Collecting *Passiflora* subgenus *Astrophea* (Passifloraceae) in the Colombian Andes

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We are driving along the western flanks of the Cordillera Occidental in the Colombian Andes. The sun is shining; it is pleasantly warm, and there are only a few clouds far off on the horizon. As I watch the rugged Andean peaks glide past my window, I try to imagine the immense forces that have given rise to these majestic mountains, now covered with our planet's most remarkable plant diversity. We descend slowly, about 800 meters, into the Río Cauca valley before heading back up the western flank of the adjacent mountain range, where we reach an altitude of nearly 2,500 meters. We are en route to our next field destination in the Central Andes of northern Antioquia, where we hope to find a rare, endemic passionflower.

Passiflora engleriana is a remarkable species. Unlike most members of the passionflower genus (~645 spp.), it is a tree rather than a climbing herb. Like its close relatives in the *Astrophea* group (13 spp.), it is self-supporting and has lost the ability to climb. The species was first collected in 1891 near the Antioquian town of Yarumal, but the most recent collections were made in the 1980s within the municipalities of Entrerríos and Santa Rosa de Osos. These recent collections have determined our current destination, as this is exactly where we are headed now.

Soon after leaving the western Andes, it becomes painfully clear that the entire subregion of Northern Antioquia is severely degraded by intensive pasture use, and only a few patches of natural habitat remain. Later, we would find out that amongst its locals, the area is cynically known as Vía Láctea, or Milky Way. I feel my heart sink— it is so unlikely that we will be able to find Engler's passionflower here. But soon, after following every small clue from the herbarium collections we so carefully studied prior to the trip, we round a corner, and there it is! A healthy population of trees, ranging from 2.5-4 meters tall, stands growing along the rocky banks of a (heavily polluted) waterfall. We meticulously record multiple mature individuals, even finding some in flower and others in fruit. What an unexpected success! We labour under the sun, pressing herbarium specimens, collecting silica-dried leaf samples and taking detailed photos of particular leaf characters.

While we work, we study each specimen closely and fill in data gaps with the material we collect. All this information will contribute to my PhD, which focuses on the evolution of leaves in this group of passionflowers. Here in the Andes, these have coevolved with a small group of Neotropical butterflies, whose larvae are immune to the plant's defence toxins. Once we get back from the field, the samples will be used to explore morphological, chemical, and genetic diversity, helping me answer the questions that underpin my research.

In total, we spend 2 weeks in the Western and Central Andes of Colombia, covering the departments of Antioquia, Risaralda and Valle del Cauca. Despite setting out to find an elusive group of plants, we make 26 different collections and manage to find a total of six Astrophea species. Overall, the trip is a huge success!

Figure 1: Rebecca and Connor are pressing *in-situ* herbarium specimen of the collected *Passiflora engleriana.*

Figure 2: Flower of *Passiflora engleriana.*

Figure 3: The large leaves of *Passiflora magnoliifolia* with Rebecca for size comparison.