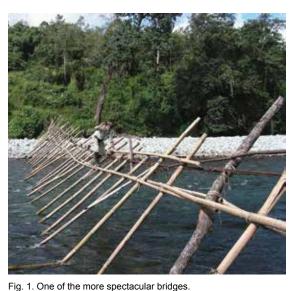
In Search of Rhododendrons in Northwest Burma -One of the Few Gaps in the Rhododendron Map



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Photos by the author

Introduction

After a number of rhododendron expeditions to China, I was eager to see other rhododendron areas. From different sources I found out that it was possible to trek in Burma, also known as Myanmar, and I became particularly interested in its northern area where the two branches of the Irrawaddy River originate in the high mountains near the border with both India (Arunachal Pradesh) and China. The western branch of the Irrawaddy is the MaliKha River and the eastern branch is the NmaHka River, and the whole area we trekked in is part of Kachin State. That was





Fig. 3. River too deep to ford? Just fell a big tree with your machete!





Fig. 4. Rawangs make everything with rattan.

really interesting, since no westerners had been there for a long time and the earlier classic plant hunters had mostly explored only northeast Burma. The NmaHka River's sources (the Adung, Seingkhu, Dulong/Taron and other rivers) and the NmaHka valley had been explored by Farrer, Kingdon Ward and Forrest, but the MaliKha's sources in North West Burma had not previously been explored by plant hunters. Kingdon Ward looked for the MaliKha source in 1919 but had to turn back because of fever, and to my knowledge he never returned.

I found a Burmese company that organised treks in Burmese Himalaya and which had several treks listed in northwest Burma. In 2009, I had them arrange an autumn trek to Phungan Razi at 3600 m (11,811 ft) for me and three other rhodoholics, Jesper Holck Andersen, Oddbjoern Fosse and Torstein Borg. Phungan Razi is situated on the west border of Burma of Arunachal Pradesh.

Exploration Conditions in Burmese Himalaya

All treks in northern Burma—both west and east-start at Putao, formerly Fort Hertz, which has the only airport in northern Burma. Putao lies on a big plain through which the MaliKha River and its tributaries flow and is at an altitude of only about 500 m (1640 ft). There are some dirt roads from Putao to nearby villages, and from the road end you have to walk all the way to the mountains. You start walking on the plain and later along rivers, and it takes three to five days to reach a point where you can actually start ascending a mountain. By then you will have only gained about 200-300 meters (650-1000 ft) in altitude, and the low altitude means that you walk in very high temperatures in thick humid jungle. In these surroundings you have most of the kinds of diseases and parasites that you can think of: malaria mosquitoes, sand flies, ticks, bees, killer bees, leeches and poisonous snakes. The terrain is very difficult, since after two days walk you pass the last village and are

now on hunting trails with no or badly maintained bridges. We encountered hanging bridges, log bridges and a few tow bridges, but many times we simply had to ford the rivers. Walking along a river means that you have to cross every tributary on your side of the river!

After the last village there was pristine forest and mountains without any human habitation, so we had to carry everything we needed except for water. All our supplies were carried by porters as walking on a hunter's trail means walking on river shores on stones up to big boulder size, and walking in a mountain stream, which is the shortest distance going up a mountainside, means walking up and down very steep slopes. There are no rescue possibilities at all in case of injury, as no helicopter rescue exists there and it is not possible to transport a sick person on the steep and muddy trails, so you must avoid accidents and you must not get sick! These are exactly the same conditions as the old plant hunters had almost 100 years ago, but of course we have better camping equipment today.

The Expeditions

I have so far made three expeditions into northwest Burma:

- •October, 2009, to Phungan Razi Mountain on the Burmese west border close to Arunachal Pradesh. A 14-day expedition where I was joined by three other rhodoholics.
- •May/June, 2011, to the MaDoi Mountains north of Putao close to the north border with Arunachal Pradesh. There are two summits there, at 4600 m (15,090 ft.) and at 4400 m (14,435 ft). I went for the lower summit but on this expedition I had to turn back, one day's march before the rhododendron area started, because of very difficult conditions and sickness. It was just one of those expeditions where everything went wrong.
- October, 2012, again to the MaDoi Mountains lower summit and this time I was successful. It was a 19 days trek in

Expedition Facts

Access to North Burma is controlled by the military and you must have a permit and pay a fee of \$US18 per day. To go in the mountains you must have a trekking permit. On the 2012 expedition, my team consisted of a guide, a cook/porter and seven porters. A bridge had been built, safer rings for the tow bridges had been made and food had been carried to the mountain before my arrival. The trek was 19 days and the duration from Copenhagen was Sept 27 to Oct 23. The cost of the expedition inclusive of fees, tips and flight ticket from Yangon but exclusive of the flight to Yangon and hotels, food, etc., in Yangon, was \$US

very difficult terrain, and with terrible weather. On the two MaDoi expeditions, I travelled alone with my Burmese team, as I did not dare to invite other people to this very difficult and dangerous terrain.

