

## **May 2014, Namibia Tripp Report**

### **Friday, 8 May 2014**

We just returned from a fine dining experience at our local, neighborhood German wine bar (Weinberg, in Klein Windhoek). I feel like I've been going here for years now. Suppose I have. The Saxenburg Private Collection Chardonnay (Stellenbosch; mid-range, oaky) marked an excellent re-entry into an excellent country.

This is my fourth trip to Namibia, but my first without my good pal and colleague Kyle Dexter (he will almost certainly be back for the 5<sup>th</sup>; Kyle: we miss you). Instead, I am joined by another good friend and colleague, Dr. Iain Darbyshire. Iain is Curator of African Botany at Royal Botanic Garden-Kew, and just so happens to be an exceptional Acanthaceae (and general African) taxonomist. (Oh: he's damn good birder, too). I have been collaborating with Iain for several years now and am most excited to (a) finally go in the field with him but more generally, (b) to have met an outstanding person and colleague so early in my career. How did I get so lucky?

In any case, we are here for two primary purposes (in no particular order): to make some progress in writing up the Acanth treatment for the Flora of Namibia (and Angola), and to help train several technicians at the National Botanical Research Institute (WIND Herbarium) in Acanthaceae systematics and general protocols in botanical taxonomy and nomenclature. We are spending the first week in the herbarium, followed by 10 days in the field. After that, I join my parents for another week of touring around and collecting.

So far, we have had a blast in the herbarium! With Iain and I are Esmeralda Klaassen (now acting Director of NBRI) and technicians Leevi Nanyeni, Hendrina Hasheela, and others with whom we were newly acquainted on this trip including David, Juanita, Mariana, and Josephina (the latter a masters student at University of Namibia and intern at NBRI). Ezekeil Kwembeya (former Curator at NBRI, now faculty at University of Namibia) came by to say hi yesterday. Great to see his smiling face as always.

Iain and I have been walking everywhere. Our route to and from the Garden involves entrance through a back gate (for which we have borrowed a key) and a long, causal stroll through the grounds to the main building. Lovely birding and botanizing through those parts. Our first evening, however, we nearly stepped on a Puff Adder. Wouldn't have been pretty. First snake I've ever seen in Namibia....

In between working on the Flora, I have been daydreaming of Van Zyl's pass and the Baynes Mountains to the north. I think we have finally figured out a track to the latter (thanks to a tip from a rather robust, German NamPower employee that Iain and I met at the restaurant Wednesday night). I've been perusing Google Earth all evening, and the Baynes look rather tepui-esque. I'm dying of thirst...

### **Monday, 11 May 2014**

Two nights ago, Iain and I discovered perhaps the best restaurant yet in Windhoek: The Wine Bar, which is just one block south of downtown. We both had

fresh spanakopita with salad, accompanied by another amazing Stellenbosch Chardonnay (Jordon).

Yesterday morning, my parents arrived, exhausted as predicted. We spent a little too time much at ASCO's 4x4 vehicle rental facility (that now states that it will no longer issue border crossing permits into Angola: let this serve as a reminder not to rent from them again). We returned to The Wine Bar with my parents (yep – unavoidable... food and beverage far too good) for dinner.

### **Tuesday, 13 May 2014**

Six of us (Erin, Iain, Essie, Leevi, David, and Josephina) are camping at the White Lady Bed & Breakfast. We left Windhoek this morning, bound for Uis. Along the way, we stopped in Omaruru to meet (for me, the first time) Pat Craven, who is a long time Namibian botanist and Acanthaceae taxonomist. We had a cup of coffee at the local café, talking of Acanth phenology and seed predation (the usual brunch conversation). It was wonderful to finally meet Pat, having wanted to do so for many years now.

We stopped at several sites between Omaruru and Uis, and all of them absolutely rich and abundant with Acanthaceae (that's how it goes in Namibia....): *Blepharais grossa* and *Blepharis obmitrata* (surprise!), *Petalidium canescens* and *Petalidium variabile* (looking especially variable, I might add), *Barleria senensis* and *Barleria damarensis* (booo-tee-full!), *Monechma genistifolium* and *Monechma cleomoides*, and finally *Megalochlamys marlothii*. All of this....nine species and all of them abundant, within about 1.5 hrs and without much of an effort. Josephina is starting her masters research, working both with Ezekeil at University of Namibia and with Essie at NBRI. She is contemplating the prospects of a revision of *Monechma* here in Namibia, with guidance from her mentors and from Iain and I. It can be done, but NOT a trivial task!

