

**SPRING IN THE GREAT
SMOKY MOUNTAINS:**

**BIRDS AND BOTANY IN THE
SOUTHERN APPALACHIANS**

APRIL 20- 27, 2008

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***Spring in the Great Smoky Mountains National Park:
Birds and Botany***

April 20-27, 2008

Guides: Steve Hilty and Chris Merkord

This was our seventh birds and botany trip to the Great Smoky Mountains region. Great weather and some early spring rains prior to our arrival brought out the best of the spring flowers this year. We didn't see a bear this year (actually we've seen only one on a previous trip), but a Virginia Rail, two surprising Buffleheads on the sewage treatment lagoons in the park, a very cooperative little Winter Wren, Swainson's Warblers, Worm-eating Warblers, Black-throated Blue Warblers, some very close Blackburnian Warblers (including two males locked in near-mortal combat that fell almost at our feet), Scarlet Tanagers, and a scattering of migrants throughout the trip were enjoyed by everyone. Don't forget our lovely scope views of a Rose-breasted Grosbeak along the parkway! On the botanical side of things, flowering Pink Lady's Slipper and Large Yellow Lady's Slipper orchids, Dwarf Ginseng, and outstanding carpet displays of spring beauties, fringed phacelia, foamflowers, bluets, and several enormous displays of trilliums made this trip unforgettable. And the weather was near perfect throughout!

Park news includes the continued decline of Frasier Fir, the result of a non-native woolly adelgid infestation and, even worse, a dramatic decline in the Eastern Hemlocks which are now infested with another species of woolly adelgid (this one an accidental introduction from Asia). Many already appear dead or virtually leafless. First reported in the park in 2002, over 50,000 hemlock trees have now been treated, but will have to be treated again in three to four years, an expensive and labor-intensive effort. And this is only a fraction of the several million hemlocks in the park. Government and private agencies are experimenting with a tiny predator "ladybird" beetle that offers hope of fighting this infestation that could potentially kill almost all hemlocks in eastern Northern America. The park also works to reintroduce elk to the park; to restore River Cane to selected streambanks; to battle Kudzu, Burdock, and Oriental Bittersweet, which are invading the park; and to apprehend many poachers that illegally dig ginseng, orchids, trilliums, and rare plants within the park.

It is sad that this, our grandest park in eastern North America, this magnificent symbol of beauty and wilderness, and one of the few places in the eastern United States where we can still walk among giant old growth trees, is now under such assault on so many fronts—while at the same time elected officials turn a blind eye, or worse, reduce funding for national parks. It is a sad commentary when we place corporate profit above stewardship of the land where we live, and the heritage that we bequeath to future generations. Great Smoky Mountains National Park, unfortunately, has come to represent this battle of opposing interests, and grave scars are now evident across this grand old park. We should wonder about what our children, grandchildren, and future generations henceforth will think of what we are doing today.

Not to end on a tragic note, the Smokies still provide a rare opportunity to stand in the shade of ancient forests, and they are a place that harbors many breeding birds, the highest diversity of salamanders in the world, and one of the richest temperate latitude floras anywhere in the world. Let us hope it remains so.

ITINERARY

- Day 1. Arrival in Knoxville, Tennessee, and check in to Hotel
- Day 2. Sharp's Ridge Memorial Park; Kyker Bottom Wildlife Refuge; and Chestnut Tops Trail
- Day 3. Cades's Cove Loop drive, and Rich Mountain Road
- Day 4. Morning at Cove Hardwood Trail; afternoon at Porter's Creek Trail
- Day 5. Newfound Gap, Clingman's Dome and the Blue Ridge parkway to Waynesville
- Day 6. Birding and botanizing along the Blue Ridge Parkway, Big Cove Rd., and return to Townsend
- Day 7. Schoolhouse Gap trail and White Oak Sink Trail in morning; early afternoon free for Old Timer's Festival; late afternoon on Chestnut Tops trail
- Day 8. Morning transfer to airport for mid-day flights home

CHECKLIST OF BIRDS

(** heard only)

