

## **Trail Log 1980-1989**

### **Holmes Rolston, III**

#### **Summary**

- 1980 Local trails and trips. Backpacking , Indian Peaks, Colorado. Moss collecting with Fred Hermann.
- 1981 Local trails and trips. Eastern Colorado plains. White Mountains, New Hampshire. Mt. Zirkel Wilderness, Colorado. Mt. Evans, Mt. Bierstadt, Guanella Pass, Argentine Pass, Colorado. Mountains of North Georgia.
- 1982 Eagles,Empire and Jackson Reservoirs, Colorado. Cranberry backcountry, West Virginia. Backpacking, Indian Peaks Wilderness, Colorado, Ocala National, Forest, Florida. Moss collections.
- 1983 Eagles, Colorado plains reservoirs. Mount of the Holy Cross, Missouri Lakes, Colorado. Yellowstone National Park. Ptarmigan, Rocky Mountain National Park.
- 1984 Birding, Colorado plains. Ramsey's Draft, George Washington National Forest, Virginia. Backpacking, Mt. Zirkel Wilderness, Colorado. Hiking, North Georgia.
- 1985 Teton Science, School, Grand Tetons National Park. Yellowstone National Park. Shenandoah National Park, Virginia. Joyce-Kilmer/Slickrock Wilderness, North Carolina, Great Smoky Mountains National Park. Algonquin Provincial Park, Ontario. Backpacking, Wind River Range, Wyoming.
- 1986 Eagles, birding, Colorado plains. Nova Scotia, Prince Edward Island, Canada. Backpacking, Popo Agie Wilderness trip Lander, Wyoming, with U.S. Forest Service Wilderness Ranger Education. Backpacking, Holy Cross Wilderness, Colorado. Medicine Bow National Forest, Wyoming.
- 1987 Eagles, birding, Colorado plains. Whooping cranes, San Luis Valley, Monte Vista Wildlife Refuge, Colorado. Colorado Native Plant Society, eastern Colorado. Ozark Mountains, Arkansas. University of Georgia, Athens, seminar and trails and trips surrounding. Tybee Island, Savannah, Georgia.
- Mammals Seminar, James Halfpenny, Rocky Mountain National Park. Backpacking, Lost Lake and Stormy Peaks, Rocky Mountain National Park. World Wilderness Congress. Society of American Foresters Conference, Minneapolis, Minnesota.
- 1988 Sandhill cranes, Kearney, Nebraska. Field botany with Bill Weber, University of Colorado, field camp, Meeker Colorado, White River National Forest. Piceance Basin. Dinosaur National Monument. Backpacking, Rawah Mountains, Colorado. Climb of Long's Peak, August 28. Environmental Ethics Conference, University of Wisconsin,

Stevens Point, Wisconsin. Visit to Aldo Leopold shack with Nina Leopold Bradley.

1989 Montana State University, Bozeman, Symposium on Fee-Based Hunting. Trip to Japan, Kyoto, Zen Buddhism and Environment. Tacoma, Washington, Symposium on Water Quality in Puget Sound and boat trip there.

Greater Yellowstone Coalition Annual Conference, Yellowstone National Park, Wyoming, on the Yellowstone fires, 1988. Snowbird Utah, U.S. Forest Service Conference on benefits of outdoor recreation. Encampment River, Mt. Zirkel Wilderness Colorado -Encampment River Wilderness, Wyoming backpack. Ghost Ranch, New Mexico.

1980

February 23, 1980. Bald eagles at Empire Reservoir area. Left with Giles about 8.00. 21 antelope near roadside about 2/3 of way out. Went to Riverside, then Empire, lunched at Empire. One good adult in the air over Empire. Then up the river, two adults sitting, one watched with scope for half an hour, nice view. Two immatures in the air, total of 5. Several Great Blue Herons. Giles and I walked about a mile along the road.

February 29, 1980. Lunched with F. J. Hermann, bryologist, who has returned to Fort Collins. Met him for first time.

March 8, 1980. Cross Country skied into Wild Basin with Shonny and Giles, their first time on skis, really. Before lunch played around on hillside over lake, and afterward skied up the road into the Ranger Station. The road is blocked off about 1 mile up, and we skied another mile or so in. Nice trail here, lots of people on it, and it was virtually a groomed trail, and easy skiing.

March 15. North of Owl Canyon, Pinyon Grove, into Spring Gulch below Campbell Mountain, with Giles. Warmest day since fall, and the snow has pretty well melted off of the open country. Nice day in arid country, no game. Crossing the canyons can be a problem in here. Several old cars in the flat expanse of the gulch, and Giles and I lunched at one of them.

April 26. Well Gulch, with Giles. Left about 8.45, leisurely stroll up, pleasant day. 15 kinds of wildflowers out, spectacular spring beauties, hundreds of thousands. Hundreds, perhaps a thousand Pasqueflowers. Yellow plains violets, Canada violets, Draba, Mimulus, some Ranuculus, a few shrubs, lower down, not higher up. Walked on past the summit, oppositely to the Arthur's Rock Trail, and ran into two boys hunting turkeys, in an open area, probably the head of Soldier Canyon.

One very nice, immature, golden eagle watched soaring on way up, with a stick in his talons. Returned about 1.30, to get Giles to soccer.

May 3, 1980. Eagle Rock Audubon Sanctuary, Rockport CO (north of Nunn, CO). Field trip, led by Ted Bodner. With Giles, Mildred Johnson and Dottie Russell rode in Scout. Drove to Nunn, and 2 miles short of Rockport, turn east, 4 miles on dirt road, then north 3 miles on 4-wd, or poor sedan track, the last 3 miles across Pawnee Grasslands (owned federally). Locked gate, and no unauthorized access to Eagle Rock Sanctuary, a ranch leased by Audubon Society for \$ 1 per year. Wholly primitive area.

Drove about 2 miles west along sanctuary line, then into Chalk Cliffs area, and parked. Hiked about 2 miles circular route. Prairie falcon, with black armpits, defending an eerie, but not yet nesting. Cliff swallows. White throated swift. (There is also a colony on Goat Hill.) Say's Phoebe. Rock wren. Mountain plover (which-has nothing to do with mountains), an

endangered species in Colorado. Another colony is in North Park. Brewer's blackbird.

Great Horned Owl flushed from nest in Cliffs. Swainson hawk seen on route in, but they nest only in trees, not cliffs, and are not common here, a treeless area. Prairie falcons also have to have holes in cliffs. Owls, eagles, ravens will nest in cliffs or trees. The ferruginous hawk, though buteo-sized is more eagle-like in behavior. Prairie falcon and Great Horned Owl hate each other and attack each other, but are commonly found in same area.

Highlight of trip was Golden Eagle's nest. The female was flushed from the eerie as we arrived, the male flew out from below shortly. Remaining was a week old chick, seen about 20 feet away, looking down over the cliff edge. Nest is built primarily of yucca. Extraordinary sight. The adults flew off out of sight and did not seem disturbed.

Bodner and associate band-eagles in early June (7-10-weeks old) and may get to 12-24 nesting sites, the upper limit (24) about all that are known in n.e. Colorado. They rappel down to them. Usually 2 chicks, sometimes 3, sometimes 1. There is one eagle's nest on the west side of Horsetooth, and another on the east side of Arthur's Rock (which can be made out from the road on the east side of the reservoir).

Horned larks in large numbers, loggerhead shrike. Lark sparrow. 29 antelope, several rabbits. There were bloody, fragments of some animal in the eagle's nest.

Returned through Rockport and Carr, and tried to get to Owl Canyon. But we lost the lead car. Little flora out; this is a late season.

May 20, 1980. Summit view Trail (Sheep Mountain) from Loveland Mountain Park.

Left 8.00 a.m., after many rains the previous week. Follow the jeep road as shown on map, and shortly Summit Ridge Trail divides from Nature Trail, at good sign. Steady climb on good graded trail, after crossing aqueduct. Trail is about as shown on topo (and not as Hagen shows it). Good foothills country, good views, steady climb. Levels out and slabs ridges further up; crossing some very interesting rocks. Pothole pylon rock is in middle of trail and there are some natural cuts, at the largest I found grass fern and Polypody.

Reach broken pipe spring, with good flow, but this has been a wet season. Many streamlets in here at present, one just past the biggest rock cut looks perennial. Shortly cross a creek (perhaps intermittent) which drains n.w. into Cedar Cove. Climb to ridge saddle with many Pasqueflowers. I searched for a trail (shown on some N.F. maps from the saddle down to Saddle Notch Gulch, but found none. But it looks as though you could bushwack, mostly open descent. Steep though, and there is already plenty of climbing on this trail.

Cairned route continues to summit, good cairns, good steady climb. Summit is rounded, half open timber, large cairn and some old signal installations or something of that kind on top. Lunched on top, a little below with good view of Longs, Trail Ridge, and Mummies. Uneventful descent.

Bullock's Oriole, McGillavry's warbler, raven, robins, some sparrows, flora out somewhat but this is a late season. Good rains should bring it out in abundance shortly. Massive display of spring beauty, and good pasqueflowers.

May 28, 1980. Buckhorn Ranger Station to Stove Prairie (Twin Cabin Gulch Meadow). Left Ranger Station about 8.45. Sign at large gravel pile just east of Ranger Station, Stove Prairie,

7 miles. But how far is this? Rigged foot trail, blazed, cuts uphill and over to jeep road coming up across private land (but it is not posted below). Jeep trail seems drawn wrong on topo here, see notes on topo, but it soon picks up right. Continued as noted on map, gradually climbing to small rock lookout at 9,000 ft (in section 2). Then descend, and cross flat area, and begin descent to Twin Cabin Gulch area - but here the trail goes down the unnamed tributary at the bottom of section 1. Reach Twin Cabin Gulch meadow, a nice, broad meadow - which is posted, but mildly. The road shown on the topo, more or less on the line between section 1 and section 12 does exist, and comes in as shown. Walk it out sometime.

Lunched in the meadow, and explored a bit the possibility of a trail down Twin Cabin Gulch to the Buckhorn Road. I had earlier seen that there appears to be a trail below. Looks like you can go through here, but not in high water. Probably not also in hunting season, as the meadow area is private property. Should be possible to spend a good low country day gathering mosses in here. Also walk out the jeep trail shown and go over to Harlan Gulch and Flowers Road. One doe, one elk. Nice day, with handpack - back was taped up for allergy tests.

June 6, 1980. Trail Ridge Road with Mary Frances Forbes & family. Four bighorns at Sheep Lakes in RMNP. Two rams were up the hillside, resting, nice view in scope. Two ewes were down in the meadow, and stayed there half an hour. Two elk later, two deer.

June 12-15. Copeland Lake in camper, with Shonny. Hiked up to Ouzel Falls on Friday, and tried to make it to Sandbeach Lake on Saturday, but turned around at Hunter's Creek, too much snow for Shonny in tennis shoes. The Sandbeach Lake trip is much higher than the Ouzel Falls trip, which passed relatively little snow. Collected a number of mosses, including some in raincoat under the spray of the falls.

Good birding in this area, including the pines and willow thickets of the river, although the area is somewhat uninteresting. Swallows around the lake, nesting in the trees. Warbling vireo especially prominent, pygmy nuthatch. Nice weather. A good many new backpack sites have been put in here, some hardly yet used.

June 21, 1980. Climbed Elliott's Knob, near Staunton, Va., with Mary Jack (Thompson), Jimmie Thompson, and Giles. About 3 miles up, steady climb up a road, used for access to a microwave tower not far below the top, the last few hundred feet is on an older, rougher road to a firetower at the top, no longer used. Lunched at the tower. Good spring about quarter of a mile below, at a pond. This is the highest point in this area.

We pulled into the trailhead area, with Mary Jack drivinng. She pulled forward as though to go up the gated road, then backed up into an open area opposite the gate. Giles famously remarked. "I know what you're going to do. You are backing up so you can go forward and get some speed to bust through the gate." Various chuckles about the philosophy of backing up to bust through, afterward.

June 29-July 2. Bellaire Lake to Bald Mtns to Roaring Fork (Nunn Creek), and return via Swamp Creek Cutoff. Up the trail-road paralleling Elkhorn Creek as before when skiing. The road passes closer to Elkhorn Creek than shown on the topo. At the top the road passes close to the open area that trends s.e. to South Bald Mountain, and I lunched at a 10,670 lesser summit, from which South Bald could easily have been climbed. Trail continues to climb and passes signs indicating North Lone Pine Creek Trail, which I scouted out. Weak cairns at first, but it looks passable. I rebuilt the cairns in the upper part.

Continue over saddle and begin descent. Sign at Kilpecker Creek Trail, but this sign was 100 yards too far up - misleading. The blazed trail - weak blazes, scouted on return - is below. Here I met a party in a Scout, coming up on better lumber roads below. Pass through clearcut area, and afterward the old trail-road is upset by new roads through clearcut areas, which I figured out only on return. The old road descends off the lumber road after the first clearcut and can be walked (which I did on return) with very little evidence of the clearcut; it returns at the edge of it to cross the lumber road and then, descends through meadow. See notes on map. On descent, I walked the lumber road. Cross culvert, and here abandon the lumber road and pick up the old road which goes down the creek, nice walk, and not too far to the Roaring Creek meadow, where I had reached before. Camped here. Too many mosquitoes. Sphagnum moss in the arm of the meadow that goes north.

Returned June 30, lunched at saddle, and then walked down the Swamp Creek cutoff. Route is clearly marked, but there are many blowdowns. This seems anciently to have been a built route in lower parts; many large stones have been moved to make a trail. Below a rock outcrop (see topo) it becomes an old road, but things become confused in lumber roads in old clearcuts, now half regrown. I didn't know where I was, and was expecting more of a creek for Swamp Creek. No creek at all was in evidence where I had thought I might be and might camp (and later proved to be about where I was).

New lumber road descends off this one to the S. Fork Elkhorn and I camped here, in a fair campsite, too many mosquitoes.

July 1 - hiked up and out, back down to Bellaire Lake. Flushed large blue grouse at my feet. Then got in Scout and drove route to figure out where I had been. See notes on map. Good road - sedans and camper - to crossing of swamp creek, where I camped (after scouting on the other roads). Clearcut areas nearby but this is still nice area, excellent birding, wet, aspen, but still there is very little creek showing here, just a trickle across the road. Rain in the night, while listening to stereo music! Some call at dusk, like an owl. or a goatsucker - what is this. I have heard it before. 30 miles hiking here. (Nighthawk in a power dive??)

July 2. Two deer - young bucks in the early morning. Looked around the swamp area down the road. Good access here from the road. Nice area in here.

July 2-3. Flowers Road, Beaver Meadows to Crown Point. Drove Scout on over to Pingree area, stopping here and there. Water snake at Bennett Creek Picnic area. Drove up Jacks Gulch road. For the first half mile-mile of this there are many throw-down campsites, some picnic tables, and on return (prior to July 4) there were many campers & trailers in here. Possible sedans to Bedsprings Spring, but only in dry weather. Continued in Scout up to about the last meadow, and then parked Scout, and continued on foot. Rough 4WD above here. Nice redtail hawk. About three miles on old Flowers Road to Beaver Park - two men on motorbikes here - had been up the Flowers Road above timberline. Camped here; awaked in night by some rodent trying to get in some tuna I was saving for breakfast. Rain after supper.

July 3. 17 miles on foot!. Left at 7.00 am. and did the 7 miles up to Crown Point and contact of the Browns Lake Trail by a little after 10.00. Steady climb up old road, now impassable especially below by 4WD. Upper part is cairned route across timberline area, essentially good cairns, but I got turned around here and there. Three elk. Lovely day. Reached the Browns Lake trail at the old cabin. No trouble with snow at all, but if there were not the south and east sides of the mountain there would be. Returned, lunched above timberline enroute, and back at Beaver Park by 1.45, out at Scout by 3.00 and home.

July 7-11, 1980. Buchanan Pass and Arapaho Pass, from Monarch Lake Trailhead, western side. Left home 5.30 am. Over trail ridge road, 9 elk, 9 marmots. Stillwater Campground seems to be the best of those along Lake Granby. Grand Lake to Loveland is 78 miles. About a four hour drive to Monarch Lake Trailhead. Ranger station here now. Left ranger station about 9.30-10.00 a.m. on Buchanan Pass Trail. Lunched at Hell Canyon crossing, and climbed in afternoon to "Thunderbolt Meadow," lovely area, camped here. No mosquitoes. In the morning climbed to Fox Park, lovely park carpeted with trout lilies and spring beauties. Climbed on to Buchanan Pass, very windy, almost too much wind to stand up. Lunched in the lee of the wind on top. Big snowfield on the east side. Can you cross here easily by this time of year? Returned to the Scout that night at Arapaho Bay Campgrounds.

Later: Climbed Buchanan Pass from east side, July 25-28, 1982.

July 9, 1980. Wednesday, left for Arapaho Pass. Lunched at the first tributary about a mile and a half up the Arapaho Creek canyon, but 3-4 miles from trailhead. Climbed that afternoon to Coyote Park, too many mosquitoes, but lovely park. Wetter than most, and not easy to find dry camp. The trail crosses the Creek twice in a short range; both these bridges were out and crossings a little tricky.

Thursday. Climbed to Caribou Lake and then Arapaho Pass. Mild weather, and went on to Lake Dorothy and a little way on the Caribou Trail, formerly a road, really carved into the side of a mountain here. The easiest access to Arapaho Lake is from Meadow Creek side; you can drive to what is now Meadow Creek Reservoir; not shown on topo, and hike up from there. Later talked to a ranger whom I saw there from a distance; he had hiked in day-hike from Columbine Lake. But where the Caribou Trail crosses snowfields between Lake Dorothy and Caribou Pass was a little tricky, especially if you had a backpack on.

Arapaho Pass is also a fairly easy access from the East side, and many come in from there. Perhaps 2-3 parties a week cross it in season. But rangers were unsure whether either Buchanan Pass or Arapaho Pass were used by horses to any degree anymore.

Lunched back at Caribou Lake, and hiked back to Coyote Park, picked up pack, and returned about halfway. Camped at a massive boulder and massive spruce trees, slept in the protection of the big boulder.

Friday. Hiked out. Lunched at Scout, and drive back over a stormy Trail Ridge Road.

Four snakes on this trip; water snakes? Ruby crowned kinglet, singing, at close range, with red crest. Wilson's warblers, Audubon's warblers. One deer, no elk. There is a good deal of Lycopodium annotinum on the upper part of the Arapaho Pass Trail, also found two stations of Polystichum lonchitis, one, a large clump, between Caribou Lake and Coyote Park, the other, a small clump lower. There is a good deal of Kalmia polifolia, Swamp Laurel, in full bloom, in Coyote Park and in Caribou Lake area. Good deal of Chimaphila umbellata, Pipsissewa, along this trail. Thimble-berry, Rubus parviflorus, is quite spectacular in areas here. Also Mitella stauropetala is frequent.

Pine Grosbeak, male and female above Coyote Park; the male is reddish like a finch; the female is yellow crowned. Nice Swainson's thrush at close range. Songs of hermit thrush and Swainson's are easily separated; the hermit thrush begins with a long introductory note. The Swainson's thrush has a tendency to conclude with an upward climb.

Probably the best two areas to return to here would be Roaring Fork trail, and the Caribou Trail, access from Meadow Creek Reservoir. A large group of rangers were going out to clear trails as I came in. Old ghost town, village, of Monarch is at the junction of the Southside Trail and Arapaho-Creek Trail, would be good for children; also a large old steam boiler on the southside trail.

