



*Nepenthes attenboroughii*

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*Nepenthes attenboroughii*  
**A new species of giant pitcher plant from the Philippines**

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In June 2007, I visited the island of Palawan in the south of the Philippine archipelago to study the little known species of pitcher plants (*Nepenthes*) which occur there. The diversity of *Nepenthes* on Palawan is very unclear at present and several new remarkable species have been discovered there in recent years. Lying so close to Borneo, yet isolated by ocean, Palawan boasts a magnificently diverse assemblage of plants and animals, yet the activities of various rebel fractions in recent decades have caused this island to remain relatively little visited by botanists and little explored – especially in comparison to other parts of South East Asia. I had the pleasure of traveling to this alluring island with two friends and *Nepenthes* experts, Alastair Robinson and Volker Heinrich. At an early point in our expedition, we identified Mount Victoria in central Palawan as a mountain of particular interest for us to explore. Mount Victoria is of a suitable altitude for highland *Nepenthes* and also of the correct geological composition (according to the scant geological survey data of Palawan that exists). We also reasoned that prevailing trade winds could conceivably transport light weight *Nepenthes* seed across the comparatively short distance over the Sulu Sea from nearby Sabah, Borneo, where a great concentration of highland *Nepenthes* (including the largest and most spectacular species of all) famously grow.

We had also previously received information that added to this mountain's allure. In the late 1990s, a group of four Christian missionaries stationed in a nearby village, had ascended Mount Victoria in an effort to install a radio repeater tower on the summit of the mountain. Their hope was to provide the remote rural villages of the surrounding area with radio communications however the missionaries had made their ascent with little preparation and although they successfully reached the mountain top, they were unable to descend and became disoriented and lost. After several days, being critically short of food and general supplies, the missionaries were forced to use a satellite telephone to organize a helicopter evacuation and eventually they were rescued and escaped unharmed. They failed in their original effort, however in their accounts of their ordeal, the unfortunate missionaries recorded seeing large pitcher plants on the summit of the Mount Victoria although not being botanists they could not provide any further information.

At the time, only two species of highland pitcher plant were recorded from Palawan (*N. deaniana* and *N. mira*). Both species are endemic to isolated mountains far from Mount Victoria and so it seemed unlikely to us that the plants the missionaries had seen could be either of these species. It seems few other expeditions have ever reached the summit of Mount Victoria – we found no herbarium specimens from this mountain in

any of the botanic gardens of Europe or Asia and indeed the only other expedition that appears to be recorded was that by a team of geologists many years ago.

On June 21<sup>st</sup> Alastair, Volker and I arrived at the village of Narra on the east coast of Palawan to discuss the prospect of climbing Mount Victoria with representatives of the local community there. We visited the provincial mayor and received his permission to climb the mountain. The mayor personally escorted us to a nearby village to assist us in finding help. After searching for one full day, we were eventually directed to a nameless hamlet several kilometers inland, on the fringes of the rainforest and in the shadow of the looming massif of Mount Victoria. The hamlet consisted of three wooden homesteads that were owned by hunters who informed us that they occasionally venture up the foothills of the mountain to hunt and collect fire wood. The three hunters knew of no one reaching the summit, but they agreed to escort us up the mountain to at least as far as they could take us. They insisted though that they were not certain we could reach the mountain top but we wanted to attempt the climb regardless. We sat by the homesteads looking towards the looming mass of Mount Victoria which was hidden by the clouds. For a brief moment, the misty veil that obscured our view cleared before us and we saw Mount Victoria clearly for the first time – a massive, abrupt mountain with two clear summit peaks. Soon the clouds closed and darkness descended and we returned towards the coast to find a homestead where we could purchase rice and the necessary provisions for the expedition.



**Our first glimpse of Mount Victoria from the hunters' homestead.**

The following morning we met the three hunters who would be our guides at 6.00 am in the morning and began our trek. We had hired an off road vehicle and we drove as far inland to as close to the base of the mountain as possible. We began walking where the dirt road became impassable, several kilometers from the slopes of Mount Victoria. For the first day, we trekked continually through lowland forest, crossing many rivers and penetrating through dense, pristine rainforest. Once we encountered a hunting party – two locals with rifles with a host of several hunting dogs. Soon afterwards, even the faintest trails disappeared and we could proceed only by walking in the channels of the gushing rivers that were flowing down from the mountain top ahead. In a few clearings in the lowlands, we encountered great stands of the spectacular lowland pitcher plant *Nepenthes philippinensis* as well as strange pink ferns and blue mushrooms. While the *Nepenthes philippinensis* plants were certainly spectacular, that species is widely distributed and quite common across Palawan. It is also known only from low altitudes and so could not be the plant which the missionaries had reported from the mountain top. We continued forward hoping that the plant we sought would indeed prove to be as special as we hoped. After eight hours of walking, at around five o'clock in the afternoon, we decided to make camp before darkness arrived. We searched for a flat surface on the mountain slope to set up camp – not an easy task as out of the river bed, dense forest cloaked the steep mountain side. It started to rain and the level of the river began to rise rapidly, but eventually we found a suitable location and set up our tents just before darkness descended.

