Brendan Pittman s4903821

Placement report

<u>Salmon and Trout research, Sixteen days, East Stoke, Dorset, UK</u>

I spent my second placement at the Game and Wildlife Conservation Trust (GWCT), based in East Stoke in Dorset. The GWCT was set up in order to conserve species of animals which are hunted. They work with landowners and farmers in order to raise awareness of the importance of conservation. (GWCT, 2017)

I found the placement via mycareerhub and it was advertised by Genoveva Esteban who taught the Diversity of Life unit in my 1st year.

My placement was on the latest project that the GWCT is undertaking. This is part of a 5 year project in order to help conserve Salmon and Trout populations in the River Frome.

The process involved electrofishing. This is where an electrical current is passed through the water from an anode (left) to a cathode from the front to the back of the boat. This stunned fish which are then are forced to swim towards the anode as the electrical current interferes with their nervous system, causing their muscles to spasm, thus swim. The electrical equipment was controlled by a generator on the boat.

Figure 5: Anode and Net setup

Once the salmon and trout are stunned, they are collected in nets and put in buckets. This process is done in sections of the river called reaches. Each reach is, on average, 100m in length. The fish that are collected for each reach are then taken to the processing unit where the fish is anaesthetised, weighed measured and then tagged with a PIT tag. The tag is inserted into the body cavity of the fish so minimal damage is caused. The data is stored on a computer. The adipose fin is cut off every captured fish to tell people that it's not a fish they can catch. This is because the adipose fin doesn't grow back so is the universal marker for a tagged fish.

Figure 6: Salmon being measured

Over the time I spent at the placement, we took samples from multiple locations throughout the Frome. We fished at over 20 different locations to get tagged fish in all parts of the river.

I undertook many different roles during my time with GWCT. I started off on simpler roles, such as pulling the boat and carrying the buckets of fish from the boat to the processing area. I also moved onto netting the fish after they had been stunned. Long nets were used to reach the bottom of the river as you couldn't put your hands in otherwise you would get an electric shock. I also undertook different roles on the processing table. One role was to input all the data into the laptop so there is an electrical database of all the fish's length and weight assigned to each tag. The final role I had was to do the scale packets. For each fish, a few scales are removed. This allows the fish to be genetically screened to determine sex accurately.

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My role was to number each scale packet, note the number of each fish caught and record the species, date and reach code. Figure 8 shows the equipment used to tag the fish.

One day media reporters from "That's Salisbury" (Local TV) and BBC radio 4 came down to do interviews about the project. I'm in the video from That's Salisbury doing scale packets, which can be found here: https://www.youtube.com/watch?v=bj3wxkrn9HQ

I feel I improved many thing on this placement. One thing I improved was my general fish knowledge. I learnt a lot about the behaviour of fish along with how many fish there are in our rivers. I honestly didn't realise the vast

Figure 7: Me filling in scale packets

quantity of fish present in UK rivers. My understanding of the importance of the habitats to be preserved was also improved by this placement. This is because there was a clear correlation between the amount of river weed present and the number of salmon and trout that were present. This is due to the fact that the weed slows the water flow down, thus there is less energy expenditure in remaining in the same place in the river. Also the weed makes the water deeper as well as offering physical protection from predators.

My knowledge of the salmon and trout migration routes were also improved. I now understand the migration in more detail, as well as the physical processes that the fish go through en route to the sea.

I also gained a lot of practical skills, from identifying fish whilst in the river, to learning how the fish

are stunned and tagged. I used a range of equipment and improved my data collection skills.

I did have a few weaknesses during the placement. One was the technique of netting fish. This came from a lack of experience of doing it. Originally I wasn't very good at it. However, by the end I have really improved as I had an understanding of the appearance of the fish that I needed to catch and which ones I didn't need to waste time collecting. Another weakness was my knowledge of the fish when I first arrived. However, once again, this improved throughout the placement and I left feeling that I

was confident in fish identification.

Figure 8: Tagging equipment

This placement will help me a lot with my studies because I believe it linked with the content of the Environmental Science course. For example, I have already completed a practical in the Diversity of Life unit last year that was based around fish morphology and their adaptations to their environment. I think this placement has helped build on that previous knowledge and how it applies in the wild compared to being based in a lab.

Reference

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Game and Wildlife Trust. (2017). About us. Available at: https://www.gwct.org.uk/about/what-we-do/ [Accessed 20 September 2017].

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FACULTY OF SCIENCE AND TECHNOLOGY
SUPERVISED WORK PLACEMENT APPRAISAL - End of placement report
This document forms part of the student's assessment and is essential to their submission.
To be **completed and signed** by the Supervisor/Manager and submitted by the student with their placement coursework. If you have a query about this form, please contact: scitechplacements@bournemouth.ac.uk

Student Name and Number: Brendan Pittman 4903821   Name of Organisation: GAME & WILDLIFE TRUST

Course: ENVIRONMENTAL SCIENCE   Supervisor/Manager: DYLAN ROBERTS

DATES

LONG PLACEMENT

Start Date: 02/09/2017   End Date: 16/09/2017

Total Weeks Completed: 2   Number of Days Per Week: 7

Number of Days Annual Leave Taken: 0   Number of Days Sickness: 0

Reason for leaving: (End of Contract) / Redundancy / Dismissal / Other (please state) _____

	Excellent	Good	Average	Needs Development	Poor	Comments
Technical Knowledge / Skills		✓				
Analytical ability / Judgement		✓				
Quality of work		✓				
Output (quantity)		✓				
Commercial/Sector awareness		✓				N/A.
Resourcefulness / Initiative / Enterprise		✓				
Quality of recommendations		✓				
Drive / Enthusiasm / Application		✓				
Ownership / Responsibility		✓				
Stability (under pressure)		✓				

Professionalism		✓				
Self assurance		✓				
Communication		✓				
Time management / Organisation		✓				
Relations with colleagues		✓				
Overall effectiveness		✓				
Employment Prospects		✓				The company would / would not consider employing this student (delete as appropriate)

What have been the student's main strengths and achievements?

Brendan showed initiative and a willingness to learn new skills. He learnt quickly and tackled a range of new tasks with ease, consistency and accuracy, including competency in difficult fieldwork conditions. He played a key role in helping us complete our fieldwork targets.

Has the student addressed improvements/areas for development you identified and discussed with them in previous feedback sessions?

Brendan was only with us for some 3 weeks, but he improved constantly and took comments and guidance on board.

To have a successful career in the future what advice would you give the student regarding skills or knowledge they need to develop?

Keep at it! Continue to show a willingness to learn. Employers like to see a positive can do attitude.

Further Comments

A huge thank you to Brendan for his hard work with us, often working long hours in difficult conditions.

Good luck for the future.

Supervisor/Manager (signature): Dylan Roberts	Date: 29 / 9 / 2017

Head of GWCT Fisheries.   34