I have backpacked (and day-hiked out of backpack camps) 100 miles in the last two weeks.

July 25-27. Chambers Lake in camper with Giles. Up Friday a.m. and spent Friday p.m. in the lake area, especially upstream. Hiked to Blue Lake Saturday. The old trail is still good around the lake, including a good steel bridge - over the creek, but soon as it starts uphill it is washed out and supposedly closed, but still not too hard to follow. After a mile and a half meet the new trail, at a trail register in the middle of the junction. Climb good trail to Blue Lake. Met many hiking parties coming in overnight on return; this area is too crowded.

Sunday a.m., walked up to Zimmerman Lake, nice walk. There are trails-roads in the Sawmill Creek area, but there are clearcuts in here which mess it up. Collected Pleurozium schreberi from the Blue Lake trail where it runs on the s.w. shore of Chambers Lake; this is Fred Hermann's location where he found it the second time in Colorado. Townsend's solitaire, pine grosbeak, peewee, but not too many birds.

July 30-31. Talk on Environmental Ethics at Pingree Campus. Went up with Giles Wednesday a.m. and drove the Monument Gulch Road, easy 4WD or even sedan road all the way, especially in the lower part. Might be rough in spots if very wet. There are 3 gates in here, and many private cabins, but it is nowhere blocked or posted, except private plots, and no trouble to pass.

Supper at Pingree Park, and talk that night. Stayed in Tom Wolff's cabin. Thursday am. went out with Dennis Lynch's group, on field trip to judge productivity of a ponderosa pine site. Productivity is found by coring the tree, determining age and height, and competing this (via a graph with other sites in the Rocky Mountain area (and ponderosa terrain generally). Ponderosas are selected for cut on the basis of various factors; the older the tree the lighter its bark; young trees are darker barked. A full rounded crown indicates age, and drooping branches loss of vigor. Various formulas are used to estimate the board feet of timber, or the number of sawlogs (16') in a particular tree.

Aug. 9-11. Camper at Howard Haise cabin. Many hummingbirds. The Lassater's see Calliope hummingbirds several times in the summer and fall. Hummingbirds are mostly gone by Labor day. Cut wood with the chain saw Monday morning.

Aug 16. Diamond Lake with Fred Hermann. Drove Scout to Buchanan Campground, formerly called Fourth of July Campground. About 2 ½ miles on foot. Collected on field identification by Fred Hermann: Drepanocladus exannulatus, Oncophorus wahlenbergii, Pohlia nutans, Dicranum scoparium, Tayloria lingulata, Solenostoma, liverwort species. Paraleucobryum enerve, Fissidens bryoides, Andreaea rupestris, Lescurea atrovirens, Hygrohypnum smithii, Cratoneuron filicinum, Kiaeria starkei, Sphagnum russowii. Also: Parnassia. Graupel storm in afternoon, clearing afterward; too many backpackers in here.

Carex hermannii, a newly described Mexican species, is named for him.

Cladonia is a gray lichen, light gray, with stalked fruiting bodies. Parmelia is a green one, gray

underneath.

Aug 21-24. Arapaho Pass and Caribou, with David and Gray Hampton, and Giles. Left Thursday a.m. for Buchanan Campground (Fourth of July Campground), set up camp, and hiked up to Arapaho Glacier overlook, a little more climb than I thought. The overlook is higher than the pass or Lake Dorothy. Lovely day.

Friday, Aug 22. Hiked to Arapaho Pass and then to Lake Dorothy (lunch) and on over to Caribou Pass. This trail across the face of the mountain was once a road and is no trouble at all when clear of snow, though the trail is washed out in some steeper places and a false step could get you into trouble. Lovely day again. Previous night was cold, with some frost in the a.m.

Saturday. Drove back to Nederland, looking in at the Hesse townsite, where a few cabins remain, restored. Lots of people hiking out of here; must be some really good country upland from here. Devil's Thumb Pass trail and several cirque lakes on the S. Fork of the Middle Boulder Creek.

Drove to Caribou, good dirt road, often posted before Caribou, but at Caribou and beyond nothing was posted. Sedan road to Caribou, an old townsite high on a saddle. Looked around an old cemetery and several mine sites here; most of the stones had been stolen. Proceeded on good 4wd, even rough sedan road to camp on Caribou Creek, generally east of Pomeroy Mountain.

Sunday a.m. Onward on rough 4wd mile or so, and crossed Caribou Creek where it joins the creek from Rainbow Lakes in rough stream crossing, but a good adventure. (slide of this crossing). Four motorcyclists followed, much to Giles delight. Good road beyond here, campers had been brought down into the flats n.e. of Caribou Creek in here. Lunched at Rainbow Lakes campground, after a short look around at the lakes. Drove home. But, alas, had to return to get my daypack which had been left out of the packing by David at Rainbow Lakes Campground. Steady drive back to beat the dark, and immediate return to Fort Collins.

Aug 31, 1980. Platte River Bottom, at Empire Reservoir area. Returning from Akron and preaching, walked down road. The area where the eagles are in winter. Interesting in summer growth, many cattails, road sprinkled with grasshoppers. Some different flora in here - look at it when you have more time. Red headed woodpecker. Shonny brought in a small frog, which she named Herman, and to which she gave much attention.

Sept. 25, 1980. Cirque Meadows, with Fred Hermann. Good aspen in upper reaches, but aspen is late this year. Collected Calliergon giganteum first Colorado record. Also much Pohlia bulbifera right in the lower Cirque Meadows area, on the embankments above the stream courses. Also Drepanocladus revolvens.

Oct. 3-5. Family in camper at Mountain Park Campground. Saturday hiked up Roaring Fork a ways in lovely aspen.

Oct. 30, Thursday. Miller Fork with Fred Hermann. Fair day, but snow on the northeast side, the descent, from Bulwark Ridge to Miller Fork.

Nov. 28, 1980. Arthur's Rock with Cub Scouts. Jim McCambridge, Larry Donner, & 6 Cubs, including Giles. Nice day.



Crossing Caribou Creek  
August 24, 1980

Dec. 27, 1980. Butte Royal Tunnel, with Giles. Went up Dale Creek to within view of Overland Trail Stage Station, but there is someone living in a trailer house nearby. On to Butte Royal area. Parked Scout, cut over a hill and into Fish Creek drainage, went up the creek to the tunnel. Built in 1910 by Denver, Laramie, and Northwestern RR, but they never got the tracks past Greeley. Hoped to make Laramie and through Wyoming to Seattle. See Triangle Review, May 9, 1979. Returned by a higher route which parallels the Highway 287. Then drove round and into a road that mountain real estate developers have put into the area. You can drive without posted signs to within a few feet of the tunnel. But this real estate road had a down chain across it; it might sometimes be chain locked. 19 deer in several groups. 22 antelope. A few hawks.

Very warm, 65 degrees! This has been a mild winter and some record breaking warm days.

1981

January 3, 1981. Twin Cabin Gulch and High Park, with Shonny and Giles. Left about 10.30 from parking area at cattle gate. Fair-to-good trail up the gulch (also a sign here Ellen's Gulch), but could be wet in higher water. Reached the meadow where I was before (hiking in from west and Buckhorn Ranger Station). On up on private land to High Park, where we lunched in a teepee, canvass gone, but rug and big wood stove and many tools, pots, pans, etc. On up over saddle--there is weak to poor trail over the high point here, old roads below, to Harlan Gulch, reaching a house, uninhabited in winter, but looks like it might be inhabited throughout summer.

January 10, 1981. Jug Gulch with Giles. As before, but the water was way down, and no problem crossing the stream, tho I wore my pack boots. Mild, dry winter. Trail/road is o.k. for a while but in upper reaches peters out (where we lunched) in a maze of downed beetle-killed pines. One golden eagle seen at very close range, flew off from a perch nearby and flew by us not 30 yards away. One deer.

February 23, 1981. 27 Bald eagles at Riverside, Empire, Jackson Reservoirs. Single adult on a rock point, in the middle of Riverside, then several others here and there enroute to Empire. Lunched at the lookout at Empire down at the water's edge with 6-8 variously perched or in the air. Sunny day and warm. The water fills this inlet for the first time in several years.

After lunch drove up the cottonwood river bottom to Orchard, with several adults very close (for eagles), and nice views in scope. Went on to Jackson Reservoir. The State Recreation area is divided in half by a Jackson Lake Marina, private, rather much of a trailer park, with some of these inhabited year round. Talked to a ranger. Camping is available year round, water only Memorial Day to Labor Day. Ranger lives on premises. North of campground saw two adults perched, and two immatures in the air.

Also: several rough-legged hawks, and miscellaneous others. Nice V of half a dozen snow geese over the Empire Reservoir after lunch. With Giles. As good a day at this as I have had. About half the eagles were adults, about half immature, about half seen perched, about half in the air.

April 18, 1981. Hike up Horsetooth, prior to April 28 election toward purchasing Soderberg Ranch by Larimer County. Dirt road rises from Inlet Bay to a parking lot of sorts, and good foot trail into Spring Canyon Falls, good falls with small volume of water but high spray. On up Spring Canyon and after the meadow mostly picking your way upwards. At the base of the rock, find a slope in the rock angling back south, and make your way up from here (east side). I had previously been up west side. About 25 persons involved. Led by Tony Baltic, also along Steve O'Kane, doing master's in plant taxonomy. About 15 wildflower species out, 1 golden eagle. With Giles, first hike with his new (birthday) red pack.

April 28. Horsetooth Mountain election won, 52% to 48% approximately, voters about 10 to 4 in Ft. Collins for, but 4 to 1 in Loveland against, 2 to 1 against in Estes Park.

May 2, 1981. Solo up Greycliff Meadow and circuit around and back down the main trail. Fair flora out, but early and dry. One nice blue grouse close up. The trail is good and steep, rises higher than the meadow and then drops down into it from the west side.

May 28, 1981. Lower Buckhorn with Fred Hermann and Giles. Stopped about 2 ½ m. north of Masonville, looking for Gymnostomum and Moelendoa, the latter found here very disjunct, but the latter not found. Birds noisy here. One good rattlesnake crossed the route we were traveling behind me, and before Giles and Fred Hermann. I heard the noise and suspected it.

Continued to mouth of Sheep Creek. Found Anomodon attenuatus in here twice, not common in Colorado, common in East. Lunched, and afterwards went up Twin Cabin Gulch a ways. Afterwards, I went up Lakey Canyon several hundred yards; there was an old road in here. Queer posted sign, from a West Virginia Bird Club at mouth, but this seems NF land. Try this one sometime. Oriole, bluebirds, bunting, presumable lazuli? Hermann tells Hypnum by the lack of a costa even with field lens. Later: Hermann keyed Dicranum flagellare, new to Colorado, collected today.

May 29, 1981. Tamarack Ranch (Galesburg) Wildlife area, and preached at Akron. Left Friday a.m. with Giles, rained hard on way out. Went off Interstate 76 into Proctor, heard bobwhite here first time in Colorado (where the S. Platte is crossed south of Proctor). Went on to Crook and back south across the River to Check Station, drove on dirt road to "Headquarters," a former ranch house for Tamarack Ranch. Camped at Check Station, open area, camping permitted here. The access is all from the south, by areas (1-11 east of Crook, 1-24 west of Crook), and good-to-fair dirt roads give access.

Some late evening birding Friday, weather now good. Coyotes heard evening, in the night, and again very noisy in early morning. Slept in Scout on new rig of plywood boards. Up early a.m. for birding along the river bottom, and returned again after breakfast. Several rabbits.

Seen: mallards, kestrel, bobwhite (heard often), ring-necked pheasant, great blue heron (8-10), avocet, killdeer, sanderling, Wilson's phalarope (a dozen busy in the water's edge of shallow pool at Crook--in some sort of courtship display??), rock dove, mourning dove (many), nighthawk, red-shafted flicker, redheaded woodpecker (25 or so, really spectacular numbers), downy woodpecker, eastern kingbird (hundreds), western kingbird, horned lark, barn swallow, blue jay (many), magpie, black capped chickadee, house wren (large numbers), singing all day long, brown thrasher (many), robin, cedar waxwing, starling, Bell's vireo (small, but clearly so, a mid-western bird), warbling vireo, yellow warbler, yellowthroat, yellow-breasted chat (very noisy), house sparrow, western meadowlark, red-winged blackbird, orchard oriole (several), Baltimore oriole (several), blue grosbeak, rufous-sided towhee, lark bunting. Forty species.

Drove south to Akron, found an Ornate Box Turtle in center of road, captured for Giles. I did not know that these were in Colorado, but they are out here, and come out after rains. Several jackrabbits. Rather few hawks seen on this trip. Saturday night in Akron, at home of John McCandless. Returned Sunday p.m. There is a free campground at Brush, also a KOA in Ft. Morgan area. The campground we stayed in at the Check Station is within site of I-76, and could easily be used from there.

June 5-7, 81. Family in camper at Moraine Park. Site no. 39. Drove up Friday a.m. and shopped

in Estes Friday p.m. Hiked to Pool Saturday over midday, and I went up Cub Lake trail a ways alone in later p.m. Nothing Sunday morning. Screech owl both nights. Mother mallard with 8 ducklings in line after her. Chipping sparrow, Audubon's warbler, violet-green swallow, tree swallow, wren, 9 deer, two in velvet, 2 elk in Beaver Park in late evening. I watched a chipmunk carry her young one. She came out of hole, looked around, returned pulling him out tail first, and then carried him 100 feet, and returned by a different route, but seemed to know where she was going and how to get back very clearly. Coyotes in the night.

June 15, 81. Crystal Mountain Road, Sheep Creek to Donner Pass. Left late as I had not been feeling well. Drive to the top of the hill on Crystal Mountain Road, where there is a 3-4 way fork, and several posted signs. Took a false start on the left hand road, and had to switch back across the meadow (middle of section 25), and return to the main road (private, but open) south to Sheep Creek. Then hiked up Sheep Creek almost due West.

There is a good trail, often a road, not always, all the way, but there are no signs, and side trails, and I tried to go up a tributary instead of the main creek for a while. Mining claim in here, with lots of noisy and cheaply painted signs, but you are rather clearly not posted off this land. Good hike up, but took longer than I thought. Late lunch at Donner Pass. You climb higher than the pass, and then drop down to it on this route. Returned, collecting mosses up and down. 3 ½ miles each way, 7 miles round trip here, with about 2 miles each way on the bottom end, total 11 miles.

I hiked back up the western most road, which is on N. F. land. This is quite passable by Scout, but rough and would be slow going. 5 elk nearly back out, close in timber. One deer.

June 23, 1981. Flattop Mountain with Richard Routley, Australian philosopher, environmental philosophy, and Fred Johnson, CSU. Nice day, a little rain but afterwards clearing. Rather windy on top.

July 2-4. Moraine Park with Julia, Mother, Giles, in camper. Rainy all Thursday afternoon, Friday was in and out of clouds on Trail Ridge Road, but a spectacular day, with clouds draping the peaks. Hard rain with clearing afterwards after supper Friday. Cloudy Saturday morning. Brown-capped rosy finches at the Alpine Visitor Center. Coyotes Friday night. Lots of hummingbirds. Ten deer. Returned Saturday for July 4 picnic on Concord Drive. This was mother's first camping trip, at age 75.

July 22-24, 1981. White Mountains in New Hampshire. Flew to Boston July 21, and limo to Portsmouth, rental car up to Franconia notch country, arriving about 10.00 a.m. Hiked up Cascade Brook Trail (here this is the Appalachian Trail) to Lonesome Lake, and return. Delightful trail, lunched at crossing of Cascade Brook. Appalachian Mountain Club hostel at the lake, is staffed all summer, supplies packed in. Returned to parking area, at Whitehouse Bridge, and then walked east several hours on same trail--now the Liberty Spring Trail (= Appalachian Trail) and branching off to Flume Side Trail.

Thursday, July 23. Wilderness Trail, off Kancamagus Highway. This is an old railway; many ties remain but it is flat and easy walking, a main access to Wilderness area here. Walked to Franconia Falls and on to Camp 16 and return. Later that day, walked Greeley Ponds Trail. Total about 25 miles of hiking in 2 days. Grand weather.

Collected a good many mosses. Saw lots of beargrass (Lycopodium), Maianthemum, Coptis, Viburnum, Cypripedium, lots of Sphagnum, trees were Balsam Fir (Abies), Spruce--red and black--maple, paper birch, beech, Clinton's lily. Not many birds, but vireos singing. No oaks, hickories.

No jays. Good lush woods but have been timbered and the giants are cut out. Chipmunks, no game, no sign. Lots of Indian Pipe (Monotropa).

Friday a.m. early to Exeter and Council of Institute on Religion in an Age of Science. Saturday to Star Island (Isles of Shoals, 10 m. from Portsmouth) and week long conference there. Many breeding gulls on the island, zealous for their chicks. Gulls will cannibalize each others' chicks.

Aug 6-11. Mt. Zirkel Wilderness with Giles. Left Ft. Collins in Scout Thursday a.m. and drove to Walden, inquired at Ranger Station. Drove to Livingston Park, and camped there, mostly a parking lot. Access road across private land. 12-14 vehicles in here. Hiked round to Norris Creek so Giles could fish!

Friday, hiked--backpacked to Rainbow Lake and camped there. Saturday, hiked with daypacks to Slide Lake, Upper Slide Lake, and on to the Divide. Missed the trail unawares and went up to Slide Lake (the way many people go, not shown on maps), but returned on the main trail. The best way to go to Slide lake with packs would probably be to go around on the main trail to Upper Slide Lake. In a flat area, just before climb to Upper Slide Lake, there is a turn back--obscure, but should not be too hard to find--and trail descends to Slide Lake. After a short distance on the turnoff you can see the lake below. There are old poles marking the main trail thru here, and the turnoff is at one such pole.

Many camped at Slide Lake, a lovely place. Lunched at Upper Slide Lake, and climbed on to the divide, a good climb above Upper Slide Lake, and then flat or up and down on the divide. 20 on horseback at Roxy Ann Lake junction. Some rain that evening in camp. Hiked out Sunday. (I returned to this divide August 1990.

Sunday (Aug. 9) made our way to north end of the range. Lunched at South Delaney Lake, rain off and on through the day. North to Big Creek Lakes Campground--nice area but many of the Winnebago set camp in here for 2-3 weeks at a time. Monday hiked to Seven Lakes--12 miles round trip. 4 blue grouse. Coyote yelping in midafternoon in subalpine woods. Hard rain the last part of the return trip and I got pretty wet; Giles did better with an oversized raincoat. Collected mosses, esp. at Big Creek Falls and Seven Lakes. Not so many on the trail here--met Bob Martin coming up to Seven Lakes just as we started to descend; he has been there four times. Nice view close up on telephone pole of peregrine falcon on return across the sagebrush country before Cowdrey. Nice immature red-tail perched on return over Cameron Pass. Several deer. Rhododendron albiflorum (White Flowered Azalea) [which Weber now puts in Azaleastrum], Colorado's only rhododendron/azalea is abundant around Rainbow Lake, past bloom when I was there, but evident, found only in Park Range, and next northward in Oregon, and Canada.

August 16-22. Mt. Evans, Mt. Bierstadt, Guanella Pass. Giles and I in Scout. Drive to Mt. Evans Sunday a.m., lunched going up the Mt. Evans road, and pitched camp at Echo Lake Campground. No trouble getting space. Rainy afternoon by now, but we drove to Summit Lake and on to summit. Clouds in and out around the peaks, and I got out to walk up the last 200 yards or so, and on top people's hair was standing on end from the static electricity--first time I had ever seen this. So I didn't stay long. Browsed around on the flats between Mt. Evans and Epaulet Mtn on return, and saw nine Rocky Mountain goats--first time I had ever seen them--3 were kids from this season. Considerable rain in the night.

