

A DEEP DIVE:

First-year students begin their university experience with an international immersion trip

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A group of freshman stepped foot on the Rivier campus this past August anticipating their first university experience, and for most of them, their first international excursion.

Dr. Susan Barbaro, Associate Professor of Biology, quickly made sure the first-year biology majors were prepared for the learning adventure that awaited them by introducing them to upper-class student mentors, instructing them on how to set up a tent, and ensuring their passports were up-to-date.

This ten-day teaching trip through the Niagara Escarpment in Ontario, Canada, was the first event held under the newly launched ARGYLES (Attract, Retain and Graduate Young Life Scientists) program. The ARGYLES program was made possible through a \$650,000 grant awarded to Rivier University by the National Science Foundation (NSF) to support the intellectual and career prospects of academically talented students from lower-income families and minority, female, or first-generation learners, who are currently underrepresented in the STEM disciplines.

“It was truly the ice-breaker event for ARGYLES and for these first-year students who experienced a lot of firsts all at once,” says Dr. Barbaro, author and administrator of the NSF grant, and organizer of the learning trip. “It was their first chance to get to know fellow Rivier students and faculty. For some, it was their first time outside New England, not to mention their first time out of the country. And for most everyone, it was their first time camping and hiking through such a diverse, natural landscape.”

Mariangely Martinez, a first-year ARGYLES students, was especially appreciative of the opportunity to participate in this research trip. “I was thrilled to be able to be a part of this once-in-a-lifetime experience,” shares Martinez. “I was able to travel to another country (something I hadn’t done before) and was actually able to see one of the Seven Wonders of the World. And for that I have to thank Rivier University and Dr. Barbaro.”

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Joining Dr. Barbaro and the first-year students in the ARGYLES program were eight upper-class biology majors; **Dr. Joe Spadano**, Associate Professor of Education and Mathematics; **Laura Scaife**, geologist; **Mary Daily**, retired local educator; and **Phil Redman**, chef.

The group arrived in Ontario with a full itinerary of exploration, research, and community building activities. They began their trip taking in the natural wonder of Niagara Falls with guided tours behind the falls and along Niagara's White Water Walk. Subsequent days brought fossil hunting, forays in tree identification, and water quality testing at many geological and environmental sites. Additional learning experiences were led by a faculty member of the University of Waterloo in Ontario who addressed the significance of the area's land usage and sustainability efforts, as well as the critical need to protect one of the most interesting ecosystems in the world.

"Relationships were quickly forged and information was shared that helped augment traditional academic opportunities for our students," says Dr. Barbaro. "They had unmatched access to a geologist who revealed the grandeur of the Niagara Escarpment, the falls, and the Great Lakes."

Beyond the research and learning, the trip also served as their first exposure to university life by introducing first-year students to upper-class student mentors, as well as to faculty members. A primary goal of the ARGYLES program is to establish working relationships between students, faculty and community members by opening channels of communication that can lead to improved academic and professional opportunities.

Under the scholarship program, ARGYLES students are required to participate in this annual learning trip, a precursor to serving as mentors for next year's new cohort of ARGYLES students. Additionally, they will attend multiple events hosted by the Rivier Biology Department and Biology Club, complete research projects, attend mentoring and tutorial sessions, participate in the new Inquiry Camp for high school students to be held at Rivier in summer 2018, and attend regional or national conferences at which they will be encouraged to present their research completed during the year.

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After the tents were packed up, the water samples secured, and the concerns of avoiding bears at their campsites erased from their minds, the group returned to campus better prepared for the start of the academic year.

“I expected the trip to be educational, and I expected to be placed out of my comfort zone,” recalls first-year ARGYLES student Patrice Freeman. “My fondest memory is sitting around the campfire in Cape Crocker Park having dinner under the stars with new friends, while Dr. Barbaro and Phil Redman sang songs.”

Beyond introducing her to new people and community-building experiences, Freeman was also able to explore her academic and professional aspirations by taking part in the field research. “The trip has refreshed my love for fossils and geography,” says Freeman. “It made me less afraid of possibly changing my field of study in the future.”

As the ARGYLES program continues to establish itself over the coming year, Dr. Barbaro and her students will surely not forget sharing this trip of firsts.

“I’m sure they were originally saying, ‘Oh my gosh, what have I gotten myself into?’” reflects Dr. Barbaro. “But being in the wilderness for as long as we were, I think they forgot all about starting college and being away from home for the first time. And they made valuable connections with fellow students that will help them throughout their time at Rivier.” ■