During lunch earlier that day, I had noticed one of the hunters trying to open a can of tuna (lunch rations) with his eighty centimeter long machete blade. I had helped him with a can opener and told him to say to me if he needed help again. That evening, the same hunter had apparently tried to open his dinner (two cans of



*Nepenthes philippinensis*



Pink Ferns



Blue Mushrooms

various meats) with his great blade but unfortunately this time, he slipped and sliced his hand severely. He came to me for help and I applied butterfly (sticky) stitches and bandaged his hand with the medical supplies we had brought with us. I suggested strongly that we should return the following day and go back to the villages in the lowland for proper medical attention as the cut was at least a centimeter deep. To my amazement, the hunter refused and firmly insisted we should continue. I explained we would of course still pay them the same rates we had agreed but he explained he had cut himself many times before (and showed me machette wounds on his arms and legs) and boasted this was just a scratch and he would heal soon. So reluctantly, we decided to continue up the mountain to the summit.

On the following day (June 23<sup>rd</sup>) we broke camp early and continued our ascent. Climbing was becoming considerably more difficult – the gradient of the peak had become increasingly steep and we were now forced to zigzag our way up the abrupt mountain sides carefully amongst ever shorter and increasingly mossier trees. Eventually we reached a broad, level shoulder below the summit of the mountain. It was as far as the hunters had previously traveled to and they were unsure of the direction of the peak and became hesitant about proceeding further. At this point, the forest was growing thinner, but it was far too dense for highland pitcher plants so we had to continue if we were to find the plants the missionaries had encountered. There were no trails or paths, we pushed forward by machetteing a route through the forest. The trees obscured our view of the mountain summit, however fortunately we had brought GPS units with the coordinates of the mountain top which we had acquired from satellite maps. Guided by the GPS units, we were able to identify the approximate direction of the summit of Mount Victoria and so blindly continued through the sub-montane forest. Remembering the disastrous expedition of the missionaries a few years earlier, we carefully cut notches and clear marks in the trees so we would be able to easily return along the same route when descending the mountain.

After a few hours, we came across signs of previous visitors – we noticed machete marks in the trunks of the trees and the vestiges of an old trail – a corridor of saplings were growing amongst larger sub-montane trees which showed that years earlier, a path had been cut – it was not a pleasant thought that we might be following the path of the ill-fated missionary expedition.

We continued to climb and passed the remains of an old abandoned hunters camp – the rotting remains of a platform of sticks which had been bound together to form the basis for a simple shelter – perhaps once covered with great fronds as I had observed lower down on the mountain slopes. Certainly it had been many years since this shelter had been used. Perhaps it was even a shelter which the missionaries had constructed during the several days that they awaited their rescue. We continued to climb and slowly the stunted trees were replaced with bamboo and finally but abruptly, the bamboo was replaced with dense low growing vegetation that was a meter or so high. When we stepped out of the bamboo forest into this montane heath vegetation, we could clearly see the summit of Mount Victoria rising in front of us, a few kilometers ahead in the mist. It was raining, but we proceeded onwards regardless, seeing our goal in sight and

proceeded by traversed a steep ridge up one of the northerly of the two peaks of the mountain. On one side (the southerly side) the slope was relatively gradual, however the other side of the ridge fall away as an almost sheer drop for hundreds of metres.



**The summit of Mount Victoria**

As we continued, the vegetation got increasingly shorter and eventually was reduced to scrub amongst large rocks and boulders. At around 1,600 meters above sea level, we suddenly saw one great pitcher plant, then a second, then many more. All of a sudden, we were surrounded by them, we had arrived at the specific habitat niche where they occur – the missionary’s report had served us well. It was immediately apparent the plant we had found was certainly not a described species of *Nepenthes* and certainly much larger than all other species of *Nepenthes* known from Palawan.

Darkness would soon descend as it was already 5.00 pm so we studied the new plants for half an hour or so, and then Alastair, Volker and I climbed to the very highest part of the summit peak ecstatic at the plant we had found. The hunters were bewildered by why we should travel so far to reach such a cold, wet, misty and windy place and certainly my efforts to explain the importance of the plant to them was completely lost. They just said it was a ‘nice flower’ and looked at the three of us in a strange way.