Monday, spent day about Summit Lake, collecting mosses. Off and on weather, but rather pretty with clouds floating in and about the summits. Saw 5 goats on the way up, 2 kids. Also one Bighorn Sheep ewe and her lamb, within ten minutes of seeing the goats. Hundreds of pipits about

the lake. Walked over on the Summit Lake flats after lunch. After supper, walked down around Echo Lake and saw one coyote running across the road. Bristlecone pine are evident at timberline here, and also at Echo Lake first time I had noticed them.

Tuesday, moved over to Guanella Pass--this is a good road, paved about half way up, wide gravel-dirt the rest of the way. Afternoon, we hiked to Silver Dollar Lake, a bit of a disappointment as the lake has been scarred up from lowering the water line.

Wednesday, hiked up Mt. Bierstadt, Giles' first climb of a fourteener. The willows below Guanella Pass had been predicted bad, but we found a good footpath through and went through dry shod. Also a cairned route up the slopes in the lower part, then cairns vanishing, and then returning again at the upper reaches. Three ptarmigan, very close. Lovely day.

Thursday, drove up the Argentine Pass Road, to Waldorf Mine, good day. Lunched there after scouting the Pass road in the upper part, and returned to Ft. Collins. Bristlecone pine also on this road.

Fred Hermann lists from Naylor Lake-Silver Dollar Lake:

Stegonia latifolia  
Desmatodon stylistius  
Bryoerythrophyllum ferruginascens  
Tayloria acuminata  
Tayloria froelichiana  
Plagiobryum demissum  
Clevea hyalina (thalloid liverwort)  
Dicranum elongatum  
D. acutofilum  
Polytrichum strictum  
Brachythecium plumosum  
Entodon concinnus  
Tortella arctica  
Myurella julacea  
Didymodon asperfolius  
Hygrohypnum cochlearifolium

From Summit Lake:

Oreas martiana  
Bryoerythrophyllum ferruginascens  
Calliergon turgescens  
Calliergon sarmentosum  
Rhacomitrium fasciculare  
Campylopus schimperi = C. subulatus schimperi  
Bartramia breviseta, = B. ithyphylla var. breviseta  
Entodon concinnus  
Paraleucobryum enerve  
Drepanocladus revolvens  
Mnium spinosum  
Tayloria hornschuchii  
Plagiobryum zieri  
Didymodon asperfolius

August 28, 81. Argentine Pass with Fred Hermann. Left at 6.00 a.m., and drove nonstop to Argentine Pass road, and up to Waldorf mine, thence to about 1 m. short of pass, and walked to top by trail. Lovely day. Road would have really been no problem to pass, and there are adequate turnarounds. But you cannot descend the other side.

We were looking for Voitia nirvalis, moss reported only from continental U.S. in 1886 on Argentine Pass, by William Trelease (?). Grows reportedly on sheep dung. Alpine tundra is rather dry toward the pass, and we collected only a few. Returning, lunched at Scout, and then spent a good while in a normally wettish area (though just now dry) about ½ m. under the pass (as the crow flies), in search of Oreas (rather rare arctic moss), finding some other interesting things here. Made a short circuit by Scout towards the lower basin, but decided we did not have time to go down. Collected a few mosses at the pond above Waldorf mine, and a few on the way back down.

Hermann finds on Flattop Mountain, in wetter areas near snowmelt:

Oreas martiana

Grimmia mollis c. fr.

Andreaea rupestris

Tortella arctica

Drepanocladus revolvens

Paraleucobryum enerve

Ditrichum giganteum = D. flexicaule

Politrichastrum alpinum

Hylacomnium splendens

Pohlia obtusifolia

Dicranum elongatum

September 29, 81. Zimmerman Trail, from Homesite to Sheep Creek Reservoir. Left Home (name of place, about 3 m. w. of Arrowhead Lodge in Poudre Canyon) 8.15, with permission of Jack Revis to cross the lower part, which he owns. Go along road over creek, on 100 yards or more and come to pile of sawn boards lying aside road. Take trail off here, cross small streamlet, and come to new Forest Service Trail sign. Continue a short piece, and come to a blank plywood sign which marks a bypass of the lower end of the old wagon road. I went up the old road, however, which is a bit rough but very mossy. It might be worth returning here. I returned over the bypass which is steep.

The main trail was old wagon road and is in very good shape, but there are some blowdowns. It is moderately well blazed, better so upwards, but no trouble following. Nice wet trail, but the trail, once well on up, does not cross the creek often. Eventually you come to two open areas, and top out a bit and drop back down into drainage of the Sheep Creek area. Good sign and trail looks in good shape back to Crown Point area.

Sheep Creek Reservoir is long defunct. It was built by Zimmerman, but in a quarrel over water rights he had to blast it out. Cabin hulks here of large logs. Lovely fall day, good aspen, and I kept steadily moving, but did some looking at mosses in the lower end on return. Lots of Brachythecium rivulare and Timmia. 2 deer roadside. 12 miles roundtrip.

Oct. 2-4, 81. Sleeping Elephant Campground in Camper. Somewhat rainy weekend, and aspen was way past its prime. Drove on Saturday up to Chambers Lake, and down the Laramie River road. Lunched at Brown's Park Campground. Several outfitters putting tent camps in place via horsepack from Rawah Trail and from Brown's Lake. Aspen should be lovely along Laramie River, but it is all gone now--mid-September to 3rd week of September would have been prime. Lots of

Townsend's solitaries in camp.

Oct. 18, 81. Hiked around Stone Mountain, Atlanta, Georgia. Rain in morning and later clearing. Circuit trail goes all the way around, about 8 miles. Collected mosses.

Oct. 22, 81. Congaree Swamp, with Ernest Thompson, as guest of J. Carlton McCracken, Rt. 1, Box 79, Hopkins, S. C. 29061. Adjacent to Columbia, S. C. Especially at areas known locally as Gooses Pond, and Hodges Lake, both cypress swamps. Pileated woodpecker. Very dry, driest on record.

October 23-24, 1981. Mountains of North Georgia. Chattahoochee National Forest. Drove Friday from Columbia, S. C. to Dahlonega, Ga, and got motel room there. Drove up to Neels Gap on Appalachian trail, about 15 m. n. of Dahlonega. Very cold and wet on ridge top, with leaves mostly gone, though they had been very colorful below. Hiked 2-3 miles north. There is a lodge and store at the Gap and the trail goes right through the lodge. Returned and went down to lower area, Desota Falls, hiked up to Middle Falls, about 1.5 miles, and then down to Lower Falls, a short distance. Both are lovely, small, but striking falls. Wet woods but not raining and very enjoyable. Good colors.

Saturday, drove to trail terminus and Springer Mountain. Very lovely woods on drive up, good dirt roads literally paved with falling leaves. Found trail to Springer Mountain, though later found that the trail had been re-routed in this last part, returning to the same trail in last half mile. Windy and cooler here, with most leaves gone. Shelter at Springer Mountain, and terminus of trail there. Returned, lunched, and drove out Noontootle Creek road, with hike (again on Appalachian Trail) in the lower part of this road, up to an unnamed falls. Thence to Atlanta and Jackie Hall's for supper (my first cousin).

Saturday, Oct. 31, 1981. Falls Hollow Trail, at Elliott's Knob. Drove out from Staunton, and hiked up the trail. It is an old road in lower (and even upper parts) and easy to walk below but becomes more difficult above due to blowdowns. Collected mosses. Returned, and drove around to locate North Mountain Trail. Falls Hollow is splendid example of wet hollow. Leaves fairly well gone, though the woods were pretty. Overcast but no rain.

Nov. 27, 1981. Loch Vale, with Giles. Bright day, solid snow underfoot, but well packed down by Thanksgiving hikers, and not really that deep. Left parking lot about 9.30, lunched at the Loch about 11.15, left about 12.00, back at the Scout about 1.30.

Thirty two elk in the late afternoon, one group of 12 in Beaver Meadows, and about twenty in the woods in the road curves above Fall River Entrance Station. 12 deer. One splendid bighorn ram on the rocks above the road junction in Moraine Park, together with a ewe. Nice in the scope. Turned into Aspenglen Campground and saw a pair of coyotes, the first was roadside sitting when we drove up.

Dec. 19, 1981. Estes Park Audubon bird Count. Arrived Park Headquarters 7.45. Went up Loraine Park area and then up Bear Lake Road, with Gardner Miller (960 Riverside Dr., Estes and Iris Sherman 1811 E. Mulberry, Ft. Collins).

Windy with some snow.

Magpie 2  
Mountain chickadee 18

Raven 6  
Hairy woodpecker 2  
Tree sparrow 1  
Robin 1  
Crow 12  
Townsend's solitaire 1  
Pygmy nuthatch 14  
Bohemian waxwing 10  
White-breasted nuthatch 2  
Stellar's jay  
Brown Creeper 2  
Gray jay 2

Warner and Ruth Reeser are good birders in Estes, lunched with them. Snipes are reasonably common in Moraine Park and make the whew-whew-whew call. They had seen a pygmy owl in the a.m., and he found a boreal owl killed.

1982

February 18. First crocus, and some robins in town. Weather has lately been mild, although there were some very cold days in December and January, and record cold in Midwest and East.

February 20, 1982. Eagles at Empire and Jackson Reservoir. Left with Giles about 7.15. Nothing at Riverside, nothing at Empire. But nine seen along the river bottom run up to Orchard, two perched at good scope distance. Ate lunch with one in the scope, parked by the side of the road. Later viewed one at bridge, and Giles found abandoned brief case roadside. Took it to the storekeeper at Orchard, who says the husband of the woman who runs the post office there traps coyote and beaver and throws the carcasses in a draw about a quarter mile down the river, below the bluff, and they feed some on these.

Proceeded to Jackson Reservoir State Park, and saw three adults on the ice in middle of-the lake. Good range. Drove back to Goodrich, and south .8 mile to the Lefler Wildlife Easement and drove around through the western loop, but this does not come next to the river. There seems an eastern road that does. This looks like good spring birding area. Returned and saw several more eagles along the Goodrich Orchard road. Total fifteen for the day, all but two or three adults. One pheasant, some buteos but not many.

March 13, 1982. Hike up Crosier Mountain with Giles. From eastern side. Trail rises through fairly steep, north facing woods, past an old mine, and crests a ridge, followed by a gradual swing around in a westerly direction, and a gradual climb. Reach a very large, flat meadow. Trail goes through it, but on northern side. Dead elk in here.

Trail continues as woods thicken (they are nowhere very thick through here) and after passing thru grove of tall aspen enters a steep climb and crests out at old fence. Start drop into True Gulch, and then steep climb out of it. Follow long ridge, rather gradual climb or even level westerly until you reach the last base of Crosier (joining the trail from the West I had used before). Climb to top, not blazed, and here and there a little trouble to find in the snow. Calm and clear on top. Lunched there. Did this again, abortively, May 15, 1999.

Two Pasqueflowers in one clump in bloom, and nothing else out. Aspen buds opening up a bit here and there. A good many chickadees, juncos, a few woodpeckers. Six deer seen in the large meadow in return. Lots of beetle kill in the pines. Five ticks off my clothes in house on return.

March 18, 82. Skied Beaver Meadows with Shonny and Giles. Skied from warming hut up North Fork Trail 1.75 miles and return. Fair skiing, but icy spots. 15 deer on road on way up. One

bluebird.

April 4, 1982. Wellington Wildlife area and Cobb Lake, briefly on Sunday morning. Pintails, white-fronted goose (2), green-winged teal, Canada geese, yellow headed blackbird, shoveler, scaup, bufflehead, widgeon, Western grebe, marsh hawk, many mallards.

April 10, 1982. Unnamed canyon, just west of Lakey Canyon, south off Buckhorn Creek. There seems no trail up Lakey Canyon itself. There is an old road, pleasantly passable but overgrown up the unnamed canyon. Reached picnic table and campsite, with roads in from above. I hiked one, which climbs, then descends to return to the canyon, then another, which swings up, around and down to return to Buckhorn Canyon very near where I started. Lunched at the picnic table, then went up at stream level in the canyon, past the point earlier gained on the road, and up a bit further, but the road peters out. Returned, collecting a few mosses.

Nineteen doe in a meadow in the Wilderness Ranch area, 1 lone doe elsewhere. Black crowned heron. Stream is fairly frozen yet, and nothing out but catkins.

May 8, 1982. Twin Sisters with Giles. Left Scout about 9.15, on summit at 12.00. Rather dry trail up thru lodgepole pine, no streams crossed. One spring shown on map not found. Gradual breakout onto alpine, which is largely rocky, little soil. Very tame gray jays took food from Giles' hands. Hairy woodpecker, kinglet heard. Windy on summit, park service repeater radio towers there? Some snow flurries on way down, clearing afterwards. Walked atop drifts for as much as a hundred yards, but no problems. Little flora out, pasqueflowers and Candytuft (*Thlaspi*) below.

May 23, 1982. Spring Creek Falls, below Horsetooth. Sunday evening walk and supper with Giles.

May 27, 1982. Wellington Wildlife area, Cobb Lake, etc. With Giles on a Sunday morning, rather overcast.

yellow headed blackbird  
Western Kingbird - many  
Canada geese, with goslings  
Eastern kingbird - many  
Great Blue Heron - six  
shoveler  
avocet - many  
lark bunting  
redwing  
horned lark  
mallard  
cinnamon teal  
coot  
blue teal  
canvasback  
gadwall  
barn swallow  
pheasant (heard)  
meadowlark  
magpie

June 4-6, 1982. Olive Ridge Campground, with Giles and Adam McCambridge. Left Friday about 9.15, after wet weather, but weekend turned out quite dry. Set up camp and hiked a ways up

Meadow Mountain Trail in afternoon. Go south on the Ski Road to junction, marked with signs. There is an old junction, now bypassed, with small Trail sign, a hundred yards or more below. See map. Steady climb to subalpine area, considerable snow drifts remain on n. facing slopes.

Saturday, hiked to Ouzel Falls. Bridges are being rebuilt and we had to hike the last mile and a quarter in to the ranger station. Fairly uneventful climb to the Falls. There is still little out up here. Collected some mosses. After supper went to the willow bottom adjacent to Copeland Lake for birds, and on return winched a man out stuck down at edge of Copeland Lake.

Audubon's warbler, Wilson's warbler, yellow warbler, Western pewee, chipping sparrow, song sparrow, redwing, kinglets much in evidence, many siskins, robins, ravens, woodpeckers, chickadees (mountain), Stellar's jay, two coal black Abert's squirrels. Giles and Adam caught a much treasured frog.

June 11, 82. Devil's Gulch to Arthur's Rock with Fred Johnson and Giles. Arrived at Fred's house about 8.00. His is Blue Spruce Road, with sign on small wishing well below. Left his car at Arthur's Rock Trailhead and returned, up Jack Pine Road, which you can go up to parking area. Not posted. On foot, dropped into Empire Gulch and old Copper mine, then over into Devil's Gulch, a nice one, moist enough for good flora. Lunched here, and gradually climbed out to ridge and broke out onto very large open area, Swanson's Ranch, which may be developed, but state land is just east. Followed jeep road south, but came around too far south and had to work back n.e. into Arthur's Rock Gulch.

Nice flora all round. Large flocks of pine grosbeaks. Shooting stars especially good.

June 17, 1982. Tamarack Ranch with Fred Hermann. Left 6.00 a.m. Arrived about 8.30. Much weedier than before and we were not able to find many mosses. Bryum argenteum, Phascum cuspidatum ?? - there is lots of this, like a small Bryum with hair points, but little fruiting sessile capsules. Barbula, or something in Pottiaceae, but not well developed. Ditrichum flexicaule, Funaria. The latter two at the Proctor crossing.

Birds: Canada goose, mallard, redtail, marsh hawk, Swainson's hawk, Kestrel, pheasant, bob white (often heard), great blue heron, black crowned night heron, avocet, killdeer, pigeon, dove, yellow-billed cuckoo (lots heard, one seen very close, burrowing owl (seven seen on posts roadside), nighthawk, red-headed woodpecker, red-shafted flicker, eastern kingbird, barn swallow, blue jay, magpie, black-capped chickadee, house wren, brown thrasher, warbling vireo, yellowthroat, yellow-breasted chat, meadowlark, redwing, Brewer's blackbird, common grackle, orchard oriole, Bullock's oriole, goldfinch, lark bunting, lark sparrow.

One coyote seen nicely on road east of headquarters. Snake, not a rattlesnake, about 3 ft. long. One lizard with green head, 10" long.

June 27, 1982. Tunnel Campground, Laramie River Road, in camper with family. Left Sunday afternoon, after preaching at Poudre Park Community Church. Friday before was a torrential rain, and hail ruined the tomatoes, but the weather cleared up and was quite fair. No water in Tunnel Campground, and we went back up the road and got some from a brooklet. Screech owl in the evening, with many snowshoe rabbits, six or eight seen in the campground the 3 days.

Went up West Branch Trail Monday midday and lunched there. Fairy slipper orchids at lunch, by the West Branch. Returned for lazy afternoon and evening. Home Tuesday p.m., after a lazy morning. Birds fairly good, lots of hummingbirds, up to seven at a time at a red plastic container

of sugar water placed on a post outside the camper. Swainson's thrush, a number of Yellow-bellied sapsuckers, ravens, chickadee, yellow warbler, song sparrow, junco. Three deer seen several times in camp, six or seven other deer. 3 garter snakes.

July 6-20, 1982. West Virginia, etc. Drove from Richmond to Morgantown for Conference in Wilderness Psychology, July 8-9, taking Giles via Charleston to meet Julia there. Left conference about 4.00 p.m. and camped at Coopers Rock State Forest. After supper collected mosses on Clay Furnace Trail,

July 9, Friday. Saturday a.m., drove to Virgin Hemlock Trail, stopping for collections about 1/4 m. s. of Entrance Gate on 4-lane Route 48, and old two lane Route 73. Talked with superintendent Alfred Kerns. Deer in evening and two spotted fawns early a.m. Hooded warbler.

July 10, Saturday. Drove to Julia's in afternoon.

July 13, Tuesday, left Julia's with Giles for Cranberry Backcountry, Monongahela National Forest. Did the boardwalk around the Cranberry Glades Botanical Area that afternoon, also a short walk on the Forks of Cranberry Trail from the Highland Scenic Highway. Camped at Summit Lake Campground.

July 14, Wednesday, solid day in Cranberry Backcountry. Down Fisherman's Trail to Cranberry River, which we forded in tennis shoes. Thence along the road to Rough Run Trail, which in upper part is old railroad, much overblown, but now a nice trail. Lunched and returned with Giles enjoying a skinny dip in the river. Skunk, a small one, in the campground that morning. Veery is prominent bird in the forest, notable "Quee-ur" call. Large owl in woods.

July 15, Thursday. Walked the Falls of Hill Creek Trail, to see Upper, Middle and Lower falls, all three nice falls, and the lower the highest in West Virginia. I did the boardwalk again, and in p.m. drove to Richmond. Lots of birds but they were difficult to see in the woods. Good raspberries and huckleberries.

