

NEBLINA EXPEDITION

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Between December 1998 and January 1999, a group of carnivorous plant enthusiasts was able to climb the highest mountain in Brazil for the first time. The 3014 m high Pico da Neblina (Portuguese for “Fog Peak”) is lost in the middle of the Amazon rainforest, and because of its isolation and inaccessibility only a few botanical expeditions have reached its top—and these were only possible because of helicopters. Andreas Wistuba, Joachim Nertz, and I had long dreamed of and often discussed going to Mt. Neblina to see fantastic carnivorous plants such as *Heliamphora tatei* var. *neblinae* and a “missing link” *Drosera* species called *D. meristocaulis* (see the article on page 120). At the 1998 ICPS Conference in Bonn we finally decided that six months later we would attempt to hike up to Mt. Neblina. We didn’t know how to get there, nor even if there was a trail up the mountain. All we had were a few clues, snippets of information from here and there, and rumors. We were not much better off in December, when the eight expedition members finally converged in Manaus.

The expedition truly began with a flight to a small town near the triple-border of Brazil/Venezuela/Colombia (passing over a seemingly infinite green carpet of forest cut by large winding rivers), endless negotiations with ‘garimpeiros’ (illegal gold prospectors—none of which inspired much trust), buying our supplies, organizing transportation and equipment, and bureaucratic trouble with all our permits (including one to collect plants). We secured two guides and three Yanomami Indian porters, and finally began our trip upriver. We passed high green walls of trees on the riverbanks and occasional Indian villages, but saw surprisingly little animal life. Fortunately, the water in the rivers was high, and after chugging along for only two days we reached Mt. Neblina.

Once on land again, we began the next leg of our trek: a 30km, uphill hike through thick, steaming rainforest. But even before starting, an unexpected problem developed: weight! Our guides and porters all of a sudden refused to carry up as much weight as they had promised they would—but none of us could bear to leave anything behind. This problem would haunt us continuously throughout the hike up and down Mt. Neblina and I had a hell of a time arguing with our guides and porters at every rest stop. But there was no solution other than to reluctantly carry more weight than we had planned to. As we climbed higher up the mountain, the exhaustion slowly convinced us to shed some of our weight and a trail was formed of small bundles wrapped in plastic bags to be picked up on the return journey.

The rainforest seemed never-ending and I have to admit I was soon quite sick of it. I couldn’t wait to set my eyes on some carnivorous plants! Then suddenly, at around 1600 m elevation, there was a surprisingly clear and abrupt transition to cloud forest, and we finally began finding carnivorous plants. Among the moss-covered tree trunks, we first found *Utricularia alpina* with huge white flowers, and then the beautiful orange-red blossoms of *U. campbelliana*.

Another abrupt transition brought us to the more open highland vegetation and large bromeliads were suddenly everywhere, all seemingly infested with *U. humboldtii*. The large light purple-pink flowers of this *Utricularia* were so abundant

that we were soon ignoring them as other carnivorous plants caught our attention. Growing in a peaty, sandy muck were rather unusual-looking *Drosera roraimae* and striking, dark pink-flowered *U. quelchii*.

After a few hundred meters of sinking in that deep muck up to our knees, we reached the summit campsite at 2000 m elevation. But where were the *Heliamphora* and *Drosera meristocaulis*? We thought we would be seeing them everywhere, as soon we reached the high altitude vegetation, but there were no signs of them. Nor did we find any the following day, while hiking in areas near the campsite. While we had our first view of the actual summit of Mt. Neblina, rising dramatically like a giant needle piercing the sky (it reminded me of the Matterhorn, but without any snow), in terms of carnivorous plants we only saw more of the same species we had seen on the previous day. Yet luck had not left us altogether and we did discover a (possibly new) species of *Drosera*, a small rosetted plant that looked like a cross between *D. brevifolia* and *D. montana*.

On our second night at our summit camp, we were all too exhausted to drag ourselves out of the tents at midnight to celebrate the arrival of the new year—nor did we have any *Heliamphora* pitchers to drink the champagne we had lugged all the way up the mountain, as we had planned. The next day, we headed in a new direction and after about an hour's hike, we finally found *Heliamphora*! They just popped up in a habitat that seemed no different from dozens of others we had seen over the previous two days, in boggy, peaty soil semi-shaded by low vegetation.

We later discovered that this plant was common all along the final leg of the trail to the top of Mt. Neblina, where many plants were seen in flower. It even grew above 3000 m, next to the Brazilian flag marking the highest point—making it the highest *Heliamphora* population in the world! (Figure 1)

One site we found with *Heliamphora* was simply incredible. Maybe a plant had gone wildly crestate many years ago, I am not sure. All I know is that hundreds of small pitchers were densely clustered and piled upon each other, forming a mound around 1.75 m high and at least double that across at the base. Numerous other plants were growing on this mound, including *D. roraimae*, and a small tree grew right through it.

On our third day at the summit, the first of the new year, we finally stumbled on a very boggy site with *H. tatei* var. *neblinae*. An area of approximately 200 × 50 m was packed with this species in flower. What fascinated us all, more than the size and beauty of the plants, was their incredible variability. There were all-green to all-red plants; long thin pitchers to short fat pitchers; long tongue-like lids to small rounded lids; stems invisible underground to visible above ground (either lying over the soil or leaning on surrounding vegetation for support and reaching 1.5 m in height!); throat hairs absent, to thin and numerous, to coarse and scarce; and so on. Each clump seemed to be a completely different species! I had to keep reminding myself that some of the larger clones with long lids were not *Sarracenia*! That was the best start of a new year any of us had ever had!

