

Trip to Conway S.C. for the NOC conference August 6-11, 2004

by Doris Ames

November 2004

Friday, August 6, 2004 - Peggy Bainard Acheson and I were at the Winnipeg airport at 11:15A.M. We finally left Winnipeg at 2:25PM due to various United Airlines delays. We were on a small airplane CL65 but I found it comfortable. We moved our clocks one hour ahead in Chicago. We had a longish wait there (it would have been longer if we hadn't left late) and amused ourselves by looking at the stores which had very high-priced souvenirs and books in them. It's a noisy airport, everyone talks loud and it's very busy. We had a coffee in sort of a small bar, while we were waiting for the line-up to subside at the restaurant we wanted, and soon found out that the waitresses never have any change and are always forced to keep whatever the amount you give them, over and above what you actually owe them!

We left Chicago at 6:15PM for Columbia S.C. The Columbia airport is more beautiful than any other I have seen. It is calm and relaxing with white pillars, potted palms and rocking chairs. Quite a contrast to Chicago. We rented a Chevy Malibu there and started out for Conway S.C. We looked at the map and took the #378 to Conway because it looked to be a shorter route than the freeway but it sure wasn't. It was a class B highway, very poorly lit, that wound its way through the swamps, ocean bays and thickets of South Carolina. On the way, we tried to stop for a coffee and washroom break but the only thing we saw was a very run-down convenience store with about 20 young men who looked like rappers parked there blocking the road. Since we were now experienced travellers (after that restaurant in the Bruce) we decided not to join them and backed out of there quickly. Eventually we found a slightly better convenience store that was well lit and picked up some coffee to go. The trip to Conway took us 2hrs and 46minutes. We were very tired by the time we reached the Holiday Inn Express in Conway. (We took the Freeway on the way back) ! We checked in and left a wake-up call for 6:30AM.

Saturday, August 7, 2004 - we had a wonderful free breakfast at our hotel, the Holiday Inn Express, and arrived at Coastal Carolina University to register for the conference at 8:30AM. The building where the conference was held was the E.Craig Wall Sr. College of Business Administration. The CCU campus is really pretty with red brick buildings with white pillars. The conference site was air-conditioned, which was a bonus. The campus was full of beautiful creeks, flowers and trees, mostly large pines like Longleaf Pine and Pitch Pine. Large cicadas were singing loudly in these trees at all times.

We set up the display board we had brought with us on Manitoba Orchids. Ours was the only one and people immediately gathered around it. We handed out lots of our literature and talked to many people. Fellow Manitobans, Lorne and Joan Heshka were already there. Lorne is the Vice President of NOC.

NOC president Dave McAdoo welcomed the registrants and gave us some information about the upcoming field trip the next day to the Francis Marion National Forest.

Our first speaker was Jim Fowler from Greenville S.C. His topic was "An Introduction to the Orchids of South Carolina". He is publishing a book on the orchids of South Carolina and was very knowledgeable. He said there are 55 species, and that Berkeley County near Charleston has the most species in their savannas. They have five species of Calopogon and their species have up to 24 flowers per plant. *Arethusa* hasn't been seen in years. There are a number of different *Corallorhizas* and one epiphytic orchid, *Epidendrum magnoliae* or green Fly Orchid. It grows high in trees over water but is not common and the Carolinas are the northern limit of its range. They have both *Platanthera psycodes* (Small Purple Fringed Orchid) and *Platanthera grandiflora* (Large Purple Fringed Orchid). You can tell them apart because *P. psycodes* has a barbell shaped entrance to the nectary and, in *P. grandiflora*, the entrance is round.