July 25-28, Buchanan Pass. Alone. Drove the 4WD road in towards Cony Creek about halfway, and packed the rest. 8-10 vehicles at the Cony Creek intersection, crossing the pond edge in water about 2/3 way up the tires with no trouble. Enter Indian Peaks Wilderness here. Hiked on to about timberline and pitched camp, at a small sawn wood bridge over the stream, not far above the presently marked turnoff to Red Deer Lake. Cooked supper in rain, with clearing afterwards.

Fabulous rainbow, end to end and doubled in colors, very bright, in evening.

Monday, climbed Sawtooth. Just below the pass are two snowfields that are about as steep as you want to cross alone, but others had been before and pretty well dug steps in. Lovely climb to Sawtooth and lunched there. On return weather began to close in, and late afternoon was all in rain. Went round to Red Deer Lake, and found trails confusing. They are marked differently from what is shown on map, and the presently marked trail takes you lower down, then back up to Red Deer.

On return, followed a differently marked trail (now somewhat abandoned, thru late snowfields, and in the upper part this turns into cairn route only thru grassy areas, joining the main Buchanan Pass Trail almost exactly where I had camped (very slightly below it), but this is not marked or evident from the upper turnoff.

Tuesday, returned to try trail (unmarked on topo sheets) to Coney Lake, but the trail, good below, got scattered above, it began to rain, and I ran out of time, so turned back. Good views of a marten not long before I turned back. Lunched on return, and then hiked out in hard rain, getting pretty wet, especially when trying for some mosses at Coney Creek intersection, now quite abandoned.

Drove Scout out in rain, and camped at throwdown camp not far below Beaver Reservoir. Mostly rain in night.

Wednesday, drove to Nederland in cloudy bright weather, lunched at Nederland, and then drove to Hessie access point. Hiked to Lost Lake in rain, with an hour's clearing while there, but rain on return. Drove home in rain, and it rained for the next 24 hours without stopping.

Cornus canadensis, Listera (twayblade), and a number of others collected, and spent next day keying plants (in 24 hour rain). Dead ptarmigan in tundra; several deer in camp. Many white crowned sparrows. A number of brown capped rosy finches.

August 1-2, North Lone Pine Creek Trail to Bald Mtns. Drove up Sunday afternoon and camped at North Fork Poudre Campground. Hiked up Killpecker Creek about a mile.

Aug. 2, Monday. North Lone Pine Creek Trail. A small turnout, overlook, and picnic area has been put in here. Trail goes up, soon joining creek, mostly on and off an old road. Lower end has been rebuilt and blazed, and about 3 footbridges put in over creek. Saw marten in here at close range, this is the second one in a few days (another at Cony Creek) but I had not seen any for 10-12 years before. Kinglet at close range.

Trail rises and covers a lot of dry woods, blazes disintegrate in last mile and numerous blowdowns. I made it through but had to spend a lot of time finding the trail, often with quite old blazes and I had to backtrack and build cairns. Lunched on top, after joining the road from Nunn Creek, which I had hiked before.

On return got lost for about an hour, because I tracked off onto a second set of blazes for about 1/4 mile, and was reluctant to retrack evident blazes. Take careful notice of a pole cairn in a small open area just under Middle Bald Mountain 1/4 - 1/2 m. on return), and get oriented from here. Morale: Leave some sign of your own on a stretch through obscure blazes. Also, on the second time thru leave a different sort of sign (wood sticks upturned, instead of cairns, etc.) so that you can readily separate sign left going in from new sign laid on return.

Wore new boots on this hike, Vasque 11 EE, having used the last pair since coming to Ft. Collins in 1968, 13 years. If this pair lasts that long, I will be 63 when I buy the next pair. (Later: But they didn't. See Jan. 20, 1989.)

Aug. 9-12, 1982. Rainbow Lake, Upper Slide with Giles, 4 days backpacking. Left in Scout about 6.30 and arrived Livingstone Park 11.00 a.m., ate early lunch there. Got into Rainbow Lake about 3.00, and set up tent just before rainstorm, clearing later. There is 6" of snow where we camped last year.

Tuesday, on to Upper Slide, intending to go over to Roxy Ann, but Giles was frightened of electrical storm in midday. Clear most of the afternoon. Very sheltered camp at lower end of lake.

Wednesday, hiked over to Roxy Ann and back, anxious to find Bryum knowltonii at the Roxy Ann turnoff. But there is much snow here, this is a wetter, cooler year, summer, than before. Found

some immature Brya there, mostly just below the turnoff, and am trying to let the capsules ripen on the back porch.

Cloudy day, but dry, until evening, with some clearing midafternoon. Two horse parties in Roxy Ann. This trail is clear enough, but unimproved and rather cut up by the horses. Rhododendron albiflorum was in good bloom at Rainbow Lake, and also, though less of it, at Roxy Ann Lake. Kalmia polifolia is in excellent bloom and abundant, at Upper Slide and on the tundra above. Little birds, enough mosquitoes. Fire really helps to keep them out of camp. New boots are doing fine.

Thursday, hiked out by 2.00. The birds on the ponds around Walden are good and one ought to take some time to study them out. Also hawks are good in this area. One deer at Livingston Park.

August 26, 1982. Zimmerman Trail, with Fred Hermann, about 2 miles up. Pair of blue grouse, very tame. Looking for mosses. More beetle damage in here than I remembered.

Collected:

Ceratodon purpureus  
Brachythecium rivulare  
Tortula ruralis  
Chiloscyphus rivularis  
Tetraphis pellucida  
Orthotrichum laevigatum  
Pseudoleskeella tectorum  
Platydictya (Amblystegiella) junergmannoides  
Brachythecium oxycladon  
Dicranum scoparium  
Dicranum rhabdocarpum  
? Lophozia obtusa  
Timmia bavarica

October 2, Saturday. The Pool, with family, Bob and Joan Meroney, and Donna. Return via Cub Lake. Pretty, a bit cool, and aspen good in spots, but often gone, and other places not yet turned. This has been a rainy fall.

October 7, Thursday, 1982. Peterson Lake, down to Poudre River, with Fred Hermann. A new trailhead has been put in 1/4 m. past Peterson Lake, road is somewhat rough. Trail still goes back to lake, and cuts down, as before. Trail in other direction follows the road cut for the timber sale which runs uppermost and nearest the uncut woods, and in about 1/4 to 1/2 m. joins the other trail, just prior to stream crossing. Two new Colorado mosses? See after Nov. 18.

Nice aspen in Poudre Canyon, nice fall colors here and there. Fantastic weather. No game, few birds.

October 16-18 1982. Ocala National Forest, Florida (before Conference on Agriculture, Change, and Human Value at University of Florida. Flew to Gainesville, arriving 6.15 p.m., and rented car. Drove down Route 441 and cut over on Route 316 via Fort McCoy to Salt Springs. This was formerly a private campground, now managed by the National Forest. Pitched camp there after dark in the Pocket Hotel, for the first time. Drove South to Juniper Springs Recreation Area Sunday morning. Hiked Ocala Trail north for several miles, though not as far as Hidden Pond, which was the destination of several which I passed. Might have made it to Gator Pond. Lunched where there had been a fire recently on the east side of a pond.

This is sand pine and palmetto country. Palmettos have long underground stem/trunk, and only the lattermost part sticks up. Enormous piles of bear scat, full of palmetto seeds several places along the trail. Fewer mosses than I hoped for. Returned, went to the Juniper Springs central area, where a large springs forms a developed swimming hole. A canoe run is available for 7 miles down the run here. Walked Nature trail to Fern Hammock Springs. Large owl heard in the night.

Monday, drove to Alexander Springs and walked Timucuan Natural Trail, named for Timucuan Indians. This was the best of the trails, a semi-tropical forest. Swimming area here. Drove back, touring Silver Springs, glass bottomed boat. Many alligators here, also monkeys, which survive from various films produced here. A jungle run boat takes you past various imported animals. Various native fish, including large garfish, 4-5 feet long. One at Alexander Springs was over 3 feet long. Returned to Gainesville about 5.00 p.m.

Thursday, Oct. 21, 1982. On flight back from Gainesville, taking off from Atlanta, I got to see two sunsets. The first while still on the ground, and a second one after climbing to jet altitude, where the sun had not yet set.

Nov. 6, 1982. Chasm Lake with Giles. Good hike, warm below, windy above, snow was here and there a problem in the upper trail, but nothing too serious. Lunched at Chasm Lake, frozen over. Blue grouse going up in the timber. Five deer on return.

Nov. 18, 1982. Ran 10 miles on CSU field to celebrate my 50th birthday (tomorrow), and made it very well. Weighed in at 156, lowest weight probably in the last 25 years, though my usual weight now is 160, down 12-15 pounds from the last few years. Took stress electrocardiogram at Poudre Valley Hospital this morning.

Final checklist of Mosses from New Hampshire, July 22-24, 1981 (& liverworts)

Paraleucobryum longifolium  
Nowellia curvifolia  
Diphyscium foliosum  
Mnium hornum  
Hylocomium splendens  
Plagiomnium ciliare  
Polytrichum pallidisetum  
Rhizomnium appalachianum  
Dicranum fulvum  
Scapania nemerosa  
Sphagnum girgensohni  
Sematophyllum marylandicum  
Sphagnum capillifolium  
Cephalozia bicuspidata  
Callicladium haldanianum  
Pylaisiella selwynii  
Brotherella recurvans  
Anomodon attenuatus  
Plagiothecium denticulatum  
Leucobryum glaucum  
Hypnum pallescens  
Tetraphis delicatulum  
Hypnum imponens

Lepidozia reptans  
Pohlia nutans  
Bryhnia novae-angliae  
Brachythecium oxycladon  
Herzogiella striatella  
Brachythecium plumosum  
Isopterygium elegans  
Brachythecium populeum  
Rhacomitrium aciculare

32 mosses

Final checklist of Mosses from Virginia mountains (Fall's Hollow, Elliott's Knob), Oct. 31, 1981 (and liverworts)

Anomodon attenuatus  
Forsstroemia trichomitria  
Dicranella heteromalla  
Ulota hutchinsiae  
Dicranum montanum  
Hedwigia ciliata  
Dicranum scoparium  
Haplohymenium triste  
Bartramia pomiformis  
Bryhnia novae-anglia  
Rhodobryum roseum  
Climacium americanum  
Aulacomnium heterostochum  
Pogonatum pensylvanicum  
Aulacomnium palustre  
Homomallium adnatum  
Hylocomium brevirostre  
Plagiomnium ciliare  
Thuidium recognitum  
Drepanocladus fluitans  
Hypnum curvifolium  
Grimmia apocarpa  
Fissidens cristatus  
Bryum capillare  
Brachythecium plumosum

25 mosses

Final checklist of mosses from Congaree Swamp, Columbia, S. C., Oct. 22, 1981

Hypnum lindbergii  
Fissidens bryoides  
Leptodictyum trichopodium  
Leskeia polycarpa  
Porella pinnata  
Clasmatodon parvulus

Sematophyllum marylandicum  
Leucolejeunea clypeata  
Herpetineuron toccae  
Anomodon attenuatus

10 mosses

Final checklist of mosses from Georgia Mountains (and Stone Mountain), Oct. 18, and Oct. 23-24, 1981

Dicranum fulvum  
Hygrohypnum eugyrium  
Leucobryum albidum  
Plagiomnium medium  
Schwetschkeopsis fabronia  
Rhizomnium appalachianum  
Campylium chrysophyllum  
Selaginella apoda (not bryophyte)  
Mnium hornum  
Hedwigia ciliata  
Brotherella tenuirostris  
Leucodon brachypus  
Aulacomnium palustre  
Bryoandersonia illecebria  
Leucodon julaceus  
Fissidens subbasilaris  
Campylopus talluensis  
Plagiochila sullivantii  
Grimmia laevigata  
Hygroamblystegium tenax  
Thuidium delicatulum  
Entodon seductrix  
Dicranum scoparium  
Hypnum curvifolium  
Hypnum imponens  
Sphagnum squarrosum  
Pogonatum pensilvanicum

27 mosses

94 mosses, total of above lists from East collected in 1981. Specimens of all placed in CSU herbarium (later moved to CU herbarium).

(October 7, continued). Fred sent Elva Lawton one which she identified as Platydictya confervoides fr. brevifolia (Grout), no combination available as Grout put it in Amblystegiella. This would be new to Colorado,

He also sent one which she identified as Pseudoleskella catenulata (Schrad.) Kindb. which would be new to Colorado. The usual one is P. tectorum. But the differences are slight, and Weber is not so sure. This would be probably only a recognition of what had before been collected as P. tectorum.

end 1982.

1983

January 8, 1983. Saturday. Nymph and Dream Lake, with Giles, on showshoes. Four new inches of snow had fallen the night before, and above Nymph the going was not all that easy, nor the trail everywhere evident. Especially right above Nymph where the trail cuts under a cliff, snow had piled so steep it was difficult to get across.

Looked to no avail for elk in evening, also walked up Hallowell Park trail as far as the bridge and Cub Lake Trail sign. Not enough snow in here to need snowshoes.

January 17, 1983. Skied with Shonny and Giles on Long Draw Road, and on Blue Lake Trail. Really good snowpack in the last few miles, above Chambers Lake, tho skimpy snow cover below. Long Draw Road is not plowed and much skied over. Easy skiing. Blue Lake Trail is rated moderate.

21 bighorns on return. First group of ten at meadows edge, shortly below sleeping elephant campground, meadow has a very large boulder in it near roadside. Seemed perhaps there was a salt station here? Second group of eleven lower down, also at base of canyon wall, edge of flats. I had left my binoculars to save space from the mess of skis and gear in the car, so couldn't see them close range, but a good many, perhaps even all ? were rams. Clearly many had horns. One group of about 24 deer on way up, another group of about 6.

January 29, 1983. Camp Amukulo to Wintersteen Park, with Giles. Took Shonny and 3 other girls to week end camp, and Giles and I hiked out from camp. Up the hill back of camp, steep and too much snow, then pleasant on the flats above. Hit a recently bulldozed road, which looks about the same as is on map, but I never was too clear when and how I broke through to contact the road the family went on with Howard Haise in jeep several years before. Lots of evidence of deer, some elk, none seen. One coyote heard barking.

Feb. 26, 1983. Horsetooth Mountain with Giles. Nice day, very dry this season. About 12 spring beauties in good flower, one clump of Townsendia. Somewhat marked path up cuts in and out of the roads. At the road toward the summit area, it is best to stay on the road until it swings round on the east side, then stay on a trail at the base of the rock cliffs until you are almost under the tooth, then switch back up a zigzag rising up to the lower parts of the final climb. Then climb the remainder on the ridge more or less from the south. Do not go on the west side, as I did on my first climb. 3 deer roadside. Ravens. Perhaps 100 people here and there on the trail.

March 4-5, 83. Good steady all night rain.

March 12, 1983. Riverside, Empire, Jackson Reservoirs, with Giles. Nine bald eagles and a cardinal! One good adult at Riverside, perched way across the reservoir. Four immatures there. Nothing at Empire as people were shooting there. Three at Jackson, one good adult. On return to Riverside, there were five immatures, adding one to those seen in the morning.

The cardinal was active in the road just north of the S. Platte River bridge s. of Riverside. Also heard a second one singing while watching this one, a nice male. First one I have ever seen in Colorado.

Apr. 9, 83. Cobb Lake area, with Giles. Mallard, coots, gadwall, canvasback, redheads, scaup, shoveler, C. goose, widgeon, bufflehead, pintail, cinnamon teal, green-winged teal, flicker, meadowlark, pheasant, redwing, robin, gull, kestrel, marsh hawk, yellow-headed blackbird, magpie, great blue heron, killdeer, 3 muskrats, jackrabbit.

April 24, 83. Riverbend Ponds, with Audubon Society, led by David Leatherman, entomologist with Colorado State Forest. Bittern, pied-billed grebe (notable call), vesper sparrow, black crowned night heron, marsh wren, ring-necked duck (somewhat like scaup). Here recently but not seen: wood duck, long eared owl. Ibis are in the area, Virginia rail. Group count, 38 species. Orioles arrive May 1.

April 24, evening. Strauss cabin area, briefly. Several jackrabbits.

April 30, 83. Alone, towards Panorama Peak, and Lion Gulch. Tried to get into trail above Pinewood Reservoir, but road blocked off. Also tried to get permission at Campground at Meadowdale Ranch, above Pinewood Springs, but too many landowners involved. So went up access road to Panorama Peak, but too much snow. Got as far as Solitude Creek on Pole Hill Road, end of NF property here, but not posted further along.

Returned and went about  $\frac{1}{2}$  mile up Lion Gulch Trail. This looks like a good area, with many possibilities in Homewood Meadows in Homewood Meadows at the head of this trail. Also drove up Big Elk Meadows Road. New road splits off and rises to road to Johnny Park, with junction on ridge-saddle. Blocked off now, but open to several 4wd possibilities in summer. Bluebirds, siskins, chipping sparrows, 15 deer, many Pasqueflowers, Alpine candy tuft, spring beauty. Giles gone to Air Force Academy on camp.

May 7. Rocky Mountain Park, with Clements. 32 elk in meadows after supper at Nicky's.

May 8. Black necked stilt at marsh east of Fossil Reservoir.

May 15. Orange crowned warbler at Martinez park, also yellow breasted chat.

May 21. Martinez Park, good migrants

May 22. Well Gulch Trail, breaking through to the main trail, with Giles. Continued as before, not far past where we had earlier met two boys hunting turkeys. The main ridge road is not far further up, comes in at a junction in a saddle meadow with an old bed springs in junction. Walked on down ridge road which rapidly descends, crosses onto private property and joins a big dirt road (to radio towers). Returned, lunched in light rain, and walked up to big flat meadow on top, where earlier Fred, Giles and I saw the bull pawing the ground.

Good birds below, warbling vireo, lazuli bunting, towhee, etc. Giles found an arrow. Two deer.

May 28-30, 83. Tammarack Ranch, with Giles. Left Saturday about 11.30, lunched at Ault. Arrived about 4.00. Steve Martin in trailer house at Crook Check Station and Campground, later met John Ellis, doing bird census. River was very high and all the bottom I had previously walked through was flooded. They were doing the census each morning in canoes. Gnats very bad in evening sun, but calmed down in twilight. Relatively few in the morning. Slept in pop-up tent.

Good birding in the evening, also the next morning. Flushed wild turkey, another one later. Sunday evening saw one sitting roosting in tree, and Sunday morning saw one in fields in scope. About half dozen in all. These were stocked here last year. Turkey has banded tail on takeoff (and red head); pheasant has longer pointed tail, no banding.

Badger seen about twilight, good view, running along one of the plowed rows sowed with food for wildlife. Short-eared owl flew out and perched in open ahead of us. Sunday night one flew out over meadows for 2-3 minutes, low over grasslands. Many white-tails, some at close range (12-15 in all). Many bobwhites seen and heard. Took some trouble figuring out what a bobolink was.

The turkeys are mostly in area 1, with the short windrow, but some in areas 2-5, tracks throughout.

Drove to Red Lion, but bridge was out to Red Lion, and had to drive around through Sedwick. Red Lion area is closed during nesting, March 15-July 15, but much can be seen from the road. Also drove to Jumbo Reservoir, good many campers here.

