Trip Report 2025:

Spring: Northern Vietnam (April 24 – May 16) Fall: India and Thailand (Oct 23 – Nov 14)

Abies delavayi var. fansipanensis

In late April, our team consisting of myself and Tim Marchlik from ABG as well as Mark Weathington from the JC Raulston Arboretum at NC State and Dave Kidwell-Slak from the United States Botanical Garden made our way back to Hanoi to work with our colleagues at the Vietnam Academy of Science and Technology (Dr. Dzu Nguyen, Dr. Bui Quang, Binh Tran and Thanh Trinh). On this trip, our plan was to return to Mt. U Bo in Son La province to try and photograph at least some of the Magnolia species in flower that we observed in fruit in the fall of '24 as well as scout two new areas of interest in Son La and Yen Bai provinces. In addition to our normal fieldwork, we were bringing two different species of Magnolia seedlings grown in South Carolina to be used as grafting understock for a Magnolia project we are working on at the Academy of Science's Biodiversity Station outside of Hanoi.

We landed in Hanoi mid-morning and by that afternoon, we were shopping in a wholesale horticultural supply warehouse picking up supplies for the Biodiversity Station. We have a perfect spot at the Station for the Magnolia field nursery, but we needed to buy organic soil amendments for planting the understock, irrigation lines, weed barrier, fertilizer, stakes, plant labels, etc….. The next day, we made our way to the Station to check on the progress since our last visit before heading to the mountains for a few weeks of fieldwork. It was great to see the success that the team at the Station had been having

with the various soil recipes we had concocted together on our previous trip. Just by creating a growing media with a little sharper drainage made all the difference in both the germinating and seedling stages of their nursery. They were very proud to show us all that they had accomplished and we were thrilled to see things going so well.

Yen Chau. Location of the type specimen of Magnolia sonlaensis

Collecting material from M. sonlaensis

Old cone from M. sonlaensis

Fruit forming from recent axillary flowering (M. sonlaensis)

Foliage of M. sonlaensis

The next day we headed northwest from Hanoi to a community named Yen Chau in Son La province. Our first objective was to try and find the location of the type specimen of the relatively newly described (2019) Magnolia sonlaensis as there is currently no material in cultivation. On this trip, we hoped to photograph the plant in flower and then return in the fall to collect seed. Using the GPS location on the herbarium voucher, we were able to find the type specimen as well as several other individuals in and around that same area. While we were lucky in finding the trees, we had missed the flowering by just days it seemed finding only remnants of recent blooms. Regardless of the fact we missed the actual flowering this time, we were thrilled to have found the trees and will now be able to revisit them in the future.

From Yen Chau, we then drove several hours to the town of Bac Yen located just outside of the Ta Xua Nature Preserve. We first visited this area in the fall of 2024 and found it to be exceedingly rich in Magnolia species based on the amount and diversity of the fruit we were finding on the ground. We hoped we had arrived at a good time to find at least some of them in flower. Rather than just spending the day hiking in as far as we could as we had done the previous fall, we decided to camp a few hours from the peak to give us plenty of time to explore. The first several miles of the trail are though rolling agricultural fields, so we hired local guys on motorbikes to shuttle us up as far as they could into the mountains. Once there, the first bit is a near vertical climb allowing us to quickly reach the broadleaf evergreen jungle above. Almost immediately we begin seeing interesting plants in flower…Aristolochia, Styrax, Arisaema, Paris and even a Magnolia or two. We were finding the Magnolias this time just like we had in the fall, by seeing evidence of them on the ground. This time, rather than ruby red seed scattered around, we were finding flower petals. Most of the Asian Magnolias we are hunting are enormous trees which make up part of the canopy of the forest. Because of this, it is very difficult to tell what species the trees are, or even which trees the fruits or flowers on the ground came from. Therefore, taking cutting material that can be grafted later at the Biodiversity Station in Hanoi will allow us to know exactly what tree we are collecting from. After spending two days hiking to the peak of U Bo Mountain, we had collected DNA material from what we believe are 8 different species of Magnolias for the Global Conservation Consortium of Magnolias (GCCM). A very successful stop indeed.

Bac Yen Community

Packing the camping gear

Mark getting a lift on a motorbike

Aristolochia petelotii flower and fruit

Magnolia cathcartii

Evergreen Magnolias and Oaks at the edge of the jungle

Hundreds of Arisaema in flower

Unknown Magnolia species in bud

Camping under the ancient trees on Mt. U Bo

Our final stop for fieldwork on this trip was in the neighboring province of Yen Bai in the remote district of Tram Tau. This area was a new location for all of us, including our Vietnamese colleagues. Dr. Dzu from VAST had spoken to one of his forestry contacts in Yen Bai who said the mountains near Tram Tau were rich, broadleaved evergreen forest and that we might have luck finding Magnolias there. He was right. In just one solid day of exploring, we found at least 4 different species that we were able to take DNA samples from for the GCCM project. In addition to Magnolias, we found a slew of other interesting plants such as Begonias, Hydrangeas, Daphniphyllum, Hedychiums, Gesneriads and even Amentotaxus, a very rare conifer native to SE Asia. While we hadn't spent enough time here, we did determine that it was a place worth revisiting in the fall. The next day we stopped by the local forestry department headquarters to meet with the director. We thanked him for arranging our visit, made plans to come back with camping gear in the fall and we shoved off back to Hanoi.