Canada Goose, *Branta canadensis*, almost daily at entrance to park
Wood Duck, *Aix sponsa*, 5 at Cade's Cove sewage lagoons; 3 flying over road near Maryville
Mallard, *Anas platyrhynchos* Kyker Bottoms; Little River by BBQ restaurant
Bufflehead, *Bucephala albeola*, 2 females on Cades Cove Sewage Lagoons
Wild Turkey, *Meleagris gallopavo*, from 1-6 seen almost every day
Northern Bobwhite, *Colinus virginianus*, pair seen by part of group at Kyker Bottoms
Great Blue Heron, *Ardea herodias*, first day over Knoxville
Great Egret, *Ardea alba*, 1 at Kyker Bottoms
Green Heron, *Butorides striatus*, 1 at Kyker Bottoms
Turkey Vulture, *Cathartes aura*, over Knoxville; almost daily over park
Northern Harrier, *Circus cyaneus*, 1 female over Kyker Bottoms marshes
Red-shouldered Hawk, *Buteo lineatus*, 1 at Kyker Bottoms
Broad-winged Hawk, *Buteo platypterus*, 1 over Blue Ridge Parkway
Red-tailed Hawk, *Buteo jamaicensis*, several; Kyker Bottoms; GSMNP
Virginia Rail, *Rallus limicola*, 1 seen repeatedly at Kyker Bottoms
Sora, *Porzana carolina*, hd at Kyker Bottoms
Spotted Sandpiper, *Actitis macularia*, 2 at Cade's Cove Sewage Lagoons; Little River
Solitary Sandpiper, *Tringa solitaria*, 1 at Kyker Bottoms; 1 at Cade's Cove Sewage Lagoons
Killdeer, *Charadrius vociferans*, Kyker Bottoms
Rock Pigeon, *Columba livia*, cities
Mourning Dove, *Zenaida macroura*, disturbed and open areas
Chimney Swift, *Chaetura pelagica*, 12+ over sewage lagoons at Cade's Cove; over groups over Blue Ridge Pkwy etc
Ruby-throated Hummingbird, *Archilochus colubris*, Kyker Bottoms; one seen by some in park
Red-bellied Woodpecker, *Melanerpes carolinus*, almost daily
Downy Woodpecker, *Picoides pubescens*, Sharp's Ridge; Cade's Cove; Little River
Hairy Woodpecker, *Picoides villosus*, Cade's Cove (1 female)
Northern Flicker, *Colaptes auratus*, Sharp's Ridge; park and Waynesville
Pileated Woodpecker, *Dryocopus pileatus*, hd at Sharp's Ridge; seen in flight in park including Schoolhouse Gap
Least Flycatcher, *Empidonax minimus*, 1 seen along parkway; 2 others hd
Eastern Phoebe, *Sayornis phoebe*, Cade's Cove and elsewhere in park; Little River
White-eyed Vireo, *Vireo griseus*, Kyker Bottoms (seen well)
Blue-headed Vireo, *Vireo solitarius*, common, esp. at higher els in park
Red-eyed Vireo, *Vireo olivaceus*, all areas (common)
Blue Jay, *Cyanocitta cristata*, heard. daily; migrating groups of 6-25 in most areas; Sharp's Ridge; parkway etc
American Crow, *Corvus brachyrhynchos*, all elevations and areas
Tree Swallow, *Tachycineta bicolor*, Kyker Bottoms; Cade's Cove; Little River
Northern Rough-winged Swallow, *Stelgidopteryx serripennis*, Kyker Bottoms; Cade's Cove; Little River
Barn Swallow, *Hirundo rustica*, Seven Islands; Cade's Cove; Waynesville etc
Carolina Chickadee, *Poecile carolinensis*, Lower elevations
*Black-capped Chickadee, *Poecile atricapillus*, Upper elevations (unfortunately only hd)
Tufted Titmouse, *Baeolophus bicolor*, all areas up to ca. 5000 ft
Red-breasted Nuthatch, *Sitta canadensis*, Sharp's Ridge; Clingman's Dome road
White-breasted Nuthatch, *Sitta carolinensis*, Cade's Cove (seen by Marion); Schoolhouse Gap
Brown Creeper, *Certhia americana*, Appalachian Trail near Clingman's Dome
Carolina Wren, *Thryothorus ludovicianus*, hd all areas; seen well at Metcalf Bottoms in park; etc

Winter Wren, *Troglodytes troglodytes*, 1 along Appalachian Trail above Newfound Gap (seen very well)

Golden-crowned Kinglet, *Regulus satrapa*, Newfound Gap and (2)

Ruby-crowned Kinglet, *Regulus calendula*, Sharp's Ridge

Blue-gray Gnatcatcher, *Polioptila caerulea*, lower elevations

Eastern Bluebird, *Sialia sialia*, Seven Islands; Kyker Bottoms

Wood Thrush, *Hylocichla mustelina*, hd Sharp's Ridge; seen near Waynesville; Schoolhouse Gap Trail

American Robin, *Turdus migratorius*, clearings, towns, etc. (all areas)

Gray Catbird, *Dumatella carolinensis*, parkway near Waynesville

Northern Mockingbird, *Mimus polyglottos*, towns

Brown Thrasher, *Toxostoma rufum*, Kyker Bottoms

European Starling, *Sturnus vulgaris*, settled areas

Northern Parula, *Parula americana*, seen well at Metcalf Bottoms in park; hd various other places

