

day. From base camp the porters would cut paths up to an area at the top of the ridge called Cerro Negro. The ridge that we were on had the Rio Sand Pedro to the east and Quebrata

Chinchin Chico to the west. Our search would begin from the moment we hit primary forest and continue onwards to Cerro Negro.



As the photographer and historian of the team, I took photographs of the surrounding areas near the refuge, while the porters cut the path and while Andy searched for specimens. Within the two hours that I was at the refuge, the mist set in twice, it rained twice and finally at 5pm the sun emerged and cleared the sky only to disappear into the mountains a couple of hours later. Daisy Kunstaetter, author of the 'Footprint' guide to Ecuador said over desert a couple of days before we left that once she found steaming tapir feces a few feet away from her while she was eating lunch but the fog was so thick that she never saw the tapir. This kind of rapidly changing weather is exactly why the Upper Pastaza area is so special. When the wind is blowing from the east across the Amazon, it picks up moisture that turns into thick mist, fog and eventually heavy rain when it blows through the Pastaza Valley. And when the wind is blowing from the west,

cold, drier air from the Andes sweeps across the area, clearing up the mist. Because of the intermittent heavy mist and rain, the eastern slopes of all the mountains in

the area are rich in moss covered trees and more importantly, they are rich in what is growing on the moss - orchids. Also, the Pastaza valley

is one of the steepest valleys in Ecuador. The valley channels the wind into such a deep crevice that it creates powerful winds which roars through the valley with tremendous velocity. Each nook, cranny or dent on the sides of the mountains hits the wind differently, each creating different microclimates.

The dense vegetation makes progress through the forest difficult. It took all day for the porters to cut a path that was no longer than a few hundred meters. While they were cutting the path Andy went and searched along what was already cut. The first day of searching turned up some common Lepanthese and a few that were unrecognizable species that could be something new. There is so little known about orchids in these areas and there is such an amazing variety of species due to the microclimates nearly half the times that Lou has headed up one of these ridges, he has discovered something unknown to science. Perhaps it is the weather and the

density of the forest that has kept the treasures in these forests a secret from most botanists. It could also be that the diversity in these areas overwhelms botanists. Nigel Pitman, a botanist at Duke University estimates the variety of plant life is so great that you have only a two percent chance that the next tree you look at will be the same species as the last one you look at in the tropical forests of Ecuador. It is difficult for any scientist to feel confident they know all the species indigenous to even a small area of these forests. Due to the steep learning curve, the density and the difficult climate, up to 80% of cloud forest has never been cataloged. On our overnight trial trip above the town of Viscaya, we became well aware of how harsh the cloud forest can be. It rained the whole trip. Throughout the duration of the entire we were cold, wet, cut up from Espadaña grass (sword grass), attacked by small mosquito-like insects called aranillas, and often stuck in knee-deep mud. .

Regardless of the variable weather during the day at the refuge, at night the sky was relatively clear and the moon peered through the clouds every couple of hours. The almost full moon lit up the sky and we were able to see the Sacha-Llaganates and Mayordomo in the distance with only a few clouds fringing the summits. Despite the brightness of the moonlit night, Mario insisted on making an oil lamp out of some string he found, diesel fuel and a ketchup bottle. He poked a hole through the bottle cap and pushed the string through.