Finished the day with two great bird sightings: a Tawny Eagle and the ever-so-magical Sand Grouse near a pond at our campsite (incidentally, co-occurring with mallards of all things). We had a lovely group dinner and then off to bed at a blissfully early hour. At the top of our hit list for tomorrow: *Ruellia brandbergensis*, *Petalidium angustitubum*, and the elusive *Barleria solitaria*. I have a good feeling we'll find at least one of them.

### **Wednesday, 14 May 2014**

Broke camp after a nice night's sleep albeit one in which the air was thick with mozzies (mosquitos) that, needless to say, ended my hammock routine before it even started. The cool morning ended fast: by 9 am, the air was already afire. We traveled north to two sites in search of the elusive *Ruellia brandbergensis*. No luck at either. Pat Craven noted that all other populations are on the mountain itself, and I believe her. It's hard for me to cope with the concept of single mountain endemics in the wet tropics let alone here in the drier, much lower diversity arid tropics. That elusive mountain—Brandberg—has *multiple* of them! Despite the failed discovery of this species, we did enjoy much other plant life over several extended treks. The first was into a shallow but long series of canyons, and the second to some rock

outcrops very proximal to Brandberg's talus slopes. At the latter, we found *Peristrophe (Dicliptera) hereroensis* spp. *brandbergensis*—a fantastic species new to me. It was situated both subtly and sparsely among the boulders comprising the outcrop. Also in the vicinity were: *Blepharis leendertziae*, *Barleria lancifolia*, and *Barleria prionitoides*.

We continued on along the track that skirts the south side of the massif, which took the better part of the day. Our focus transitioned from *Ruellia brandbergensis* to the already-mentioned, very rarely collected and poorly known *Barleria solitaria*. Traversing this track was, once again, something absolutely otherworldly in Namibia. Over very few kilometers (let's say < 50), almost all tree and shrub plant life disappeared, leaving only a few species to survive an incredibly dry, barren landscape. Among these was the venerable *Petalidium variable*, growing impressively amongst little else besides *Stipagrostis uniplumis* and, yes, *Welwitschia mirabilis*.

In the late afternoon heat of the day (and there was plenty of it), we spotted a tall, blackened, mesa-like mountain, rather off in the distance. We knew right away we had to give *Barleria solitaria* one last effort in this seemingly desolate landscape. Essie, Leevi, David, Josephina, Iain, and I hiked towards the tall mesa, some of us taking the low washes, others of us with sights on the higher, steep gorges. This mountain was part of the far eastern edge of Tafelkopf (on the map!). Little was growing in the area besides *Petalidium variable*, *Blepharis leendertziae*, some *Monechma* that looked like one of the hundred different variants of *M. genistifolium*, and several Poaceae. Leevi and I continued up the canyon, all the way to the base of the vertical cliffs. We never found *Barleria solitaria*. We did however find what is likely to be a new population of *Barleria grootbergensis*. It was growing right at the base of the vertical cliff and among the uppermost slopes. Iain feels a bit uneasy by the calyces that are a bit shorter than those in the type material, as do I, but one thing is for sure: it is NOT *Barleria lancifolia*. Acanthaceae are full of challenges – every and anywhere in the world...

We continued on towards Brandberg West Mine – a long ago deserted tin and uranium mine. Our entrance into this surreal landscape leaves the impression of a slow departure from planet Earth. I recall very acutely a similarly lunar landscape, albeit on a different continent and in a different context, in the White Mountains of California. In any case, we were certainly driving into one of the wildest places I've yet visited in Namibia. It was very, very, very dry....paralleling the extreme northwestern Kaokoveld. We drove thru endlessly steep, narrow canyons between mountains that looked like they had been folded unwillingly and gruesomely under a fast, hot heat. I have never before seen a geological formation anything like the Ugab River Drainage.

