

Fujian, Shaanxi & Gansu, China

Assam & Arunachal Pradesh, India

October 8 – November 5, 2017



View from the hotel in the Wuyi Mountains

Last October I helped plan a month long trip that would start in southeastern China and finish in the northeastern corner of India. The cast of characters that would travel together would ebb and flow over the 4 weeks, but the participants on this adventure were: Dr. Dongling Zhang (Univ. of GA/Atlanta Botanical Garden Research Advisor), Ozzie Johnson (ABG), Dan Hinkley (Heronswood), Mark Weathington (JC Raulston Arboretum) and myself. We were all very excited about this trip because none of us had actually visited either of the proposed areas where we were to travel; the Wuyi Mountains in Fujian Province and the Qinling Mountains in Shaanxi / Gansu Provinces.

The trip began with all of us meeting in Shanghai and being welcomed to town by our friends from Chenshan Botanical Garden. After a restless first night's sleep we took a quick tour around Chenshan then we were off to catch a train bound for Wuyi City in Fujian. By the time we arrived at the Wuyi train station it was getting dark, but we still had a couple more hours of stressful mountain roads ahead of us before we would sleep. Once we finally arrived, we endured a lengthy check in process at a hotel where we were the only guests and we all flopped into our beds exhausted and slightly nauseated by the foul meal we had eaten in the town hours earlier. We awoke at the crack of dawn weary from travel, but ready to get the trip underway. We scarfed down a bowl of noodles for breakfast, got our gear together and we were off.



***Torreya jackii* (left) and *Camellia* sp. (right) with enormous fruit**

From the front door of the hotel we could see the grounds we nicely maintained and there was a garden just down the road. As we slowly walked towards the garden, several cars drove by and a small crew of maintenance guys stared at us while congregating together and pointing. This sort of thing happens all the time in China, especially in more remote areas, so we didn't think anything of it and focused our attention on some of the unusual specimens planted on the grounds. While there were many fine examples of both deciduous trees and broadleaved evergreens in the collection, one rarity that caught our eye in particular was *Torreya jackii*. This species of *Torreya* occurs at a lower elevation than most and it is believed that over 50% of the population has been destroyed due to habitat loss from the creation of agricultural areas. Therefore, ex situ conservation of wild collected germplasm of this species is particularly important. Then, as quickly as we had been transported into this fantastic wonderland of plant goodies, it all came to a screeching halt. It seems the group of maintenance guys decided we were suspicious looking enough to call the local police, who came immediately. From there it went downhill quickly. The guy who we were dealing with would not accept our permit to be in the area even though everything had been prearranged through the botanical garden and the local forestry department. He was so adamant that we leave immediately he followed us back to our hotel and waited outside while we packed our stuff and vacated the rooms we had planned on staying in for the next 5 nights. He then followed us by car for several miles down the road before turning off. Once he was gone we assumed we were out of the protected area, so we began looking for a place to pull off and get a closer look at the plants. We had been out of the car for no more than 5 minutes when our Chinese

colleauge's phone rang. It was the cranky cop with NOTHING else to do but harrass us and he wanted to know why we hadn't passed the check point yet?? Busted again. So we quickly squeezed back into our cars and off we went...but not before collecting seed of a very interesting Cercis, possilbly C. chuniana.



***Cercis aff. chuniana* with very leathery foliage on a 20' tree**

Over the next couple of days we spent time exploring several different locations and elevations in and around the Wuyi mountains. Unfortunately, it seemed like the best spot for us was the highest point on the mountain, which was the exact spot we had just been kicked out of. Since we still had high hopes for our second location of the trip, we decided to cut the first leg of this adventure short and buy plane tickets to Xi'an for the next afternoon. Of course there were problems with this decision as well. Up to this point, we had been traveling with our friends from Chenshan Botanical Garden who speak English very well. Donglin hadn't joined our group yet and was to meet us in Xi'an, but not for two more days. However, Donglin was able to have our hosts adjust their schedule and pick us up from the airport a few days early. During this time our new friends took us to the Xi'an Botanical Garden as well as the remarkably impressive Terra Cotta Warrior site. After brushing up on the local history and culture, Donglin finally arrived and we were off on the trail once again.



