



Pagodas in Tian Mu Mountains.

My fall collecting trip this year did not turn out as planned. I was supposed to travel back to Arunachal Pradesh, India on a seed collecting trip in early September, but my plans were derailed just 5 hours before I was to take off when my 1 year old Great Pyrenees pup decided to chew up my passport while I ran a quick errand. It took a few days, but I finally accepted the fact that I was not going to be able to catch up with my party in India and that if I was going to get any field work in this fall, I needed to snap out of my bitter disappointment and start coming up with Plan B. I knew that I had many friends and friends of friends in China, so I focused my efforts there trying to come up with an itinerary, an institution that could help me and, ideally, someone who was willing to take this spur of the moment journey with me. I called my friend and fellow traveler, Mark Weathington from the JC Raulston Arboretum to see what he was up to over the coming weeks. Turns out he was speaking outside of Seoul in early October and was then scheduled to come straight back, but was totally open to the idea of meeting in Shanghai and traveling together for a week or so. In addition to this welcomed news, Mark was also able to arrange for a good friend of his, Liu Gang, to pick us up from the airport in Shanghai and chauffeur us around for the first part of our trip. Once we knew when we were going and at least had the beginnings of a trip in place, I contacted my friends at Shanghai Chenshan Botanical Garden to



see if there was, by chance, a collecting team going out from there close to the time I was planning to be in China. I was told that there were, indeed, a couple of guys going out in the Nanling Mountains for about a week and I was welcome to join them. So, just like that, I now had a two and a half week trip worked out exploring two different mountains and visiting three different botanical gardens. However, while I was very fortunate in my planning of the trip, my luck ran out when it came to the weather. It rained. A lot.

***Litsea coreana* (left)**



***Lithocarpus harlandii* (above)**

Mark and I started off our trip by taking a high speed train from Shanghai to Hangzhou where we were picked up by a researcher from the Hangzhou Botanical Garden in Zhejiang province. From the train station we went straight to the botanical garden where we spent most of the day collecting seed of anything we desired from this very large (568 acres) botanical garden which was created in 1965. We saw beautifully grown, mature specimens of a wide range of mostly woody plants representing the great diversity that occurs in the eastern mountains of China.



***Camellia octopetala* (above)**



***Fagus longipetiolata* (above)**



***Cornus wilsoniana* (above)**



***Acer sinopurpurascens* (above)**

Hemiboea subcapitata



After spending the better part of the day touring and collecting at the botanical garden, we hopped in the car and headed towards the Tian Mu

Arisaema engleri



Mounatins a few short hours away. It was balmy and overcast while we were walking around the Garden, but as we headed higher into the mountains the fog became thicker and thicker until it turned into a heavy mist that would occasionally change into an all out downpour for the next several days. Sadly, because of the heavy rain not a lot of photos were taken, but the collections were good. Some of the plants we were finding included *Hydrangea rosthornii*, *Stewartia sinensis*, *Pterostyrax cormbosus*, *Viburnum glommeratum*, *Arisaema engleri*, *Hemiboea subcapitata* and *Cardiandra moellendorfii* to name a few.



Tian Mu Mountains



After three days of hiking in the rain and pulling leaches off our legs, it was time to move on. Mark only had a couple more days to spend in China, so we headed back towards Shanghai to give ourselves time to visit the Shanghai Chenshan Botanical Garden. Chenshan Botanical Garden is a fairly new garden (opened in 2011), but has hit the ground running with a fully staffed, state of the art research facility, over 500 acres of gardens and there, we had the privilege of Hu Yonghong, and were able collaborations and the arrival garden to ABG in the spring to spend some time walking visiting some of the research growing the rarest of the rare.



impressive conservatory and nursery grounds. While meeting with the director, Dr. to discuss our plans for future of two researchers from their of 2017. We were also able through the conservatory and greenhouses where they were

Largest herbarium specimen housed at Chenshan. Tree fern from Hainan Island.



**Drying machines for herbarium pressings
at Chenshan research center**



**Women mounting dried specimens
to herbarium sheets**

The next day Mark and I parted ways. He headed home and I was picked up from the hotel by two researchers from Chenshan early in the morning and we were off for Guangdong province via high speed train. I had met my companions for the next week the day before and at first was a bit skeptical as to how it was going to go since I was told they spoke very little English. My original English speaking contact had fallen off her bike a few weeks prior and factured her leg so she was unable to go into the field. However, once we warmed up to one another over the course of a few days communication was hardly a problem at all. When all else failed, we had Latin. When we arrived at the train station in Chenzhou, Hunan it had already begun to rain. We spent the night there and the southeast just over the could see on the weather up and headed directly It was going to be a very

We spent our time in the mountains. The first few Temperatures were in the technically freezing, the soaked through it became maintaining feeling in our day, we awoke just to a downpour and the sky was whole time on the

rain that morning, within an hour of hiking the clouds seemed to vanish and we were botanizing under bluebird skies for a change. Everyone's spirits immediately lifted once we were able to pull back our hoods, strip off our already saturated rain gear and enjoy the pristine forest as we made our way to the top of the highest point in Hunan province. Almost immediately we began to see interesting plants...the stunning bark of the evergreen *Adinandra*, a compact form of *Dendropanax* with completely unlobed foliage, *Cornus hongkongensis* var. *hongkongensis* covered in whitish – yellow fruits, drooping ruby red cones of *Magnolia conifer* and, the plant that my Chenshan companions were after, multiple specimens of the very rare *Quercus arbutifolia*.