The next speaker was Katherine Gregg, a biologist from West Virginia, on "Recovery of Showy Lady's-slippers from moderate to severe Herbivory by White-tailed Deer). She started this study because she believed deer changed the composition of the forest because they eat some plants and not others. They fenced in and monitored two different sites, containing hundreds of Showys, for 5 years. One site was an open forest and the other was a wetland. Results were that it took a long time for these populations to recover from herbivory even when they were fenced off from deer; from 9-12 years in her estimation. The orchids suffered from loss of reproductive ability and loss of storage of nutrients. The population size never did fully recover. After this we had lunch at the university cafeteria in the Commons and lectures resumed at 1:30PM.

Allan Weakley from Chapel Hill N.C. gave a lecture entitled "Orchid Habitats of the Southeastern United States". He is the curator of the herbarium at the University of North Carolina and is presently working on a new "Flora of North and South Carolina". He said there were 157 orchid species and much diversity of habitat; mountains, prairie, longleaf ecosystem, Carolina bays, cypress swamps, savannas, bogs, fens, tropical hammocks, pitch pine etc. He said orchids don't like salty areas or ploughed fields. He also mentioned that the southern Appalachian Mountains were never glaciated which makes them of special interest. The long-leaf pine ecosystem once covered 90 million acres. It now covers only 5 million acres. It is very old and dynamic with over 1600 endemic plant species many of which are now very rare. Habitat loss is the primary problem due to:

- cutting of long leaf pine (*Pinus palustris*) for lumber
- Draining of bogs
- collecting of plants especially *Cypripediums*
- natural disturbances

Long-leaf pine has three needles in a bundle and very large cones. It was the original habitat.

We then had the annual general meeting. Mark Rose was the Nominations Chair for the elections. He presented a slate listing Dave McAdoo president, Lorne Heshka vice president, Anne Wagner secretary (Hal Horowitz did not wish to continue), Mark Rose treasurer. Dr. Jyotsna Sharma is the new NOC

Journal editor. There were no other nominations from the floor and the candidates were elected by acclamation. Lorne Heshka then gave a short presentation about next year's conference to be held in Winnipeg July9-12. It will feature the WPFO in Tolstoi but will also include field trips to the Brokenhead Wetlands, Belair, Libau and likely an optional trip to Churchill after the conference. The people there expressed much interest in attending next year's conference in Manitoba. The meeting adjourned at 7:00PM for a supper break. We returned for a lecture by Chuck McCartney on "The Orchids of Southern Florida". He talked about epiphytic plants, that is, plants that grow on other plants. He said they were transitional species from terrestrial orchids and named Vanilla and Epidendrum as examples. I thought he said these plants are self-pollinated and lack anther caps but this seems so strange because *E. magnoliae*, the one we saw apparently has a beautifully scented flower. I wonder why it needs to be scented if it's self-pollinating. I should have asked him. Next Dave Melland from Georgia talked about growing hardy terrestrial orchids and gave instructions for making bog gardens using a 50% sand 50% sphagnum mix etc. Increase the percentage of sand in the top few inches. By this time I was falling asleep. It had been such a long day and a longer one the day before. This lecture was followed by a panel discussion on the "Ethics of Reintroduction" led by Marilyn Light and with other panellists Kathy Gregg and Wayne Roberts. This was excellent and it was really unfortunate that it came at the end of such a long day. Anyway Marilyn started by saying that we need to follow guidelines when considering reintroduction. We need to consider why we want to do something? To make it pretty again? We think only the pretty ones matter but we must consider the whole environment. If you want to re-establish an orchid where it once was, you just can't use seed from anywhere because there is no benefit to the species if they can't reproduce with other ones from another area. But Wayne, a native *Cypripedium* grower, says it is good to enhance the gene pool with plants from other areas. Kathy said we don't know enough about orchid behaviour to try reintroduction yet. Dr.Sharma wondered if the status of the species mattered.

Sunday, August 8, 2004

FIELD TRIP TO THE FRANCIS MARION NATIONAL FOREST, S.C.