Cormorant  
rock dove  
Canada goose  
mourning dove  
mallard  
Great-horned owl (flushed at twilight)  
pintail  
short-eared owl  
shoveler  
nighthawk  
blue-winged teal  
flicker  
scaup  
red-headed woodpecker (in profusion)  
Swainsons' hawk  
eastern kingbird (many)  
kestrel  
western kingbird (only 2)  
bobwhite  
horned lark  
ring-necked pheasant  
barn swallow  
great blue heron  
blue jay  
turkey  
magpie  
coot  
chickadee  
avocet

house wren (many)  
killdeer  
brown thrasher (only 1)  
spotted sandpiper  
robin  
Wilson's phalarope  
starling  
orchard oriole  
yellowthroat  
Northern (Baltimore) oriole  
house sparrow  
Northern (Bullock's) oriole  
bobolink  
western tanager  
western meadowlark  
rufous sided towhee  
red-winged blackbird  
lark bunting  
yellow headed blackbird  
lark sparrow  
Brewer's blackbird

Rain in the night and at twilight, Sunday night. Packed up, and came home Monday, stopping at Overland Trail museum in Sterling. One antelope. Large bullsnake while walking the road with the bridge out at Red Lion, Giles afraid to catch it!

June 4, 83. Picnic in Sprague Lake Picnic Area, with Mark and Rene Bryant. About 65 elk here and there in the park, mostly in Beaver Meadows. About 12 deer. The elk seem to be migrating upwards and out in day more than usual. Only one seen with antlers.

June 10-12. Homestead Meadows with Giles, backpacking 2 nights. Left Friday in time to lunch at trailhead at Lion Gulch. Climbed Gulch and pitched camp just below Walker Homestead. There is a stock tank spring in here, but water needs to be treated. A little rain Friday night.

Saturday, we did the loop, which goes over to Brown Homestead, using a foot trail to circumvent private property, then old roads to return. Also went here to Irwin Homestead, all from the nineteen-teens, all subsequently used as mountain cabins, all interesting ruins and preserved in run down ruins as historic landmarks. Return to Walker homestead and lunched near there. In afternoon, walked to Engert homestead, and then over to Laycock Homestead, the oldest, 1891, but also used more recently, and last up to Hill homestead. A further road seems to go over to Boren homestead, and on out to Pierson Park. Returned to camp. Green-tailed towhee at spring below camp. Lovely day. Poor will in the night.

Lion Gulch Trail done again, Aug 13-14, 83, June 8, 84, Dec. 24, 94.

Sunday, packed out, gathering mosses on way down. The gorge is worth another and more careful collecting trip later in season. Took Giles to Highlands camp. Took the Chevrolet Scooter (bought from Marc Bryant) first time.

June 17, 1983. East Inlet Trail and Adams Falls. Left early and drove over on Trail Ridge Road, enormous amounts of snow piled high. A few elk and a few deer. Got to

trailhead about 10.00 and spent till 1.00 collecting mosses at Adams Falls, with some trouble getting to the other side, over a log, and then walked back down to road to return over. Lovely falls and full of water.

Returned to lunch at the falls and spent the afternoon hiking Fast Inlet Trail, as far as where the trail, having left the creek some while, returns to it, this perhaps a mile below Lone Pine Lake. Beginning to pick up a good deal of snow under foot by the time I turned back. Ate supper on the return, where the stream which drains Mt. Cairns crosses the trail, also a waterfall. About 30 elk on the return to Timber Creek Campground, also 3 snowshoe rabbits seen. Slept there, and drove over Trail Ridge early the next morning to get Giles at Highlands Camp. Lovely day both days. Do more hiking on the west side of the park.

July 1, 83. Moody Hill-Sheep Creek Trail (though I set out to go up towards Donner Pass), Buckhorn Road was closed for repairs. Good, but uneventful hike, and finally sorted out the roads in the upper part, which have been made since the earlier topo I was using was printed. Later topo shows enough of the roads to work things out.

July 8-10, 83. Tunnel Campground with family in camper. Tractor with flatbed had gone off the road in a detour, with a big International tractor on it, and blocked road. We turned around and pitched camp in Aspen Glen Campground, below Chambers Lake. Chambers Lake was full. Then pulled out about 4.00, when they had gotten the truck out, using a road bulldozer. This washed out when a dike up on Green Ridge washed out and flushed down.

July 15-17, 83. Tonahutu Trail, in Rocky Mountain National Park, backpacking with Giles. Left Friday, not early enough. Got permits last ones available in this stretch of trail) and got to trailhead at 11.00. Green Mountain Trailhead. Lunched in Big Meadows. Tried Vitamin B-1 and Ben's Repellant and this helps ward off mosquitoes, which are otherwise bad this year. Got to Granite Falls, lower campground about 3.30. Rain later. Collected mosses about the falls.

Saturday, day hike to Bighorn Flats. Snow has melted rapidly and no problems. Lunched near the flats, with 13 elk nearby, 3 calves. Collected mosses on Bighorn Flats. Clear and lovely day.

Sunday, hiked out, after crossing on log to far side of falls and collecting mosses on the far side. Lunched in Big Meadows again, out about 2.00. One deer close by at Granite falls Friday evening.

Try the Onahu loop sometime. This comes out near enough to the Green Mountain trailhead to walk the highway in 10-15 minutes.

July 20-26. Mount of the Holy Cross, with Giles. Left Wednesday, July 20, 83 and drove to Vail and Minturn, information at Ranger station there. Camped at Half Moon Campground, after driving to Shrine Pass to see Mt. of the Holy Cross from a distance.

Thursday, July 21. Hiked up Mt. of Holy Cross. 14 miles round trip. The trail rises to Half Moon Pass, then drops a lot to East Cross Creek, a favorite camping area for climbs the next day. Trail continues through timber, and is no longer really a maintained trail. Steady climb up the mountain, Giles doing well, small cairns mark the easiest route. Reached summit about noon.

On descent kept losing the way and getting into rougher boulders, with Giles tiring some, and some rain, but came on down o.k. Rain from East Cross Creek on in, and got pretty wet. Giles with a case of chills that night. One ptarmigan on the way down.

Friday. Rested in the morning and dried out, then after lunch packed up to go in to Notch Mountain. Hiked in on the Lake Constantine Trail to where the Notch Mountain trail turns off and camped there. Good evening, with a little rain.

Saturday. Climbed Notch Mountain, but never got good weather. Only the lower half of the cross was visible from the shelter cabin at the ridge on Notch Mountain. Misty and drifting clouds, in a way a spectacular day. Returned and hiked back to car camp, rainy evening.

Sunday. Packed up wet but in brilliant sunshine and returned to Vail, and hiked up to Bighorn Falls that afternoon, trailhead from East Vail. Nice trail but disappointing for mosses. Returned through Minturn, and camped at Blodgett Campground, nice evening. Great Horned owl calling in the night.

Monday. Missouri Lakes (July 25) collecting mosses. Drove to trailhead in Scout, and hiked the 4 miles in. Trail is scarred by water developments lower down, but is a fine trail in excellent country above. Twelve lakes in this basin, 3 good sized ones, and others smaller. Rather good day for weather. Lots of Rhacomitrium up here.

Tuesday, July 26, packed up and drove home, through Camp Hale, ruins of wartime camp to train soldiers in mountain fighting.

August 4-13, 1983. Yellowstone in camper with Giles and Shonny. Left 5.30 a.m., before daylight, and drove through Wyoming. About 100 antelope sighted during the day, mostly in groups of 5-12 here and there. Arrived to find Falls Campground temporarily closed, and spent night at Pinnacle Campground on Brooks Lake, on dirt road 5 m. off the main route 287. Excellent dirt road, and no problems. Several rabbits in here. Lovely area. (No water here, Brooks Campground, nearby on other side of lake.)

Friday, left 6.30 am. and drove into Yellowstone and Grant Village. The drive in is about 2 ½ hours. Two deer on dirt road out. 2-3 moose on way into Yellowstone. Camped at Grant Village, site 161. Spent afternoon in Old Faithful area, walking around Upper Geyser Basin. Picnic supper at Whiskey Flats picnic area, north of Midway Geyser Basin, with 2 elk in picnic area as we ate. Walked around Midway Geyser Basin after supper.

Saturday. Hayden Valley, after look at West Thumb Area. Two large herds of buffalo, one with 85 buffalo, another with about 120, all at some distance from road, but exciting much interest. Also about half a dozen moose in the river, and some elk. Tried to go into Artist Point on the Grand Canyon of the Yellowstone, but couldn't get in as rangers blocked the road. It turned out that a boy had been killed by falling rock, knocked loose from climbers above, who should not have been where they were. He was ten years old, and walking the Uncle Tom's Trail (mostly stairsteps) to see the lower falls from the south side. We hiked down the trail to the brink of the Lower Falls, after a stop at Inspiration Point.

Supper at picnic area north of Canyon, and returned at dusk and dark through Hayden Valley. Bison, some now very close to road, one crossing road right at us. Several more moose, and about 30 elk, mostly at a distance. Others had seen grizzly bear and cubs from lookout here the night before. Many pelicans on lake and river.

Sunday, Aug. 7. Hiked to Mystic Falls and Fairy Falls. Fairy Falls, a long thin plume is especially nice.

Monday, August 8. Left about 7.00 a.m. to move north to Tower Campground. Tower Campground is only fair, pit toilets and uneven sites. In afternoon, went on ranger-naturalist hike with ranger Mike Kendall, across sagebrush country. Found (to his own surprise) a fine bear's den recently dug, a monstrous hole dug in the timber on the north-facing side of a ridge, above the Yellowstone River. Also found in the area grizzly scat, which is at least 2" in diameter, perhaps half again as bulky as black bear scat (although the den is surmised to be that of a black bear cub or yearling which had been trapped and released in the area). Also found about 8 elk racks, carrying out a couple, which the ranger was to saw up and scatter in the area. Elk antlers are much coveted for sale, though as a groundup power thought to have medical powers (as an aphrodisiac in China). Roosevelt Lodge here, was built to commemorate a hunting trip in this area by Teddy Roosevelt. Picnic supper at Lamar Valley ? picnic area nearby, and in the evening drove the Blacktail Plateau gravel road looking for wildlife. Saw only two moose, one at distance, one nearby in woods. However on the main road were two more moose, near at hand, both big bulls. Aug 9.

Tuesday, Aug. 9. Hiked up Mount Lashburn. Storm just as we left, but it soon cleared and fine day. The hike up is on an old roadbed; we left from Duramen Pass picnic area, though it seems most others hiked up starting at the other end - the Chittenden ? road. Bighorn sheep near the summit, two first seen in exquisite profile on a ridge, both rams.

Later, two (others?) came so near we had to get off the road to avoid them, both rams. Lunched in the observation tower, and after lunch walked (with Shonny only) up the Chittenden road shortly to see ewes and lambs reported there, and found one ewe with two lambs at roadside, with four others, 11 sheep seen altogether.

In the evening, I returned to overlooks on the road up toward Mt. Lashburn to see if I could spot bear. Five moose seen, at a distance, and about 12 elk, but no bear.

Wednesday, August 10. Moved to Mammoth Hot Springs. Five coyotes on the way, one walked right by the car on the road after we had stopped to observe it. Did Mammoth hot springs in the afternoon, after showers in the morning. Ranger talk on bears at Indian Creek Campground that night, picnic supper at Sheepherder Cliffs Picnic Area nearby. About 24 elk after the talk on the roadside, wading through Gardner River. Stayed till dark on Swan Lake Flats, hoping to see bear reported there two days before. Hard rain while waiting, later clearing.

Thursday, rose alone at returned to Swan Lake Flats watching for wildlife. About 6 elk. Three Sandhill cranes seen well through the scope. Returned to get Shonny and Giles and set off for Norris Geyser Basin. Finally found a bear shortly above Mammoth Hot Springs, a cub or yearling eating Shepherdia berries along the roadside, and watched him half an hour.

Ranger tour at Norris Geyser basin, and watched Echinus, Geyser erupt. Supper at camp, and ranger program that evening on hawks and owls in Yellowstone.

Friday. Left Mammoth Hot Springs, driving south. Lunched at Old Faithful, with a second round on some much desired ice cream cones. Stopped in Tetons at Colder Bay for Indian exhibit, and drove out, camping at Falls Campground, now open. Hatchett Campground is near ranger station (Bridger-Teton National Forest), only about 6 sites, fills mid afternoon. Falls (Shoshone National Forest) has 45 sites, and seldom seems to fill.

Saturday, Aug 13. Drove home uneventfully from Falls Campground, after a 6:30 a.m. getaway. Children were good in helping get off.

August 13-14. Lion Gulch Trail to Homestead Meadows, with Giles, Adam McCambridge, and Mark Michoski, the Kodiak Patrol, hopelessly juvenile camping to fulfil Camping Skill award. The day after I heard that Philosophical Books would publish my Religious Inquiry: Participation and Detachment. Jane was in Richmond, and Shonny in Nebraska on a work camp. Poor-will in evening.

Sept. 10-11, 83. The Pool, with the Kodiak Patrol! to fulfill the second overnight for first class Scouts. Hiked to Fern Lake in the afternoon. Lovely weather, and the boys slept out under the stars in a cloudless sky, breezy but warm. 2 water snakes.

Oct. 8. Flattop Mountain and headwaters of Tonahutu Creek, with Giles. Left Bear Lake about 8.45, on Flattop about 11.00, and walked over some distance to where we had backpacked in July 15-17, 83. Mild day, but somewhat windy on top. Weather good but somewhat uncertain in the distance. Fog in lower elevations. Lunched at 12.00 just above the point where we contacted the point reached before. Collected some mosses in this area. Steady hike out, returning about 4.30. No wildlife.

October 9, Sunday, returning from Akron. About 24 antelope, near the road. Mild weather generally so far this fall, but there was an early freeze in September that took the tomatoes out overnight.

James Watt resigns as Secretary of the Interior. Hurray!

October 22, 1983. Ypsilon Lake, and elk bugling. Left trailhead at 8.30 with Giles. Steady walk up, past Lawn Lake flood damage, from last year. Vast gulley cut in former stream bed. Dry woods on ridgetop and lovely day. Reached snowpack about Chipmunk (which is higher than Ypsilon) and dropped down on north facing side in solid snowpack, but no trouble walking in. Pleasant but windy at lake for lunch. Walked out about 3:30.

Cooked supper, and listened for elk. Towards dark about 12, then about 24 more came out in upper Horseshoe Park. Heard about 12 good bugles here, and saw several bucking at each other and two rearing up on hind legs to kick at each other. Only two bulls evident in this group.

Drove down almost at dark to middle part of Horseshoe Park where we had seen a number coming out from the far side. Here the bugling was much more dramatic, and heard a total of 103 calls before leaving. Best I have ever heard by far.

November 5, 1983. Ptarmigan in white in snow on Trail Ridge Road. Audubon trip led by Ken Giesen, Colorado Division of Wildlife, under Clait Braun. Left 6.00 a.m. and drove to Trail Ridge. First tried an area not far past the old ranger stations and cabins, torn down now, looking through the low willows. Then drove to Tundra Curves (past Rock Cut) and walked about quarter mile n.w. at about same elevation, and found five in snow patch in willows.

They were extremely well camouflaged, and I was 25 feet away before I could spot them. Even when others said they were there, I thought them clumps of snow. Quite tame and we watched them half an hour from a distance of a few feet. Ken Giesen caught one, which was unbanded, using the long fishing pole arrangement they have, with a wire loop on the far end. Weighed, measured, banded it. They band about a hundred birds a year on trail ridge. This trip had been scheduled for Guanella Pass, but the birds have not come in there yet. This is a late fall; it is unusual for Trail Ridge still to be open this late. Look for ptarmigan in the low willows, about 2 feet high or lower. They feed on the buds as much as anything else.

Cold winter from Thanksgiving on.

end 1983.

## 1984

Jan. 3, 84. Skiing into Wild Basin with Shonny and Giles. Nice day, but the snow was crusty.

Jan. 18, 84. 28 degrees below zero. Coldest I have ever seen it.

March 3, 84. Riverside, Empire, and Jackson Reservoirs. No eagles, perhaps one at considerable distance. Reservoirs were frozen solid, as I have not seen them before. But no eagles along the river either. One white-fronted goose, quite close. Northern shrike. Dead coyote had been shot at State Wildlife area at Empire. Windy day. With Giles.

March 10, 1984. Horsetooth Mountain Park. Alone, walked over to what is now called Culver Falls and Lower Falls (to be renamed Horsetooth Falls). Bald eagle flew into nest on cliffs above Culver Falls, and watched some time, but couldn't see him/her on nest. Ron Ryder says bald eagles have not been known to nest here since the thirties.

Continued on up Spring Creek trail but it became too deep in snow, and I cut up to the service road and continued to the radio towers. Lunched there. There is a miscellaneous group of radio installations here, some are Denver TV relays for incoming signals, some are commercial radio repeaters. Returned after lunch, with many more people on the trails.

Culver Falls (now so called) is where Giles and I lunched with a group when the vote for the park was coming up. The entrance from the east (via East Ridge) requires crossing what is a private road (although it is quite open) and is not officially listed as an entrance.

March 17, 1984. Pole Mountain District, Medicine Bow National Forest, with Giles. Pretty day, drove to Summit Rest area, first expecting to cut across dirt roads from Tie Siding, but finding on inquiry that they were deep in drifts. 105 antelope in Virginia Dale area, in large groups.

Considerable snow drifts at Summit area, and pulled out two girls stuck in a Bronco. The side roads are all virtually closed with snow drifts. Went on to Vedauwoo Rocks area and took road to entrance, but had to walk in over scattered snow drifts. Ate lunch shortly up the nature trail.

Returned to snowshoe on trail system marked from Summit Rest Area. There are several trails marked in here and dozens of persons were using them. About 24 deer on way home, in Virginia Dale area.

March 24, 84. Skied to Lake Agnes, with Giles on snowshoes. Lovely day, but warm enough to make some difficulty going uphill skiing, and had hard time standing up coming down. Lovely scenery.

April 7, 84. Cobb Lake area, Wellington Wildlife area.

Gadwall  
Canada goose  
wigdeon  
pintails

ruddy ducks - have I seen this one here before? Several on the pond to the left from the walk-in parking lot, Cobb lake area.

scaup  
shovelers  
cinnamon teal  
marsh hawk  
blue winged teal  
green teal  
no yellow headed blackbirds  
redheads  
redwings - lots  
canvasbacks  
no shorebirds, much  
avocet - 1

April 8, 84. Marshes south of Fossil Creek, and Duck Lake, on Audubon Trip. Too many people.

April 14. Riverbend ponds and Flatiron site, with Kevin Cook on Audubon trip. Too windy. Lots of black crowned night herons, 3-4 yellow headed blackbirds. A few bitterns and wood ducks are here (not seen). Noted "wood duck alley" a stretch of isolated water where they are often found.

May 5, 1984. Shorebirds with Kevin Cook and group. (and Giles). Duck Lake, and swampy cattail marshes nearby, then to Nelson's Reservoir, then to Windsor Reservoir and finally at Timnath Reservoir, cattail swamp on east side.

