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Listera borealis [Kew: *Neottia borealis* (Morong) Szlach.,Fragm. Florist. Geobot., Suppl. 3: 117 (1995)] Credit: T. Nelson Front Cover

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Amerorchis rotundifolia [Kew: (*Galearis rotundifolia* (Banks ex Pursh) Bateman (2009)] Credit: T. Nelson Outside Back Cover

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A Rediscovery of one of Florida's Lost Orchids

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March 5, 2016, Chris Evans and Jake Heaton made some history today! Chris & Jake discovered a population of *Prescottia oligantha* (Fig. 1) growing on the ground in a far reached hardwood hammock on Long Pine Key in Everglades National Park. This hammock was nowhere near the hammock where it was discovered in 1989 (Palma Vista #2). They found 3 plants blooming and a bunch of smaller plants in the area. Two of the plants blooming were in a solution hole. The plants are growing in dense hardwood hammocks over coral rocks, which frequently forms solution holes from the dissolving of the limestone coral.

These solution holes form microhabitats that protect the plants from excessive drought and cold spells during the winter. These habitats are similar to the swamp habitats in the Fakahatchee Strand State Park, where the orchids are protected from cold spells by the water. Other orchids found in these areas include: *Ponthelia brittonae*, *Eltroplectris calcarata*, *Oeceoclades maculata*, *Platythelys sanguinea*, and *Habenaria quinqueseta*



Fig. 1. *Prescottia oligantha* (Sw) Lindl. (1840). Long Pine Key, Everglades National Park, Florida.
Credit: Chris Evans March 5, 2016

Prescottia oligantha flowers from February into March/April in Florida, and earlier in February in Puerto Rico (Figs. 2, 3, 4). Its range is from south Florida



to the West Indies, to Mexico, Central America and South America.

The history of the plant in Florida is as follows: Alvah A. Eaton first discovered *Prescottia oligantha* in 1903 in Hattie Bauer Hammock near Homestead (Correll, 1950). In 1989, Don Keller re-discovered small prescott orchid in a hammock

Fig. 2. *P. oligantha* Maracao, Puerto Rico. Credit: Chris Evans on Long Pine Key (Hammer, 2001). About a half-dozen plants were discovered by 1992 in Palma Vista #2, before Hurricane Andrew struck (Hammer, 2001). Hurricane Andrew decimated that hammock knocking down 90% of the larger trees and making the hammock impenetrable. In the years since Hurricane Andrew several attempts have been made to relocate the population in Palma Vista #2, but all attempts were without success. Even today the hammock is impenetrable due to dense growth of young trees and shrubs, a lot of which is poisonwood. The sap of the poisonwood (Anacardaceae, *Metopium toxiferum*), also known as poisons tree or hog gum, contains alkaloids that cause serious skin irritations after contact. While it's a beautiful tree, it's one to be avoided much the same as one should avoid its relatives poison oak and poison sumac.



Fig. 3. *P. oligantha* Maracao, Puerto Rico
Credit: Chris Evans March, 2016

I was fortunate enough to see



Fig. 4. *P. oligantha*

Maracao, Puerto Rico

Credit: Chris Evans March, 2016

Prescottia oligantha in Puerto Rico (Fig. 5) in the early 1990s. On a trip with Stefan Ambs, Christina & Eric Holanda, Dr. James Ackerman took us out to several orchid locations on the island. We found plants of this species in the rainforest of El Yunque, Sabande Grande and in the Maricao National Forests. (Fig. 5) The plants in Puerto Rico were in diverse habitats. In Sabande Grande and El Yunque they were growing in rich soils in dense woodlands, up on elevated banks near mountain streams of the cloud forests, but in Maricao (Fig. 6) they were growing on an elevated dry bank along a trail cut in a mostly open edge of the woods (still in the cloud forests though). They were growing with other orchids such as *Tetramica caniculata*, *Vanilla pottei*, and *Cranichus riccardii*.



Fig. 5. *Prescottia oligantha*

Credit: Mark Larocque

Maracao, Puerto Rico.

This has been one of several discoveries of lost orchids in Florida over the last 5-6 years, including *Cranichus muscosa*, *Triphora amazonica*, *Bletia patula*, *Dierygne confusa*, *Ponthevia brittonae* and *Cyclopogon elatus*. Additionally, several new species have also been discovered across the US, such as *Hexalectris parviflora* in Arizona and new additions to the flora of the US such as *Cymbidium dayanum* in Hawaii and *Eulophia graminea* in Florida.