Chestnut-sided Warbler, *Dendroica pensylvanica*, parkway near Waynesville

Black-throated Blue Warbler, *Dendroica caerulescens*, Cove Hardwood; parkway near Waynesville

Yellow-rumped Warbler, *Dendroica coronata*, Sharp's (many); Cade's Cove; parkway etc

Black-throated Green Warbler, *Dendroica virens*, commonest warbler in park; all areas

Blackburnian Warbler, *Dendroica fusca*, 2 males fighting and dropping to ground almost at our feet on Cove Hardwoods trail; also 3+ seen on parkway

Yellow-throated Warbler, *Dendroica dominica*, Metcalf Bottoms; Little River

Pine Warbler, *Dendroica pinus*, Sharp's Ridge; hd on Schoolhouse Gap trail

Black-and-white Warbler, *Mniotilta*, almost all areas; 1 male seen especially well (close!) along parkway near Waynesville

American Redstart, *Setophaga ruticilla*, 1 female at Sharp's Ridge seen by a few people

Worm-eating Warbler, *Helminthos vermivora*, Rich Mt; Schoolhouse Gap trail

Swainson's Warbler, *Limnithlypis swainsonii*, 1 beautifully along Schoolhouse Gap Trail; scarce

Ovenbird, *Seiurus aurocapillus*, seen in several areas including Rich Mt at lunch; heard. daily

Louisiana Waterthrush, *Seiurus motacilla*, Parson's Creek; hd and seen in other areas

Common Yellowthroat, *Geothlypis trichas*, Kyker Bottoms

Hooded Warbler, *Wilsonia citrina*, Sharp's Ridge (excellent study); parkway (common); Rich Mt.; Schoolhouse Gap

Canada Warbler, *Wilsonia canadensis*, 1 briefly at Kyker Bottoms (seen by Chris Merkord and a few people)

Scarlet Tanager, *Piranga olivacea*, Rich Mt Road (3 males); Schoolhouse Gap (male and female)

Eastern Towhee, *Pipilo erythrophthalmus*, almost all areas; commonest at high els on parkway

Chipping Sparrow, *Spizella passerina*, all areas; many in Cade's Cove; elsewhere almost daily

Field Sparrow, *Spizella pusilla*, Seven Islands; Kyker Bottoms

Savanna Sparrow, *Passerculus sandwichensis*, 1 at Clingman's Dome parking lot

Song Sparrow, *Melospiza melodia*, daily ; singing around hotel at 0500 hours or earlier

Swamp Sparrow, *Melospiza Georgiana*, only hd at Kyker Bottoms (where common)

White-crowned Sparrow, *Zonotrichia leucophrys*, several at Kyker Bottoms (late migrant)

White-throated Sparrow, *Zonotrichia albicollis*, Kyker Bottoms; parkway near Waynesville (2 imms and an adult)

Dark-eyed Junco, *Junco hyemalis carolinensis*, High els. (white-billed form); Newfound Gap etc

Northern Cardinal, *Cardinalis cardinalis*, settled areas
Rose-breasted Grosbeak, *Pheucticus ludovicianus*, parkway a short distance
above Waynesville (beautiful study) &
Indigo Bunting, *Passerina cyanea*, Kyker Bottoms; 2+ along parkway
Red-winged Blackbird, *Agelaius phoeniceus*, Kyker Bottoms; Little River
Eastern Meadowlark, *Sturnella magna*, Cade's Cove
Common Grackle, *Quiscalus quiscula*, settled areas
Brown-headed Cowbird, *Molothrus ater*, several areas including along Waynesville
entrance to parkway
House Finch, *Carpodacus mexicanus*, at hotel in Townsend (where common)
Pine Siskin, *Carduelis pinus*, pair and group of 4 along parkway near Waynesville
American Goldfinch, *Carduelis tristis*, Sharp's; Seven Islands; Cade's Cove;
Townsend etc
House Sparrow, *Passer domesticus*, around hotel in Townsend

MAMMALS

Woodchuck, *Marmota monax*, 1 by roadside yard at edge of Waynesville
Eastern Chipmunk, *Tamias striatus*, one on Schoolhouse Gap trail (seen by Chris
and a few people)
Gray Squirrel, *Sciurus carolinensis*, widespread at lower els
Fox Squirrel, *Sciurus niger*, several large ones at upper ends of Cade's Cove
(information center)
Red Squirrel, *Tamiasciurus hudsonicus*, Cove Hardwoods trail; Newfound Gap
White-tailed Deer, *Odocoileus virginianus*, many at Cade's Cove
Black Bear, *Ursus americanus*, Chris found bear scat (poop) along Rich Mt. Road;
the closest we came to a bear this year (resembles a flat cow flop to some
extent)