This article is mainly focused on my last successful expedition to the MaDoi Mountains. Both expeditions I write about are autumn expeditions, which mean no or very few flowers present. I am not an expert in taxonomy so identification of many of the rhododendrons was made later based on the photos I took. Rhodo experts have helped in these identifications, not always with the same result, because it is sometimes difficult to identify a rhodo from primarily leaves. In this article I use identifications made by Steve Hootman of the Rhododendron Species Botanical Garden in Federal Way, WA.

October 2009 Expedition to Phungan Razi

On this expedition I was joined by three other rhodoholics. The trek to the Phungan Razi is the easiest trek in northwest Burma, but there are some rivers to ford and some badly maintained bridges (Fig. 1). After two days walking and passing through a 1400 m (4593 ft) pass in inhabited land with home stays in villages, we started ascending a ridge and followed that ridge to the mountain

summit at 3650 m (11,975 ft). We then went west to the Indian border and camped two nights at a dry lake. From there we ascended a ridge on the border to 3700 m (12,138 ft) where we had a nice view into Arunachal Pradesh.

Rhododendron findings on this trek were *R. kasoense* (although this is an autumn flowering species, we only saw one plant, with nice small yellow flowers), *R. edgeworthii*, *R. tephropeplum*, *R. arizelum*, *R. pochophorum* var. *pochophorum*, *R. forrestii* (a porter found one single *forrestii* flower, Fig. 2a), *R. eclecteum* aff. (low and broad growth, Fig. 2b), *R. sanguineum*, *R. charitopes*, *R. luteiflorum*, *R. mekongense*, *R. trichocladum* and *R. callimorphum* var. *myiagrum*.

We started with the last monsoon rain, and had dry weather for the last 3/4 of the expedition. The Phungan Razi area is open above 3600 meters (11,800 ft tree line) and is relatively dry. On the ridge there were broad-leaved trees and it too was rather dry, except at a low altitude.

2012 Expedition to MaDoi Mountains Travelling to Putao

I left Copenhagen, Denmark, on Sept 27 and flew to Yangon (former Rangoon) via Singapore. On arrival the next morning, my web visa was quickly changed to a passport one and my taxi driver was waiting for me outside the airport, so I was at my hotel 1½ hours after landing—not bad at all!

The next morning I left for Putao and met my guide in Putao airport. The guide told me that I could not stay this time at the nice hotel where I used to stay because of military intervention. Foreigners in town could then only stay at the military hotel, so instead we stayed in a village outside of town. After lunch in Putao we drove in a four-wheel drive vehicle to another village about one hour's drive north of Putao, where we stayed in a local house along with the cook and some of the porters.

Trekking to the Mountains

The next morning more porters arrived,

and we drove north in a tuk-tuk until we could not drive any further. Here we started our trek on the Putao Plain. We walked until late afternoon and stayed in a village at the Lisu vicar's house. The inhabitants in Burmese Himalaya belong to either the Lisu or Rawang ethnic minorities, both of which are Christian. The next morning we continued on the plain walking mostly through very wet grassland to the last village before the mountains, where we had lunch in a local Rawang house. When we left, it had started raining and we went through cultivated land to a quite big river that we had to cross. The rain increased, and by the time we reached the cable bridge, it was torrential. The tow bridge was a steel wire with rattan rings. I was sitting under my poncho while my team got a rope across the river, so they could pull me and our gear across. On the other side we continued in the pouring rain through wet grassland to a cattle station, which was the very last house before the jungle and the mountains. This house is normally empty, but the cattleman happened to be there to attend his cattle so we were able to get warm and dry around his fire. The heavy rain continued through the night and during the next morning, so we waited there until late afternoon, when the rain stopped.

