After graduating from the MES program in 2009, focusing on sustainability, conservation, and botany/ethnobotany, Natalie Pyrooz took an 8 month journey through much of South America, volunteering with several NGOs and private reserves. Afterwards, she wanted to lend her expertise in a more substantial manner to these countries which host fascinating biodiversity but lack many financial or academic resources. The last place she volunteered was the Reserva Biologica Cerro Seco (RBCS), in the coastal dry tropical forest of Ecuador, near Bahía de Caráquez. This area has had very little ecological study but boasts a 25% endemism rate, and Natalie was inspired to return to do a botanical inventory and develop a field guide to the plant species of the area.

Self-funded by a combination of extreme frugality and seasonal field jobs, in May 2010 Pyrooz returned to the reserve and embarked upon the study. The project involved collecting samples of fertile and infertile plant specimens, and she worked both alone and led groups of national and international volunteers and tourists to do this. Because there is no taxonomic key to the area, and there are over 18,000 documented plant species in the country the size of Colorado, she volunteered in the National Herbarium in the capitol city of Quito to ID the plants to species when possible, as well as educate herself on herbarium management in a developing country. During her time at RBCS, Natalie also educated school groups and locals about plant and forest ecology, and helped with restoration efforts.

Pyrooz was fortunate to have a few exciting discoveries: she found a plant species new to science, which she hopes to describe and publish; there are also at least two species collected which are Critically Endangered: one had only been collected once previously in 1897, and the other documents a new population of a species in which there were only 3 previously documented populations.

Pyrooz says MES program cemented her abilities to coordinate groups, manage large amounts of data, and plan an intensive study of this magnitude. It also helped in enhancing her perspective on how policy influences environmental management and she provided valuable input to the decision-making process at RBCS as they develop sustainable eco-tourism in the area.

Natalie hopes to return next year to elaborate the study further, as the forest changes seasonally and she was unable to collect many species emerging during the wet season. She believes her current findings will help to solicit future funding and partnership opportunities. If anyone is interested in learning more about her work, please contact her at natalie.pyrooz@gmail.com.