REPTILES AND AMPHIBIANS (found by Chris Merkord)

Imitator Salamander, *Desmognathus imitator*, (this one looks imitates pattern
of Red-cheeked Salamander which has poisonous skin); found along Appalachian
Trail
Black-bellied Salamander, *Desmognathus quadragmaculatus*, 1 large specimen found
on Cove Road (near Cherokee Reservation)
Pygmy Salamander, *Desmognathus wrighti*, Parson's Creek
Blue-ridged Two-lined Salamander, *Eurycea wilderae*, Parson's Creek and parkway
Red-cheeked (Jordan's) Salamander, *Plethodon jordani*, Cove Hardwood's trail
Northern Slimy Salamander, *Plethodon glutinosus*, Schoolhouse Gap trail
Black-bellied Salamander, *Desmognathus quadramaculatus*,
Southern Red-backed Salamander, *Plethodon serratus*, Rich Mountain road
Unidentified salamanders (2 different spp)

Spring Pepper, *Hyla crucifer*, hd at BBA dinner along Little River
Ring-necked (Black-headed) Snake, parkway (5100 ft); Schoolhouse Gap trail
Corn Snake, parkway at 5100 ft.

LIST OF TREES, SHRUBS AND VINES

[The following list is an approximation of what we saw]

Pine Family, Pinaceae,

Fraser Fir, *Abies fraseri*, Clingman's dome (most were dead)
Red Spruce, *Picea rubens*, Clingman's road (Appalachian trail etc)
Eastern Hemlock, *Tsuga canadensis*, widespread at lower els. (many with adelgid
infections)
White Pine, *Pinus strobes*, probably commonest pine at lower els.
Virginia (scrub) Pine, *Pinus virginiana*, common around Cade's Cove and Rich Mt.;
this pine has shorter needles than the Short-leaf Pine and cones are persistent
on trees

Cedar Family, Cupressaceae,

Eastern Red Cedar, *Juniperus virginiana*, widespread mostly outside park

Grass Family, Poaceae,

Switch (Giant) Cane, *Arundinaria gigantea*, Kykler Bottoms (lots of it)

Lily Family, Liliaceae,

greenbrier spp., *Smilax* spp., we saw more than one species of greenbrier

Yam Family, Dioscoreaceae,

Wild Yam, *Dioscorea villosa*, last p.m. on Chestnut Tops trail and elsewhere

Walnut Family, Juglandaceae,

Shagbark Hickory, *Carya ovata*, Rich Mt

Mockernut Hickory, *Carya alba*, (remember the pungent smell of the crushed leaves); Chestnut tops trail

Birch or Hazel Family, Betulaceae,

River Birch, *Betula nigra*, Parson's Creek

Birch sp, *Betula* (prob. *lenta*), Newfound Gap and elsewhere; none with leaves yet

American Hornbeam (also known as Musclewood), *Carpinus caroliniana*, Chestnut tops etc; Metcalf bottoms etc.

Allspice Family, Calycanthaceae

Sweet Shrub, *Calycanthus floridus* (well, we had a considerable discussion about the merits of the flowers of this interesting shrub; no denying the fragrance; Parson's trail)

Beech Family, Fagaceae,

American Beech, *Fagus grandifolia*, widespread at lower els. (almost none with leaves)

Common Alder, *Alnus serrulata*, probably seen somewhere

American Chestnut, *Castanea dentata*, only the stump; no foliage; only a stump and bare sapling

Southern Red Oak, *Quercus falcata*, Sharp's ridge and maybe elsewhere; leaves small

Post Oak, *Quercus stellata*, somebody handed me a leaf; we didn't see the tree

Other oaks, *Quercus*, none had leaves open enough to be sure what they were

Magnolia Family, Magnoliaceae,

Yellow-Poplar, *Liriodendron tulipifera*, fresh leaves last 2 days; one tree starting to flower

Fraser Magnolia, *Magnolia acuminata*, only magnolia with leaves or flowers

Saxifrage Family, Saxifragaceae,

Wild Hydrangea, *Hydrangea arborescens*, widespread

Witch Hazel Family, Hamamelidaceae ,

Common Witch Hazel, *Hamamelis virginiana*, Parson's creek trail

Sweetgum, *Liquidambar styraciflua*, leaves on trees last few days of trip

Plane Tree Family, Platanaceae,

Sycamore, *Platanus occidentalis*, Little River

Rose Family, Rosaceae,

Serviceberry (Smooth Shadbush), *Amelanchier laevis*, Starting to lower along parkway; frost damaged this year