The next morning, we went in light rain along the west side of the MaliKha River. The water level in the river and streams were high because of the heavy rain. Two Lisu hunters we met in the forest told us that the bridge over a nearby tributary that my team had built in advance had been washed away. Fortunately though, they had felled a big tree 1.6 km (one mile) upstream to cross themselves, so they had solved the crossing problem for us (Fig. 3). However, by late afternoon the rain got heavy again and so we camped in the forest. The next morning we continued north and after reaching the Malikha and MaDoi river confluence, we followed the MaDoi River. We again had heavy rain and camped after dark on the MaDoi's riverbank, after a long and strenuous day.

Up the Ridge

The following day we fortunately had nice weather and even a bit of sunshine. We crossed the MaDoi River on another rope bridge, this time on a three-rattan liana rope (Fig. 4). On the east side, three more porters were waiting with rice bags which had been transported ahead, and at last we could start ascending a ridge. We had to ascend 1000 meters (3280 ft), and we started walking in a roaring stream that came down the mountainside, which we followed until it gradually disappeared, and then we ascended on a steep path. We camped in the forest at 1800 m (5905 ft) and enjoyed our first dry day (Fig. 5). We followed the ridge between the MaDoi and the Pa rivers almost straight north. The ridge was covered with broadleaved trees and bamboo, but only one species at a time, which changed with altitude. As a matter of fact, you could use the bamboo species present as an altitude indicator. The next day we continued in nice weather on the ridge, first descending 200 m (650 ft) and then up again, but by the afternoon, the rain had started again, and so we camped on the ridge in pouring rain at 2300 m (7550 ft). This camp was where I had had to turn around in 2011, so the next day was when the adventure of exploring new areas would really begin.

The Rhodo Area

Soon after we left camp we passed an area with autumn flowering orchids, a pleione and four other orchid species. I also spotted some big leaved rhododendrons down on the steep mountainside, but they were out of reach. After lunch we hit the first rhodo by the trail, a beautiful R. edgeworthii growing in thick moss on a tree trunk. A bit higher up where the ridge was only one meter (three feet) wide and open, there were R. martinianum, some even with autumn flowers (Fig. 6). We camped at 2800 m (9186 ft) surrounded by Maddenia species R. edgeworthii and R. maddenia ssp. crassum. From the campsite, there was a beautiful view of the MaDoi valley.

The forest on the ridge was now dark



Fig. 5. My team—my guide missing $% \left(1\right) =\left(1\right) +\left(1\right) =\left(1\right) +\left(1\right) +\left(1\right) =\left(1\right) +\left(1\right) +\left(1\right) =\left(1\right) +\left(1\right) +\left$



Fig. 6. R. martinianum.



Fig. 7. Rhodo habitat on the ridge at 2800 m (9186 ft).



Fig. 8. Rhodo habitat at the treeline at 3600 m (12,467 ft).



Fig. 9. Rhodo habitat in open forest at 3400 m (11,155 ft).



Fig. 10. Porters fording a river.



Fig. 11. The author on the MaDoi River shore.

and sinister: tree trunks, branches, stones and cliffs were all covered with a thick layer of dark hanging wet moss, and a lot of orchids and other epiphytic plants were growing in the trees. The MaDoi Mountain is the wettest mountain I have ever seen, and quite different from Phungan Razi (Fig. 7). The next morning, we continued up the ridge with some very steep and slippery ups and downs on the way. After one dry day, we had heavy rain again, but we soon saw the first *R. arizelum* and as we gained altitude, we were walking in an arizelum forest with big trunks. There were also beautiful indumented Neriiflora species: R. beanianum with its beautiful dark brown indumentum and hairs and probably also R. piercei. Along the trail I also found one plant of R. meddianum var. atrokermesinum. By mid-afternoon we had reached a more level area, where we camped at 3400 m (11,155 ft) in an arizelum forest. I was soaked through from the inside, so I was glad I still had one litre of Underberg (a strong German bitter spirit) to keep me warm while my team set up camp. Up here there was no water, but with the heavy rain it was easy to collect water with our plastic shields. The heavy rain continued through the night.

