



International Oaks

The Journal of the International Oak Society

*...the hybrid oak
that time forgot, oak-rod baskets,
pros and cons of grafting...*

Issue No. 25/ 2014 / ISSN 1941-2061



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p. 6: Charles Snyers d'Attenhoven (*Q. oxyodon* Miq.); p. 7: Béatrice Chassé (*Q. acerifolia* (E.J. Palmer)
Stoyloff & W. J. Hess); p. 9: Eike Jablonski (*Q. ithaburensis* subsp. *macrolepis* (Kotschy) Hedge & Yalt.).

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Béatrice Chassé



Fruiting *Quercus oxyodon* Miq., Nymans Garden (UK, 2013).

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In Search of Vietnam's Elusive Oaks

Chassé-Colin-Snyers Vietnam 2013 (CCSV13)

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Introduction

Ha Noi, October 24, 2013, 6 a.m. After an 11-hour flight from Paris, Charles Snyers, Olivier Colin and I arrive in the thick morning air of this capital city located 25 m/85 ft above sea level, on almost exactly the 21st parallel, 1,300 km/808 mi from the country's most southern point and just over 300 km/186 mi from the most northerly. A comfortable though humid 26 °C/80 °F and a grey sky welcome us while a slight drizzle reminds us that we are in a country with average annual rainfall, in the north of about 1,600 mm/63 in, and in the south, of over 3,000 mm/118 in.

We are greeted by Mr. Chung, our guide for the first week and our driver, Mr. Nhan, and off we go to our first destination. *Roystonea regia* (Kunth.) O.F. Cook and *Livistona chinensis* (Jacq.) R. Br. ex Mart. line the airport roads and as we wind our way through the suburban traffic to the west of Ha Noi the street trees that we notice are *Terminalia catappa* L. and *T. mantaly* H. Perrier with their very large leaves, along with species of *Cassia*, *Ziziphus* and *Bauhinia*. No oaks.

It must be said though that the trees are not the most spectacular things along these roads. Ha Noi's human population is a little under seven million; the Honda small cylinder motorcycle population, three million. These motorcycles transport everything from five people at a time to live pigs stacked up by three, 5-meter-/16-foot-long bamboo canes that trail off the back, 3-meter-/10-foot-wide and as-high bundles of everything imaginable (the list would be endless). Their drivers (and passengers as well as pedestrians too) often wear white masks covering mouth and nose which offer protection, however slight, from leaded exhaust fumes and the thick dust of which the air seems not so much to contain as to be composed of. Driving in Vietnam is no joke and yet in our extensive travels there we saw only one accident and only nearly died once.

In preparation

What could we find and where? was obviously the first question that needed answering long before arriving in Ha Noi. For many reasons, this is not an easy question to answer. Precious little contemporary information exists on the Vietnamese flora in general and even less on the family *Fagaceae* (Averyanov et al., 2003; Dung, 1996; Hardÿ and Lamant, 2010; Thai et al., 2010; Thin and Harder, 1996). An illustrated flora of Vietnam, begun in 2000, has produced 11 volumes (unfortunately not including the *Fagaceae*) with the last one having been published in 2007. The Vietnamese National Library has 49 botanical references in its catalogue with 11 in Vietnamese and 2 in Greek. Of the remaining 36, 4 are Gaston Bonnier's *Flore complète de France, Suisse et Belgique*; 11 are Henri Lecomte's *Flore générale de l'Indochine*; 4 are L. Pierre's *Flore forestière de la Cochinchine*; 5 are floras of other parts of the world and the remainder deal with subjects as varied as rice cultivation and lichens as bioindicators.

Though out-of-date in more ways than one, the best references we have are undoubtedly Madame Camus' *Les Chênes*, and Henri Lecomte's *Flore générale de l'Indochine*. From these it was at least possible to compile a list of the oaks present in Vietnam in the first half of the 20th century when the (predominantly French) explorers went there. *Oaks of Asia* (Menitsky, 2005) also provided much useful information as did the *Guide illustré des Chênes* (Hardÿ and Lamant, 2010) and *Vietnam Forest Trees* (Dung, 1996)—the latter two especially in determining fruiting times. The Vietnam Plant Data Center (<http://>

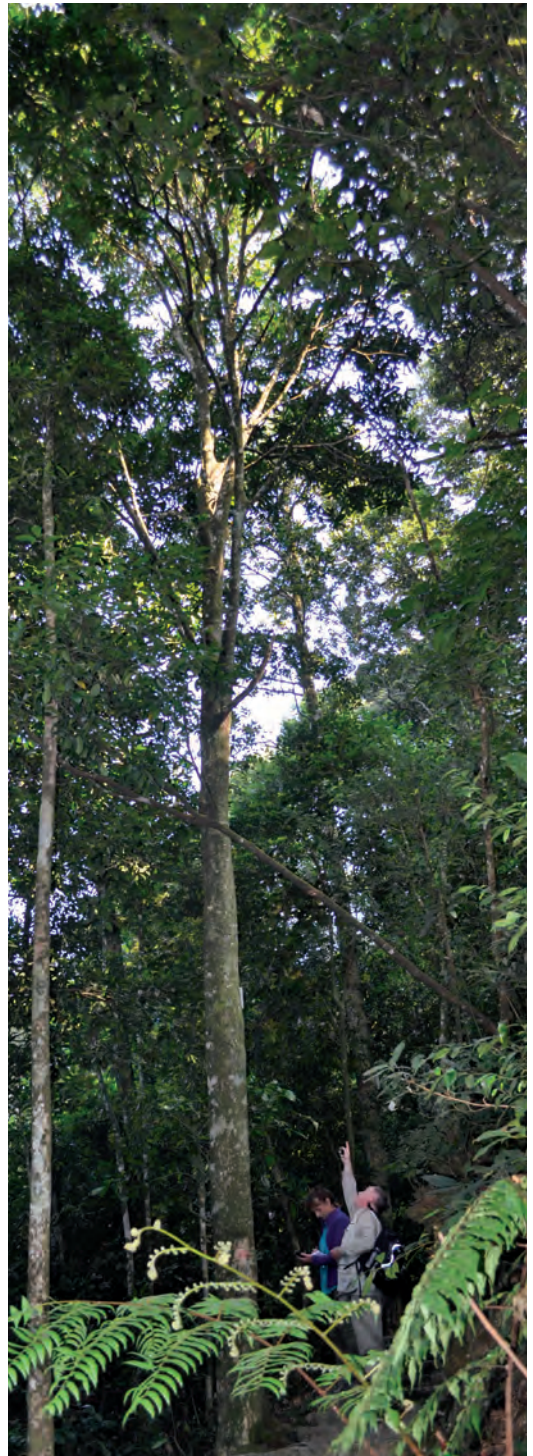
www.botanyvn.com) provides a checklist, but not any detailed information on the individual species.

