting any spelling and grammar.

This SERT placement has helped me to get a better understanding of which career path I would like to take in the future. This placement has given me a great insight into how ecological research work is undertaken in the UK and given me skills that I can use in future employment. As I hope to enter this field of employment in the UK, this experience has been particularly beneficial and has confirmed that I do want to enter into the field of ecological research.