Paris sp. (left) and Viburnum aff. betulifolium in fruit(right)



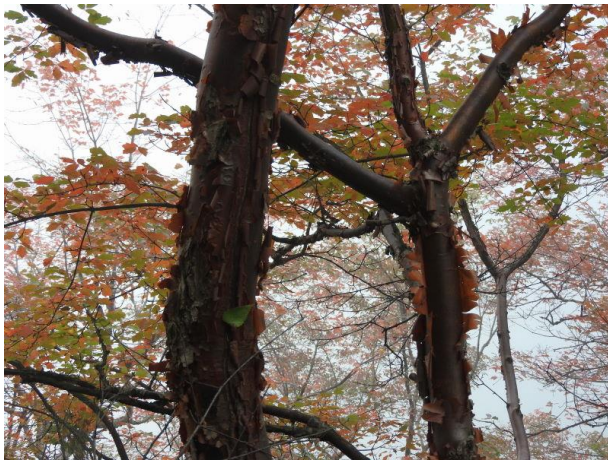
Ozzie Johnson and Donglin Zhang measuring the enormous foliage of Cercis glabra. The ruler is 12"

By the time Donglin joined the group, Dan had left for home and Ozzie only had a short week left before he had to do the same. We decided to leave the large city of Xi'an and head west towards the Yangling District of Shaanxi which would give us access into the northern side of the Qinling Mountains. These mountains create a natural boundary between North and South China and are home to a staggering variety of plants and wildlife. While the northern side of the Qinlings is known to be the hot and dry

side, this area was the easiest for us to access first. Some of the plants we were seeing on the northern side included enormous specimens of *Cercis glabra* (80' +) as well as a second species of *Cercis*, *Sorbus*, *Aralia*, *Epimedium*, *Polygonatum*, *Paris*, *Viburnum*, *Syringa*, *Tilia* and even *Acer griseum*. Seeing *Acer griseum* in the wild is always a thrill and to come upon a small forest of them like we did was not only unexpected, but certainly one of the highlights of the trip. Just as we began to climb out of the valley into the beautiful fall color of the Maples, the clouds parted briefly allowing us to catch a glimpse of the many peaks in the distance.



The northern side of the Qinling Mountains



***Acer griseum* forest in the Qinling Mountains**

The next day Ozzie had to begin his long trip back home, so Mark, Donglin and I decided to make our move from the northern side of the Qinlings to the southern side which receives much more moisture and was presumably more diverse. Our driver assured us it would only take “about 4 hours” to get to where we were going. He lied. In fact, after nearly 8 hours of driving we still hadn’t reached our final destination, but we were hungry, tired and needed to stop for the night. So we slowly drove through a

small town on the border of Gansu and Shaanxi looking for a hotel. There were three hotels in this town and the first one we pulled up to looked almost new. Donglin and I walked in and were greeted by a woman with a big smile who was glad to show us a room to see if we liked it. The rooms were large with brand new carpet and furniture...I told her we'd take them for the night. Then she remembered that the hotel couldn't have foreigners staying there yet because they hadn't gotten their "license" yet. Confused and frustrated, we drove a few blocks away to the second hotel that was actually much larger and just as nice. Here we were allowed to check in, get cleaned up and we walked down the street to find something for dinner. After having a delicious meal and several toasts to the excitement of going to yet another new area, we walked back to our hotel where we found the police waiting for us in the lobby. It seems this hotel was not allowed to house foreigners either and despite being nearly 11 pm, we were kicked out for a second time. At this point none of us found the situation the least bit funny, but there was nothing we could do about it. Thanks goodness the third time was indeed the charm and we were allowed to stay at what was undeniably the filthiest hotel in town. At least we weren't sleeping in the car piled on top of one another...it could always be worse.



***Pinus bungeana* grove growing on limestone cliff face (left) and peeling bark of young seedling (right)**



***Iris* sp. with interesting foliage (left) and *Machilus* sp. (right)**



***Cornus quenqinervis* (left) and *Lindera* sp. (right)**

The next morning we hit the road early. Once we began to make our ascent into the mountains, interesting plants began popping up all along the road...we had finally paid our dues on this trip it seemed. Right away we began to see nice clumps of Iris clinging to the sides of cliffs which prompted us to stop the car to get a closer look at the roadside vegetation. Not only did we find the Iris in seed, but we also saw Epimedium, Polygonatum, many species of ferns, an unusual black fruited Cornus, an exceptionally showy species of red fruited Lindera and that was only in the first hour or so. Deciding that we needed to move a little faster if we were ever going to actually get to the mountains, we all reluctantly climbed back into the car and pressed on. As we slowly began winding our way up and deeper into the mountains, the forest began to transition into a mostly deciduous one and the air became markedly cooler.

By early afternoon we had nearly arrived at our intended destination. Our driver insisted that we wait to eat lunch until we got to our "hotel" where they would prepare a hot meal for us. We were in the middle of nowhere and had just left a town where they hadn't seen westerners in who knows how long, so my expectations of the hotel we were headed to were getting lower by the minute. However, I couldn't have been more incorrect. We pulled into a freshly poured concrete driveway, past an old wooden farmhouse and up to a new two story building. When we got out of the car I could smell our lunch cooking in the spacious, clean kitchen on the other side of the compound. Then we were encouraged to try out their newest toy...wifi. After mentally preparing myself for the past two days that we were going to be sleeping in a cold, damp farmhouse for the next several nights, stepping into our freshly made room felt like entering the Taj Mahal by comparison. Thrilled with our set up for the immediate future, we sat down to another delicious meal before taking a quick scout around the valley we would tackle over the next few days.