During the second half of the 20th century war, forest fires, slash and burn agriculture, encroachment into forest lands for industrial purposes and other forms of anthropic pressure, have reduced forestland in Vietnam from an estimated 43% of the total surface of the country in 1940 to 17% by the late 1970s (Bien, 2001). According to Be Viet Dang (1993), prior to 1954 most of the northern mountain regions were covered with forests. Today, in many parts of the region only 8 to 10% forest cover remains (roughly estimated at 13 million ha/32 million acres of lost forest). Interestingly, Eugène Poilane, one of the intrepid French explorers of Indochina, who sent a great number of *Fagaceae* (and other) specimens to the Muséum that Aimée Camus and Robert Hickel would work on, had already noticed in 1936 massive deforestation in the northwest of Tonkin* (Lecomte, 1943).

More recent expeditions, since Vietnam reopened its doors in 1987, have not specifically targeted the *Fagaceae*. All of these expeditions have discovered new taxa in a variety of genera and families, a tribute to Vietnam's great diversity and proof that a lot of work remains to be done to understand it all.

The itinerary

The first part of our route was to take us to Ba Vi National Park and to Tam Dao National Park (respectively west and north of Ha Noi) and then further northwest to the area around a village called Mu Cang Chai. Continuing our route north, the second part of the trip was to explore different areas near Sa Pa and further north near the Chinese border. Olivier Colin, who could



1/ *Quercus dinghuensis* C.C. Huang in Ba Vi National Park.

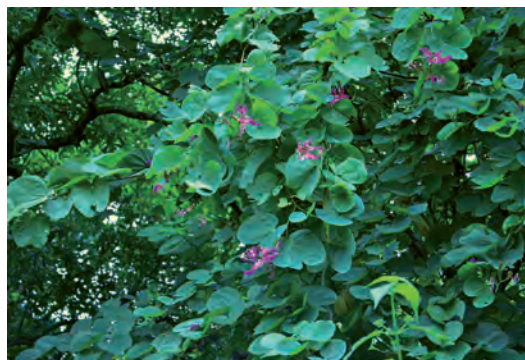
* During the French colonial period, northern Vietnam was called Tonkin, the center and a large part of the south were referred to as Annam, and the extreme south, Cochinchine.

only stay two weeks was to return to France at this point and Charles and I would then embark on the last part of our voyage going even further northeast to the Ha Giang Province, before eventually heading south back to Ha Noi.

Ba Vi National Park (October 24-25)

A warning to all of you who may be tempted in the near future to visit Vietnam: 40 km/25 mi an hour is the most you can hope to achieve on average—and often it is much, much less! Do not trust the various different route planners you can find on the Internet : it took us over three hours to drive the 50 km/31 m that separate Ba Vi from the airport.

The Ba Vi Mountains, of limestone origin, were often visited by explorers of the past. For example, Benjamin Balansa (1825-1891), who collected in Tonkin from 1885 to 1889, recorded over 5,000 collection numbers referred to in the *Flore générale* and most of them are from Ba Vi (Lecomte, 1943). Today a national park, it is an area enjoyed by Ha Noi residents for its cooler climate and beautiful landscapes.



2/ *Bauhinia* sp. in Ba Vi National Park.

After deciding not to have lunch, we quickly drop our bags, get changed and equipped with cameras, notebooks and GPS receptor to go and have a first look at Ba Vi, still some 10 km/6 mi away. We decided that we would go to the top first, passing along the way a spot called the French Summer Camp to which we would return. It was of course impossible not to stop along the roadside before reaching the parking lot and the start of two trails that led to the top! We couldn't resist having a closer look at this luxuriant vegetation. Beautiful begonias and many representatives of the family *Melastomataceae*, tree and other ferns, climbing pepper plants, various bamboos along with genera such as *Clerodendron*, *Alocasia*, *Mallotus*, *Gonostegia*, and *Aspidistra* were but a small part of what was to be seen. Mingled in with the indigenous species, we also noted *Tithonia diversifolia* (Hemsl.) A. Gray (Mexico), *Malvaviscus arboreus* Cav. (United States, Mexico, Central and South America) and *Tradescantia zebrina* Bosse (Mexico).

To start, we chose the trail—actually a staircase—that leads to the summit of one of Ba Vi's three peaks, Tan Vien (1,226 m/4,022 ft), from which it was fairly easy to go wandering off to the sides for more in-depth exploring. Along the path, some of the trees were labeled, with very large metal plaques graphically resembling Paris street signs (royal blue background and white lettering) not all of which could be trusted.

As Olivier and I got sidetracked, Charles patiently made his way to the top and to the first important oak find of the day: *Quercus xanthotricha* A. Camus, present in Vietnam but much further south in the Djiring province. The first oak of this trip was thus also an important lesson: the patiently compiled neat lists of who was to be found where could only serve as an indication. I had originally identified it as *Q. xanthoclada* Drake (discovered and described by Drake in Ba Vi) but Dr. Min Deng, who has been kind enough to look at so many of our samples, has identified it as *Q. xanthotricha*.

There are a great number of *Fagaceae* in this forest and clearly the *Lithocarpus*

and *Castanopsis* seriously outnumber the representatives of the genus *Quercus* both in diversity and in number of trees. This scenario was to be the rule of what we would find in the days to come. Many *Lithocarpus* and *Castanopsis* (both often with seed) and relatively few *Quercus* (most often without). *L. bacgiangensis* (Hickel & A. Camus) A. Camus, *L. cyrtocarpus* (Drake) A. Camus, *L. pseudoreinwardtii* A. Camus, *L. balansae* (Drake) A. Camus, *C. chinensis* (Spreng.) Hance, *C. lecomtei* Hickel & A. Camus, *C. tessellata* Hickel & A. Camus, *C. faberi* Hance, and *C. tonkinensis* Seemen are just a few that we found here.



3/ *Quercus xanthotricha* in Ba Vi National Park.

It is not always easy, in the absence of flowers or fruit, to distinguish between these three genera. Many of the specimens that were described as *Quercus* in *La Flore générale de l'Indochine* or in Drake del Castillo's *Contributions à l'étude de la flore du Tonkin* (Drake, 1890), are actually *Lithocarpus* and sometimes, *Castanopsis*. For example, *Q. baviensis* Drake, *Q. reinwardtii* Drake, *Q. tephrocarpa* Drake, and *Q. tunkinensis* Drake, are in fact *L. truncatus* (King ex Hook.f.) Rehder, *L. pseudoreinwardtii* A. Camus, *L. tephrocarpus* (Drake) A. Camus, and *C. fissa* (Champ. ex Benth.) Rehder & E.H. Wilson. The arrangement of the terminal buds is helpful and also many species of *Castanopsis* have a kind of metallic shiny look to the underside of the leaf not exhibited by species of the two other genera.