Black Cherry, *Prunus serotina*, a couple places including Kyker Bottoms

Blackberry, *Rubus alumnus* or sp., Kyker bottoms etc
Northern Dewberry, *Rubus flagellaris* (or sp?), Kyker bottoms
Spiraea, *Spiraea prunifolia*, in a few yards (not in flower)

Pea Family, Leguminosidae,

Honey Locust, *Gleditsia triacanthos*, on Cade's Cove loop drive

Cashew Family, Anacardiaceae,

Smooth Sumac, *Rhus glabra*, Sharp's Ridge etc
Poison Ivy, *Toxicodendron radicans*, Many areas including Rich Mt.

Holly Family, Aquifoliaceae,

American Holly, *Ilex opaca*, Cade's Cove etc; widespread

Bittersweet Family, Celastraceae,

Strawberry Bush, *Euonymus americanus*, seen in several places including Schoolhouse Gap

Maple Family, Aceraceae,

Silver Maple, *Acer saccharinum*, in Townsend
Sugar Maple, *Acer saccharum*, widespread at lower els
Red Maple, *Acer rubrum* var. *rubrum*, all lower els.
Striped Maple, *Acer pensylvanicum*, a few places; Parson's Creek etc

Buckeye Family, Hippocastanaceae,

Yellow Buckeye, *Aesculus flava*, Cove Hardwood's trail; Chestnut tops trail

Grape Family, Vitaceae,

Virginia Creeper, *Parthenocissus quinquefolia*, widespread
Grape spp, *Vitis aestivalis*/ or spp.??, We saw many vines; none with leaves or flowers

Ginseng Family, Araliaceae,

Hercules' Club (Devil's Walking Stick!), *Aralia spinosa*, rich Mountain, Chestnut tops, etc

Dogwood Family, Cornaceae,

Flowering Dogwood, *Cornus florida*, A few still with damaged flowers; i.e. around Chestnut Tops trail etc

Elm Family, Ulmaceae

Winged Elm, *Ulmus alata*, a few at Kyker Bottoms
Common Hackberry, *Celtis occidentalis*, Sharp's Ridge etc

Heath Family, Ericaceae,

Trailing Arbutus, *Epigaea repens*, Parkway (F)
Mountain Laurel, *Kalmia latifolia*, many areas (none in flower)
Dog-hobble, *Leucothoe fontanesiana*, many areas (flowers frost damaged)
Catawba Rhododendron, *Rhododendron catawbiense*, smaller leaves; upper elevations (not in flower)
Rosebay Rhododendron, *Rhododendron minus*, Large leaves; lower elevations (not in flower)
Pink Azalea, *Rhododendron prinophyllum*, a few small ones along Foothills parkway the first p.m.; unfortunately never seen anywhere else
Flame Azalea, *Rhododendron calendulaceum*, one or two along Foothills parkway (bright orange flowers); again, we didn't stop and, unfortunately, never saw this species again

Storax Family, Styracaceae,

Silverbell Tree, *Halesia tetraptera*, many with flowers this year; Chestnut tops trail Metcal f bottoms etc

Tupelo Family, Nyssaceae

Black gum, *Nyssa sylvatica*, looked at one tree with rough bark of this species (Rich Mt. Picnic area)

Ash Family, Oleaceae,

White Ash, *Fraxinus americana*, a few areas

Figwort Family, Scrophulariaceae,

Empress Tree; Paulownia, *Paulownia tomentosa*, a few along roadsides, Gatlinburg etc; flowering

Cross-Vine, *Bignonia capreolata*, one at the Little River BBQ last evening

Honeysuckle Family, Caprifoliaceae,

Japanese Honeysuckle, *Lonicera japonica*, many on Sharp's Ridge etc

Rusty Black Hawk, *Viburnum rufidulum*, one or two somewhere

Willow Family, Salicaceae

Black Willow, *Salix nigra*, Kyker Bottoms

LIST OF HERBACEOUS PLANTS: another list which shows most of what was seen but with so much going on I have undoubtedly missed a few species

NIF = Not in flower

F = Flowering

Aster (Sunflower) Family, Asteraceae

Plantain-leaf Pussy's Toes, *Antennaria plantaginifolia*, roadsides in several areas

Robin's-plantain, *Erigeron pulchellus*, Roadsides common in park (F)

Golden Ragwort, *Senecio aureus*, widespread along roadsides (F)

Common Dandelion, *Taraxacum officinale*, Settled areas

Yarrow, *Achillea millefolium*, small along roadsides in several places; no flowers

Thistle sp, probably *Cirsium* sp. several areas (not in flower)