Sandpipers: To be expected here are:

spotted - told at great distance by the teetering spotted sandpiper (not seen)

solitary sandpiper - eye ring stands out (not seen here)

least sandpiper - when it bends over in front of you, note the V white stripes on back straw colored legs

western sandpiper - rufous patch dark legs

semipalmated sandpiper - no rufous patch, dark legs

sanderling - the bird at the beach that runs in front of the surf like a wind up toy. Even here they run sideways.

willet - standing - a big bird with few characteristics flying - with a conspicuous black-white wing pattern named from the call.

greater yellowlegs - the common one here in May, upwards of willet sized

lesser yellowlegs (not seen) the common one here in March.

long billed dowitcher - long bill and rufous front.  
(seen well the next day at Briggsdale)

(short-billed dowitcher is rare here)

long-billed curlew - curved bill

marbled godwit - Straight or upturned bill. Two colored bill is distinctive.

killdeer ( a plover)

semipalmated plover - like a killdeer with one black bar

avocet

Canada goose

Wilson's phalarope - swim around in circles, or just spin around on water to stir up insect larvae.  
Also swim with head bob. Hundreds seen on the water.

sora

Virginia rail - both seen well while eating lunch at Timnath after the others had gone. Quite near the car at the roadside.

coots  
bufflehead  
pintail  
mallard  
widgeon  
shoveler  
merganser

pelicans - about 12 on Windsor Reservoir, and 24 at Timnath, the latter quite close.

great blue heron  
teal  
pheasant  
loggerhead shrike  
peregrine falcon  
Western grebe in great numbers (56-60) on Timnath  
eared greebe

savannah sparrow - yellow over eye  
marsh hawk  
coots

burrowing owl - standing over the prairie dog colony at Nelson's Reservoir  
magpie  
red winged blackbird  
yellow headed blackbird  
common grackle

2 coyotes, running in field n. side of Nelson's reservoir

May 6, 84. Briggsdale and Crow Valley Park, Audubon trip with Jim Sedgwick, a Ph.D. under Ron Ryder, now on a songbird project at Tammarack Ranch.

Walked around the campground area, bristling with birds. Best time here is mid-May, peak, but good all May. Water and trees in the midst of the plains that catches lots of migrants.

Myrtle warblers - abundant - must have seen 100 Audubon's warblers - mixed in. Both are now lumped as yellow rumped warblers.

great horned owl - perched in tree, ears clearly seen

willet - call heard, calls its name  
solitary sandpiper eye ring, bobs a little  
white crowned sparrow  
doves

orange crowned warbler You don't see the crown but once in 400 times. It has to be angry to erect the feathers. A nondescript yellow green, go by the weak color and some eye strips maybe, also mostly the time of year.

Say's phoebe  
blue jay  
Wilson's phalaropes  
spotted sandpiper

wood ducks - seen briefly in flight  
cowbird  
long billed dowitchers - about 6 seen well

Swainson's hawk - about 10. One flew by close up  
Lincoln's sparrow  
Swainson's thrush  
hermit thrush  
goldfinch  
mallard  
pintail  
kestrel

Franklin's gull  
rufous sided towhee  
California gull  
green tailed towhee  
flicker

lark bunting  
western kingbird  
horned lark  
crow  
magpie  
robin  
common grackle

Later, returned to where the main road bends s.w., and turned north three miles (Road 57), till junction with Road 96 (dirt) and drove east 1.6 miles, at stop to see mountain plover. At the stop point there is a weak road coming north-south, with a windmill up the n. road some distance off on skyline, and another closer windmill n.e. on horizon and s. road points between 2 power poles far south. Walked out about 6 feet apart to flush a mountain plover and flushed two, seen through telescope.

Mountain plover are more common here than was earlier known.

Sparrows here are clay colored (not seen)  
Brewer's sparrow (not seen)  
Chipping sparrow (not seen)

vesper sparrow - white outer tail feathers, many seen

McCown's longspur - several seen - white outer tail feathers with black tip

The grass here is blue gramma and buffalo grass.

Immature golden eagle over Lexington Green driving home one Sunday several weeks ago.

May 12, Saturday, with Kevin Cook. Grandview Cemetery, then Martinez Park area, then driving Wellington area looking for hawks. Barn owl in bankside excavation n. of town, hard to see in the dark of the hole. Orioles, flicker, ducks, hairy woodpecker, yellowthroat, towhee. 2 Swainson's hawks north of town, and nice look at an immature golden eagle soaring overhead. Broadwing hawks often nest in Grandview Cemetery, s. side near the golf course. They are otherwise hard to see in Colorado. The frogs that sing in the cattails in Martinez park are chorus frogs mostly, some leopard frogs.

May 19, Saturday. Grandview Cemetery and s. of Laporte Jr. High, birding. Giles shot a rabbit at Cleon Kimberling's, his first.

May 20, Sunday. Spring Creek with Kevin. Notable birds: catbirds, lesser goldfinch, Virginia's warbler. Two large bullsnakes copulating. Rock wren. Lots of orioles, goldfinches. Chats.

May 26, Saturday. Crow Valley with Kevin Cook. Stopped off at the bend of the road from n.e. to e. (about 5 miles short of Crow Valley) to see a White Necked Raven, unusual bird for northern Colorado. Got a much better look at it coming back. Small raven, crow-sized, but with raven call. White neck doesn't show. Two golden eagles nearby.

At Crow Valley, rose-breasted grosbeak and black headed grosbeak, both in binoculars at same moment and close by. Lots of Swainson's thrushes. Swainson's hawks. Lark sparrows, cowbirds.

One brown thrasher and one mockingbird (the first I have seen in Colorado?) Two great horned owls in tree, amply seen, including 60x in scope. They nest here every year and can usually be found. Western wood pewee, rough-winged swallow.

Mountain plover across the road, after lunch, and drove north and out east again to see McCown's longspurs. Late getting back for a trip Giles was to make on Bernie Rollin's motorcycle. Cold morning but the weather faired up midmorning. Quite a contrast in birds seen today and May 6. Almost no warblers. This has been a poor year for warblers.

May 27, Sunday. Catbird in the back yard! Third I have seen in Colorado.

June 2, 84. Birding at Duck Lake, Fossil Creek, etc., alone. Nice views of yellowthroat. Otherwise the usual birds.

June 3, Sunday. Last of the spring seminars with Kevin Cook. Rist Canyon and Pingree Park Road, up Crown Point Road a ways.

White throated swifts at n. end Watson's Lake. Wings are longer, narrower than the cliff swallows more common there, also the swifts have a different flight pattern. Catbird (4th in Colorado!) nests here regularly.

Drive to picnic area in Rist Canyon, a favorite birding spot. Red-breasted nuthatch, the least common one in Colorado. It is an eruptive species, that is, it has boom years, but is usually uncommon. Also pygmy nuthatch.

Ruby crowned kinglet, with red crown nicely seen. Chased an ovenbird at much length, and got only a glimpse of it, but others in the party saw it nicely. Warbling vireo, including a nest, which is built below the limb, slung down, somewhat like an oriole's nest. Evening grosbeaks, western wood pewee. Empidonax flycatchers, probably Dusky. Siskins.

On to Buckhorn, with a stop to see a goshawk (which I did not see) and walk along meadow. Lincoln's sparrow and song sparrow. Olive-sided flycatcher, with quick-three-beers call.

The dirt mounds in linear form are eskers made by the northern pocket gopher, Thomomys talpoides, Kevin has seen them making these. The gophers make tunnels in the ground up to 500 feet long, and variously a few inches to 2 ft. underground. But in winter they leave the ground and make tunnels in the snow. Then when they dig more tunnels they will fill the tunnels in the snow with dirt. (See Lechleitner, Wild Mammals of Colorado, p. 111).

They also make piles of dirt any time of the year, often with a hole to one side, but they also plug their holes.

Western wood pewee. Spotted sandpiper. The spotted sandpiper female lays two clutches of eggs. He incubates one and she the other!

Red crossbill in lodgepole forest up Crown point road, also several dozen Calypso orchids, including one clump with 12-15 in it. Pipit, pipit walk, sparrows hop. Two dippers nesting on Poudre River on way back.

Participants: Judy Bodenham (dark haired studied entomology); Greg Mihalik, beard, companion

of Sally Mather. Margaret Pratt, short haired blonde, studied horticulture, interested in flowers; Cathy Stamm, long haired brunette, often with Margaret. Art Watson, druggist at Walgreens. Roger Rybicka. Susan Strawn, with son, Chris. Rob Porter, young D.V.M. Kevin Cook, 728 Eastdale Dr., 221-0012

June 8, 84. Pierson Trail, alone. Up Fish Creek road from Estes through a subdivision with no trespassing signs, but the forest service seems to have access through here. Some confusing turnoffs, but stay on the main dirt road and climb steeply, eventually coming to a welcome to the National Forest sign and some mileages, 1 m. to Pierson Park. But the road stays somewhat confusing, because of timber roads. Stay on main road 1.8 Miles, mostly in low, 2nd gear, and come out in a grassy area with trail signs. Showshoe rabbit enroute up.

Hike to Homestead Meadows was a good one and no problems, though the trail is essentially unshown on topo maps, although it is not a newly built trail, some old berm in here. Birds were good, bluebirds, Williamson's sapsucker, yellow bellied sapsucker, creepers, nuthatches, chipping sparrows, yellow rumped warblers, Empidonax flycatchers, lots of flickers, Townsend's solitaires, crossbills, many, many siskins, a few Swainson's thrushes.

One coyote in a grassy open area. Trail rises, then falls and comes out in Homestead meadows. Lunched at Laycock Homestead, which Giles and I had reached last year from Lion Gulch. 15 elk in the meadow while I lunched.

June 21-26, 84. Seminar on Environmental Arts and Sciences, Thorne Ecological Institute, held at Aspen. Drove over Independence Pass. Friday, June 22, hiked up Conundrum Creek 3-4 miles. Getting into the trailhead was difficult because late snows had caused many blowdowns. There are hot springs at the head of this trail, unusual in the alpine.

Saturday, June 23, hiked to Crater Lake with Frank Golly, University of Georgia, Program in Ecology, director. Also field trips up Independence Pass, and again to Maroon Bells. Cookout supper with Stuart Mace, friend of Jody Cardamone's who runs the nature center there, a deep ecologist.

June 29-July 30. Trip to Alabama and Virginia in camper. Spectacular redheaded woodpeckers at Lake Lowndes State Park, just s.e. of Columbus, Miss. Also quite a chorus of frogs and insects, and a great horned owl, and some whip-poor-wills.

July 19-23. Ramsey's Draft area, George Washington National Forest, with Giles in camper. Camped at Lake Todd, w. of Mt. Solon and Natural Chimney's. Drove up from Richmond Thursday in perfect weather. Friday (July 20) hiked up Ramsey's Draft. Trail begins on Route 250 at Mountain House Picnic Area, and continue in car about 3/4 mile up, where road is blocked off. Old road, now nice for hiking continues about 4 miles up and then becomes foot trail. Collected mosses. See list Sept. 1985.

Saturday, rain. Drove up Reddish Knob, and then to Grand Caverns. Great Horned Owl in night. Sunday, hiked in Dividing Ridge Trail (now incorporated into the White Oak Trail, a trail of some 25-30 miles that follows a circumferential route. Connected with Springhouse Ridge Trail, lunched at Hiner Spring, and head of Ramsey's Draft trail, and descended it a ways. Then returned and walked to base of Hardscrabble Knob Trail. Very muddy auto road (which had been newly scraped) was ticklish to get through. Upper part of Ramsey's Draft is virgin timber and a Wilderness Study Area. Pileated woodpecker, Cooper's Hawk.

Friday July 27. Night at Harmonie State Park, New Harmony, Indiana, and owl walk to try to hear owls call prompted by a recording of owl calls. No luck. Spectacular breakup of a spaceship or satellite seen by accident at the close of the hike. Hiked in darkness more than I realized was possible.

July 29, Sunday. Night at Wilson Lake State Park. Many coyotes calling in the night.

August 3-5, American Bryological and Lichenological Society Foray into Rocky Mountain National Park. Stopped at Sylvan Dale Ranch just before Big Thompson Canyon, and also in the Canyon, and Friday afternoon went from McGraw Ranch walking up Cow Creek and to Bridal Veil Falls.

Saturday, Aug. 4. Trail Ridge in vicinity of Toll Memorial, and in afternoon to the Pool and Fern Falls. 2 female bighorns in Horseshoe Park.

Some participants:

Roger A. Anderson, lichens, Univ. Denver;  
Dom Basile, new editor of *Bryologist*,  
Elmire Conklin, doing thesis on Fissidens;  
Jan-Peter Frahm, co-author of German Moosflora;  
Mason Hale, lichens, Smithsonian Institution.  
Thomas Nash, Arizona State, lichens; Paul Biegel, algae expert,  
Dickinson College;  
William Buck, tropical mosses, New York Botanical  
Garden;  
E. H. Ketchledge, dendrology expert and bryology,  
State University of New York at Syracuse  
Mac Sargent, bryology and cell biology University of Illinois,  
Sam Shushan, lichens, University of Colorado;  
John Thomson, University of Wisconsin, lichens and bryology,  
Cliff Wetmore, lichens, University-of Minnesota,  
Hank Webster (Harold J.), DuBois Campus, Pennsylvania State University, bryology,  
Richard Andrus, Sphagnum expert and environmental sciences, State University of New York at  
Binghamton.

Aug 11, 84. Zimmerman Trail from Crown Point. Drove with Giles to Crown Point, and took older road to Zimmerman Trail. Good 4wd, pickups, vans to trailhead, a bit doubtful for sedans. Descend and reach main Zimmerman Trail as hiked before from Poudre Canyon, and thence to Sheep Creek Reservoir. Then on up Zimmerman trail to point where extension of Crown Point Road contacts it (not shown on topos). Uneventful return, rather dry woods, but some good spots around Sheep Creek Reservoir.

Aug. 20-24, 1984. Mt. Zirkel's. Gilpin Lake and Gold Creek Lake. Drove over in Scout on Monday (Aug. 20), with bad weather in afternoon. Camped at Seedhouse Campground (there used to be a seedhouse here, extracting seeds from lodgepole pine, spruce, etc. for re-seeding forests). Strolled around a road north from campground area late in the dusk and got hit in the head by some unknown object -- stray bullet, slingshot rock?? -- and bled enough to soak a handkerchief.

Tuesday, Aug. 21. Gold Creek Lake, and on up to old lakebed, through which the Ute Pass Trail passes.

Wednesday, Aug. 22. Backpacked to Gilpin Lake, and camped on West side in nice campground.



Afternoon at ease, and collecting mosses. Thursday, Aug. 23, hiked to Red Dirt Pass in off-on weather. Clouds-fog-winds traveling through the pass at good rate and condensation level right at the pass. Better weather on return late in afternoon. Northern pocket gopher seen late in evening, pulling down bistort and other grasses and forbs. Rather little sign of game in this area and none seen.

Friday, Aug. 24, rain in early morning, but packet out dry, and rain-drizzle all the way home. Only 4 ½ hours driving back from Steamboat.

Sign in Seedhouse Campground: Three Island Lake 5. South Fork Elk River 2.

Elk River watershed is one of the best in Colorado, producing 25 gallons of usable water per square foot of watershed, enough for 500,000 persons.

September 12, 84. Trail Ridge Road and hike to Loch Vale in afternoon with John Mackintosh, Ian's son from London. Unsettled weather but no rain really, and clouds rather pretty in and out the peaks. Bits of aspen turning.

October 3-7, 84. Trip to Athens, Georgia for Environmental Ethics Conference. Rented car and drove to Cleveland, got motel, and walked into Anna Ruby Falls, nice area. Twin falls formed at the junctions of Curtis and York Creeks, joining at the base of the falls to become Smith Creek. Anna Ruby Nichols was the daughter of a prominent Civil War Colonel, John H. Nichols, who owned the area. Next morning hiked up Appalachian Trail from Unicoi Gap, and then on to Athens. Heard turkeys on the trail. Nice weather.

Saturday (Oct. 6) drove to Hiawassee with Baird Callicott and following Bob Loftin (Philosophy, University of North Florida, Jacksonville) to his home (summer home) at Hiawassee (where his in-laws also live: Mr. & Mrs. C. C. Wilson, RFD 1, Box 203-A6, Hiawassee, GA. 30546. This is on Lake Chatuge. Stopped on way in and hiked down Corbin Creek. Loftin is an ornithologist, authority on birds in this area.

Sunday, a.m. Baird and I drove to Coleman River Scenic Area and hiked trail up Coleman River, splendid trail, beautiful stream, delightful in early fall. Returned to Atlanta afternoon. Halesia carolina, Carolina silverbells, is somewhat prominent in these woods, now in notable fruit, 4 winged. Also Clethra acuminata.

Nov. 17, 1984. West Creek Falls from McGraw Ranch (now Indianhead Ranch). Drove in with Giles and had trouble with a pet and pest goat. Hiked up a trail, called Best Trail, which rises over to West Creek, and then up the Creek. Contact with North Boundary Trail is well marked, and hiked on up to West Creek Falls, lunched there. Returned and hiked up North Boundary Trail enough to scout it out. Returned by the North Boundary Trail, which comes back to Indianhead Ranch. Also looked up the Bridal Veil Falls trail a little ways.

Returned to Estes and found 152 elk in Horseshoe Park, in two large groups. Also a nice view of a pair of Great Horned Owls, one perched in tree (seen with binoculars) at dusk. Five deer.

Lots of Rhytidium in the West Creek bottom, also lots of beetle kill in here. There is a trail back to Gem Lake from on up toward the Bridal Veil trail (according to man at the ranch).

Nov. 24, 1984. Trail over White Pine Saddle and on toward Flowers Road, along Pendergrass Creek. Alone, Giles was too fussy to go. Free of snow on the southfacing side, unbroken snow

on north facing side, but not too difficult to walk in. Nice day, but definitely winter in the woods. 2-3 deer, probably some elk heard in the brush. Should make a good spring hike but you need a day or two to reach the back areas in here.

end 1984.

## 1985

January 2, 1985. North Lone Pine Trail, with Giles, on snowshoes. Big drifts just past this parking area (6 m. w. of Redfeather Lakes). Went in past second stream crossing and up a ways further; solid snow cover. Returned. Walked up to Kilpecker burn area. Cloudy in a.m., sunny later on; nice day.

Splendid-pair of golden eagles on return (vicinity of Hanson's Ranch); also 14 mule deer. One great horned owl perched at roadside on iron pole; watched him in binoculars (the new Bushnell Custom Compact pair) at some length.

Jan. 19, 1985. Eagle, probably immature bald, flying over Fort Collins on Drake street, returning from taking Giles to meet Scouts to go on cross country ski-backpacking trip. Trip aborted, snowstorm and Scouts weren't prepared.

Feb. 1, 1985. 157 elk in Rocky Mountain National Park, at minus 10°. In groups of 30-40 mostly in Horseshoe Park and on the south side of Deer Mountain above Beaver Meadows, and between the Beaver Meadows entrance station and the Park Headquarters. I was enroute to Philosophy Department retreat at Estes Park YMCA.

Feb. 16, 1985. With Kevin Cook in van to s.e. of Scottsbluff, Nebraska, on a "Snowy Owl Chase." Three golden eagles, two of them seen nicely between Fort Collins and Cheyenne. Five great horned owls, two flushed from roadside wind breaks, one single and then a pair seen nicely perched at side of road. About fifteen buteos, mostly rough legs. Tell rough-leg by the feathered leg, the black belly, and it is slimmer than red tail.

40-50 redpolls seen about Wyoming-Nebraska line. This is an accidental in Colorado, doesn't usually get this far south. Mergansers, buffleheads, redheads, mallards, coots on Platte River Power Authority - Rawhide Plant lake at the plant. Bald eagles are often seen here. The lake is a cooling lake and does not freeze over.

Snowy owls are seen a few times a winter in Colorado, more often to the north, but are always rare. The male is snowy white with age, but younger birds and females have more tan/brown feathers. About 2 dozen antelope.

Feb. 18, 1985. Downhill skiing with Shonny and Giles at Eldora, their first time on downhill skis. Lovely day. Rode Ho-hum! and Snail! Chairlifts.