And those same formations gave us not *Barleria solitaria*, but what was to be one of the most remarkable campsites I've yet slept in... anywhere, including Namibia (I know I say that at least once per Namibia trip, but... surely this time it is true!). This very modest, desolate place is managed by the Desert Rhino Trust and is situated right in the middle of the Ugab wash. The manager told me that the last rainfall event was in March, but only a few drops wet the decking surround the main office. Other than that, no rain this year. Leevi taught Iain and I and almost

incredible means of chilling a can of hot beer in this hot weather (truly, I still don't believe it, but it works). What a swell place in which to fall asleep, swinging in a hammock under a crystal clear, perfectly black sky. Equally a swell place to awaken.

#### Thursday, 15 May 2014

It was a good morning. Within 5 minutes of leaving camp, we laid eyes on the rare and elusive *Barleria solitaria*. Finally. It was one of the few plant species (I can count them on one hand – seriously) trying to stay alive in this water-starved ultra-arid desert. We saw a handful of plants ( $n=20$  or so) along a 2-3 km stretch, and nothing more. The population was not in flower and we found only old bracts, plus a few fruits. But what a sight to see – old gnarled, twisted branches, some of which must have been pushing 60 years or more (a random guess, but feel free to prove me wrong). A 20-year old plant has probably had less water to drink over its lifetime than the state of Alabama receives in a single year (60 inches or so). Shortly thereafter, while parting ways with David and Josephina who had to return to Windhoek for the latter's graduation, we found a spectacular population of *Petalidium giessii* in a mini-wash along the side of the 4x4 track. It was in full bloom, and just like the first time I smelled it, the flowers radiated a wonderfully sweet, jasmine-like fragrance.

We continued on our track to find many great plants in great places, despite a mid-day, 3-hour or so long heat-induced stupor. I wasn't the only one. The African sun is a powerfully subduing force. It leaves you with little capacity to do much anything beyond sit and wait it out. Still: we endured. We finally made it to Palmwag after an impressively long track around the south and west side of the Brandberg massif. On the way north towards Sesfontein, we happened upon several other intriguing Acanth finds. The first of these was a sizeable population of *Petalidium luteo-album*, which is clearly different from its sister species *P. giessii* based on: (1) its larger leaves; (2) its larger flowers; (3) its scentless flowers; (4) its glabrous bracts; (5) its thinner (less inflated) bracts that are also larger in size and more cordate in shape (oh, and less brilliant yellow); and (5) several other miscellaneous factors. The best part about this population of *Petalidium luteo-album* was the two, and no more than two, individuals of *P. giessii* were mixed in among them (Iain's discovery)! Utterly remarkable – they were growing side by side! Interestingly, *P. luteo-album* had long gone out of flower whereas *P. giessii* was just coming into flower (elsewhere in the range of *P. luteo-album*, this species was flowering). This is precisely what one would expect when two closely related species come into contact (reproductive character displacement, in this case: phenological displacement).

Continuing on, the day kept improving. Zebras, oryx, springbok, giraffes, and finally elephants. We walked up a small wash just before sundown, at this point N of Palmwag but S of Sesfontein, and Iain and I found another population of *Barleria grootbergensis*. This time, the morphology fit the new species sensu stricto. GOOD.

We finished the night at the Kowarib River Campsite. Lovely dinner among the four of us: pasta with a tomato sauce and a vegetable medley (squash, potatoes, bell peppers, onions, garlic) wrapped in foil and 'roasted' over the open flame of the propane burner for 42 mins. Good food, good company, good day.

### Friday, 16 May 2014

This morning, we made a slight change of plans and rerouted ourselves due eastward in the bottom of the Kwoarib Gorge, leaving directly east from our campsite, actually. Very, almost painfully, slow going through sandy washes, but we collected a couple of interesting things along the way. We found ourselves in Umombaitjie after far too long in the truck for having traveled only long 24 km. At this point, pointed it north towards Ombombo. We reached the latter around lunchtime, but the terrain became monotonous and the sheer domination of mopane woodland made for little else to see. Rather than continuing northward, we opted to bail from that route for Otjive. A 20 km trek took us the rest of the afternoon (yep – basically no road to speak of), for better or worse. Most of it was again monotonous mopane woodland, but we did collect a couple of new Acanths en route including *Monechma salsola*, *Monechma cf. tonsum*, *Justicia divaricata*, and *Petalidium coccinium* (*M. salsola* was particularly spectacular—and ecologically dominant—for a long stretch of track through a river bottom). We finally reached the main road near Otavi around 16:45, then headed towards Sesfontein for supplies tomorrow morning. We opted NOT to camp at “Camel Top Campground” (rather shoddy), but instead drove N a few km out of town to park it in a very nice, sandy spot between two mountains. Lovely sky. Magellanic Clouds not visible. I don’t get it.