Several interesting species of *Aucuba* (resembling closely *A. himalaica* Hook.f. & Thomson or *A. chinensis* Benth.), *Tupistra hongheensis* G.W. Hu & H. Li (a species described in 2013), four species of *Aspidistra* including *A. aff. hainanensis* Chun & F.C. How), *Ophiopogon latifolius*, L. Rodr., different orchids (some belonging to the genera *Liparis* and *Flickingeria*), as well as many beautiful begonias kept Olivier's nose to the ground and our eyes opened wide as we discovered these things.

As the sun went down we reluctantly decide to end the day with a quick look around



4/ *Castanopsis calathiformis* (Skan) Rehder & E.H. Wilson, near Sa Pa.

5/ *Castanopsis lecomtei* Hickel & A. Camus, Ba Vi National Park.

6/ *Castanopsis chinensis*, Ba Vi National Park.

7/ *Lithocarpus echinotolus* (Hu) H.Y. Chun & Huang ex Y.C. Hsu & H.W. Jen, Phan Xi Pang.

8/ *Lithocarpus pachylepis* A. Camus, Phan Xi Pang.

9/ *Lithocarpus elegans* (Blume) Hatus. ex Soepadmo, near Sa Pa.

the area referred to as the French Summer Camp. This turned out to be a very good idea as we immediately fell upon very large acorns strewn over several square meters. It was very difficult to determine what tree these had come from because of the diminishing light in this thick vegetation but they did not seem to correspond to the description of any of the oaks I had thought we would find in Ba Vi though they did resemble the acorns of *Q. helferiana* A. DC. which we expected to find further north. It was literally nearly dark under the forest canopy and so we decided to call it a day and to come back to the French Summer Camp the following morning.

Worn out from having crossed half the planet, driving in Vietnam, and visiting Ba Vi, we were pleased to be headed for a shower, a nice dinner and a comfortable bed at our hotel, the Yen Bai Resort. But it was not to be: after only completing the first third of



10/ *Quercus braianensis* in Ba Vi National Park.

that program, our guide came to inform me that the police wanted us to leave this hotel. Thus we had to pack up our things and drive back to the National Park where there was another hotel willing to have us. In the end, although the rooms were not quite as good as the previous ones, the grounds were quite pleasant and the restaurant good—plus we were actually in the park which meant less driving for the following day.

The next morning back at the French Summer Camp (altitude between 500 and 700 m/1,640 and 2,296 ft) we find more of these very large acorns (and still have difficulty determining the species) as we make our way through this forest populated with, amongst others, *Amesiodendron chinense* (Merr.) Hu, *Chisocheton cumingianus* (A. DC.) Harms, *Magnolia lotungensis* Chun & C.H. Tsoon, *Diospyros pilosiuscula* G. Don., and the usual horde of *Lithocarpus* and *Castanopsis*. Finally we find a blue and white label for our mysterious oak: *Q. gemelliflora* Blume. But this did not seem correct: neither the leaves nor the acorns corresponded to the description of *Q. gemelliflora*. Not to mention the fact that this oak is only reported in Indonesia and Malaysia. Problems of identity notwithstanding, we were quite happy to begin the day with so many acorns in one place.

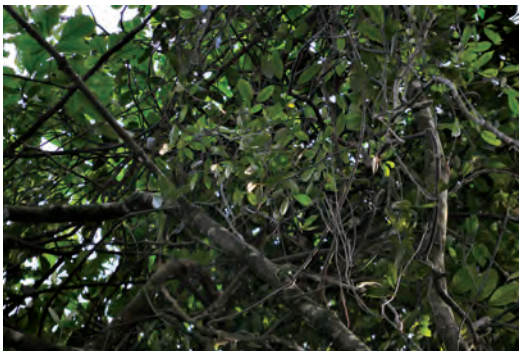
In the afternoon we ascended the trail that leads to Vua Peak (1,296 m/4,251 ft) to find many oaks. *Q. neglecta* (Schottky) Koidz., *Q. dinghuensis* C.C Huang, *Q. petelotti* A. Camus, *Q. macrocalyx* Hickel & A. Camus, and another that could be either *Q. quangtrienensis* Hickel & A. Camus or *Q. semiserrata* Roxb. It is difficult to say because we found no acorns and the only leaves that we could get both from the tree and from the ground were not in very good shape. We continued to find specimens of the purported *Q. gemelliflora*. This has since been identified by Min Deng as *Q. braianensis* A. Camus (reported in Vietnam but much further south). Many different magnolias dotted the way as we roamed around: *Magnolia fordiana* (Oliv.) Hu, *M. fordiana* var. *hainanensis* (Dandy)



11/ *Quercus neglecta* in Ba Vi National Park.



12/ *Quercus dinghuensis* in Ba Vi National Park.



13/ *Quercus petelotii* in Ba Vi National Park.

Noot., *M. dandyi* Gagnep., and others.

Q. neglecta is a beautifully elegant and very tall tree with very distinctive elongated, bamboo-like leaves (hence, *Q. bambusifolia* Hance as it used to be called) with secondary veins that are hardly visible (which is what the specific epithet refers to).

Q. dinghuensis is a very rare oak, not reported in Vietnam. The description of this oak in the Flora of China (based on specimens from the Dinghu Shan Mountains, Guangdong, China) gives a maximum height of 8 m/26 ft whereas our tree was easily 12 or 14 m/39 or 46 ft (maybe even taller, but it is difficult to estimate from the photograph). It is not described by Mme Camus in *Les Chênes* or in *La Flore générale* and no specimen exists in the Paris herbarium. How is it that Mr. Balansa, who collected over 5,000 specimens in Ba Vi, including many oaks, did not find this one? I think that the best working hypothesis is that he probably did and that it is somewhere in the herbarium but with another name. I visited the Paris herbarium in February to look first-hand at some of the Vietnamese oaks and more than one had been baptized with a different name than the one it currently has (for example, some specimens that are now labeled *Q. macrocalyx* were originally labeled *Q. semiserrata*). *Q. dinghuensis* is an important find in Vietnam and another good reason to go back to the wonderful Paris herbarium!

Q. petelotii, dedicated by Mme Camus to another of the great French explorers of this region, Alfred Pételot (5,396 collections in Vietnam), has young leaves and acorn caps covered with a dense, yellow tomentum. *Q. macrocalyx* is a stunning tree the young leaves, twigs, and buds of which are covered with a very dense, rusty orange or golden tomentum. The acorns are unmistakable: the distinctly bell-shaped, orange, velvety acorn caps are a sure signature.

