End of Summer Report FURSCA 2019

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Dr. Dan Skean, Supervisor

This summer as a first time FURSCA student, I worked with Dr. Dan Skean on a taxonomic revision involving four closely related species in the *Miconia impressinervis* complex on the island of Hispaniola. The four species include *Miconia bairdiana*, *M. erikmaniana*, *M. impressinervis*, and *M. torbeciana*. My ultimate goal for the project is to clearly define what species are in the *Miconia impressinervis* complex. The four named species are closely related and are often confused by botanists. Therefore, by working to create better descriptions of the species and an identification key, I hope to eliminate confusion in the future.

While I did not reach my ultimate goal of completing the species descriptions and identification keys, I spent most of the summer collecting the necessary data to do so. I made measurements of both physical herbarium specimens and photos of specimens online, then organized these data in Google Drive for each species. Figures 1 & 2 show some of these measurements for *Miconia impressinervis*. Dr. Skean and I also worked to standardize the format of the descriptions to allow a simple insertion of data when ready. While I would have preferred to complete all of the descriptions, spending the summer collecting data has provided a productive platform to work from in the future. This fall, I plan on completing the descriptions and I also plan to use my findings and experience from this project to create my honors thesis.

Being able to spend my summer in Albion as a FURSCA student has contributed positively to my future as a student and beyond. My research project has significantly furthered my interest

in botany. I feel that I have improved academically by gaining a better understanding of botanical terminology, plant anatomy, and microscope and software use. I am aware that I have also gained a greater sense of independence by working on this project individually while getting a taste of apartment style living. I plan to present my findings at the Elkin Isaac Research Symposium this spring and to use the findings for my honors thesis.

I offer my most sincere thanks to the supporters of the Hyde Fellows in Student/Faculty Research for their generous financial contribution in order to make my project, as well as others, possible. My research experience has been nothing but positive. It has been a wonderful learning opportunity that has benefited me greatly, and I will always think of it with a full heart.



Figure 1. Sample measurements of *M. impressinervis* leaves taken using xScope.

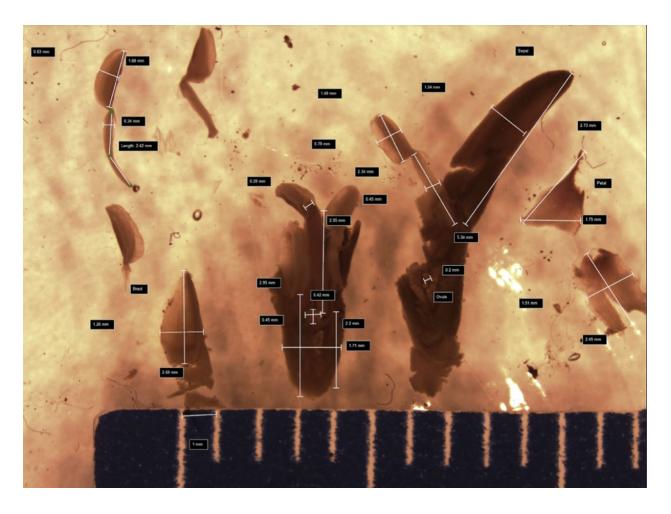


Figure 2. Sample measurements of *M. impressinervis* flowers taken using IC Measure.