Lion's foot, *Prenanthes* sp. the odd multi-shaped leaves we saw at Cove hardwoods and elsewhere

Wingstem, *Verbesina* spp. a few small plants (none anywhere near flowering)

Arum Family, Araceae

Jack-in-the-Pulpit, *Arisaema triphyllum* (*atrorubens*), Chestnut tops trail

Barberry Family, Berberidaceae

Blue Cohosh, *Caulophyllum thalictroides*, Cove Hardwoods

Umbrella Leaf, *Diphylleia cymosa*, seen only above ca. 5000 ft el at the beginning of the Balsum Mt. Road (which is close a bit further beyond where we went); first time I've seen his plant

May-apple, *Podophyllum peltatum*, Widespread (F)

Bean Family, Fabaceae

White Sweet-Clover, *Melilotus albus* (or sp.), Roadsides

Yellow Hop Clover, *Trifolium aureum*, Roadsides and lawn near hotel

Wood Vetch or Carolina Vetch, *Vicia caroliniana*, Rich Mts. etc. (F)

Birchwort Family, Aristolochiaceae

Little Brown Jugs, *Hexastylis arifolia*, Parson's Creek etc.

Wild Ginger, *Asarum canadense*, apparently only seen along Cove Hardwood's trail

Broomrape Family, Orobanchaceae

Squawroot, *Conopholia americana*, several areas including Big Cove Road
One-flowered Cancer-root, *Orobanche uniflora*, Chestnut tops (one plant found the last p.m.)

Buttercup Family, Ranunculaceae

White Baneberry; Doll's Eyes, *Actaea pachypoda*, rich Mt., Cove Hardwood etc; none in flower

Sharp-lobed Hepatica, *Hepatica nobilis*, Cove Hardwood; Rich Mountain, etc
Wood Anemone, *Anemone quinquefolia*, several areas including Big Cove Road
Black Cohosh, *Cimicifuga racemosa*, Parson's Creek (not in flower)
Virgin's Bower, *Clematis virginiana*, Chestnut tops trail etc. (new vine for list)

Hispid Buttercup, *Ranunculus hispidus*, Widespread (F)

Hooked Buttercup, *Ranunculus recurvatus*, Everywhere (F)

Early Meadow Rue, *Thalictrum dioicum*, Rich Mt. Road (F)

Rue Anemone, *Thalictrum thalictroides*, Rich Mt. And other areas (F)

Dwarf Larkspur, *Delphinium tricorne*, Rich mountain (near a house; escaped ?)

Diapensia Family, Diapensiaceae

Galax, *Galax urceolata*, many areas (flowering at Chestnut tops last p.m.)

Figworts or Snapdragons, Scrophulariaceae

Wood Betony, *Pedicularis canadensis*, Parson's Creek; Big Cove Rd etc
Common Mullein, *Verbascum thapsus*, Sharp's Ridge and other roadsides (not in flower)

Common Speedwell, *Veronica officinalis*, parking lot in front of Chestnut tops trail; tiny flowers

Bird's eye Speedwell, *Veronica perscia*, Seven Islands (F)

Forget-me-not Family, Boraginaceae

Wild Comfrey, *Cynoglossum virginianum*, Rich Mountain Road (none flowering)
Virginia Bluebells, *Mertensia virginica*, Cade's Cove

Fumitory Family, Fumariaceae

Squirrel Corn, *Dicentra canadensis*, Balsam Mt. Road (F)

Geranium Family, Geraniaceae

Carolina Cranesbill, *Geranium carolinanum*, Sharp's Ridge; roadsides (F)

Wild Geranium, *G. maculatum*, Sharp's Ridge; roadsides

Ginseng Family, Araliaceae

English Ivy, *Hedera helix*, covering many trees on Sharp's ridge

Dwarf Ginseng, *Panax trifolius*, Cove Hardwood trail (1 or 2 plants flowering)

Grass Family, Poaceae

Virginia Broomsedge, *Andropogon virginicus*, Cade's Cove; Kyker Bottoms

Heath Family, Ericaceae,

Trailing Arbutus, *Epigaea repens*, Parkway at ca. 3000 ft. (F)

Iris Family, Iridaceae

Dwarf Crested Iris, *Iris cristata*, Many places (F)

Jewel-Weed Family, Balsaminaceae

Orange Jewelweed, *Impatiens capensis* some tiny plants just up; Rich Mountain; Big Cove Road

