

Southern Appalachian Botanical Foray  
May 23-26, 2004  
Valle Crucis, North Carolina

Sponsored by the New England Botanical Club and the Southern Appalachian Botanical Society

Accounts: Notes of Gray Wexelblat, NEBC  
\*with a few edits by Paul Somers

When we got to Valle Crucis Conference Center, the rain stopped. We unloaded and walked a little bit. Dinner, announcements, followed by wonderful slide show of local flora by Edward Schell (see his listing of slides) and a talk about "Phytogeography of the Southern Appalachians" by Dr. Daniel Pittillo. Both were very good.

Next morning, **Monday, May 24, 2004**, the day's trip was to Roan Mountain at Carver's Gap to explore the grassy balds. Route 194 north toward the Tennessee border was a windy mountain Road with cliffs along one side and huge drop-offs on the other. From the cliffs hung fire pink, Bowman's Root, Giant Solomon's Seals. We drove 194 through Elk Falls to 19E North into Tennessee and through Elk Park to Roan Mountain then south on 143 to Carvers Gap on the Tennessee/North Carolina border. At the Gap we divided into three groups, first getting some history from Judy Murray, Stewardship Director of the Southern Appalachian Highlands Conservancy who helps direct the management of the balds on the east side of Gap. She pointed out that at this point the Highlands Conservancy hand cuts the balds to maintain the openness. We climbed along the newly relocated AT up onto the grass balds. There the dominant "grass" was the sedge *Carex pensylvanica*. Later in the season Jamey Donaldson told us, it would be dominated by *Deschampsia flexuosa* and *Danthonia compressa*. The balds have a real richness of species. We started at the parking and a little way up we found *Alnus veridis* (Green alder). Next the most conspicuous plant on the mountain looked like *Houstonia caerulea*, but it turned out to be *Houstonia serpyllifolia* - stoloniferous mountain bluet - this bluet is so blue it makes the strawberry flowers look cream colored. Our route was along the relocated AT trail. *Houstonia* apparently does well as a disturbance plant as it filled up the old trail and any other disturbed site. The *Senecios*, now *Packera*, specifically *Senecio aureus*.

26 globally rare communities in Roan Mountain, especially the Fraser Fir – Red spruce is the basis of many of them.

Two kinds of balds - grassy and shrub balds. We climbed Round Bald (1st) and Jane Bald (2nd).

Round Bald above Carver's Gap - 5826

*Houstonia serpyllifolia* - stoloniferous mountain bluet

Common sedges - *Carex intumescens*, *Carex brunnescens* as we started up

*Alnus viridis* (*Alnus crispa*) Green Alder or Mountain Alder

Plants as discussed: *Lycopodium/Dendrolycopodium hickeyi* - circle - leaves all the same - similar to *Dendrolycopodium obscurum*

*Rubus canadensis* - Canada smooth blackberry - nearly unarmed

*Deschampsia flexuosa* - clumping, fine hairgrass

*Angelica triquinata* - purplish stalk (all over balds)

*Huperzia appalachiana* (not found here) - so probably *Huperzia selago* but could be *porophyllum* or *protoporophila* [I believe that *H. appalachiana* is on Roan, along with hybrids with *lucidula* - P. Somers]

Hay-scented fern - *Dennstaedtia punctilobula*

St. Johns-wort - *Hypericum buckleyi* - looks like the usual but more robust - *Hypericum graveolens* - another rare *Hypericum* 3 - 6 dm, usually unbranched (cymes few flowered) sepals usually without black lines or dots also found on the balds

*Luzula echinata* - loosely cespitose with shallow, knotty rhizomes, margins of leaves pilose to slightly hairy, glomerules 4 - 15 often loosely flowers, angles approach 90°, bracteoles white-\_\_\_, spots and petals greener

*Vaccinium erythrocarpum* (in bud on Jane Bald)

*Vaccinium corymbosum* - high bush blueberry

Lily-looking plant - *Coreopsis major* - whorl not true whorl, really slightly offset - forest tickseed

*Sorbus americana* - mountain ash

*Amelanchier laevis* - smooth serviceberry (blooms after time of funerals in this area of the country)

Fire or Bird Cherry, *Prunus pensylvanica*

*Dryopteris campyloptera* (Mountain Woodfern)

*Cardamine clematitis* (Mountain Bittercress) \*G-2, - picture - leaflets clasp stem, lower 3-part

*Aster divaricatus* var. *chlorolepis*

*Polypodium appalachiana*

*Viola macloskeyi* and Marsh (?) violets

Wood Nettles have alternate leaves, while stinging have opposite

Jack-in-the-Pulpit

*Ribes glandulosum*, creeper Skunk Current

*Aesculus flava/octandra* - Yellow Buckeye

False bugbane, tasselrue. - has a leaf which looks a lot like

Canada anemone and a flower that looks like meadow-rue

Michaux's saxifrage - not blooming on the balds

Spruce Fir/resin blisters - white spruce sap sweeter

[*Rumex*] *acetosella* - from grazing, top of balds (not native)

