What I learnt

One element of this that stood out to me was how much people's careers had changed over time. As someone who does not really know about what career are available in ecology, it was very informative to learn that there are so many different options out there. Another main idea that was repeated was the need to be able to use computer programs while being an ecologist. I will talk about this more in the key points section. One important idea that was brought up a lot was the need for good communication. When this involves communication with other scientists, this can lead to collaboration and thus potentially more interesting questions being researched. This can also help you to get jobs that you are passionate about later on in life. Another important part of communication is communicating with people who are not in the scientific community. These include the people who are impacted by your research. This can be the general public, stakeholders etc. For example, Dr Dallwood talked about the need to build community in order to help mend the distrust for researchers that exists. Communication is essential for this. Also, it was very interesting to see how communication was incorporated into her research through the use of interviews. As I am very used to reading studies that focus on more quantitative data, this really opened the possibilities for the types of questions that can be asked in science.

Key points and how I have/will use(d) them

1. One point that Dr Shannon Hennessey brought up was to be creative: with methods/tools/analyses which can lead to innovative or interdisciplinary reach and to be creative with rendering/illustration processes since traditional methods are good foundations, but you should find a process that works best for you. This is talking about how conventional methods might not be the best option for you and may actually be limiting you. This can mean that coming up with alternatives when conventional methods aren't possible (such as creating making-shift tools when you don't have access to real ones) can allow you to accomplish your research. However, this can also mean that you can make new discoveries if you stray from what is conventional.

I will use this information in the future by trying to challenge the conventional ways of performing research. When I'm taught a way to do something, I often just accept that science has created the best way to perform research. However, I will remind myself to be questioning more often to see if I can create innovative methods for research. I find this to be quite exciting. I will also keep this in mind when working in the field. Knowing that I can be creative when trouble shooting really decreases the amount of stress I feel about running into problems while in the field. Also, I had always liked the idea of being a scientific illustrator but I was always taught that I need to follow very specific rules while drawing them. This really made the process a lot less appealing to me. However, now I am excited about scientific illustrations again because I will try new ways of creating the drawing such as using different mediums and finding new ways to show the information that I am trying to relay.

2. One of Emma Atkinson's main points was that there is value in developing complementary skills in the field and on the computer. This is talking about how it is important to not only be able to go out and collect data but also to be able to use models and statistics on programs

such as RStudio in order to analyze the data. This makes sense because data alone cannot tell us much.

I used this information in class by trying to contribute as much as possible to the coding parts of assignments since Emma highlighted how important it is to be able to do such things. I will use this information in the future by letting it guide my future course selections. Before these guest lectures, I was planning on only taking biology courses that do not involve computers. However, there is a biology course at my school that involves performing data analysis using computer programs that I now think would be important for me to take.

3. Another one of Dr Shannon Hennessey's key points was that observation is key. This involves using some of your free time to go to areas that you are studying and watching what happens. This is important because it can inspire new questions for you to study.

I will use this information in the future by spending more time being out in nature and observing it. I have previously had a lot of difficulty coming up with ideas for study subjects as I don't feel like I know enough to know what questions to ask. However, going out into nature and learning through watching will be very helpful in the regard. For example, I tried just looking around the intertidal a few days ago and I already thought of the question of why some snails have purple shells. Thus, I think this idea of the value of observations will be very important for me.