Hopefully, as more orchid and botanical explorers continue their search of Florida and other areas of the US, more and more discoveries will be reported.



Prescottia oligantha.

Credit: Mark Larocque

Maracao, Puerto Rico.

An Orchid Shangri-La in the Canadian Rockies

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It is July 9th, 2011 and the Nelson family is in week two of a five-week cross-country orchid hunting expedition. We have left Waterton International Peace Park behind and are headed north along the front range of the Rockies. We have no idea the magnitude of the orchid bonanza that awaits us and will soon discover that the Canadian Rockies are right at the top of the list, along with Newfoundland and Manitoba, of the most orchid-rich areas that we have visited so far. Stopping at a scenic overlook to survey magnificent scenery, a sign informs us that much of the open space surrounding Waterton has been preserved as a land trust and will never be turned into vacation homes, as so often happens in beautiful areas in the west. Actions like this taken now will really make a difference for future generations.

After a long and very scenic drive along mountain back roads—as opposed to the faster expressway through the prairie—we arrived at our first stop of the day, beautiful Bow Valley Provincial Park, west of Calgary, by about 1 p.m. I had been in touch with local resident Ben Rostron since the previous fall about orchid sites in the area and I must say he really delivered the goods. One does not go to a new area and expect to just happen upon wild orchids. Specific site information coupled with good directions is a must. Ben had generously sent me several very detailed emails during the year and had also been checking on the sites and giving me “status reports” prior to our arrival. Canadian National and Provincial Parks are always a pleasure to visit; invariably there is a qualified naturalist on staff and Bow Valley was no exception. A very helpful staff naturalist told us how to get to the area Ben had mentioned and said that if we had time, she would show us orchids in other areas of the park.

After parking, I noticed a nice colony of *Coeloglossum viride* var. *virescens* (long-bracted green orchid) which I knew I would photograph later. As we headed down the



Fig. 1.



Fig. 2.

trail, I jokingly said to Christina, "Find us an orchid!" Amazingly, she walked a few feet off the trail and pointing to a past-bloom *Cypripedium parviflorum* var. *pubescens* (large yellow lady's-slipper) that no one had noticed yet exclaimed "Here's one!" We were quite impressed, as we had not yet seen this species. Good training! The walk around the lake was very scenic, but we were a little disappointed as the yellow lady's-slippers were all well past. As we rounded the outlet of the lake and started up the other side, everything changed. It was shadier on that side and we soon entered a fen and were greeted by two new (for the trip) species: *Amerorchis rotundifolia* (small round-leaf orchid) and *Cypripedium passerinum* (sparrow's-egg lady's-slipper). There were more yellow lady's-slippers as well, all in good bloom. After the obligatory photo



session we headed back to the parking lot, passing through lush meadows laden with paintbrush, wood lilies, larkspur, and sunflowers. I then proceeded to set my light tent up over the tallest *Coeloglossum* (about 25 cm tall) and set to work. (Figs. 1 & 2)

This is a time consuming process and the girls soon wandered off to explore. Johanna came back after a while and told me to come quickly, that mom had found something exciting! Having finished, I packed up and followed her down a trail through the woods. While I was occupied with the *Coeloglossum*, Jackie had scoured the area and located an orchid-rich spot in the woods with numerous clumps of prime-blooming yellow lady's-slippers, more *Coeloglossum* and the surprise: a beautiful colony of very robust *Corallorhiza striata*, with its delightful candy-striped red flowers. (Fig. 3) It's great to have such a good support crew in the field.

Ben had given me directions to two more intriguing orchid sites, but it





Fig. 5.

was now past 3 p.m. and I knew that there wasn't time to visit both of them. He had especially recommended a trail to a lake at a higher elevation above nearby Canmore, Alberta which was where we headed next. It was a wise choice. After wasting precious time

getting lost in Canmore (drat!) we finally found the trail head and after walking for about ten minutes were in an absolute orchid-lover's paradise. The grassy understory of the second growth *Pinus contorta* (lodge pole pine) forest was brimming with yellow (Figs. 5 & 6) and sparrow's-egg lady's-slippers. (Figs. 4, 5, & 11) Yellow lady's-slippers, along with wood lilies (*Lilium philadelphicum*) (Fig. 10) paintbrush (*Castilleja miniata*) and scattered *Amerorchis* and *C. passerinum* were the dominant flowering species in the forest, creating an incredible floral spectacle that would titillate any informed nature lover. Jackie found a large patch of hundreds of *Amerorchis rotundifolia* growing in a low-lying area (Figs. 8 & 9) and specimens of *Platanthera obtusata* (blunt-leaved rein orchid) were present as well. (Fig. 7) Everything looked as if it had just started to bloom very recently, two to three weeks late! What a lucky break. After a while the girls