Now that our time in the field was complete, we arrived back in Hanoi with a few more days of work ahead of us. Time was spent cleaning collections, drying herbarium specimens and preparing official paperwork for us to ship material back to ABG. Meanwhile, the field at the biodiversity station that we had chosen to make our Magnolia nursery had been cleared and plowed up beautifully while we were working in the mountains. The next step was to plant the 100 or so understock plants that we had brought with us from the US in rows so that they could be used for grafting in the coming seasons. We had been discussing this Magnolia project for years prior to this, so it was very gratifying for everyone to finally see our plans of building a native Magnolia research collection begin to take shape. By the end of the day, the teams from ABG and VAST had all of the understock planted and weed barrier installed. Since then, our colleagues at VAST have installed time clocks and a drip irrigation system to improve our long-term success and reduce labor requirements.

Our spring trip was not only important in that we were able to scout several new areas and document new plants, but we also made real progress towards creating a long-term collection of a very diverse plant group native to Vietnam. New Magnolia species are being found regularly in far flung jungles around the world, and Vietnam is certainly no exception.

Tram Tau district of Yen Bai Province

Photographing flower and stipule scar of Magnolias to help with identification

Unidentified Begonia

Amentotaxus foliage


Planting Magnolia understock at the VAST Biodiversity Station

The entire team from ABG, USBG, NC State and VAST

Part II: NE India and Thailand (Oct 23 – Nov 14)

Hills surrounding Mt. Saramati, Nagaland, India

Last fall, Paul Blackmore and I traveled to India on a trip that would take us coast to coast and from sea-level to 13,000' mountain passes all in three weeks' time. The goals of this trip were to first travel to Delhi to meet with members of the Botanical Survey of India (BSI) to discuss how ABG could help by consulting with them on a newly designed conservatory that will be the largest in India. After that, we would head to the far northeastern corner of India to the states of Nagaland and Arunachal Pradesh scouting for future fieldwork and then finish our time in coastal Thailand buying palms, begonias and hedychiums for the ABG conservatory.

We landed in Delhi at midnight, three days after one of the most popular festivals in the country, Diwali. The air was still thick with smoke from fireworks and the burning of trash left over from the huge event. By morning, however, a strong wind had come through and we had a beautiful day walking the construction site of what will be BSI's newest botanical garden housing their west coast research division. The new garden will encompass 200 acres just outside of Delhi. The main topics of discussion were the parameters that will be used to build their new conservatory and their concern about its design. Paul was able to provide them with a lot of great information based on two decades of working in the conservatory at ABG to be considered during these last phases of the project, including having

them visit ABG in early 2026 to see firsthand how our Tropical Conservatory, High Elevation House and Orchid Center work.

After two whirlwind days in Delhi, we flew to Dimapur, the largest city in the northeastern state of Nagaland. It was from here that our adventure would begin. We spent two days in the nearby town of Kohima where we made an attempt at acclimating ourselves to the elevation by trekking up Mt. Japfu (10,000'), second highest peak in Nagaland. Tim Marchlik and I had spent a couple of days here in 2023 and found it to be a rich, broadleaf evergreen forest with excellent plant and animal diversity still intact. This time, however, Paul and I would join our young guide, Khriesieto, on a mission to cut a new path up the backside of the mountain leading to an untouched valley with massive trees creating the canopy hundreds of feet above. After a short hike through small agricultural areas, we quickly reached the edge of the dense forest which seemed to shoot straight up ahead of us. Immediately we began seeing Maple, Oak and Magnolia seed pods on the ground indicating some of what was high overhead. The understory was just as rich with Begonias, Impatiens, amazing ferns, towering blue Lobelias and even…land crabs. We had a wonderful time exploring the rich nooks and crannies of Mt. Japfu, but in the time we had, we really only scratched the surface of what is there.