Feb. 24, 1985. Rawhide Power Plant. One bald eagle, adult far across the lake at the edge. Stayed there an hour. Lots of coots, mergansers, geese. Snow goose earlier seen flying over

town.

March 11-12, 85. Overnight camp at Jackson Lake and 43 bald eagles. Left a.m. 1 immature and 2 adults in air on way in to Riverside Reservoir, one of the adults flushed from perch in tree. 3 adults and 5 immatures at Empire, all sitting out on ice. Water is about half frozen, half open, and eagles sit at edge of ice. None seen along riverside this trip. Lunched at bridge at Orchard.

Drove to Prewitt Reservoir, for the first time. Well marked access on Route 6 s.e. of Merino, and easy access around the lake, all Fish and Wildlife property, camping permitted but no tables seen. 12 adults and 8 immatures here, some perched in trees, mostly at edge of ice. Now and again in the air. Perhaps 200 snow geese, mixed with Canada geese in the open water on the lake.

Returned to Jackson Lake and camped, too dark to look for eagles. Wind died down and not bad in the evening. Snow in the night, but we didn't know it was falling until we got up, when it had stopped. Somewhat windy in the morning, but improved.

Walked up the shore. 12 eagles, 4-5 adults, all on edge of ice, now and again flying, and walked up reasonably close to several. Returned to Empire via Orchard, and there was one good adult on ice. Lunched at Empire. Returned to Riverside, one adult far across lake on the bare soil hill where I have seen them before); also two immatures here in air. (These are presumed the same eagles seen the previous day.)

Talked to the ditchkeeper, who lives in the house at the bend of the road just below. Fish and Wildlife spent \$100,000 building up Pelican Island. Several hawks, including two dark redtails.

March 23, 1985. Mills Lake Trail with Giles, on showshoes. Tried out the new Sherpa shoes, which do very well. Good maneuverability. Shonny had gone to Keystone skiing with church youth group.

Two bighorn rams in Big Thompson Canyon, one half curl and quite lovely, posed against a rocky background for several minutes, the other a yearling ram behind it. Snowpacked roads above Sprague Lake picnic area, and heavy snow flurries all day long on the trail, some clearing after three o'clock. But it was sunny on the plains all day. Steady climb to the trail junction between Lock Vale and Mills, and difficult finding the trail thereafter, eventually turned around short of making it to Mills Lake, especially as Giles was tiring.

Met 8-10 skiers eventually in several groups all of whom had not skied up the summer trail but taken a short cut up the tributary of Glacier Creek which is crossed by the heavy wooden bridge shortly after leaving trailhead. Then they turn and go between Glacier Knobs. Also, they do not take the summer trail to Loch Vale, but go down and ski up the creek.

Slick section of road on way out and pushed a pickup truck out that was stuck.

Mar. 31, 1985. Cobb Lake area with Giles, Sunday morning. Pintails, redheads, widgeon, coot, scaup, cinnamon teal, green winged teal, Canada geese, grebes, but very windy. One flock of 18 bluebirds in prime color, all males except about two. Quite lovely. Several nice pheasants, male and female.

April 12-15, 85. Tetons and Yellowstone. Took Giles out of school. Drove Friday to Jackson via Rock Springs, counting 850 antelope enroute, in groups of 12-24. 8 bighorn sheep on Hoback Creek Road south of Jackson (Bridger Teton National Forest). 2000 elk in National Elk Refuge north of Jackson; there are about 5000 here in winter, and they may break out for high country

anytime now. Several sandhill cranes, bluebirds.

Stayed at Teton Science School (= Grand Teton Environmental Education Center, Coleen Cabot, Director. Teton National Park property with a private, nonprofit educational school, a good deal of time spent educating elementary and secondary schoolchildren in a sort of eco-week affair, winter ecology, building snow caves. Staff of about 12. Drove further into Teton Park area about twilight and saw 13 moose.

Saturday a.m. heard coyotes calling. Drove up main road again, 15 moose, 3 bald eagles, 2 sandhill cranes, mostly opposite Triangle Ranch. Once I had a bald eagle, two moose and two sandhill cranes in the spotting scope at once! Coyote seen running across sagebrush field on return.

Panel discussion on grizzly bears at Jackson High School in afternoon. John Weaver, co-ordinator of grizzly recovery program for 12 National Forests, on panel, with Don Schmalz, \_\_\_\_\_ outfitter from Cody, and Tom Lyon, professor of English, Utah State University. 3 trumpeter swans on return, also a pair of moose close up. Both moose and elk have mostly dropped their antlers.

Teton-Yellowstone, continued. Left 5.00 a.m. Sunday and drove via Teton Pass south of Jackson around through Idaho (Diggs, Ashton) to West Yellowstone and on into Old Faithful area. The road into Old Faithful has only been open a couple days. Snow depth typically 3 feet, though sizeable areas are open, especially where there are thermal areas. Many buffalo in the park, also elk, one bald eagle along Madison River. Buffalo and elk freely present in the areas that are filled with tourists in the summer. Watched Old Faithful and walked around geyser area. Lunched at Old Faithful.

Returned and drove north to Mammoth-Hot Springs. Single coyotes on two different occasions; more elk and buffalo, sandhills. First thought to camp at Mammoth, but a grizzly sow with cubs had been sighted day before between Pebble Creek and Cooke City, so we drove up that road. Large numbers of elk and many buffalo on the road, but not so close up as on the Old Faithful Road, but no bear.

Night in motel at Cooke City, where the road stops, not open further until about June 1. Left early a.m. Monday and returned, somewhat slowly through the park (no longer counting elk and buffalo) and more rapidly thereafter. Pair of coyotes in Gardner River area, and another single coyote in Norris area. Drove home via West Yellowstone, Idaho, Teton Pass, Jackson, Rock Springs, total 670 miles for the day's drive!

Wildlife count:

- 518 buffalo
- 100 +/- deer
- 32 moose
- 4 bald eagles
- 1,050 antelope
- 19 bighorn sheep
- roadkilled porcupines - 2
- 2,525 elk
- 20 sandhill cranes
- 5 trumpeter swans
- 7 coyotes
- 12 redtail hawks

0 - bears!

Barrow's Goldeneye (duck) in Lamar Valley, also one perched Ferruginous Hawk in snag.

May 5, 85. Crow Valley, with Giles. Lovely day, though Crow Valley was not as bristling with birds as it was last year this time. Audubon's warbler, Myrtle warbler, many doves, white crowned sparrows, chipping sparrows, redwings, Swainson's hawks, Swainson's thrush, goldfinch, kestrel, flushed one great horned owl, meadowlarks, two brown thrashers, flickers, robins, rufous sided towhee, lark sparrow, horned lark, lark bunting, yellow warbler, barn swallow, pheasant, yellow breasted chat.

Drove north a bit and came on a really good golden eagle, enormous sitting on fence, and flew off in front of car while I had binoculars on it. Immature, with good white. Returned to lunch at Crow Valley.

After lunch, hunted up the mountain plover, saw two. There is a prairie dog colony nearby and burrowing owls may often be seen here. McCown's longspur.

May 8-13, trip to Washington, D. C., Georgetown University and two days in Shenandoah National Park, and surprised mother on a Mother's Day visit to Richmond. Left Washington and drove through Warrenton, Sperryville and got on Skyline Drive, Route 211, road to Luray. Drove south to Big Meadows and camped there two nights. Only campground open in park.

Hiked Dark Hollow Falls and ate supper at the falls, mostly birding and enjoying spring flora. Friday, hiked Whiteoak Canyon Trail in Skyland area, about 7 miles round trip, to first and then second falls. Lovely weather, though the descent and climb were about enough hike. Returned to hike up Hawksbill Mountain, 4050 ft., highest point in park, about 2 miles round trip. This plus early morning bird walk made about ten miles for the day.

Sunday, drove south and hiked South River Falls trail, mostly birding, about 3 miles round trip. Again, lovely weather and falls. Lower here and flora is more out, also some different birds. Then drove to Route 250, lunching enroute, and on to Richmond.

About 50-60 deer, often pretty tame. Bucks have no antlers now and doe have not yet dropped their fawns. Half dozen groundhogs, rabbits. Skunks and raccoons are often seen in campground; one couple I talked with had seen a bear cross road previous day.

Many towhees. Chipping sparrow, field sparrow. Veery is common in woods and makes notable call. Several catbirds, many robins. Good look at solitary vireo, several brown thrashers. Warblers often heard but hard to locate in the foliage. Good look at several chestnut-sided, one bay-breasted, one black and white. Ovenbird heard in lower end of park, not upper. Nice blue grosbeak and (I think) a redstart. No hawks seen. A good many goldfinches. 31 species seen or heard. 75 are said on the checklist to be abundant or common in spring. Pewees often heard, also phoebe, and good look at several great crested flycatchers.

May 18, 1985. North Boundary Trail and West Creek Falls, with Giles. Nice day and woods full of ticks. Went back looking for the Leptopterigynandrum austroalpinum on West Creek; found it again about 200 yards downstream from the junction of the main North Boundary Trail. It is in the horizontal crevice of a boulder, and seems somewhat to hang down, or at least some main stems of it do.

Went on up and lunched at West Creek Falls, Giles came upon a large porcupine rather suddenly and it startled him. Collected mosses on the far side of the falls. Several Audubon's warblers.

Rather heavy hail on the road on the way home.

June 2, 85. Spring Creek below Horsetooth dam. Catbird. Phoebe.

June 4-13, 85. Athens, Georgia, and Joyce Kilmer-Slickrock Wilderness. Left Athens Saturday, June 8, about 3.00 and spent night above Tate Branch campground, rather noisy with too many people. Hiked Coleman River trail some that evening, and again next morning. Then on into North Carolina and to Joyce Kilmer forest on Sunday. Camped at Horse Cove Campground, quite nice, only a few people. Hiked the Joyce Kilmer Memorial trail during supper, ate at the Memorial. Enormous poplars and hemlock here, some take five persons to join arms around (20 feet). Also good birds.

Monday, hiked Naked Ground Trail 4-5 miles up. The ranger did not know why it was so called. Fine deep woods, collected mosses. Hard rain coming out. 4 foot blacksnake. Ovenbirds evident from calls, black-throated blue warblers seen well. Lots of trailing arbutus and large patches of Indian pipe.

Went to Ranger Station in Robbinsville and got more information, and camped that night at Santeelah Hunters Camp, enroute to Bob Stratton Bald. Slept in open lean-to, with brilliant display of lightning bugs, and rain off and on all night.

Tuesday, drove to Wolf Laurel Basin and hiked up Bob Stratton Bald. Saw ruffed grouse with 4 chicks behind her crossing the road driving in; first I didn't realize what the chicks were as they crossed a bit after she did and one by one, though in a great hurry. She waited for them at the edge of the road.

Climbed the bald in much cloud cover and ate on top. The bald is not the summit, but there is 10-20 acres of bald further past (east); also some fir in here. Returned and went to Naked Ground (gap) which is wooded, not naked, and then walked out in the rain. Good flora. Veery in here, which must be about the southern limit.

Drove to Bryson City and camped (in Great Smoky Mountains National Park) at Deep Creek. Walked up Deep Creek trail and did about 3-4 mile circle route after supper. Hard rain off and on in the night, and packed up in drizzle. Drove to Oconaluftee Visitor Center, near Cherokee, and weather was clearing some, so drove up Clingman's Dome, with pretty clouds opening up on the way, but by the time I got to the top (6,642ft) there was complete cover. Returned, dried out, lunched at Collins Creek Picnic area, and drove to Atlanta and spent night with Jackie Shires Hall.

Saw flowers I haven't seen in twenty years, and still knew a lot of them, but the names of some have been forgotten. Need to brush up on the ferns. Some laurel in bloom, some rhododendron, both great-white and rose-purple, some flame azalea on top of Bob Stratton Bald.

June 17, 85. Vedawoo Rocks in Medicine Bow National Forest, briefly, after meeting in Laramie on "Fence at Red Rim." Drove home over short cut via Ames Monument to come out a Tie Siding. Good but sometimes corduroy road.

June 20-28, 1985. Kingston, Ontario, and Algonquin Provincial Park. Flew to Toronto and rental car to Kingston for Conference on Environmental Ethics at Queens University, Kingston. Friday

midday, boat trip to Thousand and One Islands, on each one of which (!) is a summer home. Lovely day. These are islands where Lake Ontario goes into the Saint Lawrence River. Friday 4.00 p. m. thru Sunday lunch, conference.

Sunday, June 23, drove north in afternoon and camped at Opeongo Campground, Aping Lake. Hard rain that evening. Camped amidst a profusion of Bunchberry, which is superabundant throughout the park.

Monday a.m., June 24, walked Beaver Pond Trail and Spruce Bog Boardwalk trail, then went with naturalist on hike to Aping Lookout. Late afternoon, drove to Lake of Two Rivers and pitched camp, walked Two Rivers Trail in evening.

Tuesday morning, June 25, did bird walk with naturalist, and rest of day hiking trail around Provoking Lake, nearby. After supper hiked Hemlock Bluff Trail.

Wednesday, June 26, hiked Muzzy Lake trail, after pitching camp at Tea Lake Campground.

Thursday, June 27, rented canoe and paddled around Canoe Lake. Disappointingly non-wild; there are camps and summer homes all around it. Lovely weather throughout, except for rain first night.

Black flies were mostly gone (supposedly). They live most of year as larvae in water, and are only in adult stage May/June. They are bad to crawl up pants legs and bite, and you often don't feel it until later. Mosquitoes off and on, often bad at dusk, but variable rest of day. If there is much breeze, no problem. Few or no deer flies. Mosquitoes were decidedly fewer in campgrounds.

Park overall is disappointingly less than primeval. They whole thing was timbered and is all regrowth. They are still logging large portions of it. Many infolding. But there is still lots of good woods, and I did not see the interior. "Interior" is the way the parts reachable only by canoe (or on foot) are called. Park owns two float planes, which are often in the air.

Bunchberry (Cornus canadensis) in incredible profusion and in flower. Wild Sarsaparilla (Aralia nudicaulis) also abundant. Canada Mayflower (Maianthemum canadense) also in profusion Twinflower (Linnaea borealis) quite common. Red trillium (not in flower); spotted coral root (Corallorhiza maculata), a few; violets, fewer than you would think; Trailing Arbutus (Epigaea repens), not in flower, but there is a good deal here.

Wood Sorrel (Oxalis montana); Goldthread (Coitus groenlandica), often abundant; Fringed Polygala (Polygala paucifolia), rather frequent; pink Lady's slipper; the most I have seen - 18 one day, 6 another day, 1 another day; Vaccinium, groundcover; Cotton-grass (sedge; Eriophorum spissum); White Spiraea (Meadowsweet, Spiraea latifolia).

Bogs: Pitcher plant, Sarracenia purpurea), hundreds seen, mostly in Muzzy Lake area on Muzzy Lake trail, here often in flower. Sundew (Drosera rotundifolia); one leaf with three insects caught in it. Labrador tea (Ledum groenlandicum), a white heath in bogs, often in profusion; Sheep Laurel (Kalmia angustifolia), a little seen; Yellow pond-lily (Nuphar variegatum), common.

Roadsides: Orange Hawkweed (Hieracium aurantiacum) in profusion, an introduced exotic from Europe, entered the park after 1900; mixed with native yellow hawkweeds. Ox-eye daisy (Chrysanthemum leucanthemum), common. Some vetch (Vicia cracca); some Yarrow; some cinquefoil (Potentilla argentea); lots of raspberry (Rubus idaeus) some Pearly Everlasting (Anaphalis margaritacea).

Loons often calling at night; several seen at close range on canoe trip; they dive underwater for up to 3 minutes. Few ducks; the lakes often have no swampy edges and ducks don't like it here. One ring necked duck seen.

Ruffed grouse (1); kingbird, nice view of palpated woodpecker, lots of white throated sparrows and song is ever in the air, chipping sparrows, blue jays, black and white warbler, lots of varies song sparrows, catbird. Red-breasted nuthatch; female rose-breasted grosbeak; great crested flycatcher. One Blackburnian warbler (nice male) seen well from car at close of Muzzy Lake hike. Ovenbird; often heard; also chestnut-sided warbler. Bradding hawk (two seen; one calling). Yellow ramped (Myrtle warbler); hermit thrush.

Wolf scat seen on the abandoned railway bed, now a trail on n. part of Muzzy Lake Trail, mostly vicinity of Wolf Howl Pond. Eleven piles of it; it is easy because full of fur and very large (size of human excrement); no confusing this with coyote or fox.

Wolves in the park prey on deer but have not learned to catch the moose; they seem to be a somewhat smaller wolf than in the west or further north. There are howling packs in August, and if this happens for several nights, tours are led out; a recording played and the wolves may howl back.

One moose seen, roadside, one deer. The deer were originally few in the deep woods; the woods were cut, burned, and in the regrowth the deer moved in and flourished; in the 1950's peaked in great numbers. But with more regrowth; the habitat became less favorable and deer have declined. Moose declined when deer appeared for reasons unknown; then it was discovered that the deer carry a parasite, a worm in the spinal cord, which little affects them, but in moose goes to the brain and kills the moose - which often staggers around stupidly in the last stages of the disease. Moose have returned with the decline of the deer.

Several dozen frogs seen; several turtles, mostly painted turtles, though one (on canoe trip) had no painted head (sticking up above deep water) and was probably a snapping turtle. Snapping turtles common here; two were in an enclosure at the park museum; large thick necks and should be able to be recognized in the field.

One beaver; also chipmunks swimming in water some distance from land; they are good swimmers.

July 11, 85. Chasm Lake, below Long's Peak, with Ernie Partridge and Giles. Nice day. Best view I have ever had of a brown capped rosy finch (the rare one, tho locally common in habitat) at Chasm Lake, perched and singing after lunch.

July 21, 1985. Brackenbury State Wildlife Area, just north of Cement Plant, above Owl Canyon, just s. of Livermore Forks. We were rained out of a planned trip to Grays and Torrey's Peaks, heavy rains and tornadoes in Denver area. Overcast to cloudy bright most of day, and there had been medium heavy rains in this area. Giles and I went into this area, March 15, 1980. Deer flies (Chrysops spp) were bad in the lower parts, wet areas. One redtail.

August 20-25, 85. Wind River Range with Robert Elliot, Australia, and Giles. Drove in Scout Tuesday, Aug. 20, to Pinedale and north to New Fork Lakes Campground, arriving about 6.30. Long day in Scout. Rather dusty campground at lakeside. Poor will calling in evening.

Wednesday, Aug 21. Hiked to Rainbow Lake, though Giles gave out just before the lake and we lunched short of it. Steady climb. After lunch stayed a bit at Rainbow Lake and then on to Palmer

Lake, less climb, but plenty of hike for the day. Nice site at Palmer lake high above the lake, with pond nearby. This country is more extended high country, with many ups and downs, all nearly timberline or above, than is usual in the Front Range.

Thursday, Aug. 22. Packed on to Summit Lake, all high country hiking, and much easier than day before, but worried about shelter, as it looked stormy (which never materialized). Passed Cutthroat and No Name Lakes enroute, lunched at No Name Lakes. Found a very nice campsite some below Summit Lake.

Friday, Aug 23. Giles stayed in camp, and Robert and I hiked for the day over to Peak Lake. This is mostly a long day's hike around Mount Aenaeus. Passed Pass Lake, a very pretty one, and Elbow Lake, also pretty. The upper Twin Lake would be the most suitable here for camping, though no trees are shown on the topo, there are some there.