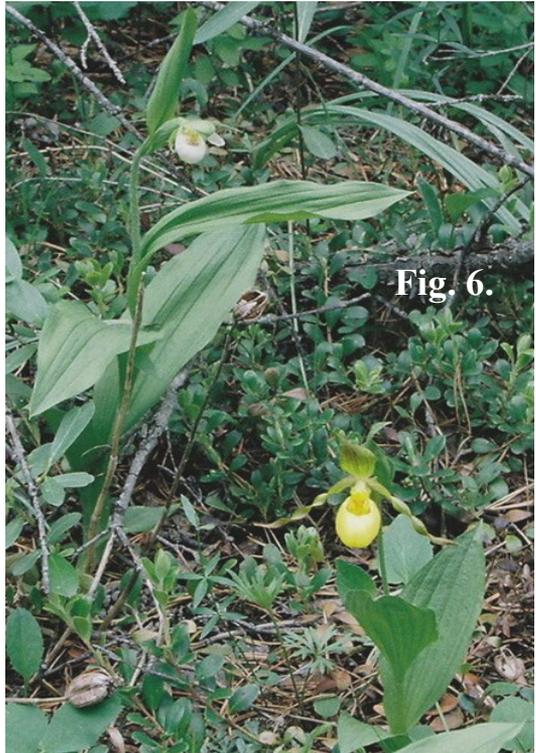


Fig. 6.

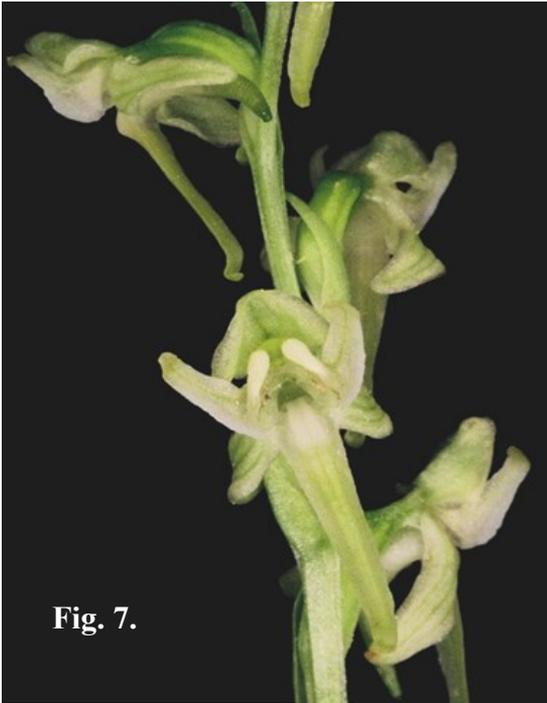


Fig. 7.

grew tired so Jackie took them back to the car, leaving me alone in the forest. We have been in black bear country before on the shores of Lake Superior but we were now in grizzly country, a fact that I was well aware of. It was late afternoon and the woods were growing dark and there were few people on the trail. As I worked I began to hear unidentified noises in the woods so I began to sing loudly and make lots of noise to avoid any unexpected ursine surprises. I continued the same behavior as I walked back down the trail, singing and clapping as I went. If the

noise didn't frighten the bears, I'm sure that my choice of song material and less than pitch-perfect voice did the trick!

I always plan our trips 6-9 months ahead and book the rooms very early as many of the places we visit are tourist destinations and fill up fast. Today we were really wishing that our itinerary were more flexible as our motel was in the town of Radium Hot Springs, British Columbia, 2 ½ hours away and we had yet to eat dinner. I had no idea that the Canmore area would be so orchid-rich and we could never have predicted the late, wet season that had produced such a bumper crop of orchids. Really wishing we had a room in