The Francis Marion National Forest is named after the famous Revolutionary War hero, General Francis Marion, known as the "Swamp Fox" He made the swamps of this region his base of operations and successfully hid from the British in them. He is said to be the inventor of guerrilla warfare. This protected forest comprises 250,000 acres and is approx. 20 miles from Charleston, S.C. (On Aug 20th an additional 700 acres of upland and wetland habitat was to be added to this national forest)

At the CCU parking lot we met 25 other people to go on this field trip. Our group was led by Dave McAdoo and Mark Rose. There were about 13 cars in the entourage. My directions are no doubt somewhat inaccurate as I had trouble keeping up with all the little roads but here goes. We took the #701 south through Georgetown and then stayed on #17 until the town of Awendaw. We stopped at the Seewee Visitor Centre Parking lot and went in to use the washroom and get a map of the forest. We took the free maps not realizing they weren't good enough. We should have bought the \$6.00 version. We stayed on Steed Creek Rd and at the major junction with #41 it changed to Hwy#402. We turned right onto a gravel road #251. We parked at the Swamp Fox Trail and walked down into the wet part of

a tropical hammock. A hammock is an elevated piece of land or ridge in the midst of a marshy region. It is one of the many kinds of habitat on the Coastal Plains. One of the first things I saw was a 3-foot long, black Cottonmouth Snake (*Agkistrodon piscivorus*). Mark Rose pointed him out to me as he lay resting on the other side of the little creek. (I mean the snake, not Mark Rose). I decided, rather quickly, that I did not want to get close enough to take a good picture of this snake. The Cottonmouth Snake is a kind of poisonous pit viper and its bite is often fatal. The hammock was like a jungle, with Palmettos, Catbrier Vines (*Smilax rotundifolia*) with sharp thorns, and a thick vine called Poisonwood (*Metopium toxiferum*) that winds around trees and can give you a rash like poison ivy if you touch it. The forest floor was littered with strange-looking nuts from the many Sweet Gum trees (*Liquidambar styraciflua*). Sweet Gum trees have lovely shiny-green, 5-pointed leaves that look like green stars. There were Beech trees and fat, blue Pea Aphids (*Acrythosiphon pisum*) that started jiggling and kicking like mad when I touched the branch of a Magnolia tree that they were sitting on. Apparently they do this as a defence against a kind of parasitic wasp that tries to lay its eggs on them. When the larvae hatch they will eat the aphid. I know you might find this hard to believe but Peggy has a picture of them. It's a bit blurry because of the kicking but you would like it, if you saw it, I know. Some of the fallen Beech tree branches had a parasitic plant growing out of them called Beech Drops (*Fagus sylvatica*). We saw our first native orchid there, a green job called *Platanthera flava* var. *flava* or Southern Rein Orchid or Tubercled Orchid. The special feature of this orchid is a little bump or tubercle on the lip. Apparently it is believed to play some role in pollination. I never did see the bump, the plant was either in bud or it was too dark for me to see it. Another orchid we saw was called *Tipularia discolor* or Crane Fly Orchid. It was interesting because the greyish-brown flowers looked like insects. As we came out of the bush we saw a beautiful black and red insect called a Velvet Ant (*Dasymutilla occidentalis*). It is not really an ant at all but a wingless, female wasp that can give a very painful bite. I never got a photo of it because it scurried along too briskly and I wasn't going to pick it up. There were many lovely red trumpet shaped flowers on the ground. Someone told me they had blown down from a nearby vine during the previous week's hurricane.

Next we proceeded to Huger's Boat Landing a marsh that was the site of an old rice plantation. There we saw some huge Banana Spiders (*Nephila clavipes*). They had very large webs with "zippers" in them to warn birds not to fly through them. We also saw huge, fat, 4" long and 2.5" thick Lubber Grasshoppers (*Romalea guttata*). The males were colourful with a lot of red on them. They are poisonous to birds and were quite unafraid. They are so fat that the adults can't fly.