Qinling accomodations. Restaurant / family living quarters on 1st floor with 5 guest rooms on the 2nd

The next day we all woke up early once again, very eager to get into the valley. In discussing the plan for the day with our guide, Donglin learned that the only way into the valley would be for us to follow the river which we would have to cross a couple of times. “Not a problem”, we told our guide and off we went. After about a 30 minute hike through agricultural fields we hit a dirt road that led into the valley. Walking along this road we were already seeing fantastic plants that were just setting the stage for what was to come. We began to see things like red fruited *Helwingia chinensis*, *Aesculus*, *Acers*, *Clematis*, huge fruited *Kadsura coccinea*, *Linderas* with enormous white backed foliage, *Cercis racemosa* and even several species of *Cypripedium*. What we didn’t notice was that while we were walking, the valley became more narrow, the river seemed higher and the limestone cliffs that were just in the distance early this morning were now jutting up out of the ground all around us.

It wasn’t long before we arrived at our first river crossing. I could see Donglin taking his shoes off and rolling up his pant legs, so I knew it was at least calf deep with no safe rocks to hop on in order to cross. We all followed suit and made our first several crossings without incident, but then the crossings became deeper with a much greater degree of difficulty. After a bit of grumbling from the group, we learned that we were on the 4th of what would be 6 river crossing we would have to make to get into the heart of the valley. Then, of course, we would have to come back the same way. That day, a “couple” of river crossings ended up being 12, but there wasn’t a person amongst us complaining once we finally got there.



View from above our hotel (top) and entrance to the valley we were to explore (bottom)



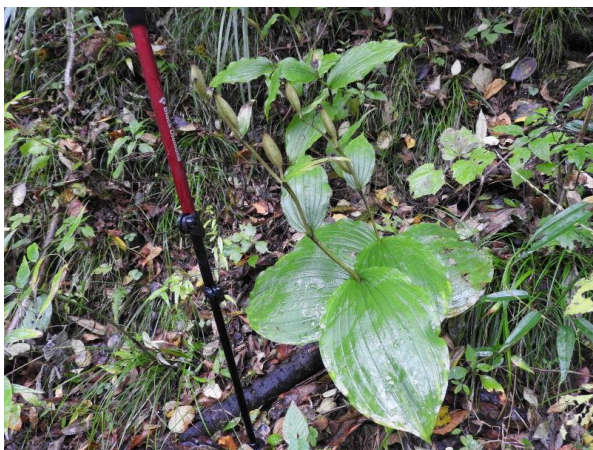
River crossing to get into the valley (top). Helwingia chinensis (left) and Kadsura coccinea (right)



***Lindera* sp. with large foliage and amazing white undersides (left). *Aesculus chinensis* fall color (right)**



Mark holding a branch of *Cercis racemosa* (left) and our guide collecting seed of the *Cercis* (right)



One of the taller *Cypripediums* we found (left) and our newfound beekeeper friends (right)

After spending much of the day hiking into the valley, we decided to go on a bit longer, have a snack and hike out. Not 10 minutes after making that decision, we came upon a leanto shack with smoke billowing out of the chimney. Soon after, several guys stumbled out to see what their dogs were barking at. Turns out they were a group of beekeepers that lived back in the valley for 6 months out of the year in

order to collect the honey and keep a watch on their hives. By the smell of them, they had been drinking since breakfast and it had obviously been a while since they had seen strangers...especially westerners. It was like old home week around their falling down shack once they focused their eyes on us, even though we'd never seen them before in our lives. While we did enjoy chatting with these drunken honey hunters, it was getting late and we still had 6 very cold river crossings ahead of us. We gathered our gear, had a photo shoot that seemed to never end with our bewildered friends and we shoved off, leaving the area knowing both that we had just scratched the surface of this untouched valley and that we would be back soon.

In the days that followed, we made our way back to Xi'an and each went our separate ways...Mark had lectures to give at home, Donglin went to visit his mother in central China and I started on the second leg of this adventure solo. My plan was to attend a meeting in Assam, India focusing on regional conservation (where I would reconvene with Donglin), but before that meeting started I had about 5 days to explore some new territory in the northwest corner of India in a state known as Arunachal Pradesh. As I have found out in previous trips to this part of the world, getting there is half the battle. This time I was actually flying from Kunming, China to Assam, India so I assumed the flight would be less painful, but I was wrong. From Kunming I flew to Bangkok where I had a 10 hour layover in order to catch a 1 AM flight first to Delhi, then to Calcutta and finally to Assam where I arrived at 6:30 AM. Actually we would have landed just before 6 AM in Assam, but our plane arrived before anyone showed up to work so we flew circles until the airport opened. In this part of India, it doesn't take long to realize things are done differently and time is merely a suggestion.