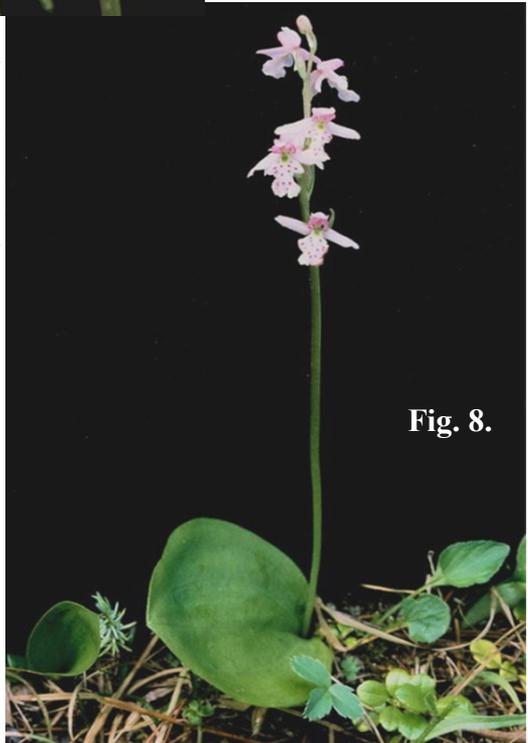


Fig. 8.

town, after dinner we tiredly headed over the Continental Divide and drove southwest through Kootenay Nat'l Park, arriving at our motel by about 10:30 pm, saved by the fact that we had entered the Pacific Time Zone and had gained an hour.

Because of the alleged healing properties of its famous hot springs, Radium Hot Springs has been a popular resort town since at least the late 1800s—and before then the springs were frequented by Native Americans. With many good hotels and several great restaurants as well as the hot springs resort itself, it is a fun place for a family to visit. Of course the real reason we had come was orchids.

Over the winter I had been in touch with native orchid expert Lorne Heshka, from Winnipeg, Manitoba about orchid sites in the area. There was a well-known population of mountain lady's-slippers right by the Radium entrance to Kootenay Nat'l Park and Lorne had told me that it was one of the most impressive he had ever seen. Unfortunately, the disturbed roadside habitat that is so ideal for orchids often proves to be their undoing; in this case the road had been widened and the orchids obliterated. On the morning of July 10th, 2011, we found a few stragglers growing on the side of a nearby parking lot, but the impressive large colonies were gone. After a diligent search, I located a prime-blooming colony of two plants—one of which was double-flowered, hidden in the shade. I knew I would be back to photograph it later (never enough!).

We then headed to an orchid site near a campground in Kootenay Nat'l Park where Lorne had found *Amerorchis rotundifolia* forma *lineata* in a previous year. Getting to the site involved crossing a very turbulent river on a suspension bridge to an island in the river, which was very exciting for the girls. Ben had visited the site a week and a half ago and had reported that the river at that time had nearly been over the bridge and the island mostly flooded, greatly compro-



Fig. 9.

mising his search. The river had subsided by the time of our visit, but the hun-

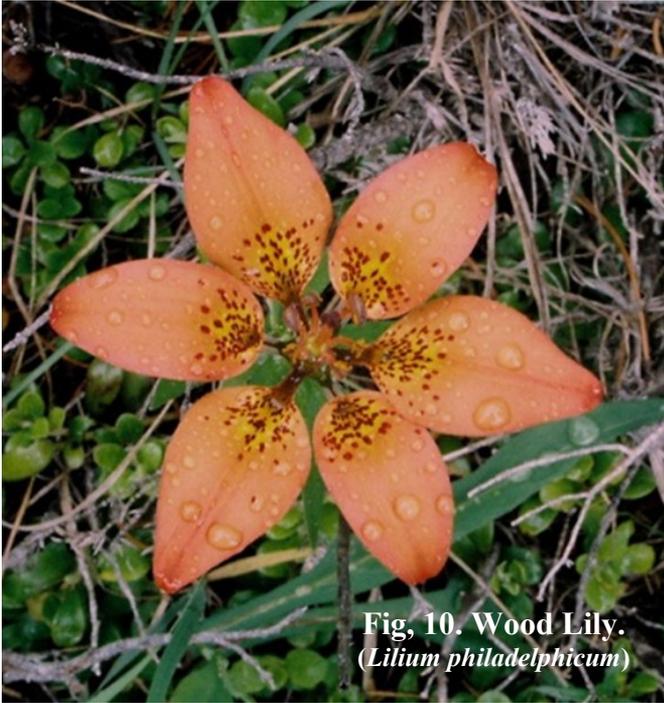


Fig. 10. Wood Lily.
(*Lilium philadelphicum*)

dreds of *Amerorchis* were all past, as it was hotter on this side of the mountains.