With these lovely oaks to end the day we prepare our departure from Ba Vi National Park as we head back to the hotel. We intend to leave the following day for Tam Dao, a mere 60 km/37 mi from where we are and yet, after discussion with our guide and driver we realize that we will need from between three and four hours to get there, mainly because there are many rivers in Vietnam but the bridges are few and far between. We

thus decide, that our departure time will be 6 a.m. and that we will stop on the road for breakfast. Like the previous evening, the day ended over a wonderful dinner composed of a multitude of different meat and vegetable dishes laid out on the table to be shared by all. *Chayotte*, a kind of pale green very firm squash (*Sechium edule* (Jacq.) Sw.) that we would be served at nearly every meal (no vegetable garden that we saw was without them) was this evening cut up in large chunks and steamed to be eaten after dipping in a salt and sesame seed-peanut powder. It is of Mexican origin and is cultivated in many tropical countries where it sometimes becomes invasive. Another vegetable that was quite a regular on our table was *Brassica rapa* L. of which there are many varieties and a seemingly infinite number of ways to prepare the leaves, stems, and roots.

Tam Dao National Park (October 26)

Off we go a bit after sunrise in the direction of Son Tay a small town 35 km/22 mi to the west of Ha Noi and just south of the Red River but with no bridge to cross it. Son Tay was the theater in 1970 of a prisoner-of-war rescue mission involving the Green Berets, the US Navy and the US Air Force that failed because... there were no prisoners there. The Battle for Son Tay, December 17, 1968, an offensive of the French Tonkin Expeditionary Corps, is another page in its history. But for us on October 26, 2013 it was merely the town with no bridge to cross the Red River, from where we could have gone directly to Tam Dao on a fairly good road (2C-2B). We stopped to have breakfast there—the typical Vietnamese breakfast called *pho*. Being a black-coffee-and-cigarettes-for-breakfast-person myself, this was a challenge. Olivier, a true aficionado, and Charles, a practical man, were happy enough.

This soup is considered a national dish and you can find it in every corner of Vietnam, with countless variations. Its origins are obscure with the dish reported for the first time (by Westerners at any rate) shortly after the French occupation of Ha Noi in 1850. It is thought that the dish, as it exists today, is a hybrid between Vietnamese, French, and Chinese traditions. The main ingredient of the dish is the broth that is made the same way the French make a dish called *pot au feu* (and some link the origin of the word *pho* to the French *feu*). Stewing bones and tough pieces of meat to make a nutritious broth can be found in so many different rural culinary traditions that chances are the Vietnamese did not wait for the French to teach them how to do this. The soup is an eloquent symbol of Vietnam: a melting-pot patchwork of a great many cultural traditions.

Driving alongside the Red River (Song Hong) on route 32 we cross the Black River (Song Da), the most important tributary of the Red River, with which it joins in Viet Tri. Shortly after, from the town of Hung Hoa, we can finally cross the Red River and head on to Viet Tri, Vinh Yen and Tam Dao where we arrive at around 10 a.m.

We only had the rest of the day to spend in Tam Dao so decide once again to skip lunch, buying a few biscuits and some candy instead. The Tam Dao mountain range is one of the terminal spurs of the high elevation northwestern mountains that we will be visiting in the days to come. The town of Tam Dao was founded by the French in 1907. Our main reason for coming here was to find *Quercus platycalyx* Hickel & A. Camus and *Q. poilanei* Hickel & A. Camus (Thai, 2010). The latter is dedicated to Eugène Poilane, one of the most important of the French collectors in Indochina, as well as one of Mme Camus' most prolific collaborators. Born in 1888, he went to live in Vietnam in 1909 and spent nearly thirty years exploring the country. Of the estimated 90,000 collections



14/ *Macroselen bibracteolatus* (Hance) Danser

referred to in *La Flore générale*, 32,671 are attributed to Mr. Poilane (Lecomte, 1943).

The day brought many botanic marvels to our attention—including *Q. petelotii* and possibly *Q. poilanei*—as we began our walk through an impressive *Indosasa crassiflora* McClure forest. Where the bamboo dwindled, there were many *Lithocarpus* (including *L. corneus* (Lour.) Rehder and *L. balansae* (Drake) A. Camus) and *Castanopsis* spp., many in flower, along with many soft purplish-red young leaves of the beautiful and rare *Acer campbellii* subsp. *flabellatum* (Rehder) A.E. Murray. Here and there, the very pretty parasitic *Macrosolen bibracteolatus* (Hance) Danser danced its way through somebody else's branches. Numerous species of the family *Melastomataceae* were to be seen, most notably a spectacular lithophyte, *Medinilla petelotii* Merr. with its delicate flowers, as well as a *Styrax serrulatus* Roxb. (later identified for us by Jan De Langhe). Strewn throughout were many trees of *Polyspora* sp., a close cousin of camellias, with its beautiful white flowers and dark green foliage. Since 2012, three new species have been described in this genus from Vietnam. Magnificent tree ferns, always a spectacular sight, were also present.

The Belvedere Tam Dao Resort is nestled on a steep mountain slope and the views are spectacular. The very chic and fancy restaurant that cost us about ten times what we paid at Ba Vi, was unfortunately not half as good but afforded us the occasion to learn two things about Vietnam. One, if you order something that is on the menu but not available,



15/ View from the Belvedere Tam Dao Resort, looking out over the vegetable garden.



16/ From Tam Dao to Mu Cang Chai.

they just bring you something else that they think is a close approximation! Charles, who had ordered fried sweet potatoes as a starter, received French fries instead. And two, that French fries as a starter is quite common practice here.

Mu Cang Chai (October 27-28)

300 km/186 mi separate us from our next destination, Mu Cang Chai to the northwest. On fairly decent roads most of the way, it took us only eight and a half hours to get there. The countryside is alternately patched with rice fields, tea, and banana plantations (these latter sometimes planted all the way up to the top of vertiginous slopes).

Not only is driving a very serious matter in Vietnam, but trying to figure out on a map where you are and where you are going can also be a challenge: different maps don't always tell the same story! We stop for a break in a village called Thu Cuc, that I can find on no map that I have, not even in the Vietnamese road atlas, bought in Vietnam—but it can be found in Google maps. The village is nestled in an area of karstic landscape, not typical for the region. While Charles and I took a stroll through the village Olivier could not resist climbing up one of these steep and densely carpeted knobs. After too long—but luckily for him just a second before we were thinking about leaving without him—he appeared, breathless from the effort and what he had found: different species of *Begonia*, *Asplenium macrophyllum* Sw., *Dracaena cambodiana* Pierre ex Gagnep., *Schefflera* sp., and *Plectranthus* sp.

The mountains near Mu Cang Chai, largely unexplored, seemed potentially interesting because they are part of the tail end of the Hoang Lien Mountains, the culminating peak of which is the Phan Xi Pang further north. There are no hotels in Mu Cang Chai and we were requested to fill out documents for the local police explaining our presence.