*Sibbaldiopsis tridentata* (*Potentilla tridentata*)

*Carex brunnescens*

*Prenanthes* (*Nabalus*) *roanensis* (Roan mountain rattlesnake root) - above 3400 - hairy not as broad an inflorescence as *Prenanthes altissima*

Not seen but also named for Roan Mountain - *Solidago* and *Carex roanensis* (*Carex roanensis* - seen on Bluff Mountain)

Michaux's - different saxifrage - zygomorphic, bilaterally symmetrical) narrowing leaf, SW Va to NC/TN

History - the [forests adjacent the] balds were logged 1929 - 1930 - chest height 6" diameter - were cut

Succession pattern - rock to grassy bald, from there can go to deciduous shrub, evergreen shrub, red spruce/fir forest, deciduous forest.  
Deciduous - Beech, Birch, Maple; eventually go to red oak rather than ash [or] chestnut;  
Evergreen - red spruce, fraser fir.

Didn't find but used to have mountain sandwort here.

Southern lady fern - light scales

Part way up Round Bald - a clump of spruce which were planted in 1941 in soil blocks to see whether there was something about the balds that didn't support trees, there's was 30% survival but by '76 down to 9% - but nothing to keep woody plants out of the bald

Hiking down back side [of Round Bald, we] found *Anemone quinquefolia*; the dominant appearance on the bald is *Carex pensylvanica* at this time of year, *Danthonia* a little later and now *Deschampsia flexuosa*. [*Danthonia* is no longer a dominant on the balds, but it was the dominant at the time sheep grazing occurred there and for some time thereafter.]

*Senecio* (*Packera*) *schweinitzianus* (disjunct population from New England). The base of the basal leaves is truncated vs *Senecio anonymus* (Appalachian) which has tapered leaf to petiole

In field found Gray's Lily (*Lilium grayi*) found but not yet in bloom. Found in fields above 4000'. Note: *Lilium grayi* in VA are probably hybrids.

*Lysimachia*?

Baeomyces lichen - pink vs British Soldiers red

Metamorphic rock - pink snowflake rock

*Cardamine clematidis* - see way up Round Bald above

*Geum geniculatum* - how style comes off seed - stems erect, slightly angled sparsely to densely hirsute; basal leaves, 3 large terminal division, stem leaves trifoliate, petals pinkish, whitish or lavender N.B. "wolf green"???

Jane Bald-

Community - Fraser Fir-Red spruce

Engine (Injun) Gap [the gap between Round and Jane balds]

*Senecio* [*schweinitzianus*] *robbinsii* not now - bigger heads than other senecios

*Heuchera villosa* (saxifrage) - Alumroot (has rounder leaf - still a saxifrage

*Vaccinium erythrocarpum* - reddish flowers, dark red fruit, single flower axillary

Mountain angelica - *Angelica triquinata* - drunk pollinators, candy from stem, green seed, purple in stem - clasping leaf

Moving down into the forest - Beech Gap Forest - G1 community because of Beech fungus threat. Graminoid beech gap and next is rich forest beech

Hobblebush [*Viburnum lantanooides*]

Tennessee chickweed (*Stellaria corei*/*Alsine tennesseensis*) - sepals long, as long or longer than petals

Rich Forest-

Neurotoxin (Stagger) - There's a staggerbush (*Lyonia mariana*), could be it???? [Perhaps *Lyonia ligustrina* (Maleberry), but doubtfully *L. mariana*, a coastal and piedmont species in NC]

*Eupatorium* sp.

*Trillium undulatum* - Painted Trillium

*Huperzia lucidula* - Shining Clubmoss

*Actaea pachypoda* - Doll's eyes, white baneberry

*Panax quinquefolius* - Ginseng  
*Thalictrum clavatum* - low meadow-rue - little taller than *Anemone*  
Christmas Fern-*Polystichum acrostichoides*  
Silvery Glade Fern - not here [?*Deparia acrostichoides* should be there]  
Umbrella Leaf - *Diphylleia cymosa*, Barberry family  
*Monarda clinopodia*  
*Disporum maculatum* (yellow to white) *Disporum lanuginosum* yellow to yellowish green -  
this one quite green  
Rose Twisted Stalk [*Streptopus roseus*]

Along roadway up to Carver's Gap parking -  
*Huperzia appressa* [??], repeat of Mountain Bluets  
*Senecio aureus*  
*Hydrangea arborescens* (persistent flowerheads) (stamens 8 - 10), vs hobblebush - the  
hydrangea is a saxifrage and has # of stamens as petals

