My dissertation topic involves a new conservation strategy called rewilding, which aims to restore biodiversity and ecosystem processes that have been negatively impacted by anthropogenic activities. It is titled: The effect of rewilding on infiltration and canopy interception rates. Upon conducting my literature review, I found many rewilding initiatives in the UK, but one caught my eye: Knepp Castle Estate. This 3500-acre estate was an intensively farmed land but now is transformed into a one of the most exciting wildlife conservation projects involving the introduction of grazing animals to restore habitats and natural watercourses. Therefore I was interested to see if rewilding has had an impact on the ecosystem in terms of infiltration and interception rates (as there are very few studies investigating the hydrological effects of rewilding).

This summer from June 24th – 29th, I travelled to Knepp Wildland Safaris where there is a campsite in a meadow. As soon as we arrived, two English Longhorn cows with two calves greeted us and I could instantly tell this trip would be a trip I wouldn’t forget.

![Figure 1: Longhorn Cattle greeting us at then entrance to Knepp](image)

The first day of camping involved familiarising ourselves with the beautiful landscape we were in. We first pitched up our tent, and the walked around the site (we were staying in the southern block of the Estate as this part of the site...
was allowed to revegetate naturally with little human interference, which is a true definition of rewilding). We also conducting three infiltration experiments at the campsite meadow (see Figure 2), as this field had not undergone rewilding, and therefore acted as a control. This also allowed us to completely understand how to conduct infiltration experiments and therefore prepare for the upcoming days.

![Figure 2 A) infiltrometer inserted 1cm into the soil at the campsite. 30ml of water was poured into the ring and the time it took for the water to infiltrate was recorded. 2B) A photograph of the campsite on the first day.](image)

Every day for the next three days, two fields were visited and three infiltration experiments were conducted in each field. One was conducted in an open area in the field, the next in an emerging area, and the final one in a dense area. This will let me investigate whether difference in vegetation types impacts infiltration rates. In total, 7 fields were selected to conduct infiltration: 3 of the fields were rewilded in 2000, another 3 were rewilded in 2005 and the last is the control. This allows the comparison of infiltration rates over a 5-year period to see the effect rewilding has had on infiltration rates.

During Monday night, there was a storm and for approximately 4-5 hours during the night there was heavy rainfall. Not only did this impact my sleep, but it also meant the soil was quite saturated the next day which may have impacted my infiltration experiments, as the soil at Knepp is a heavy clay soil, but this definitely did not affect my enthusiasm for this trip. The last day of the trip was dedicated to walking around the site and visiting as many fields as possible in order to conduct ground truthing. This is because I will be estimating interception rates based on vegetation species at Knepp, so I needed to identify as many vegetation species as possible. During this day, we saw a plethora of animals, including the Tamworth Pigs, Fallow Deer and horses, as shown in Figure 3.
This trip made a significant contribution to my dissertation, as I am currently statistically analysing the data to investigate the impact rewilding has had on infiltration rates and using the data collected from ground truthing to aid me into producing a map that can estimate rates of infiltration in the site as well.

Figure 3: Photographs of the animals spotted while conducting infiltration measurements and when walking around the site to conduct ground truthing.