Mt. Japfu (10,000')

Valley leading to Mt. Japfu

Khriesieto standing at the base of a huge Magnolia

Variegated Impatiens sport

Land crab

8’ tall Lobelia species

1 of 2 Magnolias we found

Begonia #1

Begonia #2

Following our very comfortable stay in Kohima, it was time to make one of the most miserable drives of our collective lives. We were up early and left as soon as we finished our breakfast. We had all been warned the roads were bad (even our driver / guide was unprepared for what we were about to endure), but we thought…" how bad could they be"?? The first 6 hours or so were not terrible, then we began to work our way into more and more remote areas on the way to the highest mountain in Nagaland, Mt. Saramati (12,550'). By the end of our journey we had bounced around on deeply rutted, mud roads for 14 hours…and it felt like it. But we made it. We literally had reached the end of the road and were now in a small, remote village named Thanamir which is very close to the Indian / Myanmar boarder. We would walk from here. From the get go, the hiking was difficult. There are no switchbacks in Asia it seems, so we just started walking straight…through agricultural fields with what looked like hundreds of acres planted in apple orchids and over makeshift fences used to keep the cows and buffalo corralled until we finally reached one of the most amazing forests I've ever seen. Our starting elevation was about 6,000' and judging by the apple orchards, conifers and rhododendrons we were seeing, it obviously was an area that got cold in the winter. As we made our way up and over peak after peak, slowly working our way towards base camp, the plants just kept getting better and better. At first, we began seeing Remusatia (hardy aroid), multiple Begonia species, terrestrial orchids and Polygonatums. The higher we climbed, the more BIG broadleaf evergreens we began to see. Magnolia fruit littered the ground in small pockets, there were Rhododendron species of all shapes and size surrounding us and, judging by the unbelievable assortment of acorns on the ground, many different species of Oaks high above. Thank goodness the plants and the scenery were so interesting because the hiking was some of the most difficult I've ever done. By the end of the day, we had hiked 6 hours totaling only 6 ½ miles and gained 4,000' of elevation reaching base camp (10,000') at 4 pm, just as the sun was going down. Everyone was exhausted. The next day, we woke up in time for the sunrise and made our way up a bit higher before heading back down via a slightly different route. While we were within only an hour or two of the peak, the elevation made for a dramatic decrease in the plant diversity so we decided to turn around. The hike going down was a little easier, but thinking about the grueling drive we had ahead of us to get back to Kohima did not make me want to get back to the truck any faster.

Hills surrounding Mt. Saramati (Myanmar in the distance)

Remusatia sp.

Polygonatum tesselatum



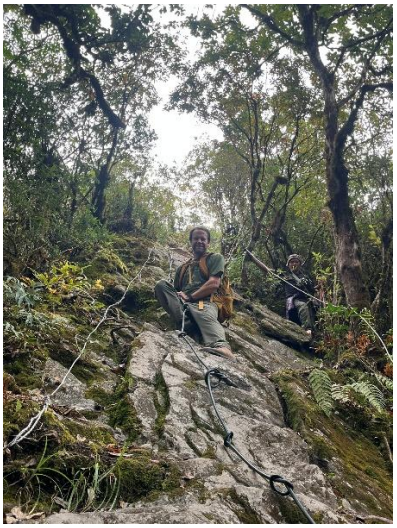
Diversity of acorns found on Mt. Saramati

Base camp on Mt. Saramati (10,000')

Porters gathering firewood

Porters waiting for breakfast

Schima sp.



Me climbing down

Magnolia sp.

The next couple of days we spent a lot of time in the car. Once we made it back to Kohima, we then began the two-day journey to Dirang, Arunachal Pradesh with an overnight in Tezpur, Assam. The days were long, but the road was so much smoother than the one we were on a few days prior while driving to Saramatai, none of us complained. The state of Arunachal Pradesh (AP) has 78% of its virgin forest still intact, so we were all excited to see what the western part of AP had to offer. We arrived in Dirang after dark and the lodgings that had been previously arranged were not going to work, so we stumbled across another "homestay" that had room and they welcomed us in. We would stay here for the next several nights which would allow us to explore in several different directions during the day. The owner of the homestay even arranged a local guide to take us trekking for a couple of days. We found that much of the valley had been logged for timber and to give animals areas to graze, which meant there wasn't much left other than mud and leeches. Next, we decided to drive up to

higher elevations to see if the forests were any better there and we were not disappointed. Here we found the rare Paris polyphylla growing with Gesneriads, Begonias, Aristolochia, Corylopsis, Magnolias and Birch. As we went even higher, we began to see HUGE conifers growing with an amazing assortment of Rhododendron species. We decided to keep going until we reached Sela Pass (13,700') where famous British spy / explorer Frank Kingdon-Ward was arrested in 1935 by Tibetans for crossing over the pass into what they claimed was Tibet. The scenery was absolutely breathtaking. Fortunately, there was not a cloud in the sky, so we could see the snowcapped peak perfectly, just as Kingdon-Ward would have seen it 90 years ago on horseback. Visiting Sela Pass was the perfect way for us to end our time in the field. We now had to turn our attention to driving to Itanagar, the capitol city of AP, so we could catch a flight to Kolkata to meet with the newly appointed director of the Botanical Survey of India.