Back at Inn -  
*Phacelia purshii* (Scorpion Weed)  
*Aruncus* sp.  
Ebony Spleenwort - *Asplenium platyneuron*  
*Osmorhiza longistylis* - Sweet chervil vs. *Osmorhiza claytonii* seen 5/25 and 5/26 which is  
sweet cicely  
*Sedum ternatum* - wood stonecrop  
Forget me not - *Myosotis* sp.  
Lyre-leaved sage (*Salvia lyrata*)

Monday night –  
**Peter White** talks about Southeastern Endemism and Glacial Boundary - wherever he  
went, New England, Missouri Botanical, North Carolina – [people refer to location as]  
“meeting place” (northern and southern boundaries), - no glaciers in the most recent ice  
age in North Carolina- one of the reasons so many species - compared with New  
England - find their niches in North Carolina - separated from other plants, some develop  
into new species.

**5/25/04 Tuesday** - On the way to Bluff Mountain-  
Hilly mica schist, amphibole/hornblende, gneiss. Not much agriculture at Bluff Mountain.  
Nature Conservancy NE Tenn/NW North Carolina  
Drove part of the way up after long drive to get there, then 4-wheel drive up to hike off  
spot. Where we left low bedded cars found Putty Root (*Aplectrum hyemale*-leaf had  
almost disappeared) and a lily

Started in Rich Cove Forest – sheltered, mesic, low to moderate elevation, circumneutral  
generally. Overstory southern basswood, Tilia, sugar maple, yellow buckeye (*Aesculus*)  
Red oak with high canopy and not much understory but 600 species of vascular plants  
with 30 - 40 rare ones. Interesting geology includes amphibolite top as well as bluff and  
working [?] on Long Hope Valley - hanging valley, the headwater of the New River which  
is really very old.  
Yellow flower - *Thaspium* (carrot that would be an actor)(Meadow parsnip) *barbinode*  
(bearded)  
Wood Stoneroot [*Collinsonia* sp.]  
Wood Nettles -opposite leaves  
*Thalictrum clavatum* (see above and *Thalictrum dioicum*)

Dutchman's Pipe, Pipe Vine (*Aristolochia macrophylla*) - brown flower female and yellow green flower male per Warren [Stoutamire]

Purple Flowering Raspberry - *Rubus odorata*

*Senecio aureus* (*Packera*) - Golden ragwort

White trillium - *Trillium grandiflorum*

*Hydrangea arborescens*

*Disporum lanuginosum*, not *maculatum* (greener colored flower)

*Zizia* (sessile central flower) *Thaspium* not sessile central flower

Wild Columbine (*Aquilegia canadensis*)

*Monarda clinopodia*

*Coreopsis major* (Forest Tickseed) (this is the plant that looks like a lily and has not a true whorl of leaves but the sessile leaves look a lot like a whorl - only examination reveals offset. (this one hairless)

*Convallaria montana* he says rare, book says uncommon - Lily of the Valley in the wild

*Maianthemum racemosum*

*Viburnum acerifolium*

Getting into Drier Habitat (Higher)-

*Zizia*

getting into oaks-red and white

Bracken Fern

*Castanea dentata* (Chestnut) - seems somewhat drier so fungus not so aggressive as in cove forest

Poke Milkweed - *Asclepias exaltata*

*Houstonia purpurea*, not *montana* (S. App. species), which is thought to be the diploid while *purpurea* the tetraploid

*Aster macrophylla*

*Galium*

*Campanula*

*Carex roanensis* - perianth > 3 m [????]

Pipeline swallowtail butterfly - has red dots

*Clintonia umbellulata* - white flowered *Clintonia*

*Iris cristata* - Dwarf Crested Iris

*Conopholis* [*americana*]- Squawroot

Wood Betony - (*Pedicularis* [*canadensis*])

*Galax* (*Galax* [*urceolata*, syn. = *aphylla*])

Fire Impacted

Lousewort (Wood Betony) *Pedicularis* [*canadensis*]



**Rhododendron catawbiense**

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Photo courtesy of Bryan Hamlin

*Rhododendron catawbiense*

Rattlesnake Weed (*Hieracium venosum*)

Mountain Laurel (*Kalmia latifolia*)

Rattlesnake plantain (*Goodyera pubescens*)

Bird's foot Violet (including white) - *Viola pedata*

*Hypoxis hirsuta*

*Diphasiastrum digitatum*

*Epigaea repens* - mayflower

Oak/heath forest -

G1 community high mountain fen (4500)

Pink Lady slipper - *Cypripedium acaule*

Painted Trillium - *Trillium undulatum*

*Sanguisorba canadensis* - Canada Burnet (moist areas)

Bog Turtle (very endangered? why in this high elevation, and how did it get there?)