17/ The southern part of the Hoang Lien Son Mountains, near Mu Cang Chai.

We were lucky in that our guide was acquainted with some of the villagers (and one of the policeman) and so was able to arrange a very comfortable and pleasant “home-stay” (the Vietnamese equivalent of bed and breakfast).

From the village of Mu Cang Chai a trail (inaccessible to cars) of about 15 km/9.3 mi leads to a tiny hamlet called Mo De from where (on at least one map) there appeared to be footpaths into the mountains leading to peaks at 2,663 m/8,736 ft and 2,913 m/9,557 ft (but again these are not

indicated on every map). We agreed to split our party in two for the next day: while I would go with our guide on motorbike to Mo De, Charles and Olivier would backtrack a few miles to a pass that we had crossed on the way (Khau Pha Pass at 1,560 m/5,118 ft).

We were very lucky weather-wise during our stay in Vietnam. Although we had only a few days with bright blue skies, we also had only a few days of light rain lasting only a few hours—except in Mu Cang Chai where it rained the entire time. This made the motorbike experience a very slippery and muddy one. In addition, the only pedestrian access to the mountains behind Mo De was a very steep path that was probably not a very good one even without the rain. In addition to the ever-present *Castanopsis* spp., here



18/ In the mountains behind Mo De.

I find dense populations of *Cunninghamia lanceolata* (Lamb.) Hook. along with a two-needle pine, perhaps *Pinus merkusii* Junghuhn & de Vriese. Nearing 1,900 m/6,234 ft, on an increasingly steep and slippery trail, it seemed to me that if any significantly higher

peaks existed they would have been visible but this was not the case.

From the Khau Pha Pass Charles and Olivier were able to explore a forest that is heavily exploited by the local population for firewood, for pig and cattle grazing as well as for recreational activities. A very wide trail that cuts across the forest has promoted the growth of many shrubs and small trees on either side while affording a certain degree of accessibility. In addition to an oak which is either *Q. glauca* Thunb. or *Q. glauca* var. *annulata* Min Deng & Z.K. Zhou, they noted several very large specimens of *Acer campbellii* Hook.f. & Thomson ex Hiern, three species of *Schefflera* (including *S. macrophylla* (Dunn) R. Vig.), *Actinidia latifolia* (Gardner & Champ.) Merr., *Actinodaphne pilosa* (Lour.) Merr., *Clethra fabri* Hance, *Embelia parviflora* Wall. ex A.DC., *Eurya acuminata* DC., *Holboellia chapaensis* Gagnep., *Clerodendron glandulosum* Coleb., and also unidentified species of *Illicium*, *Rhodoleia*, *Chimonocalamus*, *Callicarpa* and *Zanthoxylum*. *Exbucklandia populnea* (R. Br. ex Griff.) R.W. Br., that I had also seen in the mountains behind Mo De, was present here. On the way back to Mu Cang Chai they also found *Gaultheria fragrantissima* Wall. and a beautiful orchid, *Cymbidium iridioides* D. Don.

In addition to being a very warm and friendly person, our hostess in Mu Cang Chai was an incredible cook and every meal—breakfast or dinner—was memorable. Many of the things we ate were from her vegetable garden, herb patch and rice field. Wonderfully exotic things, novel spices and interesting combinations. We were treated to fried grasshoppers—considered a real treat because it is only at this time of year that grasshoppers abound in the rice fields. Our driver was especially fond of them. The most honest description I can give is that it is like eating potato chips with antennae. Very bland and crunchy.

Sa Pa and surrounding areas (October 29–November 2)

We leave Mu Cang Chai in the rain at 8.00 a.m. on route 32 that will take us all the way to Sa Pa, estimating that it will take us about five hours to drive the 158 km/98 mi. This road travels along a valley on the western side of the Hoang Lien Mountains crossing different rivers along the way. Every bridge in Vietnam, no matter how small, has, on both sides, a proud sign with an incredible number of vital statistics: start- and end-date of construction, name of the river it crosses and of the architect who built it, length, height, width, what it cost, etc. Along this valley, the landscape changes from hydraulic dam to rice fields to hydraulic dam to intact forest to hydraulic dam. We arrive in Than Uyen at 10.00 a.m. and continue our way to Sa Pa where we arrive a bit before 1.00 p.m.

We had planned to explore Sa Pa and nearby areas from October 30 until November 6, but only two things were sure: that we would spend the first two days on Phan Xi Pang and that we would hook up with Mr. Uoc Le Huu. Many recent expeditions to Vietnam have shown that if you want to look for plants, especially in the province of Lao Cai, Uoc is your man. Self-taught plantsman, born actor, consummate jester and thoughtful organizer, Uoc was a very valuable asset to us. Significantly, Uoc, like many Vietnamese whom we spoke to, did not really have a clear idea of what an oak was, and often mistook species of *Castanopsis* and *Lithocarpus* for oak. Nevertheless, we are grateful to him for his determination and extraordinary eyesight (“Eagle Eye” as he has been named by one of his Western friends).



19-20/ *Q. glauca* var. *annulata* on Phan Xi Pang.

At 3,143 m/10,312 ft Phan Xi Pang is the highest mountain in Indochina. It is part of the Hoang Lien Son Mountains that are the southern extension of the Himalayas and it is also the tourist attraction of the Hoang Lien Son National Park (before 2006, Hoang Lien Son Nature Reserve), just a few kilometers from Sa Pa. During the French colonial period, Sa Pa was the favored spot for secondary residences of well-to-do French bureaucrats as well as for the Vietnamese who had managed to find a profitable place for themselves within the colonial system. After the demise of the French, and throughout the incessant violent conflicts that marked the history of this country in the 20th century, Sa Pa practically disappeared from the map until about the 1990s, when, after the country reopened its doors, adventurous souls wandered once again to the northern reaches of Vietnam. In less than 15 years, this town has become a sort of Vietnamese Kathmandu: the town lives and breathes for tourists, whatever

their style or budget. It is difficult to find good, authentic Vietnamese cooking in Sa Pa—indeed perhaps authentic Vietnamese anything—but a bottle of good (Italian, Chilean or Australian) wine can be found and the comfort that one of the decent hotels offers after a few nights camping is highly appreciated.

The point of departure for any trek on Phan Xi Pang is the Tram Ton Pass at 1,900 m/6,234 ft, the entrance to the National Park. This morning of October 30 greeted us with a hazy sun and just a slight drizzle that did not last for very long as we began the climb upwards through the lush vegetation overhead and all around us. Very quickly we see that the forest has been cut and burnt in many places to make room for vast cardamom plantations. Of course the Vietnamese are not the first to behave foolishly vis-à-vis their forest resources. This isn't to say that two (or many) wrongs make a right but the conclusion must be drawn that, in these matters at least, intelligence has been fairly equitably distributed on the planet.