### Saturday, 17 May 2014

We left Sesfontein this morning after fueling up, filling the water tank, and picking up a loaf of bread. We proceed to drive north 9 km out of town to the Hoanib River track (the start of this track is not the easiest to spot; how to find it: after the turnoff for Camel Top Campground on the right, there is an elephant something sign just before the track on the left). This track follows the watershed for 70 km. It was a long, sandy stretch but a relatively mild one compared to the Kwoarib sands of yesterday. En route, we saw elephants (with babies), giraffes, steenbock, lots of wonderful birds, and a large salt pan. Little in the way of botany. We reached the point of no entry to the west, right near the border of Skeleton Coast, and pointed it north along a track that quickly climbs out of the riverbed. Immediately after doing so, we found the reason for our journey here: wonderful, gigantic populations of arguably one of the most spectacular species of *Petalidium* I have seen yet: *Petalidium angustitibum*. It was my first sighting of this species, and an unforgettable one. The population continued on for some 15-20 km, with loads and loads of individuals occupying slight drainage depressions in the sandy substrate through which we drove. The corolla tubes of this species—the longest of any *Petalidium*—and the very elongate inflorescences (again, the longest of any *Petalidium*) make this species one of the most distinctive within the genus. Other observations: 32% nectar at 13:30. In full flower, but almost entirely absent fruits. Fruits that we did find were almost entirely predated. Iain managed to recover one inflorescence with several viable fruits, so there is hope for continued study of this species in cultivation. Regarding the low fruit set: I cannot claim to know the true story, but not a single floral visitor was seen throughout the course of the day. Is it possible that such pollinators are no longer with these plants are? And if *P. angustitibum* is not capable of selfing, well, that’s the end of the road. Whatever the

explanation is, one thing is certain: the species is highly abundant in its native environment but it's native environment includes a very, very small stretch of planet Earth. We drove on 50 or so km further, after turning to the north, and made camp in a very special valley at the mouth of the mountains. Again: one of the nicest campsites of my adult life. I have photos to prove it...

Sunday, 18 May 2014

We departed our prized campsite early in the morning, headed towards Purros and a slow departure from the Kaokoveld. We have only tonight left for camping before tomorrow: (1) I meet up with my parents and join them for 5 field days, and (2) Iain, Essie, and Leevi head back to Windhoek (Iain has a flight out on the 20<sup>th</sup>). For being severely arid around these parts, we had a decent field day. We collected several things before reaching Purros including *Petalidium halimoides*, *P. variable*, and another voucher of *P. angustitibum* (quite distant from the first vouchering), *Monechma who-knows-what*, and miscellaneous other families. After Purros and continuing on south, we made two interesting stops. At the first, we collected what appears to be a *Petalidium* completely intermediate between *P. setosum* and *P. halimoides*. I've never seen anything like it. A few intriguing observations: (1) it was growing vigorously and happily in a couple of minor, sandy drainages, but seen nowhere else along the way; I would have readily called it *P. setosum*, but (2) its leaves were glabrous instead of scabrous; (3) its inflorescences were nothing like typical *P. setosum* (lax, with wide bracts and bracteoles), but rather resembled those of *P. halimoides* perfectly (extremely congested with linear bracts and bracteoles); and (4) these plants were growing quite out of range for *P. setosum*. Like *P. setosum*, the plants did produce a musky honeysuckle floral smell typical of the former species. Needless to say, I am very much looking forward to researching this more as soon as I have internet connection (the first time I've wanted it since our field trip began, to be sure!). At our second stop, just south of Purros, we made an extended outing to a nearby mountain. We didn't find any terribly surprising plants (other than an odd *Blepharis* that was dense with some sort of white indumental covering—new to me—likely just a montane form of *B. leendertziae* or *B. grossa*). We are slowly learning more about one biogeographical pattern among Namibian Acanthaceae: *Petalidium* and *Barleria* are the two largest genera in this country. The former does 'best' in the more ultra-arid regions to the west and north whereas the latter does 'best' in the slightly more mesic mixed grasslands-woodlands of central and southern Namibia. Where *Barleria* does occur in the northwest, it seems often be associated with cooler mountain tops.

