

2021 Charles H. Sternberg Scholarship

Christiana Garros, University of Alberta, Canada



I am a student at the University of Alberta who graduated in 2020 with a BSc in Biological Sciences and applying for a masters in paleontology. Throughout my studies, I underwent major shifts in the focus of my academic career, from starting with hopes of applying for medical school, to finally returning to my first love since I was a child, paleontology.

In my fourth year of my degree I did an undergrad thesis project focused on surveying the metatarsals of smaller-bodied arctometatarsalian and non-arctometatarsalian theropods (Elmisauridae, Ornithomimidae, Troodontidae, Dromaeosauridae) from the collections at the University of Alberta and the Royal Tyrrell Museum of Paleontology for the

occurrence of pathologies. I would like to expand on this topic for my masters, not only by surveying a larger number of theropod taxa from Alberta, but by expanding the focus to the entire hindlimb and comparing the pathologies to those of extant birds. In doing so, the survey will tackle something rarely seen in the literature. Previous paleopathology surveys in dinosaurs typically focus on a single species within one assemblage or review the literature of known pathology case studies. This scarcity means we have little idea of how often these animals were afflicted or if certain taxa were more susceptible than others. Furthermore, in comparing the pathologies in the hindlimbs of non-avian theropods to extant birds, we hope to gain insight into levels of activity and differences in locomotion, and how this has changed with morphology over evolutionary time.

As I work through this master's project, another large component of doing a paleontology masters at the University of Alberta is involvement in field work. Alberta is a rich fossil site, so field work is relatively accessible for those here want to do some digging. As an undergraduate I took part in a paleontology field course where I visited an Edmontosaurus bonebed and conduct fieldwork within the city limits of Edmonton, home of the University of Alberta. I hope to continue doing field work well into my masters, as others have done, because I value working with my hands and understanding the context within which fossils come from is valuable in the understanding of the material.

I have always loved academia and looking at my career moving forward, my goal is to continue past my masters to (hopefully) getting my PhD so that I may continue to research and teach others about the history of the natural world of which I am very passionate about. This scholarship would help support me as I start my master's degree and would help facilitate an important step towards my long-term career goals.