The only other carnivorous plants we found on Mt. Neblina were *U. amethystina* and *U. subulata*. We did not see *Genlisea*, strangely enough, nor did we find *D. meristocaulis*, much to my distress. My last hope was the hike to the summit of Mt. Neblina where I expected to find different habitats and hopefully different carnivorous plants. My hopes were destroyed. Near the top we found a single specimen of *Saccifolium bandeirae* (Saccifoliaceae, Gentianales), a weird plant which was suspected of being carnivorous. But we could find no trace of glands on the underside of its inverted cupped leaves, which reminded me of a young *Cephalotus* in tissue culture.

Four days after beginning the descent of Mt. Neblina we were feasting greedily

on a huge barbecued meal back in civilization ("civilization" being a word that we would never have used to describe that small frontier town, at least not before spending thirteen days in the rainforest!). We had all survived the hike, fortunately with only minor injuries and illnesses. Nonetheless it had been the most exhausting and demanding trip any of us had ever been on. Technically speaking, the final leg of climb to the summit of Mt. Neblina was the most difficult mountain trail I have ever done, and involved quite a bit of rock climbing skills. We later learned that we had hiked up along the northeastern ridge of the Neblina Highlands while previous botanical expeditions had landed their helicopters on the northwestern ridge. This explains why we did not find a single *D. meristocaulis*, which had been reported as common.

Maybe next time...



Figure 1: The exuberant, but sodden expedition at the top of Mt. Neblina, holding innovative champagne servers (*Heliampora* pitchers). From left to right: Christoph Scherber, Andreas Wistuba, Gert Hoogenstrijd, Joachim Nerz, Fernando Rivadavia. The guide Deco is in the rear, by the Brazilian flag. Photograph by G. Hoogenstrijd.

CARNIVOROUS PLANTS HIT THE BIG TIME!

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When I was four years old, my mom read to me a book called *The Reason For A Flower*. It had a few pictures of carnivorous plants, and I just had to learn more about them. I read all the library books I could get my hands on, and when Easter came the Easter Bunny brought me a butterwort (*Pinguicula primuliflora*) and a Venus Flytrap. Then mom took me to The Chattahoochee Nature Center to meet Henning von Schmelting. He knew a whole lot about carnivorous plants. He gave me some and I grew them really well! Since then I have been reading and studying a

whole lot about them.

I am learning how to take care of ones that are more difficult to grow, like a *Pinguicula* species from Pachuca. I won two blue ribbons at the Southeastern Flower show for my *Utricularia gibba*! I have *U. gibba* because I went to an aquatic plant store to buy some water hyacinths for a plastic basin in my back yard. A year later I noticed there were some plants in my basin that had little bladders on them. I said, "Mom! I think there's a carnivorous plant growing with my water hyacinths!" She said, "That's not possible! You're just imagining carnivorous plants everywhere!" I took some of the plant to show Henning and he said they really were bladderworts. He said those water hyacinths might have come from the wild and maybe had some bladderwort plants or seeds hitchhiking in their roots.

Once I wrote a letter about my carnivorous plants to a TV game show called *Figure It Out*. (It is broadcast by the Nickelodeon Network, and my dad says it is like a kids' version of an old show called, *What's My Line?*) In March 1998, they picked me to be a contestant on the show. I won the grand prize because no one on the panel could guess I grow carnivorous plants. The producers from *Figure It Out* called the producers of *The Tonight Show With Jay Leno*, and on July 15 1998 I was on *The Tonight Show*. I taught a few million people about carnivorous plants!

Instead of flying my plants to Orlando and Burbank for the shows, Henning knew carnivorous plant growers who helped me out. Steve Steward from Orlando let me borrow plants for *Figure It Out*. He showed me all the cool plants he grows at IBW Enterprises, and he even gave me some to take home. Leo Song at California State University at Fullerton, and Tom Johnson who is in charge of the ICPS seed bank, helped me out and showed me around their greenhouses. I was very excited to see their awesome plants! I borrowed a few of their plants for *The Tonight Show*.

Jay Leno acted like he was scared of the plants, but I told him and the audience that the biggest thing ever eaten by a carnivorous plant was probably a rat. On the show I put one end of a long worm in one trap of a Venus Flytrap. I put two other parts of the same worm into two other traps on the same plants. I said, "Food fight!" Everyone clapped and laughed. I showed Jay a *Nepenthes bicalcarata*. He pretended the plant was eating him. I said, "Oh Puh-lease!" I told Jay about the two thorns that look like fangs under each trap's lid.

At California State Fullerton's greenhouses, where I met Leo Song, I also got to meet Art North. He raises *Nepenthes*. He showed me some great pictures he took of *Nepenthes* on his trips to Mt. Kinabalu in Borneo. My biggest dream is to go to Mt. Kinabalu someday.

I am very lucky that I have met plant growers who are interested in talking to kids about carnivorous plants. I feel very happy when they talk to me and answer my questions. I am a kid with a lot of questions. I have made presentations about my carnivorous plants to other kids in different classes at my school, even kids who are much older than me. I show kids what my carnivorous plants can do, and they love it. I tell them that many carnivorous plants are endangered and should not be collected from the wild. I think it is a good idea to teach kids all about carnivorous plants, because we want kids to learn about nature so they will help preserve it.

Eight-year old Shawn wrote this article with a little help from his mom. ICPS members who attended the 1996 meeting in Atlanta may remember Shawn—he passed around a giant cookie that he and a friend had decorated to look like Drosera erythrorhiza.