

For my assignment in ENST422 Soil Microbial Ecology, I was asked to write a paper on any aspect of soil microbial ecology that interested me. I began by thinking about what areas of soil microbiology I enjoyed learning about the most. I did not find microbes that interesting, but I did like the insects and other macro organisms we talked about in class. I then started to search the internet to see exactly what kind of insect affects the microbiology of soil and eventually settled on dung beetles.

After this very preliminary research, I went onto the University of Maryland Libraries website to investigate if there were any scientific studies looking at how dung beetles affected microbial communities of soil. Indeed there were. I mostly used Research Port to find my sources. I used my access to scientific journals to find articles that showed me the importance of dung beetles to soil. I would either type key words into Research Port to find articles or sometimes I would even go to the journal's website and then login using my UMD directory id. I used relatively recent peer-reviewed scientific articles for this paper, which was made easy by Research Port. I was able to check on the search bar that I only wanted peer-reviewed articles and sort them by date. This made my research infinitely easier. Another strategy I used in my research was when I found an article I would look at its citations to see if they would be helpful in my own research. Many times I found valuable sources to my research this way. If I found a source that I thought would help, I would then search for the article using Research Port. I have always been able to find the article on Research Port.

I sought help from Dr. Stephanie Yarwood, the professor of my class, when I was having trouble locating enough research for my specific topic. She encouraged me to broaden my topic and incorporate new ideas that I did not think of. These included more diverse information on the composition of dung, which would impact its decomposition, and the differences of microbial

community composition with and without dung beetles. I researched these new ideas and was able to incorporate them into my paper. I found scientific studies through Research Port that examined microbial community composition with the presence and absence of dung beetles. She made it possible for me to use more peer-reviewed scientific articles, which are a significantly more reliable source than internet websites.

The assignment required that three of the sources be from primary literature, or peer-reviewed journals from the last ten years. Dr. Yarwood gave a list of journals that she felt would be helpful in our research. When I found articles that came from these journals and were published within the last ten years, I thought of them as the most reliable sources that I had. I based most of my paper off of the peer-reviewed journal articles that I found. If articles were older than ten years, I would only include them if they were the only articles I could find researching the information that I needed. If I could find more recent research on the subject, I would only include the newest articles. Sources outside of the articles, I found much less reliable and biased. I used them sparingly and only for information that was not vital to the paper. The scientific research that was used within my paper almost always originated from primary literature.

During the research process I learned that good research takes time. In order for me to find those recent scientific articles, I looked extensively through Research Port and other scientific journals. I brought up many articles, read their abstract, and realized that they had nothing to do with my research even though they matched the key words I was looking for. I needed to set aside time to really analyze sources and their reliability. Scientific papers in peer-reviewed journals are more likely to give you valuable research than any articles you can find on the internet. I also realized that I am capable of reading complicated microbial scientific papers

because of the class and the research I was required to do for this paper. It is an invaluable skill that will help me in a higher academic setting or in my professional career. One day I might attend graduate school where I will be required to read papers and understand them in depth, or have to write a proposal in my professional career where I need to know how to research reliable sources.

Looking back at my research experience, I would have given myself more time to complete the research. Having more time would have allowed me to research more and not made me feel rushed to decide on what resources to include in my paper. However, I do feel that I chose articles of good quality even if I was rushed because of the resources offered to me at the University of Maryland Libraries. Research Port is a wonderful research resource that I have used time and time again. The one suggestion I have to make the library a better place for my research needs is to have all the books in the library electronically available. In my experience, I found books that would greatly help my research and it would be easy if I could look at the book on my computer rather than going to the library to check it out. I know this would be a huge and expensive project, but I think it would be worth it in the long run.