The next orchid we saw was another green job called *Habenaria repens* (Water Spider Orchid). It has whitish-green flowers that look like a spider but the ones I managed to see were still in bud so I couldn't see this detail for myself. There were beautiful red Cardinal Flowers (*Lobelia cardinalis*) and a blue flower called Globe Thistle (*Echinop* sp.) We saw some huge Black Swallowtail and Yellow Sulphur Butterflies. It was muddy on the way out to the parking lot and I grabbed a branch to steady myself and noticed the shiny leaves had a very pleasant smell. This was the Wax Myrtle tree (*Amyrica*). We carried on down Steed Creek Road until we came to a Long-leaf Pine ecosystem. This marvellous kind of habitat contained Long Leaf Pines (*Pinus palustris*) with huge cones and needles in clusters of three, and Pitch Pines (*Pinus rigida*). The area was dry and grassy and contained large, yellow Trumpet Pitcher Plants

(*Sarracenia flava*) as well as both the Yellow fringed Orchid (*Platanthera ciliaris*) and *Platanthera cristata* (Crested fringed orchid). *P.ciliaris* is larger, orange and has a longer spur than the lovely, yellow *P.cristata*. I managed to get some photos of these colourful orchids. Meadow Beauty (*Rhexia virginica*?) a kind of pink mallow, was growing everywhere and I also recognized Kalm's lobelia in the wetter places. We saw a large orange spotted lily they called Pine Lily (*Lilium catesbaei*). It was much like our Wood Lily but not as pretty. The Kalm's Lobelia indicated a neutral to basic soil pH. There were holes everywhere where people had been digging out plants. We were falling into these holes.

Next we went down Bob Morris Road off Steed Creek road, and then turned right onto #176 Combre Road. There in a ditch we saw the beautiful White Fringed Orchid *P.blephariglotis* var *conspicua* and I photographed these, We also saw Colicroot and a pretty little three-petalled yellow flower called Xyris or Yellow-eyed grass. We didn't get lunch until 3PM and the day was hot and humid with temperatures of 89°F and 100% humidity. We were glad to go to Myrtle Beach for a lovely swim in the Atlantic that evening. Water temp was 79°F. You gotta love that beach!

Monday, August 9, 2004 - Bill Summers from Missouri gave us a lecture and slide show on "The Orchids of the Ozark Plateau". The Ozark Plateau is the area between the Appalachian Mountains and the Rocky Mountains and is bounded by the Mississippi River and the Spring River. The highest elevation is 2500 feet. This fellow wrote a book entitled "The Orchids of Missouri". He showed his orchid slides including some of Showy Lady's-slippers growing sideways on the side of a mountain. He was very charming, with his Ozark accent, and told us all to be sure to pronounce Missouri "Missourah" when in the Ozarks. He said he was selling the Ozarks and would like the conference to be held there in 2006.

Next Chuck McCartney gave us a lecture on "The Orchids of Granny Squirrel Gap" in Florida. He is a very entertaining speaker. The next three lectures dealt with genetics and orchid propagation from seed and I must confess Peg and I skipped those lectures to see something of Conway and the surrounding area. We visited the Horry County Museum and visited and photographed some of the historic Live Oak trees and old buildings in Conway. Conway is a beautiful old town and I fell in love with the Waccamaw River. We had lunch at a charming restaurant on it's banks called "The Sidewheeler". The food was wonderful, fried yams and okra were new to me and I really enjoyed them. Peggy said the fish was wonderful. The people were so nice. When I asked one of the ladies who ran the place when they closed after dinner she said "Why whenever everyone is finished their meal and ready to leave". They answered our many questions including the one involving the mysterious origin of the name "Hummingbird Cake". We also visited a privately owned Civil War Collection in Myrtle Beach. The place was owned by Rod and Ted Gregg, along with a shooting gallery. It was located on Bypass 175. Two things stand out in my mind about that collection; guns and knives.