*Nepenthes attenboroughii*

We were forced to erect our tents before nightfall and so studying the new plant would have to wait until the following morning. We all felt that night, that it was quite remarkable that such a massive and spectacular pitcher plant could have remained undiscovered by botanists right into the 21<sup>st</sup> century. The new plant was surpassed in size only by a few known species and certainly it is one of the most spectacular species in the genus to which it belongs.

I awoke early the following morning, and set out to study the spectacular new plant before we would be forced to descend the mountain. For four hours I photographed and documented the new plant, whilst Alastair, (the only trained botanist of the three of us) undertook botanical measurements and anatomical observations. This plant, like pitcher plants across the world, catches insects in order to augment nutrients and accomplishes this by use of the great hollow, water filled leaf structures that inspire its name in English. The pitchers of the new plant we had found were predominantly yellowish green or sometimes blushed reddish pink while the interior of the pitcher is commonly mottled with variable red or purple blotches. The largest pitchers of the new plant which I encountered were 28 cm in length and 14 cm in width and had a volume of up to at least 1.5 litres. The largest species in the genus (*Nepenthes rajah*) has been documented to trap rodents as large as rats on several occasions. Indeed I personally found a dead mouse in the pitchers of a smaller species of pitcher plant (*Nepenthes hirsuta*) in Borneo and with these observations in mind, I felt quite sure that this new plant could potentially also occasionally trap vertebrate prey on rare circumstances.

We had received permission to collect herbarium specimens and so collected and pressed one of the great pitcher plants. Even though there were many thousands of the plants on the summit of the mountain, it was a shame to kill and destroy one in this way. But unfortunately, it was a necessity in order for it to be formally named and described and indeed studied further.

While we were studying the new pitcher plant, I came across a population of spectacular sundews (*Drosera*) with blood red coloured foliage. Sundews are carnivorous plant which produces leaves lined with tentacles that secrete droplets of water-based glue. The sundew I saw was also certainly not a described species. Only a handful of species of sundews occur in South East Asia and the sundew on Mount Victoria is certainly different from all of these currently known. I photographed the new sundew extensively and also collected a herbarium specimen of it too.

Around midday we broke camp and began to descend the mountain to return to the lowlands. Leaving the spectacular new pitcher plants behind us, we climbed down the steep mountain slope and began our journey back to the lowlands. Gradually we reached the campsite we had left the previous morning and set up camp before darkness, happy with the spectacular plant which we had found and knowing that the expedition had been worthwhile.

The following day (June 25<sup>th</sup>) we navigated our way back down the course of the small streams and rivers which we had carefully followed two days earlier. As we descended the mountain, it began to rain heavily and the level of the rivers rose dramatically. The streams which previously had just a trickling flow now became raging, torrents. At several points we had to cross the rivers carefully, as the level of the water was as high as our chests and often the current was very powerful. We crossed the flowing streams with prop sticks, however several times had to turn back and find different crossing points, such was the strength of the flow. Eventually, we returned to the hunters' village where we had begun our expedition, exhausted but exhilarated at the prospect of the new plant.

When we arrived in the lowlands, I suggested that we should immediately find a doctor for the hunter who had injured his hand. The hunter was apprehensive but I insisted we would help him and pay for any treatment that might be needed. Still the hunter refused and insisted he would make a herbal remedy and he showed me various plants when we arrived at his homestead which he said he would use. I was reluctant to leave him as his injury was quite serious, but he was adamant he would not leave the village for medical treatment. I gave him all the bandages and supplied I had, although I do not think he used any of these after we left.

We returned back to Narra and the three of us later agreed that we would name the new plant *Nepenthes attenboroughii* in honour of Sir David Attenborough, whose inspirational life works have inspired generations toward a better understanding of the beauty and diversity of the natural world. And so a wonderful new pitcher plant is named in honour of a great naturalist. *Nepenthes attenboroughii* was described in the (*insert details when description is published*) edition of the journal of the Linnean Society. We decided this publication would be especially appropriate since it was the great Swedish botanist Carolus Linnaeus who described and formally named the first species of *Nepenthes* (*N. distillatoria*) two hundred and fifty five years ago.

One thought continues to return to me regarding this expedition. Alastair, Volker and I are knowledgeable enough only to determine whether the *Nepenthes* or *Drosera* that we encountered are new species or not. However we passed countless hundreds of species of ferns, orchids, mosses and other flowering plants let alone the great wealth of insects and animals. Considering we encountered one new species of *Nepenthes* and one new species of *Drosera* on Mount Victoria, it would seem extremely likely indeed that we passed many other new species of different plant and animal genera which the three of us could not recognize as new. Perhaps even more remarkably, Mount Victoria is one of dozens of individually isolated mountains in the great spine of peaks that runs across Palawan. Each mountain summit is individually isolated and equally likely to yield unique plants and animals (and probably further species of pitcher plants). So it would certainly seem much more remains to be discovered on this fascinating island.