My first stop would be at beautiful, historic tea garden called Wild Mahseer that has been purchased and renovated by the Balipara Foundation. While there is still a fully functional tea garden on the property, a basic research center, lecture room and native plant gardens have also been established over the past decade. The Balipara Foundation was actually putting on the conference that I would be attending, but before that meeting they had asked me to give a propagation class at the Naturenomics School at Wild Mahseer. I had the pleasure of staying there for two nights before my friend / guide, Oken Tayeng, and I would head off to a small village called Ziro in Arunachal Pradesh, one state to the north of Assam. While visiting Wild Mahseer, not only did I have the opportunity to speak to the researchers and local farmers in the area about protocols we use to get the best results when dealing with seed collection, storage and germination, but they also treated me to a very humbling tree planting ceremony. After my lecture, they asked me to walk with them to an area in the garden. Once there, everyone assembled while a short speech was made and a sign presented for a tree that I would plant there. It was a very sincere gesture and one that I will remember for a long time to come.



Tea garden at the Balipara Foundation (top) with main house, nursery (left) and orchid house (right)



Tree planting ceremony in Assam, India

After the tree planting, it was time to leave Wild Masheer and continue on towards Ziro. Spending a few days at the tea plantation made me forget just how far away we were from any major city...but not for long. We needed food for our trip, so the first thing we did was stop off at a local “farmer’s market” along the road. The people, colors and smells of these markets are full of life and hard to forget. Since there is very little refrigeration there, these markets are commonplace and the local villagers depend on them for their daily needs. Wandering around these kinds of markets, you will always find things that make your mouth water both from hunger and nausea. The freshest fruits, vegetables, spices and meats are available for next to nothing, but you can also find delicacies like huge land snails pulled from their shells while you wait and bundles of dried “very old” rats to flavor your soup.

Once we made our food purchases, we crossed over the border of Assam and into Arunachal Pradesh (AP) then made the long drive to Itanagar, the capitol city of AP. We stayed the night at Oken’s house in Itanagar, then made the trip to Ziro the next day. It poured rain all night long and when we awoke the next morning there was news that the road to Ziro had suffered a huge landslide, but it was already being cleared. Since the forecast was clear, at least for the day, we decided to go for it. A few hours out of the city we found the slide. Because of the rain and the deforestation along the road, a huge chunk of the hillside just gave way and was still coming down. Despite the rolling rocks and rivers of mud, we pushed through and finally made it to the other side. Ziro is one of the oldest towns in AP and has been home to the Apatani tribe for centuries. The Apatani differ from most tribes in that they permanently settled in Ziro rather than choosing to be nomadic like most. What this means is since these people set up their village there so long ago and didn’t roam around living off the land, the mountains around them have been pretty badly cut over. There are still, potentially, patches of virgin conifers on the highest mountains surrounding Ziro (~8,000’ in elevation), but the forests leading up to the village do not have much biodiversity left. However, the history that makes up the village is still very much intact and a governmental nomination has been sent to UNESCO to include them as a World Heritage Site.

While the original canopy of this forest had been severely compromised, I did still find interesting plants growing in the understory. Plants of note included several species of Begonias, a very large Hydrangea, Dichroa (Hydrangea relative) and a beautiful, but unknown species of flowering Cherry. We spent the entire day looking at plants along the bumpy roadside and learning a little about the local history. Late

in the day, it began to mist which turned into a steady rain. Our plan was to stay in Ziro for the night, but with the heavy rain approaching and the possibility of another major landslide which would leave us stuck in Ziro until it was safe to pass through. My schedule was tight on this trip, so we decided to make the long drive back to Itanagar at night, in the rain and just below a very unstable pass. We made it back to Oken's house late that night and completely exhausted.



Shopping for groceries at the roadside market



Everything is paid for by weight (right), even the bundles of "very old rats" (left)



Making our way through the landside



Unknown Begonia species from the hills around Ziro



Downtown Ziro



Oken holding a single flower head of an unknown species of Hydrangea

Very early the next morning, Oken and I left Itanagar and drove most of the day back to Guwahati, Assam where our meeting was being held. Finally, my month long trip came to a close by attending a very informative gathering called the Eastern Himalayan Naturenomics Convention which drew researchers and field workers from all over Asia to discuss ways in which the amazing biodiversity that is still found in northeastern India may be preserved for generations to come.