We had now eaten a lot of our rice, so the next morning three porters were sent back to the MaDoi River to build a bridge, catch some fish and to have them cooked for us when we came back. The rest of us continued north in heavy rain in a more open landscape with a treeless mountainside east of us. As we gained more altitude, a small (30 cm (one foot) or less) bamboo covered the open spaces. In an area with big moss covered boulders, there was a small Casiope [heather] species growing. There were many areas with rhododendron, and I saw R. citriniflorum, R. forrestii ssp. forrestii, and still more R. beanianum. There were also small leaved rhodos: R. megeratum, R. tricocladum and R. saluenense ssp. saluenense. There would have been beautiful views in clear weather, but the heavy rain made it impossible to see more than about 100 meters (330 ft). We

reached our next camp at 3500 m (11,483 ft) around 2 PM and had lunch. Later, I explored around our camp and found more *R. tricocladum* and *R. citriniflorum*. Going up the ridge I had noticed that there were only a few flower buds on the rhododendrons, and even up here in the more open areas it was the same, I guess because of little sunshine.

The porters were afraid that the heavy rain would cool the mountain down and turn the rain into snow but fortunately the temperature stayed at 9° C (48° F). My guide told me that the trail to the next camp was extremely difficult and that it would be a very long day to reach the camp with my hiking rate, leaving no time to look for rhodos. I thus decided to stay at the current camp and the next day only go as far as I could and then turn back, also because I had now run out of time and it was necessary to start to go back down the mountain. The heavy rain again continued through the night and I will never forget the loud sound of heavy rain on a plastic shield.

The next morning we continued north on the trail, and not far from the camp I found R. campylocarpum ssp. caloxanthum, and later I again found R. megeratum, R. tricocladum and R. saluenense ssp. saluenense (Fig. 8). We were walking mostly in low bamboo on a mountainside, but after a couple of hours' walk we came to a rocky area. This was a landscape I had never seen before: big bare boulders lying as if they had fallen from the sky, with sharp edges and no sign of natural erosion at all. It was extremely difficult to move around in this habitat, and dangerous too. There were small rhodos hidden between the rocks, but you would only find them if you by chance stumbled across them. A porter who I had taught to spot rhodos found a small R. anthopogon, and that was the only rhodo we found after walking about two hours in this bare landscape. At 3800 m (12,467 ft), we decided to turn around, also in part because the light rain we had had in the morning had turned now torrential. We

found a little shelter under a rock and had lunch before returning, but now the landscape had changed again. There was water everywhere! When we came back to the bamboo area the trail had turned to a stream with ankle deep water, and the mountain side had white strips of tumbling water rushing downwards. Back in camp, I was thoroughly soaked and quite exhausted. My guide told me that from where we had turned back up to the next camp and further on to the mountain summit (4450 m, 14,600 ft), it was the same rocky landscape all the way, so I had no reason to regret that I did not have time to go for the summit.

Going Back

The next morning we started going back, again in the usual heavy rain (Fig. 9). After a while we used a trail different from the one that we used going up, so I found some new interesting rhodos. The best find was a little beautiful rhodo with orbicular (not auriculate) leaves and thick, creamy-brown indumentum. It could be either a special form of R. coelicum with orbicular leaves or a new species. I only saw two small plants, one of them just 10 cm (4 in) high. I also found R. stewartianum and R. catacosmum which I had not seen going up. We passed our campsite in the ;arizelum forest and started descending the ridge down to 3100 m (10.170 ft). Going down, I found R. stewartianum, R. dichroanthum and R. campylocarpum ssp. caloxanthum. Just above the camp there was a very special rhododendron. It was growing epiphytically on a tree trunk, and had green shining leaves and very beautiful bluish buds. It might have been a rhododendron of the subsections Glauca or Boothia, or perhaps even a new species.

That evening, there was a nice surprise at supper—we had wild game! The porters had set up bird traps when we went up, and the catch was a quail and a big pheasant-like bird. It was a very welcome change from our usual dinner of soup and rice. The next morning it was dry and later the sun even came out. We

continued down the ridge and in an open area, there were both R. tephropeplum and R. martinianum, both with poor autumn flowers. It is a good idea to return on the same path as you may see different things going down from what was seen going up. Lower down I again saw R. megeratum and R. maddenia ssp. crassum. I also found another Maddenia species with ovate and a bit auriculate leaves with hairs on the leaf edge—leaves 7-10 cm (2.7-3.9 in) long and 3-4 cm (1.2-1.6 in) broad. It had rather small seed capsules 4x6 mm (0.15x0.23 in). Both Kenneth Cox and Steve Hootman have concluded that this is a new species. Exciting! It will be very interesting to see its flowers in the future. I also found R. sidereum and an Irrorata, probably R. tanastylum. We also saw a camellia with small white flowersprobably Camellia sinensis. We arrived at "turn around camp 2011" at 4 PM, having said goodbye to the rhododendrons.