There were also massive clumps of past-bloom *Cypripedium passerinum* growing everywhere on this “orchid isle” and an attractive greenish-yellow flowered strain of *Platanthera aquilonis* (northern green bog orchid) in prime-bloom (Fig. 12). We

then spent a few pleasant hours in the pools at the hot springs after which I dropped the family off at the room and returned to the *C. montanum* site alone to engage in one of my favorite pastimes: photographing lady’s-slippers. (Fig. 13).

Today, July 11th, 2011, we were booked up north at Mt. Robson Lodge, one hour west of Jasper Nat’l Park and 271 miles away. The plan had been to take our time going through Banff and Jasper Nat’l Parks

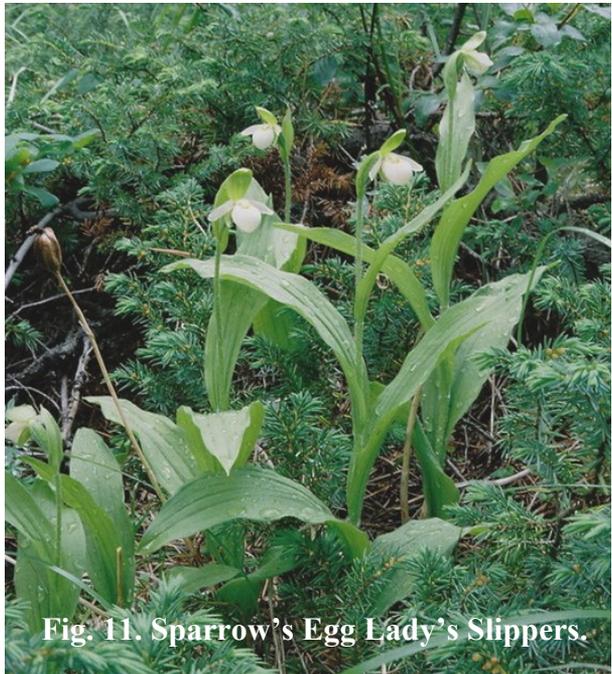


Fig. 11. Sparrow’s Egg Lady’s Slippers.



Fig. 12.

and arrive by early evening, however, Jackie and I had both been so impressed with the orchids near Canmore that we decided instead to revisit that site—which was only about fifty miles out of the way—and explore it more thoroughly. Prime-blooming orchids are hard to resist! We arrived back at the trail head by late morning and happily set off down the trail. Ben had told me that *Listera borealis* (northern twayblade) one of the must-see-species for the trip, as well as *Calypso bulbosa* grow in this area and I was walking with my eyes on the ground, hoping to locate them when Jackie suddenly cried out “There’s a bear!” I looked up and sure enough, a young black bear was walking quietly through the forest off to our left. I began to yell and clap my hands and the bear soon ran off. We were now on high alert!

We marveled again at the abundance of orchids in the area that we had already visited near the beginning of the trail and I of course took a few more photos. As we walked further up the trail the amount of *Amerorchis* growing everywhere was truly astounding. In our previous travels in the Great Lakes and Newfoundland we had found this species to be uncommon and hard to find, with widely scattered populations. We were discovering that it can be locally abundant here in the Rockies. There was an especially striking colony



Fig. 13.

growing in a seep on a vertical bank with *Pinguicula vulgaris* (common butterwort) an interesting carnivorous plant that traps insects on its sticky leaves (Fig. 14).

After hiking quite a ways and gaining a lot of altitude we still had not found the *Listera borealis*, although yellow lady's-slippers were growing everywhere on the ledges and steep slopes. My ankle, which I had sprained the previous week, was beginning to throb, so we headed back to the car. Ben had mentioned a spot under a power line near the parking lot where he had found "More yellows than I have ever seen in one place" ten days earlier. I searched for the orchids briefly, but since the area was in full sun and at a lower elevation, I decided that they would undoubtedly be past, so we hit the road.

Ben had given us direc-

tions to a fourth site in nearby Banff Nat'l Park, where he said that *Listera borealis* definitely could be found. It was very different than the site we had just visited; instead of a rough wilderness trail, here we encountered a paved trail to a popular waterfall that is a tourist destination. There was an ice cream stand at the beginning of the trail, so I stopped to ask the salesperson how far it was to the spot where the *Listera* grew. 2 miles! I had not realized it was that far.