Lily Family, Liliaceae,

Speckled Wood Lily, *Clintonia umbellulata*, Parson's Creek; Big Cove Road (not flowering)
Yellow Mandarin, *Disporum lanuginosum*, Rich Mountain; Cove Hardwood (F)
Yellow Trout-lily, *Erythronium umbilicatum*, a few places a higher elevations
Yellow Star Grass, *Hypoxis hirsute*, Schoolhouse Gap trail (flowering)
Lily species, probably *Lilium sp.* at 5000 ft el on Balsam Mt. Road; very young plants
False Solomon's Seal, *Smilacina racemosa*, many lower els.
False Hellebore, *Smilacina racemosa*, one wet area on Balsam Mt. Road (ca. 5000 ft el)
Daffodil, *Narcissus pseudonarcissus*, roadsides (escaped); flowering
Great Solomon's Seal, *Polygonatum biflorum*, many lower els.
Catesby's Trillium, *Trillium cuneatum*, Schoolhouse Gap (Flowering)
Wake Robin (or Red Trillium), *Trillium erectum*, several areas including Big Cove Road (flowering and smelly!; also comes with white flowers as well and they also smell bad)
Large flowering (White) Trillium, *Trillium grandiflorum*, many areas especially Cove Hardwoods
Sweet White Trillium, *Trillium simile*, also many areas, especially Cove hardwoods
Yellow Trillium, *Trillium luteum*, widespread and flowering
Large-flowered Bellwort, *Uvularia grandiflora*, Rich Mt. (main here I think)
Perfoliate Bellwort, *Uvularia perfoliata*, a few along Schoolhouse Gap trail
Sessile-flowered Bellwort, *Uvularia sessilifolia*, numerous areas

Madder Family, Rubiaceae

Rough Bedstraw, *Galium spp*; roadsides in many areas
Thyme-leaved Bluets, *Houstonia serpyllifolia*, Parson's Creek; Newfound Gap (F)
Bluet sp., *Houstonia sp.*, lawns at Cade's Cove and Sugarland etc.
Partridge-berry, *Mitchella repens*, almost all areas (red berries)

Milkweed Family, Asclepiadaceae

Four-leaved Milkweed, *Asclepias quadrifolia*, Chestnut-tops trail (not yet in flower)

Mint Family, Lamiaceae

Woodmint, *Blephilia hirsuta*, a couple plants seen late p.m. last afternoon (mostly by SH) on our return down Chestnut tops trail; not in flower
Purple Dead Nettle, *Lamium purpureum*, Sharp's Ridge (in flower)
Henbit, *Lamium amphexicaule*, lawns and roadsides
Carpet Bugel, *Ajuga reptans*, common around parking lot at Metcalf Bottoms
Lyre-leaved Sage, *Salvia lyrata*, Schoolhouse Gap trail (1-2 small ones)

Mustard Family, Brassicaceae

Smooth Rock Cress, *Arabis laevigata*, many areas (already flowered)
Winter Cress or Yellow Rocket, *Barbarea vulgaris*, roadsides including Metcalf Bottoms in park (F)
Broadleaf Toothwort, *Dentaria diphylla*, one of the commoner toothworts (leaves have a thin stripe in middle)
Cut-leaved Toothwort, *Dentaria laciniata*, deeply cut leaves into three parts (fairly common also)
Slender Toothwort, *Dentaria heterophylla*, very slender leaves; we saw a few of these as well but they may have been mis-identified by me at time as *D. laciniata*; reviewing photos and information in books I am certain that we saw all three species of toothworts
Shepard's Purse, *Capsella bursa-pastoris*, some of this at Kyker Bottom's in the flat panlike area we walked across at end of walk

Nettle Family, Urticaceae

Wood-Nettle, *Laportea canadensis*, this was eventually seen in one place (Parson's Creek I think); several times we thought we had this and it turned out to be something else

Orchid Family, Orchidaceae

Pink Lady's Slipper, *Cypripedium acaule*, Parson's Creek (not flowering); Schoolhouse Gap trail (several flowering)
Showy Orchis, *Galearis spectabilis*, Commonest at Parson's Creek; frost damaged
Downy Rattlesnake-Plantain, *Goodyera pubescens*, many areas (leaves only); several on Schoolhouse Gap trail side trail
Large Yellow Lady's Slipper, *Cypripedium pubescens*, White Oak Sink (two groups; sort of a circus there, unfortunately, with wa-a-a-y to many people; the only time on the trip that this happened)
Adam and Eve Orchid (Puttyroot), *Aplectrum hyemale*, Rich Mountain Road (right on roadside; several plants, none in flower)

Parsley Family, Apiaceae (Umbelliferaceae)

Sweet Cicely, *Osmorhiza claytonii*, Chestnut Tops; widespread (F)
Smooth Meadow Parsnip (umbels of tiny yellow flower), *Thaspium trifolium flavum*, Chestnut tops; Rich Mt. etc; widespread (F)
Smooth Meadow Parsnip (umbels of tiny red flowers), *T. trifolium trifolium*, Big Cove Rd.
Hairy-joint Meadow Parsnip, *Thaspium barbinole*, Cove Hardwoods; Chestnut tops trail (not as common as the previous sp)
Yellow Pimpernel, *Taenidia integerrima*, only seen on Rich Mt Rd (last p.m.)