We came back in time for a lecture by Marilyn Light from Ottawa on "Long term Study-Conservation Pay-off". She said tracking of individual orchids long-term is important. There are 43 orchid taxa in Ontario. Orchid taxa in N.A. are not presently being tracked and are candidates for long-term study. You need to get the exact location of plants. GPS coordinates are not specific enough. Triangulate from three nearby objects. She and others have found out many interesting things as a result of these studies. For instance, if *C.arietinum* (Ram's head Lady's-slipper) is infected with a certain kind of fungus

it won't get chewed by weevils. Orchids re-emerge 2-3 years after flooding. Yellow lady's-slippers are either one or two flowered depending on the year. There are some short-term types of *L. loeselii* (Loesel's Twayblade) that flower only once and don't produce a pseudobulb.

P. psychodes (Small Purple Fringed Orchid) occupy two kinds of habitat; old abandoned fields or forest. Forest ones bloom every year but won't set many fruits. Dave told us we would set out for the Green Swamp the next morning at 8:30AM or sooner.

Tuesday, August 10, 2004 08:25

FIELD TRIP TO THE GREEN SWAMP ECOLOGICAL RESERVE N.C.

We met at the CCU parking lot and set off for North Carolina. The humidity was intense even that early in the morning and it was hot. Dave insisted it was a very cool summer but I think he was teasing us. We tucked our pants into our socks and sprayed our legs from the shoes to the knee with insect repellent. We wore hats and sunscreen and took plenty of water and a lunch with us an insulated container with ice packs. We also took wet washcloths inside a bag of crushed ice, for wiping off our faces. To avoid chiggers and fire ants, we did not lie down on the grass to take photos and did not wear scented toiletries. There were no mosquitoes or flies to be seen and we did fine. Peg got some little bites the first day that might have been chiggers but after a refreshing swim in the ocean nothing came of these.

The Green Swamp is a protected area in North Carolina comprising about 16,000 acres. Of this about 13,000 acres have spongy soils called pocosins that are edged by thickets of dense shrubbery called bay vegetation and the rest is Longleaf Pine savanna. Less than 1% of the original longleaf Pine ecosystem remains. It is managed by the Nature Conservancy. There can be as many as 50 plant species to the square meter in the pocosins.

Our first stop in North Carolina was the Brunswick County Visitor Centre. The grounds were nice with Magnolia trees, Long Leaf Pines etc. We headed west on #130 and then onto #17. At our first stop we saw ordinary Pitcher plants (*Sarracenia purpurea*), Sundews, *Drosera filiaris*, *Drosera capillaris* and *Drosera intermedia*. We went back down Governor's Road to Winnebow. After about 2-3 miles the road turns to dirt and goes on to Rice Creek.

Rice Creek was a Bald Cypress Swamp. There are other smaller Cypress called Pond Cypress but these big ones were Bald Cypress (*Taxodium distichum*). We saw our only epiphytic orchid there, Green Fly Orchid (*Epidendrum magnoliae*). Incredibly it was growing down in the mud along with its companion Resurrection Fern (*Polypodium polypodioides*). Dave thought it must have been blown out of a Cypress tree and fallen into the mud during the last hurricane. There were many others way up a nearby Cypress tree. Unfortunately they were not blooming. Apparently the blossoms are very fragrant at night and smell like Magnolia flowers, hence the name. This orchid was at the northern limit of its range here in N.C., is not common at all and Dave did well to find it for us. Resurrection Fern is a kind of fern found living on large Cypress and Live Oaks etc. It usually looks brown, dried up and dead. But when it rains it miraculously comes to life and turns green. Hence the name.