My compromised ankle would not stand more abuse; it was already after 3 p.m. and we had miles yet to go, so we aborted the mission. Jackie stopped to buy ice cream for the girls (Why not!) Meanwhile, my mood began to go steadily downhill. We had tried on two different trips to find *Listera borealis*



Fig. 14.

in Pukaskwa Nat'l Park on the shores of Lake Superior with no success. It is supposed to be common in the Rockies and I had felt sure of success, but I could see my chances slipping away, one by one. As we crossed the footbridge over the river on the way back to the parking lot, I had basically given up.



Fig. 15.

However, Jackie, with her wonderful clarity of vision, spied obvious orchid habitat along the river bank. She called out “Wait a minute! Let’s see what’s down here!”

There was nothing to lose, so finding a faint trail through the brush we followed it down to the river. I immediately came upon a massive colony of *Amerorchis*, consisting of dozens of plants growing tightly together (Fig. 15). Awestruck by this amazing sight, I stopped in my tracks.

The family continued down the trail past me and Jackie soon called out “Found it!”, my favorite two words in the English language. She was standing right in front of a colony of about fifteen *Listera borealis* plants in prime bloom (Figs. 16, 17)!! Amazing – they were hiding right under our noses!

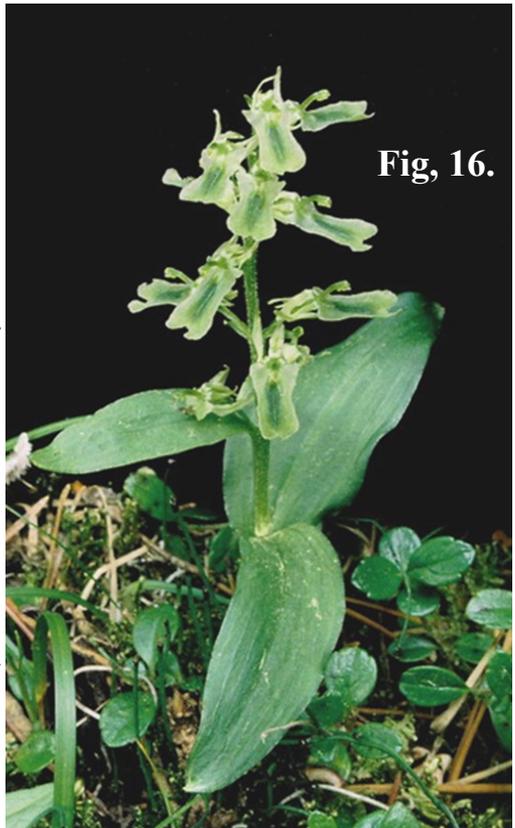


Fig. 16.

I decided to go back to the nearby car to get some more photographic equipment.

When I returned, Johanna was very excited, saying she had found something that she wanted to show me. Making me cover my eyes with my hands, she led me to a spot and said “Open your eyes.” She had found a prime-blooming *Calypso bulbosa* var. *americana* (Eastern fairy slipper) growing about ten feet away from the *Listera*. Wow (Figs. 18 19)!! This was an incredibly late date to find this spring ephemeral still in bloom, so I decided that a full-fledged orchid investigation was in order. Searching the immediate



Fig. 17.

area, we found three more species, all in prime bloom: *Cypripedium passerinum*, *Corallorhiza trifida* (early coralroot) and *Platanthera obtusata*. Six species growing within twenty feet of each other—amazing! The orchids were all growing in a limited area along the river; if one ventured too far in either direction they disappeared. This was no doubt due to the presence of the necessary mycorrhizal fungi in the soil. What a great and serendipitous discovery this site was—it truly made my day.



Fig. 18.



Fig. 19.

After finishing up with the photography we once again headed north toward our destination.

The Nelsons were on a roll now; in a seven day period we had managed to see showy, mountain, yellow and sparrow's-egg lady's-slippers, all in prime bloom. Mother's-milk for an orchidophile/cypaholic*!

*cypaholic: A person obsessed with slipper orchids of the genus *Cypripedium*.

As usual we were way behind schedule, so after dinner and a quick look at the incredible scenery at Lake Louise, we got back on the highway and seriously put the "petal to the metal." The drive north through Jasper Nat'l Park takes the traveler through some of the most awe-inspiring scenery in North America, if not the world.

The boreal twilight lasts forever in early July and countless massive peaks and ice fields stretched away into infinity as we drove. (Fig. 20) I had called ahead to our lodge and alerted them to our late arrival. Luckily Mt. Robson is in the Pacific Time Zone, which bought us an extra hour. We pulled in well after dark, eager with anticipation and wondering what new adventures awaited us in this far-off place.



