

Shawnee Kasanke

Shawnee Kasanke is a PhD candidate in Dr. Sarah Roley's lab at Washington State University's Tri-Cities campus, and a member of the 2019 cohort of the Washington State University-Pacific Northwest National Laboratory Distinguished Graduate Research Program. Shawnee's PhD research investigates tri-partite mutualistic nutrient exchange between switchgrass (*Panicum virgatum*), *arbuscular mycorrhizal fungi*, and free-living nitrogen fixing bacteria. Shawnee came to WSU after completing her MSc in Biology at the University of Alaska Fairbanks in 2019, where she studied primary succession of vascular plants and cryptogams following glacial retreat in the Alaskan Arctic-alpine, with special focus on the role of lichens in vegetation community development. While in Alaska she also worked as an Arctic lichen specialist, working across Arctic and subarctic Alaska and Canada with the Alaska Geobotany Center under Dr. Skip Walker. Shawnee completed her BSc in Botany in 2013 at Humboldt State University, with a special focus on Mycology working with Dr. Terry Henkel on tropical *Ectomycorrhizal* forest ecology. While at HSU, Shawnee also co-founded the Humboldt State Mycology club and was an active member of the Humboldt Bay Mycological Society. Ultimately, Shawnee's goal is to pursue a career in academia that will allow her to become a research professor focused on understanding the roles of plant-fungal-microbial interactions in conservation of Arctic-alpine ecosystems facing rapid change. To achieve this goal, she is working towards developing a well-rounded skillset to facilitate research that will untangle mechanisms and driving factors of mutualistic interactions between plants, fungi, and bacteria from fine-scale laboratory systems, scaling up to dynamic natural ecosystems.