

BMCC Students Participate in NARCH Internships, Summer 2017

This summer, three BMCC students participated in internships programs with the Native American Research Centers for Health (NARCH). The overall NARCH program is housed within the US National Institute of Health and holds branches across the nation. Our students gain hands-on experience in the field and laboratory, as well as create networking pathways that help when entering a 4-year university and beginning a career.

Trista Foglesonger and Philip Strange participated in a 10 week NARCH collaborative internship between BMCC and Salish Kootenai College (Pablo, MT). Their work, "THE ROLE OF GENETIC PROFILING OF NATIVE AND HATCHERY WALLEYE (*Sander vitreus*) POPULATIONS OF MULLET LAKE MICHIGAN FOR TRIBAL SUBSISTENCE LIVING", focuses on understanding the walleye population of a sacred fishing site for the Sault Ste. Marie Tribe of Chippewa Indians (Sault Ste. Marie, MI). Trista and Philip identified a DNA isolation method for fish tissue that yields high DNA concentrations with high purity. Through literature searches, we identified microsatellite markers, which might be useful in the identification of distinct Walleye populations. Through polymerase chain reaction (PCR) the total DNA isolated from the fish heads in order to sequence the DNA. In addition to genetic profiling, the tribe will identify which of the samples have been hatchery raised by examining the fluorescent marked otoliths, a common practice of hatchery protocol. This information will be useful to future natural resource management of this traditional food; without the restoration of traditional natural resources, reserved treaty rights and tribal heritage cease to exist. In future work, these fish will be investigated for levels of mercury and selenium within muscle tissues of these fish.



Jacob Baker has spent the summer working on fish population studies within the Chippewa Ottawa Resource Authority facility, Sault Ste. Marie, MI. CORA establishes fish population counts and maintains Tribal fisheries within the 1836 treaty tribes: Bay Mills Indian Community, Grand Travers Band of Ottawa and Chippewa Indians, Little River Band of Ottawa Indians, Little Travers Bay Bands of Odawa Indians, and the Sault Ste. Marie Tribe of Chippewa Indians. Jacob will be attending Lake Superior State University for fall semester, 2017 in the fisheries and wildlife department.