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2019 Library Research Award Reflective Essay

The Greenland shark is one of the least studied species in the world, so starting my research was a daunting task. I had no idea how narrow the topic of my research paper could be, so I began with a search on the University of Washington online database to see how many papers and research articles have been written. I found that less than 15 scientific studies have been published specifically on the Greenland shark between 1960 and present day, so I made the decision to maintain the broad topics of feeding ecology, distribution, and reproduction strategies. Due to the lack of recent research, I also decided to include a discussion on the potential effects of climate change and increasing human activity in the Arctic on Greenland shark populations. This discussion was meant to showcase the need for more research to be conducted and published on this species, as scientists currently don't have enough information to accurately predict these effects. As a result of my research process, I have realized that starting with a broad topic allowed me to narrow down my focus depending on the sources and research I was able to find. Moving forward in my studies at UW, I have a better understanding of how to properly use database tools in order to find reliable sources on the topic I am researching. I also will be able to more quickly asses the validity and relevance of various studies and articles.

In order to produce a comprehensive and accurate research paper on a scarcely studied topic, I had to get creative with where and how I obtained information. After beginning with a search for the Greenland shark on the University of Washington library database, I read each of the papers I could find and then used sources from those papers to uncover more information. I knew research on this species would be hard to find, so I not only used published research experiments, but also traditional ecological knowledge papers, various review papers, Arctic

commercial fishery reports, and research published on species within the same genus. Within each type of source, I hit a "roadblock" in terms of finding detailed enough information regarding the topics I was searching for. Rather than abandon the type of source I was reading, I focused on the sources articles used for their information on the Greenland shark. By following this trail of sources, I was able to find an abundance of both historical and current information on the ecology of the Greenland shark. Another method I incorporated into my research while hitting a "roadblock" was adjusting the vocabulary I used in my searches. For example, when searching for "Greenland shark bycatch data" didn't provide enough results, I changed my search to "Greenland halibut bycatch data". By searching for research conducted on closely associated species or prey of the Greenland shark, I was able to find more detailed information and create my own analysis. Towards the end of my research process I still had limited information on the distribution of the Greenland shark, so I was able to find a few scientists through ResearchGate that are in the process of publishing a 2018 study on this topic. I contacted this group of researchers inquiring about their recent research and they sent me their unpublished study on Greenland shark distribution and movement in the Arctic Ocean. After analyzing their research, I was able to compare their findings with less recent studies and incorporate all of this information into my paper. Overall, my search strategy was extremely comprehensive and I utilized multiple different research methods as well as various types of sources.

The process of researching for this paper greatly improved my ability to efficiently sort through sources and it taught me how to navigate an abundance of online databases, most importantly the University of Washington's database. I heavily relied on the article database and the UW libraries search to find sources for my research. In order to effectively use these tools, I learned how to quickly adapt my topic to the sources I was able to find. I also learned how to

find less discoverable research by sorting through various research papers' bibliographies and references. This technique was vital to my search for reliable and in-depth research on the Greenland shark. Being able to narrow my search to peer-reviewed articles or dissertations was also a valuable tool within the UW library article database. Locating peer-reviewed articles was my first step in evaluating how reliable each source was. Within the polar sciences discipline, there are only a handful of scientists actively publishing research, so finding articles written by the same researchers was also a practical evaluative tool for source reliability. I also narrowed down most of my sources to articles written after 2005 because these studies contained the most updated and accurate information on the Greenland shark. Finally, I always made sure the sources I used were published by a well-known and scientifically respected journal. The guidelines I set allowed me to select the most appropriate sources for my research paper.