

Paging through the stacks of herbarium vouchers in the Herbario Nacional de Chile in Santiago, I couldn't help but notice that a folder was missing. The herbarium staff let me know that meant someone had a portion of the collections out on loan. So I wasn't the only one studying this obscure group of Chilean desert wildflowers? They wrote out the name of my clandestine colleague on a sticky note. It read: Sebastien Tellier...

By this point, my stay in Chile was coming to an end. Thanks to the support of a Tinker fellowship from CLAS, I had spent the last two weeks visiting herbaria and meeting with Chilean botanists to investigate a curious geographic disjunction in a tribe of wildflowers belonging to the daisy family (Asteraceae). The group in question is known as the rock daisies (Perityleae) and they are the focus of my Ph.D. thesis in Integrative biology at UC Berkeley. Most of the species in this group are found in North America, in arid environments in the Southwest U.S. and Northern Mexico, but populations of rock daisies have also been found in the Atacama desert of Chile – a geographic disjunction of over 2000 miles! Curiously, past botanists placed the Chilean populations squarely within a species group that is North American in distribution. I wondered if these populations actually constituted a cryptic species, deserving of its own taxonomic recognition, so I had come to Chile to give them a closer look. I had underestimated the complexity of the problem however. After sleuthing through the stacks in the national herbarium, it was apparent that the Chilean rock daisies were not a cryptic species, but a whole group of species new to science! I was going to need collaborators if I wanted to take this project on.

A major obstacle to resolving the diversity of rock daisies in Chile is that collections of these obscure but distinctive wildflowers are few in number, giving the impression of far-flung, rare and isolated populations. To find out if this was really the case, I met with Dr. Patricio "Pato" Pliskoff of the Universidad Catolica, an expert in the distributions of Chilean plants. In his office in the University we combed through the database on his computer for records of observations of the rock daisies, but few surfaced. We talked about the need for more fieldwork to build up this dataset, and eventually I mentioned the name Sebastien Tellier. "Es uno de los Botanicos mas conocidos de Chile," Pato told me. One of the best-known Chilean botanists! Where could I find him? Pato didn't know.

Systematics is the field of biology concerned with documenting and describing the diversity and relationships of organisms. At a basic level, it includes the process of species discovery and description that is fundamental to all other fields of biology. Plant systematists work at a diversity of scales, both taxonomic and geographic, and are often the ones who know the flora of a given area better than anyone. That was why I decided to connect with Rosita Scherson, a plant systematist at the Universidad de Chile and an expert in the diverse genus *Astaragalus*, whose recent work has resulted in the first

broad scale study of the phylogenetic diversity of Chile. Rosita was extremely generous with her deep knowledge of the flora and we talked for a long time, eventually making future plans to go to the field to look for rock daisies during the appropriate season. I told her about Sebastien Tellier. "Tienes que conocerle," she said and sent me a letter of introduction over email.

Sebastien's reply was short and to the point, consisting of his address and a time when I should come visit. When I arrived, a futbol match was on TV and a group of older men were drinking beer and watching the game. I sat to watch and celebrate with them when Chile won the game. Afterwards, Sebastien pulled out the folder that was missing from the herbarium and walked me through the delimitations of species he had been working on for this group of plants. Incredibly, we had come to many of the same conclusions about the species limits and cryptic diversity within the group. "Parece un genero en pleno embullicion!" Sebastien said. In the end, we agreed that field work and molecular study was going to be needed to fill in the gaps in our knowledge of this fascinating group, so we made plans to rent a truck and drive up the deserts when the season was right. I was going to need to find a my way back to Chile again soon.

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