Mangshan region of the Nanling days it poured steadily day and night. mid 50s, so while it wasn't wind was howling and once we were hard to focus on anything other than extremities. Finally, on the fourth light rain instead of a persistent lighter than it had been during our mountain. While we did start in the



Adinandra sp. (left)



Magnolia aff. conifera (left)

Chenshan's barcode field label is attached and scanned with a GPS device which loads the info directly into their database once an internet connection is established.



***Cornus hongkongensis* var. *hongkongensis* (right)**

Since this was the first and only day of sun we would have on the mountain, we took our time looking at the diverse flora that was all around us. It is so very frustrating to try and botanize in the cold rain. Not only are you generally miserable, but you can't see in front of you because of the fog, nor can you look up or take photos because of the rain. All the while pulling leeches off your legs as this is the weather they adore. The whole process became so much easier and more enjoyable now that we could bask in the sun while we filled our baggies with seed. By early afternoon, we had made it to the highest point in Hunan. I had been here before with my usual seed hunting crew just one year earlier, but we had come up a completely different route and I hadn't recognized the place at all until we reached the top. Since my visit just one year ago, a paved road had been constructed nearly to the top, but was only for the privileged. From the summit, the road coming up looked like a scar of the back of this beautiful forest. Fortunately, in every



other direction is a sea of green with rolling mountains as far as the eye can see. When I asked my Chinese friends why there were no other roads or people in these mountains he explained that the Chinese government wanted to give visitors access to this highest point in the province and the beautiful view, however the rest of the mountain range is protected with only a fraction of the native flora being documented mostly because of the rugged remoteness of the area. In the distance we could see yet another storm was brewing, so we decided to make our way back down the way we had come. As we strolled down on this beautiful afternoon we reminisced about the collections of the day, but I couldn't help but think that I would be back soon to explore a far less traveled section of these mountains.

The next day we awoke to the fury of typhoon #2. The wind and the rain were unbelievable. Our train was scheduled to leave Chenzhou, Hunan at 8:30pm arriving at Guangzhou, Guangdong by 11pm. Since we had plenty of time to reach the train station from our hotel in the mountains, we decided to sit tight until after lunch and hope that the worst of the storm would pass over by then. I welcomed this decision as I had days worth of collections to process and notes to be written. After 4 hours of playing catch up with my processing, it was time to hit the road. While the storm did not pass directly over us, being high up in the mountains with over a foot of rain falling over the past 48 hours caused its own problems. The going was very slow as we dodged downed trees and flooded (but fortunately not washed out) roads. We finally reached the train station, looking like three drowned rats from the deluge we ran through from the taxi to the station, but we made it and we were off to our final destination of the trip...South China Botanical Garden.

Unlobed, unknown species of *Dendropanax* (right)





Underside of *Magnolia guangdongensis* leaf

My final full day of the trip was spent in Guanzhou which is the large, sprawling capital city of Guangdong province home to over 44 million people in the metropolitan area. The rain had stopped for now, but being at only 60' above sea level in the southeastern corner of China, it was still about 98% humidity and nearly 100 degrees by 10 am. The wind was gone, the air was still and it was stiflingly hot. After sweating through breakfast in a small café, we made our way to the famous South China Botanical Garden...home to the largest Magnoliaceae collection in the world. The SCBG (member of the Chinese Academy of Science) was opened in 1929 and is one of the largest

Gardens in China covering over 2,800 acres. We were graciously toured around the garden by Linhai Zhang (Director, International Association of Botanical Gardens), Mr. Yang Keming and Ms. Chen Xinlan (co-authors of *Ex-Situ Flora of China on Magnoliaceae*). I was thrilled not only to get the opportunity to have a guided tour of this famed Garden, but also to get the chance to examine an exciting new species of *Magnolia* found in the northern part of the province called *Magnolia guangdongensis*. This species has been put on the Chinese Red List of threatened species mainly because it is only known to occur in the wild in one county in Guangdong province. It is a remarkable species with small, rounded foliage and extremely dark indumentum on the underside of the leaf. It produces medium size, fragrant white flowers in the leaf axil in the spring, which is why it is still known in China as *Michellia guangdongensis*. In cultivation, this plant is currently housed only in a handful of botanical gardens in China. No material has been allowed to leave the country yet, although I was able to discuss with the director of the Garden the possibilities of a germplasm exchange of this *Magnolia* to evaluate how it performs in north Georgia. The *Magnolia* researchers at SCBG said that they have had success getting the plant to flower at their Garden, but no seed has been produced. They believe that this could be the result of having several flowering size plants, but only one clone in their collection. After learning this, I proposed that we mount a joint expedition in the near future to collect additional germplasm of this species in an effort to at least try and ensure it survives in cultivation since its time seems limited in the wild. My new friends seemed enthusiastic about this idea, but time will tell.



Magnolia guangdongensis

Young foliage of
M. guangdongensis



While my trip this fall was thrown together in a matter of days, I don't think that it could have gone any better. Making new friends and connections at Chenshan Botanical Garden, Hangzhou Botanical Garden and South China Botanical Garden and getting the opportunity to botanize on both the Tian Mu Shan and the Nanling Mountains made for a fast paced, but very productive trip. My eyes were opened yet again to the amazing diversity that occurs in the mountains of eastern China. So much focus has been put on the western provinces of Sichuan and Yunnan, especially when looking for germplasm for the southeast US, that the lower elevation mountains in the east of China have been overlooked lately. I am very much looking forward to working in the field with my new colleagues and continuing to explore and study the rich temperate flora in the mountains of southeastern China.

