

Chisato Tsuji - Natural Sciences trip to Orierton, Pembrokeshire, Wales – March 2017

I took part in the Evolution and Behaviour trip consisting of around a dozen first year students. The trip complimented and supported my understanding of the contents in lectures and broadened my knowledge of various groups of living organisms.

The area around which we stayed had plenty of plant diversity to occupy us for a day. We searched for specimens of plants from different phyla and brought them back into the lab for further discussion as well as examination under the microscopes. Looking at specimens was useful in placing the phyla in evolutionary context and embedding them into my memory which I'd struggled to do by simply attending lectures. Examples of interesting plants included the daffodil mutants with unclear petals and coronas, pin and thrum form of primroses, members of the Apiaceae which includes carrots and have a distinctive carrot smell. There was also a member of the Fabaceae (pea family) which has a coconut like smell in the sand dunes.

Pembrokeshire is rich on coastal ecosystems such as salt marshes, muddy shores and rocky shores. Visiting these locations enabled a comparison of how the abiotic environment affects the plant and animal diversity along the shores. The trip was timed to coincide with the lowest tide of the year, which meant that it was possible to see animal groups that are usually unexposed. These included particularly spectacular members of sea cucumbers and peacock worms. Coaxing the razor clams out of the mud was particularly entertaining. We collected some organisms to put into the tank, with consideration of which ones can be placed into the same tank which made us think more about the relationships between the organisms in their natural habitat. In the tanks, we were able to see scallops escaping from starfish and sea hares releasing their rich purple ink.

We also went to a part of the Ministry of Defence's land where we did some birdwatching by the Green Bridge of Wales. Guillemots, razorbills and peregrine falcons were among the ones we were able to see. In the evening, we were also able to see some bats flying around and listen to their calls using the bat detector.

There was an opportunity to conduct an investigation in groups; our group decided to focus on the distribution of tardigrades in the plant habitats around the field centre. Other investigations included the interactions of sea anemones and Gammarus shrimp mate-guarding. Conducting the investigations meant that we were able to think about experimental design and the problems of working with living organisms.

The trip has led to a greater awareness of the living organisms in the environment and we still identify different plant families back in Cambridge and at home using what we have learnt from the trip. Getting to know people who have such interest in the living organisms was stimulating and I have kept in touch with some people who continue to inspire me and deepen my outlook on the natural world. Thus, the trip was an invaluable experience.