I have been to the Acharya Jagadish Chandra Bose Indian Botanic Garden in Kolkata a number of times to meet with BSI, but this would be Paul's first visit. The weather was much cooler this trip than it was when I was at the botanical garden in mid-May, so we had a fantastic tour of the newly developed nursery facility, several of the gardens they had been working on since my last visit and, the highlight of the tour every time, we finished off looking over specimens in the oldest herbarium collection in India. The vouchers housed in the herbarium there represent a tangible timeline for plant exploration spanning hundreds of years. It is a remarkable museum of herbarium vouchers, anthropological rarities and an unbelievable collection of original botanical drawings done in watercolor commissioned by William Roxburgh in 1811-1817. After our whirlwind tour of the garden and herbarium, it was time to meet with Dr. Das, the newly appointed director of BSI. It was an unexpectedly positive meeting with our discussions lasting well over two hours. During this time, we made plans for collaborative fieldwork in 2026, discussed nominating a visiting scholar from BSI in the coming year for training at ABG and talked about the importance of the director to visiting ABG in 2026 to glean more information about our glasshouses before they build their conservatory in Delhi. The meeting was the perfect ending to our time in India.

On the road to Dirang, Arunachal Pradesh

Paris polyphylla

Two facinating examples of the Rhododendron diversity we saw

Hanging bridge draped in prayer flags

Quercus sp.

Paul hugging a huge Abies

Snowcapped Sela Pass (13,700')

Tripterospermum sp.

Lindera sp.

Begonia species going dormant

Once Paul and I had finished our work in Kolkata, we caught a flight the next day to Bangkok, Thailand for the last few days of our adventure. We had been on the move every single day since leaving the US 18 days prior, so we had one free day in Bangkok where we visited the Grand Palace and a cut flower market before preparing to leave the next morning for the southern coast of Thailand. We were picked

up early by our friend and fellow plant geek, Boom, and off we went. We started the day off at the Chatuchak plant market in the center of Bangkok before heading south to visit Nong Nooch Botanical Gardens and a few palm nurseries where we hoped to add to ABG's tropical palm collection. Despite working in Thailand on dozens of occasions, I had never been outside of Bangkok so Paul and I were excited to see a different part of the country. We arrived at Nong Nooch early the next day and had the place pretty much to ourselves. From the moment we pulled into the parking lot, I could tell this was unlike any botanical garden I had ever seen. No expense was spared. Boom suggested we rent a golf cart to make the most of our time there since the grounds cover more than 500 acres. We spent the first hour and a half being shown the different areas of the garden, each one more impressive than the last. There was a garden made entirely of terra cotta pots, and orchid garden, a begonia house, young elephants to feed, nursery after nursery growing plants for the facility and one of the most impressive palm collections on the planet. The palms were the reason we had come and we were not disappointed. The species diversity was amazing and they are one of the only gardens in the world who is successfully breeding and farming the palm with the largest seed in the world, Lodoicea maldivica, aka the Double Coconut. Our guide told us that they had 20 trees that were mature enough to produce coconuts and we saw several of them with fruit on them. Each tree was enclosed in a chain-link fence to keep people from stealing the incredibly valuable and highly sought-after seed. Eventually, the owner of Nong Nooch plans to distribute plants of L. maldivica to other botanical gardens in the tropics for conservation purposes. We enjoyed this garden for hours and really only scratched the surface of their amazing collection. Definitely a place I would like to go back to and spend more time exploring.

We spent the night in the coastal town of Chanthaburi about 5 hours southeast of Bangkok. On our last full day of the trip, Boom had a special visit lined up for us…we were headed to the nursery and private garden of the retired palm specialist for Nong Nooch Botanical garden. Phoonsak, as he is known, worked in the field collecting palms for Nong Nooch all over southeast Asia for 30 years. Now that he is retired, he and his wife run an overwhelmingly diverse nursery specializing in rare palms, but many other rare species of Begonias, Impatiens, Ferns, Gesneriads, etc….. can be found scattered about as well. Even with my limited knowledge of tropical palms, I was blown away, but Paul was completely in his element. Immediately, Paul and Phoonsak hit it off and began weaving their way through the collection while making their way back to the rarest of the rare. We spent several hours and made multiple loops around the nursery asking questions, selecting plants for ABG's collection and learning about some of the exciting adventures Phoonsak has had in the field. Spending the morning with such an energetic, knowledgeable and friendly man was an inspirational send off for our time in Asia. We parted ways, made the final long drive back to Bangkok and caught a flight home the next morning, completing our three-week, around the world adventure.

Nong Nooch Botanical Garden

Terracotta Garden

Flowering Cycad

Cactus Garden

Caged Lodoicea maldivica (Double coconut)

Phoonsak's nursery

Licuala suchinensis

Johannesteijsmannia altifrons

Licuala sp. (newly discovered species)