We again saw *Platanthera flava* var *flava* and the broad green leaves of *Spiranthes odorata* (Fragrant Ladies tresses). We saw Sensitive fern (*Onoclea sensibilis*), Royal Fern (*Osmunda regalis*) and the mud chimneys made by Crayfish that Dave called Crawfish. The swamps are full of huge old Bald Cypress Trees with tapering trunks and "knees". The "knees" that one frequently trips over, are a part of the root that grows above ground in muddy or wet places so the plant can get air. These "knees" also prevent the plant from falling over in a hurricane. Cypress trees are not like other trees, they are primitive and some can be as much as 1000 years old. Rice Creek itself was very beautiful. The old Cypress trees, hanging full with Spanish Moss (*Tillandsia usneoides*), (itself a kind of epiphytic plant), were reflected in the still waters. Some boys were there fishing and the creek was edged with water plants that had arrow shaped leaves and purple flowers. It was cool in the Cypress Swamp and there were no bugs. Later we stopped along the road near Hart to see large clumps of *P.cristata* growing across a ditch in sphagnum moss. We saw a Rose Pogonia (*Pogonia ophioglossoides*) in bloom nearby. It was pale and well past its prime. We then went east to hook up with #133 south to Boiling Springs Lake area. We saw *Platanthera integra* (Yellow fringeless orchid) and Venus Fly traps (*Dionaea muscipula*). Before you get to the junction of #133 and #57 turn right onto 50 Lakes Road by the Railway Crossing. This is the only area in the world where the Venus Fly Trap can be found growing in its natural habitat. It actually mostly eats ants there. There were lots of rare sundews and other carnivorous plants there too. Dave showed me a Bladderwort. He said it was Common bladderwort (*Utricularia vulgaris*) but it didn't look like our version. There were lots of holes there too, where people had dug up the Venus Fly Traps and other rare plants. Next we tried to visit Frank Galloway's Nursery on Galloway Road but he wasn't home. Too bad because he is a famous grower of carnivorous plants and orchids and a NOC member, and apparently his gardens were something to behold. His family has lived in N.C. hundreds of years and he wants to see the Green Swamp protected properly from people who dig up rare plants. Unfortunately his gardens later suffered a lot of damage in their most recent hurricane Charley. On Palmetto Road we saw Long leaf Pines, Turkey Oak (*Quercus laevis*) which tries to choke out Longleaf Pine, some other pitcher plants *Sarracenia rubra* (Sweet Pitcher Plants) and the very rare Hooded Pitcher Plant (*Sarracenia minor*) as well as Common Bladderwort (*Utricularia vulgaris*), *P.integra* and *Sarracenia flava*. Last we went to the Big Island Swamp, 5.5 miles from the town of Supply, which contains the Green Swamp Ecological Preserve of 16,000 acres. It is a Longleaf Pine Savanna whose pocosins can contain over 50 plant species to the square meter. Most of the plants are found in the spongy soils called pocosins. The orchids are found at the edges of the pocosins and dense, impenetrable thickets of shrubbery called bay vegetation. The longleaf pine savanna is sort of an island in this thick vegetation. We saw *P.cristata*, *P.nivea* (Snowy Orchid) in seed and yellow Trumpet Pitcher Plants with green Lynx Spiders (*Peucezia viridans*) on them. These spiders can give you an extremely painful bite and I photographed them with care. They don't build webs but catch their prey by jumping on it and biting it. Hence the name Lynx Spider. They capture insects attracted to the Pitcher Plant and I have even read that they go so far as to fish them out of the pitcher-like leaves, thus robbing the plant of these nutrients. The part of the savanna we were in appeared very dry and heavily overgrown with grass. The Nature Conservancy who manages this ecological reserve burns it on a rotation basis every 2-3 years. Burning does not hurt the pines or the orchids but kills some species of grass and undesirable trees and shrubs. It is home to a very rare woodpecker called the Red- Capped Woodpecker (*Picoides borealis*) and I longed to see one. It was only later when I was looking at my photos that I saw the

telltale signs of a nest on these very trees; white gum leaking down a longleaf pine trunk. Dave pointed out the impenetrable thickets at the edge of the pocosins on the savanna and said most orchids are found at the edges of these thickets and the swamp. Apparently, according to the Nature Conservancy, this swamp is being heavily damaged by people. We left the group at 3:30PM and drove to Columbia where we stayed overnight and caught the plane the next day for home.

See the Slideshow of pictures from this trip by Peggy and Doris.