Grass of Parnassus - *Parnassia*

*Tofieldia glutinosa*

*Drosera rotundifolia* - roundleaf sundew

*Liatris spicata* - Spiked Blazing Star

*Castilleja coccinea* - Indian Paintbrush

*Gaylussacia baccata* - Huckleberry

*Oxypilis*???

*Oxypolis*?? Water hemlock - *Oxypolis rigidior* / cowbane

*Ilex montana*

*Vaccinium* sp - creamy yellow flower

*Solidago* sp (notes read *cripsatula* or *eripatula* [*uliginosa* or *patula*?])

*Vaccinium stamineum* (deerberry)

possible *Liatris aspera*

dry area -

*Krigia*

*Aureolaria* - smooth

Carolina hemlock with whorled leaves

Ninebark (*Physocarpus opulifolius*) in bud

Rock outcrop (bluff)-

*Veratrum parviflorum*

*Anemone* lower

*Sanicula canadensis*

*Senecio anonymus* (clasping leaf sharp lobed)

*Salix humilis* very hairy - Upland Willow

Cress - *Arabis lyrata*  
*Phlox subulata* on bluff shelf (picture)  
Hemlock, carolina  
*Selaginella rupestris* - 4 ranked, herringbone/tweed  
*Hypoxis hirsuta* on bluff

Near Bluff -

*Smilax*  
*Platanthera rotundifolia*  
*Dioscorea villosa* (syn. = *quaternata*)- Sweet Potato Vine - male and female  
*Lilium canadense* or *grayi* (not *grayii*)??  
*Gentian* sp.  
*Platanthera orbiculata*  
*Melanthium latifolium*  
*Actaea rubra*  
*Osmorhiza claytonii*  
*Aralia nudicaulis* - Wild Sarsaparilla  
*Caulophyllum* sp.  
*Lilium superbum*  
*Trillium sulcatum* (long pedicel) - robust plant - very similar to *Trillium erectum* but pedicel lots longer than sepals  
*Spiraea latifolia*

2nd bluff - Long Hope Valley-best ecological mountain valley [in NC]

*Houstonia montana* - purple and white - on bluff at top  
*Geum radiatum* moist to very wet, rare - near bridge on Grandfather Mountain  
*Hypericum gentianoides* - not seen  
*Paronychia argyrocoma* - silverling

*Dioscorea*

(Silverbell from last year???) *Halesia*, slow growth, 2" = 30 years  
Wolfsbane - 5 leaflets [*Aconitum*]  
*Ligusticum canadense* - lovage  
Green cone flower

Meadow

*Chamaelirium luteum*- Devil's bit  
*Castilleja coccinea*  
Robbins Plaintain - [*Erigeron*] *pulchellus*  
*Iris cristata*  
Wood Betony  
a little later - flame azalea

Tuesday evening - We went out after dinner to look for a *Botrychium* and to walk to the waterfall [at Valle Crucis Conference Center]. What we found was *Botrychium virginianum* (Rattlesnake Fern) and on the way up from the waterfall *Listera smallii* (identified by Paul Somers). [Also, *Aplectrum hyemale*, *Orobanche uniflora*, and *Clethra acuminata* among the many plants observed on this trail to a beautiful falls]

5/26/04 - Wednesday - Grandfather Mountain - mixed [mesophytic] forest

Met at 10:00 a.m. at Profile Trail on Grandfather Mountain.

Started by stream in mixed hardwood.

*Hydrophyllum virginianum* - purple Waterleaf

Jack-in-the-pulpet

*Zizia* or *Thespium*

*Phlox stolonifera*

*Arabis laevigata*

Wood stonecrop [*Sedum ternatum*]

They've found *Shortia* on the mountain

*Cymophyllus fraseri* (Fraser's Sedge) - picture

Early saxifrage (no) *Saxifraga caroliniana*

*Saxifraga micranthidifolia* (Mountain Lettuce)(Branch Lettuce)

Fraser Magnolia - reptilian bark

*Prunus serotina*, 3' diameter - black cherry

*Aconitum reclinatum* - Wolfsbane - the head bent

over - G1 - not in bloom - pictures (darkened slides)

*Poa alsodes*

Lunch at Profile campsite

Profile overlook

Shady Spring

*Geum geniculatum* - lavender bloom, whole flowers hang down - not in bloom - have to go to the bridge to see *Geum radiatum* (yellow - also not in bloom)

hemlock parsley

*Sanicula gregaria* - (id by Bruce Sorrie)- yellow-flowered sanicula

*Thalictrum clavatum* - small meadow-rue

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...wex