

Belize (2016-2017)

McMaster Fellow

Mary Ann Studer, Dean, McMaster School for Advancing Humanities— This project consists of a continuation of previous years' work in the following areas – (1) continuing to work with indigenous and Mennonite agricultural communities through soil nutrient monitoring; (2) working with Programme for Belize's sustainable forestry program by assessing canopy cover, forest regeneration, and compaction at selectively logged sites within the Rio Bravo Conservation Area; (3) continuing assay of sub-surface water in the New River Lagoon for nitrates, dissolved oxygen, and pH to establish a profile of this body of water; and (4) documenting narratives of women who have significantly contributed to their communities.

McMaster Associate Fellow

Rena Rager, Administrative Assistant, McMaster School for Advancing Humanity – At the request of several villages and communities, this project will present information and methods to conduct breast self-examinations. In addition it will provide women in the villages with information and personal testimony on the importance of early detection of breast cancer.

Also, a new project will provide information and training for a women's craft group that wants to form a cooperative that will enable sustainable access in the tourist markets in Belize City.

McMaster Scholars

Zack Bires, Junior, Athletic Training— This project will continue First Aid & CPR training with the people in San Carlos, along with other emergency preparedness. The second component of this project will be teaching exercise techniques in hopes of reducing the fall risk for elderly women in the community of Rancho Dolores.

Samantha Gomez, Junior, Middle Childhood Education: Mathematics and Language Arts— This project continues a pen pal project for schools in Belize to help improve functional literacy. Additionally the project will consist of developing lessons and providing implementation strategies for parents to support the pre-school established in San Carlos by former McMaster Scholars.

Madeline Homan, Junior, Molecular Biology— In this research project water quality analysis of both the potable and environmental water will be conducted at various village sites and in the New River Lagoon to contribute to the data collected over the past decade. The project results will be conveyed to the villages San Carlos, Rancho

Dolores and Orange Walk, as well as the Programme for Belize. This will also work to educate children and their families on the importance of clean water use, sanitation, and hygiene.

Catlyn Pavel, Senior, Intervention Specialist Mild/Moderate— This project will begin with a survey of the strategies used in Belize to help struggling students and continue by providing information about Universal Design for Learning (UDL) to principals and teachers to improve strategies for teaching a diverse range of students (ex: disabilities, age, those falling behind, etc...). This project will work to inform, train and assess how teaching and learning could be more effective for all students.

Zackary Reed, Senior, Exercise Science— This project will address the problem of poor nutrition in the villages of San Carlos and Rancho Dolores by increasing those community residents' understanding of the significant role nutrition plays in the leading causes of death in Belize - heart disease and diabetes.

Zachary Roush, Senior, Digital Forensic Science— This project will consist of multiple elements including (1) creating an application for mobile devices that will implement a non-invasive poverty index to assess communities in various McMaster locations; (2) working with principals of the Orange Walk School District to better utilize google docs and providing a technology training course for the women of Rancho Dolores; (3) conducting water safety training for the communities of San Carlos and Rancho Dolores; and (4) continuing to document family heritage information for rural village residents.