We had walked long distances for two days, so the next day I needed a shorter walk, so we made an early stop at lunch time, and had time to enjoy the sun and get wet clothes dried. During midafternoon, two Tibetan hunters passed our camp and stopped for a chat, a cup of tea and some snacks. They carried homemade guns, as the military does not allow local people to have firearms, so they could not buy one. They had walked all the way from our ridge start that morning and were going to continue on to the MaDoi River. I wish I had their strength! They gave us some game for dinner, a pheasant and a piece of Red Goral [Naemorhedus baileyi, a species of even-toed ungulate], so once again we had a nice dinner.

Back to Civilization

The next morning we again had sunshine and we walked back to the MaDoi River, this time a long descent in the mountain stream. The three porters at the river had fresh fish for us for lunch and a lot of smoked fish to carry with us. They had also built a bamboo bridge over the river, so we saved time and energy not having

to cross via the rope bridge (Fig. 10). We continued along the river and camped on the MaDoi riverbank. The next morning we continued south along the MaDoi River (Fig. 11) and later along the MaliKha River, where we camped after a long and hot day— more fresh and smoked fish for dinner, which was delicious!

The next day was the last day in the jungle, and it was hot and humid. At the tributary where we had crossed on a felled tree upstream, my team rebuilt the destroyed bridge, so we saved 3.2 km (two miles) of walking. We then crossed the last big river, me by tow bridge and the porters by ford, arriving at the last village after dark. I suffered from sand abrasion, because I had got a little sand in my socks when I dressed on the sandy river beach at the camp. You only do that once! It was nice to stay at a local farmer's house, and we got fresh sweet grapefruit for dessert. My guide told me that the grapefruit tree had been brought to Kachin many years earlier by American missionaries from California. The next morning it was cloudy, which was nice as we were going to walk on grassland, which can be extremely hot in sunshine. The grassland had dried up, so when we reached a bigger village after a couple of hours, I was able to hire a man to drive me on a motorbike. Good for me as by then I had a fever and was exhausted after the long trek. I thus arrived early at Sandam village, where I rested in the village headman's house until my team arrived and could show me where we were to stay. After many days eating all meals sitting on the ground, it was so nice to sit and eat in a chair at a table!

The next morning I went the last stretch by road to the next village, again by motorbike. We stayed at the same house as when we had started 19 days ago. My guide went to Putao to buy supplies for our goodbye party with the porters, and we all had a jolly party with good food and beer. I can tell you that I was ready for that beer, and it tasted like heaven even though it wasn't cold. Early the next morning, we went to Putao by car, where I had a shave

and a haircut before leaving for the airport to fly back to Yangon. In the airport, my guide was told that the whole Putao area had just been closed to foreigners (I have recently heard that it was reopened again in March, 2013), and that I was to be the only westerner in Burmese Himalaya that autumn. It was very sad to see that while the situation in Burma as a whole had improved, the situation in Putao had deteriorated because of ongoing fighting between the Burmese army and the Kachin Liberation Army, which is fighting for independence around the Kachin capital Myitkyina.

Conclusion

North West Burma has a great number of rhododendron species, and I am sure that there are more new species out there to be found. The MaDoi mountain area has very tough climatic conditions; it's wet and cold, so you can have snow even in midsummer at 4000 m (13,125 ft). However, this creates very special habitats for rhododendrons. To go in the mountains with the local Rawang people is an experience of a lifetime. They can make almost everything they need with what nature offers: shelters, "beds," bridges, rope, etc. They can make a fire in heavy rain, as the inside of dead bamboo is always dry, and their survival knowledge is amazing. If you ask about a particular plant, they will tell you in order: is it poisonous or not; can it be used as medicine and if so, how; can you eat parts of it; and what else can you use it for? An example: in leech-infested areas, there grows a begonia species, and the Rawang know that the juice from the leaves of this begonia will kill a leech on your body in 30 seconds!

As the political situation in Burma improves, it should be easier to go to north Burma in the future, but actually going into the mountains will still be very challenging.

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