Our camp was to be at 2,230 m/7,316 ft and so we had plenty of time before nightfall.



21/ Above the clouds on Phan Xi Pang.

As we near 2,000 m/6,562 ft, many *Lithocarpus pachylepis* A. Camus with their very large leaves (up to 35 cm/14 in long) are present with a great many nuts, also very large (with diameters of up to 6.5 cm/2.6 in), strewn over the ground. Also present, *L. echinophorus* (Hickel & A. Camus) A. Camus. In many different places we find *Quercus glauca* Thunb. and *Q. glauca* var. *annulata* M. Deng & Z.K. Zhou). Here also, *Castanopsis* and *Lithocarpus* species severely outnumber the *Quercus*.

The dazzling colors on display in the understory (sort of) make up for the lack of oaks and acorns: dark blue berries of *Dichroa febrifuga* Lour., pink seed pods of *Euonymus laxiflorus* Champ. ex Benth. opening to reveal bright orange seeds, *Lasianthus* sp. and *Ophiopogon* sp. showing off their electric blue seeds, rose-dappled fruit of *Lobelia montana* Reinw. ex Blume, soft pinkish-white blossoms of *Luculia pinceana* Hook., shiny red fruit of a *Smilax* sp., butter-yellow flowers of *Hypericum hookerianum* Wight & Arn. and *Rhododendron emarginatum* Hemsl. & E.H. Wilson and the pure white petals surrounding the orange and yellow stamens of *Polyspora longicarpa* (Hung T. Chang) C.X. Ye ex B.M. Barthol. & T.L. Ming... to name but just a few.

The next day we continue upwards, encountering here again many *Castanopsis* and *Lithocarpus* and just as few oaks. But there are other interesting things! Spectacular trees of *Rehderodendron indochinense* H.L. Li with their sausage-shaped, orange-spotted, enormous seeds literally piled in heaps in some places. *Schefflera hoi* (Dunn) R. Vig. and *S. fantsipanensis* Bui along with smaller trees of *Dendropanax dentiger* (Harms) Merr. also attract our attention along with the bushier *Viburnum cylindricum* Buch.-Ham ex D. Don, *Hydrangea heteromalla* D. Don and *Euonymus laxiflorus* Champ. ex Benth. Towards mid-afternoon we start our way back down and arrive in Sa Pa before nightfall.

On the morning of November 1 we visit an area of degraded forest 3 km/1.9 mi south



a



b



d



e



c



f

22/ The colors of Phan Xi Pang and Nhiu Co San: a) *Aeschynanthus bracteatus* Wall. ex A. DC.; b) *Hypericum hookerianum*; c) *Euonymus laxiflorus*; d) *Ophiopogon* sp.; e) *Rhododendron emarginatum*; f) *Luculia pinceana*.

of Sa Pa at 1,500 m/4,921 ft. The path that leads into this forest is just across the road from Uoc's house, where we are invited for lunch. According to him this forest was completely cut down just a few years ago. We are welcomed by a magnificent *Lithocarpus elegans* (Blume) Hatus. ex Soepadmo and an equally nice *Castanopsis calathiformis* (Skan) Rehder & E.H. Wilson. The nomenclatural history of this taxon is revealing: in 1899, *Quercus calathiformis* Skan; in 1916, *Synaedrys calathiformis* (Skan) Koidz.; in 1921, *Pasania calathiformis* (Skan) Hickel & A. Camus, and in 1931, *L. calathiformis* (Skan) A. Camus. Continuing on our way, we are supremely rewarded with *Q. macrocalyx* in a slightly spread-out group of eight multi-stemmed trees 5-6 m/16-20 ft in height, two of which offer us a few of the beautiful acorns of this species. There are also a great number of other interesting plants: *Illigera* sp., *Schefflera schizophylla* (Hance) Frodin, *Magnolia* spp., *Alnus nepalensis* D. Don, *Aralia* sp., *Cornus* sp., *Camellia sinensis* (L.) Kuntze, *Melicope pteleifolia* (Champ. ex Benth.) T.G. Hartley. For the afternoon's hike we drive a dozen kilometers/seven and a half miles to the northwest of Sa Pa to Ban Khoang Mountain. Large areas covered with cardamom plantations make the climb fairly difficult but here too we find many (non-*Quercus*) interesting things: *Peliosanthes yunnanensis* F.T. Wang & Tang, *Acer laurinum* Hassk. (or is it *A. oblongum* Wall. ex DC.?), *Aesculus assamica* Griff., *Exbucklandia populnea*, R.W. Brown, *Illigera* sp., *Eleutherococcus* sp., *Brassaiopsis* sp., *Microtropis* sp., *Asarum caudigerum* Hance and an unidentified *Viburnum*.

On November 2, our day's hike starts at the foot of the Thac Bac Waterfall



23-24/ *Quercus macrocalyx* near Sa Pa.



25/ Looking at Phan Xi Pang from Thac Bac Mountain.

a variety of plant life with the usual crowd-minus-our-favorite-genus of *Fagaceae* plus a number of interesting things that we had not yet seen including *Buddleja macrostachya* Benth. with showy dark pink flower spikes, a species of *Aucuba* with very large leaves, a form of *Hydrangea stylosa* Hook.f. & Thomson with a dark purple underside to the leaf, *Osbeckia stellata* Buch.-Ham. ex Ker Gawl. in bloom, several *A. campbellii* and numerous very large specimens of *Rhodoleia* cf. *parvipetala* Tong. In several spots, beautiful white *Polyspora* sp. flowers cover the ground.

(also known as the Silver Waterfall) 13 km/8 mi from Sa Pa and very near to the Tram Ton Pass though not quite as high (1,800 m/5,905 ft). The very steep climb to a little over 2,400 m/7,874 ft begins on several hundred meters of what appears to have been a treacherous rock slide. From 2,000 m/6,562 ft upwards, and thanks to the crystal blue sky, bright sun and perfect fluffy white clouds, the views are absolutely spectacular, with Phan Xi Pang looming on the horizon. There is a great

Nhiu Co San (November 3-5)

The next day (November 3) we leave Sa Pa heading northwest towards the Chinese border for a three-day camping trip to Nhiu Co San Mountain. A fairly good road, 4D, takes us west to the town of Quy Ho from where we turn north on an almost decent road, 155, in the direction of Muong Hum, and then slightly west again, on what can barely be called a road, to arrive in the town of Chu Phin (on some maps, Khu Chu Din) where we meet the porters that are to accompany us. After lunch we set off on foot, crossing a village also called, according to some maps, Nhiu Co San. As with Thac Bac, it seems obvious that many mountains in Vietnam have no name other than the name of the nearest village. Shortly thereafter, we walk on a part of what is left of an 80-km/50-mile stone path that was built in 1927 by the French (well really by thousands of the local citizens) so that they, the French, could cut across the mountains to go to Lao Cai on horseback. It is difficult to say for certain exactly where we are: in the Vietnam Road Atlas, there is a peak (with no name) at 2,661 m/8,730 ft situated pretty much where we think we are and



26/ The road to Nhiu Co San.

while some references tend to corroborate this with 2,700 m/8,858 ft as Nhiu Co San's height, others give the height at only 2,231 m/7,320 ft. Still on other maps this peak, where we think we are, is indicated at 3,044 m/9,987 ft!