We reached Oppi Koppi campsite in Kamajab around 20:00 after a long day's drive. We had no daylight left, but somehow managed to find a single plant of *Barleria grootbergensis* I. Darbysh. & E. Tripp from the type locality, just a few feet west of Grootberg Pass. My parents were there awaiting us for dinner.

Saturday, 24 May 2014

I spent the last 6 days with my parents: a combination of fieldwork with a bit of sightseeing along the way. We had a blast. Rock carvings at a private koppie, Galton

Gate into Etosha, elephants, blue wildebeests, red hartebeests, and... rhinos! A few more rhinos, then finally, a leopard! My first sightings of both of these. Visited an awesome history museum in Tsumeb, then stayed nearby at a private lodge where we found what might be an undescribed species the next morning. Made it out of the country with only minor hitches. Another fantastic visit to Namibia.

**Birds seen in Namibia – May 2014:**

Great White Pelican  
Cattle Egret  
Mallard  
White-backed Vulture  
Black-breasted Snake Eagle  
Tawny Eagle  
Black (Verreaux's) Eagle  
African Hawk Eagle  
Booted Eagle  
Augur Buzzard  
Black-shouldered Kite  
Pale Chanting Goshawk  
Gabar Goshawk  
Lanner Falcon  
Rock Kestrel  
Red-billed Francolin  
Helmeted Guineafowl  
Common Ostrich  
Kori Bustard  
Ludwig's Bustard  
Rüppell's Korhaan (Bustard)  
Three-banded Plover  
Kittlitz's Plover  
Crowned Plover (Lapwing)  
Blacksmith Plover (Lapwing)  
Temminck's Courser  
Burchell's Courser  
Double-banded Sandgrouse  
Namaqua Sandgrouse  
Speckled (Rock) Pigeon  
Cape Turtle Dove  
Laughing Dove  
Namaqua Dove  
Rüppell's Parrot  
Rosy-faced Lovebird  
Grey Go-away-bird  
Spotted Eagle Owl  
Nightjar sp.  
Bradfield's Swift

Little Swift  
African Palm Swift  
Red-faced Mousebird  
White-backed Mousebird  
Swallow-tailed Bee Eater  
Lilac-breasted Roller  
Monteiro's Hornbill  
Southern Yellow-billed Hornbill  
Damara Red-billed Hornbill  
Hoopoe  
Acacia Pied Barbet  
Monotonous Lark  
Sabota Lark  
Grey-backed Sparrow-Lark (Finch-Lark)  
Greater Striped Swallow  
African Rock Martin  
Fork-tailed Drongo  
Pied Crow  
Cape (Black) Crow  
Red-eyed Bulbul  
Short-tailed Rock Thrush  
Familiar Chat  
Mountain Chat  
Burnt-necked Eremomela  
Yellow-bellied Eremomela  
Barred Wren Warbler  
Grey-backed Camaroptera (Bleating Warbler)  
Chestnut-vented Warbler (Titbabbler)  
Black-chested Prinia  
Chat Flycatcher  
Marico Flycatcher  
Pririt Batis  
Cape Wagtail  
Long-billed Pipit  
Crimson-breasted Shrike  
Common Fiscal Shrike  
Tchagra sp.  
White-tailed Shrike  
Cape Glossy Starling  
Pale-winged Starling  
Scarlet-chested Sunbird  
Dusky Sunbird  
Marico Sunbird  
Long-Billed Crombec  
House Sparrow  
Cape Sparrow

Southern Grey-headed Sparrow  
Red-billed Buffalo Weaver  
White-browed Sparrow Weaver  
Southern Masked Weaver  
Lesser Masked Weaver  
Red-billed Quelea  
Shaft-tailed Whydah  
Pin-tailed Whydah  
Red-billed Firefinch  
Red-headed Finch  
Black-faced (Black-cheeked) Waxbill  
Blue Waxbill (Cordon-bleu)  
Green-winged Pytilia (Melba Finch)  
Yellow Canary  
Black-throated Canary  
Lark-like Bunting