2015

Communicating the overall experience of research through various approaches using art: a case study of the Prothonotary Warbler

Hannah Huddle
Virginia Commonwealth University, huddleh@vcu.edu

Lesley P. Bulluck
Virginia Commonwealth University, lpbulluck@vcu.edu

Sarah E. Faris
Virginia Commonwealth University, s2sefari@vcu.edu

Communicating the overall experience of research through various approaches using art : a case study of the Prothonotary Warbler

Hannah Huddle, Dept. of Communication Arts, with Dr. Lesley Bulluck, Biology, and Sarah Faris, Dept. of Communication Arts

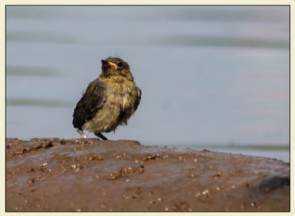
Introduction

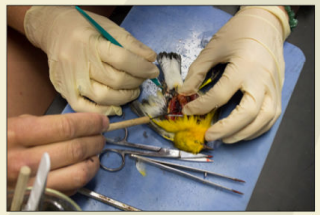
In general, scientific research has publication of data as the end goal. The process and experience, which are of great importance in art disciplines, is not necessarily represented or valued. However, science has an inherent element of art to it, which deserves to be shown. I have been studying Prothonotary Warblers with a team from the biology department to learn how I can reinterpret the research in a way that bridges the gap between the experience and typical scientific products. The research team measured spatial and temporal variation in warbler prey abundance (caterpillars and mayflies) and assessed how this affects warbler breeding success. They also measured the abundance of an algal toxin microcystin in the prey items and the birds themselves.

Methods

Throughout the summer I went into the field several times each week with a team of graduate students and Dr. Bulluck. I worked in the lab, weighing and sorting insects and leaves, and dissecting birds collected for microcystin analysis. I kept a sketchbook that doubled as a field journal, and took hundreds of photos.

After the summer field season was over, through an independent study with Professor Sarah Faris of Communication Arts. In the winter, I traveled with a team of faculty and students to study the Prothonotary Warbler and other species in Panamanian mangrove forests, which is the wintering location of many neotropical migrants.

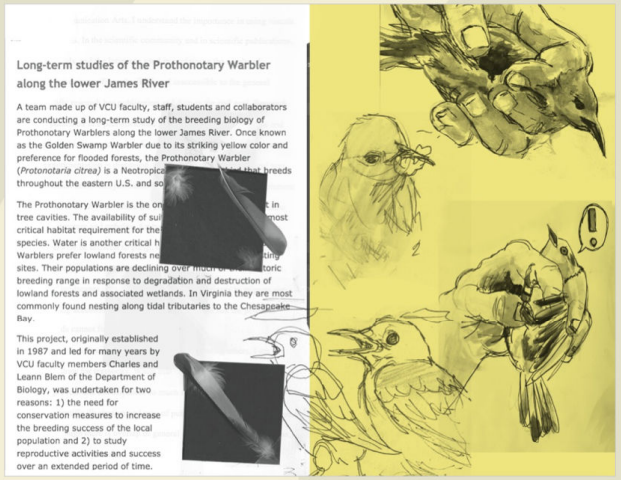


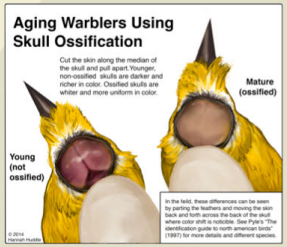


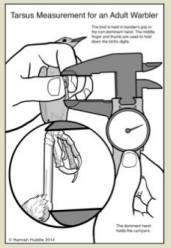
Results

I filled up over 100 sketchbook pages in two sketchbooks, one for my research in Virginia and another for our work in Panama. In both the breeding and wintering sites I took hundreds of photos of the process of research.
I made and distributed the zine "PROW", which had a very positive reception at the Richmond Zinefest.
I created informational drawings of how to properly take a tarsus measurement and classify nestlings age. These drawings will help to standardize the way these important measurements are taken among individual researchers and improve data quality.

The research team I was with found that nestlings are fed in accordance with fluxes in food resources, and that Microcystin is moving from the aquatic environment into the terrestrial environment through emerging aquatic insects (mayflies) and then into the warblers who consume the mayflies.







Conclusion

I have learned how despite the lack of communication using visual arts, the research has impacted many groups of people, from children in Panama to working professionals, through many human interactions. Through direct interactions and enthusiasm, those who do not partake in the visual arts have been able to share their experience in research in a way similar to what I found myself exploring in visual language. In my own work, I found that sketches and photos best represented the research, though I was able to create illustrations in other media also.

The next step I plan to take is to create a web portal that has information about the Prothonotary Warbler Project that will showcase photographs, research that has been done, individuals involved with the project, and drawings by myself and others who have worked with the bird over the years.

Acknowledgements

Special thanks to Dr. Bulluck and Sarah Faris for mentoring me. I'd also like to thank Nik Moy and Jenna Dodson, for their work in Virginia and Panama. Finally, thanks VCU UROP and VCUarts for their funding and guidance.