Pink (Carnation) Family, Caryophyllaceae

Fire Pink, *Silene virginica*, Chestnut Tops; Rich Mt. (F)
Great Chickweed, *Stellaria pubera*, Chestnut Tops etc; widespread (F)
Common Chickweed, *Stellaria corei*, (or *Stellaria sp*), like previous species but decidedly smaller; a called it a stitchwort at the time but believe it may be this species or something else similar

Phlox Family, Polemoniaceae

Blue Phlox (Sweet William), *Phlox stolonifera/divaricata*, Widespread (F)

Plantain Family, Plantaginaceae

plantain spp. (at least 4 spp), *Plantago spp.*, Roadsides (NIF)

Poppy Family, Papaveraceae

Bloodroot, *Sanguinaria canadensis*, many areas ; yes, and even in flower

Purslane Family, Portulacaceae,

Spring-beauty, *Claytonia caroliniana*, Clingman's Dome Rd (carpets along roadsides); Balsam Mt. Road (many in flower); mostly at high elevation
Narrow-leaf Spring Beauty, *Claytonia virginica*, only seen behind visitor's center in Cade's Cove (thin straplike leaves)

Rose Family, Rosacea,

Wild Strawberry, *Fragaria virginiana*, Balsam Mt. Road (F)
Common Cinquefoil, *Potentilla simplex*, widespread (F)

Saxifrage Family, Saxifragaceae

Alumroot, *Heuchera americana/villosa*, Chestnut Tops and many other areas; flowering on Chestnut tops last day
Wild Hydrangea, *Hydrangea arborescens*, widespread in lower els (NIF)
Miterwort (Bishop's Cap), *Mitella diphylla*, Chestnut Tops

Brook Lettuce, *S. micranthidifolia* , Cove Hardwood ; Big Dove Road; Parson's Creek
Carey's Saxifrage, *S. careyana*, Chestnut Tops (Flowering)
Foamflower, *Tiarella cordifolia*, many areas ; flowering with great displays

Sedge Family

Plantain-leaf Sedge, *Carex plantaginea*, Chestnut Tops; Parson's Creek (F)

Smartweed Family, Polygonaceae,

Lady's Thumb, *Polygonum persicaria* (dark reddishV on leaf), Chestnut Tops (NIF)
Curled Dock, *Rumex crispus*, widespread (NIF)

Stonecrop Family, Crassulaceae

Wild Stonecrop, *Sedum ternatum*, widespread (F)

Valerian Family, Valerianaceae

Beaked Corn Salad, *Valerianella radiata*, common at Kyker Bottom

Violet Family, Violaceae

Sweet White Violet, *Viola blanda* , Cade's Cove (Stemless; white flowers; several areas)
Canadian Violet, *Viola canadensis* , widespread (white flowers and leaves on stem)
Halbert-leaved Violet, *Viola hastate*, parkway etc (yellow flowers)
Beaked (Long-spurred) Violet, *Viola rostrata* , Chestnut Tops; Schoolhouse gap etc.
Bird-s Foot Violet, *Viola pedata*, Rich Mountain (pale blue flowers) leaf like a, well, "bird's foot"
Common Blue Violet, *Viola sororia* or *papilionacea*, widespread; common in lawns etc
"Confederate " Violet, *Viola sororia* var. *priceana*, Roadside pullout below Newfound gap; whitish with "blue eyes"
Smooth Yellow Violet, *Viola pubescens*, Cove Hardwoods (a few in flower)

Waterleaf Family, Hydrophyllaceae

Purple Phacelia, *Phacelia bepinatifida*, Chestnut Tops (F)
Fringed Phacelia, *Phacelia fimbriata* , Cove Hardwood and Newfound Gap etc (F)

Wood Sorrel Family, Oxalidaceae

Yellow Wood-sorrel, *Oxalis dilleni*, several areas (NIF)

Wintergreen Family, Pyrolaceae

Spotted Wintergreen or Pipsissewa, *Chimaphila maculata*, Schoolhouse Gap etc.

Yam Family, Dioscoreaceae

Wild Yam, *Dioscorea quaternata*, Chestnut tops (NIF)

Ferns

Maidenhair Fern, most shady and humid lower els.
Christmas Fern, inside forest at most lower els.