It is a pleasant hike to 1,600 m/5,249 ft where we plan to camp for the night. We stop along the way so that Uoc can show the local villagers we encounter my drawings of acorns in the hopes that they will be able to help us locate some oaks. We were

like the travellers in search of the mythical Kingdom of Thule: their questions, as ours, received very kind answers invariably involving referral to someone else who for sure knew where the object of desire was to be found and that this someone else could be found just a bit further down the road or just on the other side of the next mountain (Mund-Dopchie, 2009). Many species of maple live here and the number of seedlings that we saw would indicate that they are thriving. These included *Acer campbellii*, *A. erythranthum* Gagnep., *A. laurinum* and *A. pectinatum* Wall ex G. Nicholson. Perhaps the most spectacular tree we saw was an extraordinary *Huodendron* that we estimated at about 40 m tall/131 ft with a circumference that we measured of 3.3 m/10.8 ft. Of the four species in this genus of the family *Styracaceae*, the largest, *H. tibeticum* (J. Anthony) Rehder, is also the only one reported in this part of Vietnam but it is only supposed to reach 25 m/82 ft in height with a dbh of 25 cm/9.8 in (Flora of China). This was not the only “monster” that we found: a magnolia of over 35 m/115 ft tall with a 4.2 m/13.8 ft circumference was another spectacular sight. We found many, many trees of extraordinary size here—a good indication that we were in a relatively untouched piece of primary forest. We also found a very elegant *Stewartia*, possibly *S. pteropetiolata* W.C. Cheng (reported in southern and western Yunnan) or *S. tonkinensis* (Merr.) C.Y. Wu.

We arrive at our campsite just a bit before dusk and in less time than it takes to say it, the tents are pitched, the fire is blazing and dinner is on the way. And what a dinner it turns out to be! Six or seven different dishes, vegetable, meat and fish plus dessert are served up hot and delicious in very difficult conditions within which to exercise culinary talent. Our sincere thanks go to Sang, our excellent cook. Here, as in Mu Cang Chai, we had the pleasure of great food at every meal. The only thing



27/ A gigantic *Huodendron*, possibly *H. tibeticum*.



28/ Nhiu Co San campsite.

I could possibly complain about would be the absence of a good, ice-cold gin and tonic (with or without a twist of lime), for Charles it would be a good glass of wine, and for Olivier, a good mountain hotel, if only for the bed. The following day we set off for greater heights and encounter along the way different species of *Lithocarpus* including *L. echinotholus* (Hu) H.Y. Chun & Huang ex Y.C. Hsu & H.W. Jen and *L. pachylepis* that we had seen in many places



29/ The only way to get across!

as well as different *Castanopsis* with very distinctive nuts that we had not seen before. Although I have not mentioned them previously, here, as everywhere else we have been, a great number of delicate and colorful *Begonias* carpet the forest floor. The telltale bright red-orange seeds we find in several places announce the presence of different species of *Magnolia*, these too of very large dimensions. Different species of *Rhododendron*, *Hydrangea*, *Ilex*, *Schefflera*, *Pileostegia* and *Ericaceae* all contribute to making our days on Nhiu Co San interesting and productive (in an admittedly and sadly non-oak kind of way). In addition to another great meal that awaits us as we return to camp, Minh, Ro and Tinh, the porters who accompanied us, had collected fruit-bearing branches of *Cornus hongkongensis* Hemsl. to eat. We are grateful to them for this and for all of the assistance they provided us during this excursion.

As we make our way back to Sa Pa, Uoc takes us to a village where rumor has it that there are oaks. These turn out to be *Castanopsis*. On denuded slopes along the way

we notice here and there a kind of palm tentatively identified by Olivier as *Livistona speciosa* Kurz. We arrive back in Sa Pa in the early evening of November 5 and the following day is spent sorting samples and comparing notes, as well as preparing for the last leg of the trip and saying goodbye to Olivier who heads back to Ha Noi on the night train from Lao Cai.

Ha Giang (November 7-13)

The province of Ha Giang is still today largely unknown to tourists. Significantly, out of three different guide books, *National Geographic, Vietnam* (2011), *Bibliothèque du voyageur Gallimard, Vietnam* (2010) and *Michelin Le Guide vert Vietnam*, (2010) only in the latter is this region included. Early in the morning we leave Sa Pa behind us heading northeast on route 4D with about 200 km/124 mi to travel to our next destination, the small village of Lang Giang, in the Thong Nguyen area of the Ha Giang province. To get there we must cross the province of Lao Cai and our first stop is in this province's capital city, also called



Lao Cai. It is nestled between the border with China and the Red River. The name Lao Cai comes from Chinese and means “the old street”, apparently a term often used in Chinese to indicate border towns. To this day, commerce with China is the main activity of this city. Continuing on our way via the roads 70 and 153 we stop in Phu Lo so that Uoc can buy pineapples for a friend of his at a local market where we also buy *bao nhai* to snack on. This is very similar to Indian poppadoms but made from sesame-seed flour. We stop in Bac Ha for lunch and shortly after we cross the Lao Cai-Ha Giang border, continuing on our way to Coc Pai (Xin Man)* on a road which can barely be called that but that takes us through some of the most spectacular countryside we have seen thus far. Quite different in origin from the granite mountains in Northwestern Vietnam that are the southern extension of the Himalayas, the landscape here is formed by a combination of exposed ancient metamorphic basement rock, eroded marine sediments and uplifted limestone that form extensive karst topography with steep slopes and vertical bluffs. Tectonic activity in the late Triassic formed isolated granite mountain systems like Tay Con Linh (2,419 m/7,936 ft) but most of the region is of moderate relief (Averyanov et al., 2003).

We stop along the way for anything mildly *Fagaceae* looking and are always rewarded with a nice species of *Castanopsis* or *Lithocarpus*. *Cunninghamia lanceolata*, several *Viburnum* and a *Carpinus* also attract our attention as does a two-needle pine that Uoc refers to as “horsetail pine” which is one of the common names for *Pinus massoniana* Lamb. A densely flowered *Camellia sinensis* (L.) Kuntze grove demands a photo stop. After which, in Coc Pai (Xin Man), a badly negotiated street-in-repair demands a flat-tire stop that also gives us the chance to visit the local covered market and stretch our

* Between 2012 (year of publication of the National Geographic map) and 2013 (date of publication of the Vietnam Road Atlas) the names of many cities have been changed. This can be confusing depending on what map you are looking at. Here I have given the old names in parentheses.



31/ From Bac Ha to Coc Pai.

legs, though we are anxious to arrive at our destination before nightfall, and it is already late afternoon. Not far from Vinh Quang (Hoang Su Phi) Uoc literally jumps out of the jeep declaring that there are oaks up on the adjacent hillside: a quick climb reveals this to be true, with several trees of *Quercus variabilis* Blume and, unfortunately, only a lot of dry acorns on the ground. Happy to end the day with an oak we finally arrive after a 200-km/124-mi, difficult, ten-hour drive in Pan Hou Ecologde that we have elected as headquarters for our stay in this area (November 8-9).

Magnificent tree ferns, many *Castanopsis* in flower and *Melia azedarach* L. loaded with yellow-orange fruit, a real treat for many birds, greet us in the morning as we set off in the direction of Ho Thau to the west of where we are, passing through the villages of Nam Dich and Nam Son. Slightly after Nam Son we discover an oak whose identity has been the subject of much discussion since our return. *Q. gomeziana* A. Camus? *Q. chapensis* Hickel & A. Camus (considered to be a synonym of *Q. lineata* Blume by some authors)? *Q. tenuicupula* (Y.C. Hsu & H. Wei Jen) C.C. Huang (considered to be a synonym of *Q. sichourensis* (Y.C. Hsu) C.C Huang & Y.T. Chang by some authors)?

I might very well be wrong, but I think that the description of *Q. gomeziana* is the one that best fits our tree for many reasons: the mature leaves, with remarkably little variation between them, are the same color on both sides (there were no young leaves present), the slightly enlarged base of the petiole, the groove on its upper surface and maximum length of 1.5 cm/0.59 in, between 9 and 14 pairs of secondary veins (occasionally 15) that arch up before reaching the leaf margin, acorn with 4 or 5 styles and traces of a yellowish tomentum, acorn caps with 4-5 rings, and, finally, the brownish glabrous twigs with white lenticels. The only thing that does not correspond to the description is the number of teeth, theoretically 3-5 pairs whereas on the leaves that we examined there



32 a-f/ *Quercus gomeziana*, *Q. chapensis* or *Q. tenuicupula*?

were quite a few more. We found only a few acorns, but several trees of different age and size. Of the above-named species, *Q. chapensis* is reported in Vietnam (but not in this part of the country) and *Q. gomeziana* is listed in the Vietnam Plant Data Center, but without any precise indication of distribution. The subject is open to debate and opinions are welcome! The following day (November 9) we find more trees of this problematical *Cyclobalanopsis* between Nam Dich and Dam Peo, at roughly the same altitude of



33-34/ *Quercus asymmetrica*



35/ *Quercus austroglauca*

(600 m/1,969 ft). We also find clumps of *Pinus kesiya* Royle ex Gordon, *Tilia tuan* Szyszyl. and, on the way back to the hotel many trees of *Bombax ceiba* L. add a touch of cheery red to the end of this day.

On November 10 to 12 we travel from Pan Hou Village continuing further north on route 2 to the city of Ha Giang and from there on route 4C to Tam Son (Quan Ba) and Yen Minh from where we continue our route northward to Dong Van and Lung Cu, right on the Chinese border. These two days, very close to the end of our travels,

were to provide some symmetry with our point of departure, for here too we do find a certain number of oaks. Two of these, found near the village of Ngan Chai (west of Yen Minh) in an area of primary evergreen mixed forest dominated by *Tsuga chinensis* (Franch.) Pritz. and *Pinus fenzeliana* Hand.-Mazz., have yet to be identified. Here also we find *Acer tonkinense* Lecomte. In certain places, especially on the way to Dong Van, there is the critically endangered *Aquilaria crassna* Pierre ex Lecomte and dense camellia patches.

Q. asymmetrica Hickel & A. Camus, found near the town of Sung La (between Yen Minh and Dong Van), was a lone, very large tree growing on a rocky overhang that we would have needed climbing gear to get to. If it were not for a few broken branches lying on the ground, one of which had acorn caps still attached, we would have had to content ourselves with a few photographs from down below and probably would not have had enough material for a conclusive identification.

For several kilometers along the road that goes from Dong Van to Lung Cu (until recently forbidden to foreigners) there are many, many trees of *Q. aliena* Blume, covered in acorns. Most of these trees are multi-stemmed and not very tall (less than 10 m/33 ft).

The forest here has obviously been recently cut down and nearly all of these trees are resprouts. *Q. aliena* is not reported in Vietnam. Here also we find *Betula alnoides* Buch.-Ham. ex D. Don. At Lung Cu, from where one looks out over Chinese mountains, we find a lone tree of the very pretty *Q. austroglauca* Y.T. Chang, also not reported in Vietnam, as well as *Taxus wallichiana* Zucc., *Fraxinus* sp., *Carpinus* sp. and many more trees of *Q. aliena*. We travel from Dong Van to Meo Vac through spectacular landscape. From Meo Vac we continue south to Ba Be Lac with a short stop at the Co Lea pass (1,800 m/5,906 ft) that delivers up another oak: probably *Q. bella* Chun & Tsiang according to Dr. Deng, but she can not be entirely sure in the absence of acorns.

Conclusion

In the afternoon of November 14 we head back to the hustle and bustle of Ha Noi and I feel frustrated and disappointed that we were not able to find most of the oaks we had come for. Though we found less than half of what was on our list, of the 14 oaks (possibly 16) that we did find, four are not reported in Vietnam and three, not reported in northern Vietnam: *Q. aliena* (not reported in Vietnam), *Q. asymmetrica*, *Q. austroglauca* (not reported in Vietnam), *Q. braianensis* (not reported in northern Vietnam), *Q. dinghuensis* (not reported in Vietnam), *Q. glauca*, *Q. glauca* var. *annulata*, *Q. gomeziana* (reported in Vietnam but where?), *Q. macrocalyx*, *Q. neglecta*, *Q. petelotii*, *Q. variabilis* and *Q. xanthotricha* (not reported in northern Vietnam) – and possibly, *Q. poilanei*, *Q. bella* (not reported in Vietnam) and *Q. quangtriensis* or *Q. semiserrata* (not reported in northern Vietnam). Though we have not found many species or many acorns, we have contributed to knowledge of the distribution of these oaks. And this in turn convinces me, once again, that nothing is as important as trying to find them.



36/ *Quercus bella* (maybe).

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37/ From Sung La to Dong Van.