Above Elbow Lake trail rises to Shannon Pass. This section is a long S-curve back north of the generally south-trending Highland Trail, and is heavily used by horses (relatively). We saw about 12 people during the day; one party camped with horses. Lunched with good view of Peak Lake (3 parties going there to camp), and then retraced our steps, now looking at mosses. Coyotes close by during the night.

Saturday, Aug 24. Packed out, returning to Palmer Lake, lunching a little past it, and then coming out the long (long!) way home, north into Palmer Canyon, thence around to New Form Park, and back out. 16 miles this day, and wore a blister on the bottom of my foot. Camped at New Fork Lakes again, finding that a mouse had gotten into the Scout and into food cached there. The mouse must have been in the Scout when I moved it from the trailhead to the campsite, as he cut up my ski hat that night making a nest. Cut the tassel off.

One moose seen where Reynolds creek comes into Palmer Canyon.

Drive home Sunday, Aug. 25. Quite spectacular osprey's nest on a telephone pole below Pineal, nearer Boulder. One osprey brought a fish to another in the nest (presumably a juvenile, though it didn't look much like it) and the one in the nest ate it. Nice views in spotting scope.

Many antelope seen enroute both ways. Total trip on foot about 45 miles. Leave plenty of time for trips in Wind River Range (Bridge Wilderness); the backcountry is a bit hard to reach.

Sept. 13. Hike to Mummy Pass, prior to Philosophy Dept. Retreat. Lovely day. Black Abet's squirrel on way up, about 8 deer, one doe with fawn still with spots. Steady climb to the high point before Mummy Pass and then up and down to the pass. Turned back a little short of the pass and looked around for mosses. About 15 miles round trip.

List of mosses from Ramsey's Draft, July 19-23, 1984. (and liverworts)

Hedwigia ciliata

Tetraphis pellucida

Hypnum imponens

Plagiomnium cuspidatum

Aulacomnium heterostichum

Plagiomnium medium

Anomodon rostratus

Rhizomnium punctatum

Metzgeria conjugata ?  
Plagiomnium ciliare  
Brotherella recurvans  
Plagiothecium cavifolium  
Sematophyllum marylandicum  
Dicranum montanum  
Hylocomium splendens  
Isopterygium elegans  
Eurynchium ripariooides  
Fontinalis dalecarlica  
Entodon cladorrhizans  
Nowellia cirrifolia  
Grimmia pilifera  
Brachythecium cirtum  
Porella platyphylla  
Rhynchostegium serrulatum  
Bartramia pomiformis  
Philonotis fontana  
Dicranella heteromalla  
Bryhnia novae-angliae  
Anomodon attenuatus  
Campylium chrysophyllum  
Dicranum fulvum  
Brachythecium plumosum  
Hypnum curvifolium  
Brachythecium populeum  
Hypnum cupressiforme  
Forsstroemia trichomitria  
Hygroamblystegium tenax  
Dicranum scoparium

Oct. 5, Saturday. Hike with Giles up Onahu Creek Trail, and elk-bugling in evening. Drove over Trail Ridge Road in clear sky but snow blowing across roads. Dropped into the lower country, essentially free of snow. Hiked up Onahu Trail expecting to go to Long Meadows, but the trail has been rerouted and the main trail now turns and goes back south to Big Meadows instead. There are signs, obscure trail to Long Meadows, and the trail is probably not bad in summer, but we soon hit enough snow and a difficult creek crossing and turned back. Lunched at Onahu Bridge. There are three campsites in here.

Returned and drove over Trail Ridge and listened for elk bugling (with 2000 others!) in Horseshoe Park. Heard 250 bugles and stopped counting. But did not see a great many elk, perhaps fifty. They rather stayed in the bush, perhaps because of the crowd.

Nice view of dipper up Onahu Creek. About a dozen deer roadside during the deer.

Oct. 7, Monday. Cow Creek Valley from McGraw Ranch (Indianhead Ranch) with Fred Hermann, looking for Pseudoleskeella arizonae and Dicranodontium denudatum, both found by Peter Frahm, German bryologist, on AIBS foray Aug. 3, 1984. Blustery day, but we never got seriously rained on.

October 9, 85. Whooping crane near Severance. Paul Opler said it was there, and I drove out

about 2.00 p.m. It had been feeding for about ten days in and around a cornfield just east of a slough about half a mile east of Severance. Watched it 45 minutes. Rice white adult with black crown, some distance away but nice in the scope. About 30 are thought to migrate through Colorado. Total population at present about 100.

Oct. 12, 85. Barr Lake, with Paul Opler and Audubon Field trip, also Giles. Drove back to Severance to see the whooping crane, still there. This bird was hatched at Gray's Lake, Idaho, and is banded with colored markers so that Fish and Wildlife authorities know which one it is. Nice sunny day.

Drove to Barr Lake, saw 50 species, at least the group did. Over 100 white pelicans on the lake and large flock flew overhead so close we could hear their wings whistle in the air. Also yellow crowned kinglets at close range in low bushes around the lake. Very nice area near Brighton, near Denver. A state park. Paul Opler is lepidopterist, book on butterflies from Johns Hopkins Press, formerly with Endangered Species Office.

Oct. 10. Thursday, Steve Pensinger, Random House, said they will publish my book on science and religion.

Oct. 16. Wednesday. Loch Vale with Robert Elliot, Brisbane College, Australia. Later also to Dream Lake. Nice day.

November, rather cold and snowy.

Dec. 8-9, 1985. A major snowstorm, 18" in town.

Dec. 22. Drove to Wellington Wildlife area and Platt River Rawhide plant. Watched a group of horned larks in scope roadside at length. Three rough legged hawks. Rawhide is not frozen, many geese, ducks, but no eagles.

End 1985.

## 1986

Jan. 20, 1986, Zimmerman Lake, with Giles, on snowshoes. Nice day, good snow, but uneventful, 7 bighorns at one of the feeding/medication spots (across from the fish hatchery) on the way up, 17 there coming down, including 2 rams. The Montgomery Pass trail also leaves from the Zimmerman Lake parking lot, and I scouted the lower end of it, Too steep to ski, but it should be a good climb on snowshoes.

Jan. 25-29, Syracuse, N. Y. and address to Symposium on Social and Economic Values of Wildlife. Flew Saturday and rented car; drove out to Montezuma Wildlife Refuge, Seneca Falls, N. Y. Night in motel.

Sunday morning hiking in along road by the mail pool. This is an observation drive in season, usually snowed in in winter and a ski trail, but currently there has been a thaw and it was clear of snow. Overcast day. Thousands of Canada geese in the air and on the pool, almost all frozen. Returned and after lunch hiked a Spring Pool trail off Route 89. 12-15 deer. Snow Sunday night and returned to Beaver Lake Nature Center north of Syracuse. Very nice, especially birds at a large bird feeder, and the hemlock woods in 10" of new snow. Also Sunday afternoon drive south beside Lake Cayuga.

Feb. 15. First crocus. Mild weather.

Feb. 22. Rawhide Power Plant with Paul Opler and Audubon group. Exquisite adult bald eagle soaring shortly after we arrived. Many coots, goldeneye, scaup, buffleheads, mergansers, widgeon. Nice golden eagle, and later a second one at a distance. Drove out to Rockport, expecting to go on to the Pawnee' Grasslands but got separated from the leader. Ferruginous hawk, roughleg hawk. 50-60 antelope, one herd of 15 deer. The golden eye males were throwing their heads way back, in courtship; also the buffleheads were doing this to a lesser degree.

Received two new NCR computers yesterday. My first computers, for wordprocessing.

Mar. 17-18, 86. Eagle trip, camped at Jackson Lake. 9 eagles, but we were really too late. Not the best weather. Drove to Riverside, open water, no ice, cloudy but calm. Weather has been mild for 6 weeks. Reservoirs are as full as I remember seeing them. Drove to Empire, in slight rain. Lunched at Centennial Café in Orchard (eating outside!). Drove to Prewitt in rain. Two nice adults perched in tree on the island off to the left as you go in, and we gradually crept closer and closer in Scout until I could fill the scope at 60x with one of them. So close you could see the pupils in his eyes. He was wet and perched somewhat tottering in a high tree in good wind, trying to dry out.

Very menacing looking in somber weather. Total of six seen here, one immature.

Drove around the east side; there is considerable access here, but you eventually have to stop at the outlet/inlet. Returned to Jackson Lake and got camped and supper cooked, but with no time before dark.

Much wind in the night, but no rain (there was a major storm in the mountains). Took tent down in the wind in the morning. It did o.k., but this is as much wind as I have had it up in. Three eagles seen around Jackson, but none very close. Talked to ranger; there were 14 here last week, but it is late and weather has been mild. Drove around east and north side of Jackson Lake; there is access to the wildlife refuge from the north side.

Drove to Weldona and south across the S. Platte, then up a road to a reported eagle roost. Lunched again at café at Orchard, and drove home.

Several flocks of bluebirds. Perhaps two dozen great blue herons, more than I remember before. Perhaps 150 snow geese at Jackson Lake. Good number of Canada geese; the usual ducks - mallards, buffleheads (a few) lots of redheads, some shovelers, scaup, coots, widgeons. Ranger said he had seen some pelicans.

Mar. 29, 86. Harris' sparrow at feeder at Fred Hermann's. This sparrow winters here in Colorado, but is unusual. Nests in arctic.

April 3, Thursday. Spring snowstorm and got stalled in road to Loveland. I was trying to get to Boulder to give a paper at the Regional Meeting, American Academy for the Advancement of Science, on Values in Evolutionary Theory. There was little snow in Fort Collins, though Denver was in trouble. Began to snow furiously as I left town and by the time I got halfway to Loveland driving was difficult. It was hard to see the road in a whiteout, and the main signs for orientation were the telephone poles. Everything else was white and visibility was such that I could hardly see from one telephone pole to the other.

Two cars were turned around in the road about 3 miles north of Loveland, and, since others were behind me, I could not go forward or backward. Still snowing furiously. After half an hour enough people accumulated on both sides of the traffic to gather a half dozen to push until one of the cars was pushed far enough off the road to get by. A four wheel drive managed to get by the other and with a tow rope pulled it back straight on the road, and it pulled off into a farm driveway nearby.

I went on to Loveland and turned round and came home on Route 287, which was no problem returning.

April 10-13, 1986. Bowling Green State University, Bowling Green, Ohio, to deliver paper there. Sunday and Monday a.m. in the woods. Oak Openings Preserve west of Toledo, a Toledo metropark, but a very nicely preserved area and full of trails. Hiked the Blue-Fern trail first, before people began to gather, early a.m. Sunday, cool but lovely weather. Not too much out in the way of spring flora, but nevertheless nice deciduous woods. Then hiked Red Sand Dunes Trail, to sand dunes that are relict from prehistoric times when Lake Erie was much higher.

After lunch hiked Horseshoe Lake Trail, and then Silver Ridge Trail.

About mid-afternoon left to drive to Crane Creek State Park on Lake Erie east of Toledo, and stumbled onto Ottawa National Wildlife Refuge first, then went to Crane Creek about sunset. Night

in motel, and then drove back to Oak Openings (not far from the airport) and stayed there until time for takeoff about noon.

Lovely display of Hepatica americana, perhaps a thousand blossoms within sight on a hillside on the Silver Ridge trail. Some Claytonia, Spring Beauty, and a little Anemonella. Lots of Lindera benzoin, Spicebush. Lots of Symplocarpus, Skunk Cabbage, the best displays I have seen, and very pretty in the morning sun.

Earthstars, Gastrum, especially well developed around the sand dune area. Bigtooth Aspen is common in the area. Red Pine, Norway Pine, Scotch Pine, Jack Pine, Austrian Pine, White Pine, also Norway Spruce and Douglas Fir.

One Eastern bluebird in the sand dunes area, first I remember seeing in a long time. Chipping sparrows, titmice, veery song sparrow. Cooper's Hawk and call.

At the Ottawa Wildlife Refuge, about 6-8 Great Egrets, all white. A dozen Great Blue Herons, lots of Canada Geese. There is a 7-acre plot of deciduous forest preserved at Crane Creek State Park which catches migrants that hesitate to cross Lake Erie (you cannot see the other side). Ruby Crowned Kinglet in here. Next morning at Oak Openings a nice flock of Golden Crowned Kinglets. Coots. Deer tracks and a dead raccoon in the woods.

May 4, 86. Crow Valley, with Giles. Perhaps half a dozen mockingbirds and as many brown thrashers. No warblers. Reports were that Audubon's and myrtle had been there day before. Western kingbird, wrens. Lark sparrow. Swainsona's hawk. No orioles. I thought I saw a cardinal on the way in, but others there hadn't seen any, so maybe not; it wasn't a clear view. Cedar waxwings. Loads of doves, blackbirds, starlings. American goldfinch. Others had seen great horned owls and rose breasted grosbeaks the day before. Flushed a mallard hen off a nest on the ground beside an elm tree, with about ten unhatched eggs in it. Lark bunts, great horned larks, Western meadowlark in abundance on drive in. Kestrels. Robins.

May 11, 86. Spring Creek below Horsetooth, alone, for birds. Nice couple hours, with the usual birds. Lovely lazuli bunting. Many chats.

May 17, 86. Back to Crow Valley for the morning. This time it was full of Swainsona's thrushes, no mockingbirds seen. A few brown thrashers. Lots (perhaps a hundred) orchard orioles and a number of northern orioles. Perhaps a hundred western kingbird. Lots of goldfinches. Several yellow warblers. Western wood pewee. Barn swallows. Nice view in scope of turkey vulture, on ground, his head filling the field. One western tanager seen in town.

May 31- June 13. Ottawa, Canada, Nova Scotia and Prince Edward Island.

June 6, 1986. Flew to Halifax from Ottawa (after attending World Conservation Strategy Conference there, where I met Russell Peterson, past president of Audubon Society). Got car and drove to Kejimkujik National Park (kejim-koo-jik). Stayed in room at bed and breakfast inn just s. of Park (Whitman Inn). Rain off and on most of this time. Walked the trails around park headquarters (Mersey Meadows, Beech Grove, Mill Falls) in the afternoon, and went to a park ranger program that evening. Next morning, did birds around the bed and breakfast place, then rewalked some of the same trails, then went on a ranger-guided hike at Grafton Lake, then did the Hemlock and Hardwoods trail. Ate noodles at a picnic area, and then drove back to Halifax to pick up Jane (leaving about 5.00 p.m.), that night in Halifax.

Lots of redstarts, maybe a couple dozen seen or heard. Myrtle warblers, chestnut-sided, ovenbirds, parula - on the whole quite good for warblers. Yellowbellied sapsucker, hummingbird, thrushes, kingbird, loon (one heard calling), ravens.

Perhaps 7-8 pink ladyslippers, lots of Maianthemum, Cornus canadensis, Starflower (Trientalis borealis). Cancer-root (Orbanche), Pinedrops (Pterospora).

Ferns were especially good: Bracken, the three Osmundas (Royal Fern, Cinnamon Fern, and Interrupted fern); Onoclea. Pteretis pensylvanica (Ostrich-fern), though rare in Kejimkujik, is common elsewhere in Nova Scotia and New Brunswick and the fiddleheads are eaten in the spring. I was served them last week at a gourmet dinner at the Chateau Laurie Hotel in Ottawa.

Some of the flora and fauna that are rare here are common further south, and thought to be relict here from a land bridge that once connected Nova Scotia with parts south in the U. S. In particular Blandings turtle (Emydidae Blandings, named for a Philadelphia naturalist), is found here with a very discontinuous range, spotty in Massachusetts, NY, skips to the upper Midwest. About 500 are believed to be here. The ranger caught one (by hand from a boardwalk) swimming, the largest he said he had ever seen.

Calla in bloom. A good deal of Arbutus is here (not in flower); this is the floral emblem of Nova Scotia. The Pink Lady-slipper is the floral emblem of Prince Edward Island. Water-shield (Brasenia schreberi), floating on the water with a football shaped leaf, has a very gelatinous undersurface. The lake shore where the ranger caught the Blandings turtle was full of it.

Labrador Tea (Ledum) was common in the park, and elsewhere saw a good deal of Rhodora in bloom (Rhododendron canadense).

June 22, 86. Mineral Springs Trail from Rustic, with Giles. Trailhead is obscure, but once on it it is a good trail. Take road over river past Rustic (dirt) and follow it back on south side about half a mile. There are private cabins all through here, but nevertheless there seems to be a state easement, and once at the spot there are no posted signs. Up the trail 150 years (invisibly to road) there is a sign: Mineral Springs Trail, 3 miles.

Nice trail, though there is a good deal of beetle killed spruce in here. Physocarpus, Ninebark, was in full bloom, splendid display, and better developed here than I elsewhere recall. Dodecatheon, Shooting-star, also quite good. Lots of woodpeckers in the downed and dead timber. Above, more aspen, with wrens, Cassian's finches, pine grosbeaks. Also half a dozen Townsend's solitaires. Lunched at Mineral Springs area, where the trail (for the last 3/4 mile having become a road) crosses the road in from the Crown Point Road.

June 28, 86. Chasm View with Bob Crumby and Perry Biddle.

July 17-21, 86. Popo Agie Wilderness trip, with National Outdoor Leadership School, from Lander, Wyoming. (Pronounced Po-pose-zhia, long o's) With Bev Driver and others.

Drove to Lander in government car, with Giles; arrived about noon. Spent most of afternoon getting outfitted (though we didn't take much), introduced to NOLS, and got on bus to go to vicinity of Dickinson Park, where we camped with Allen Brothers, outfitters, and were fed supper in a cabin there. Night in a tent there. Coyotes heard in the morning.

Breakfast there, then onto bus for several miles to Dickinson Park; then on foot the rest of the day.

Hiked in to Smith Lake and then to Cook Lake, where we camped throughout. Afternoon at ease; discussions in the evening.

Saturday a.m., discussions; afternoon hiked along to Cathedral Lake, nice hike.

Saturday night, led discussion on intrinsic values in wilderness. Sunday a.m. discussions; afternoon, hiked to up Lake Phyllis (not named on map), just below which there was a fresh avalanche fall with much windthrown timber (now melted), but must have avalanched in March or April. Went on to Mendarrin Lake, very nice forest floor in here, good timber (limber pines, with glacial erratics). Mendarrin lake is in a fine cirque.

Discussions in the evening; Monday, hiked out, nice hike. Drove home from 4.00 on Monday night.

Participants: Bob Lucas; forestry and author on wilderness; B. L. Driver, recreation expert, USFS; George Peterson, recreation expert USES; Tom Brown, economist, USFS; Dan Stynes, recreation, Michigan State University; Rick Knopf, river recreation, USFS now moving to Arizona State to teach, Dan Williams, outdoor recreation, University of Utah; Dan Dustin, recreation, San Diego State University; Jim Wiley, marketing, Temple University. Jack Troyer, Fred Kingwell, rangers.

NOLS participants: Paul Calver, director of marketing, Molly Hampton, Nancy Siegel, Ian (pronounced with long i) Gersten, stayed part time and left, replaced by Drew Leeman. Lantien Chu, Chinese girl who has married recently Jim Ratz, the executive director.

Birds, plants, were good, but not great, though scenery and weather was great.

Phyllodoce empetriformis better developed here than I have ever seen it (at Cook Lake (which I stupidly confused with Kalmia polifolia, though I had keyed it last summer)). Too many people to do much in natural history.

NOBS takes people out on 30 day trips, no toilet paper, no soap, few trails, and the last 4 days without food! But they have taken 22,000 this way. Rather starchy rations; no meat; but, spiced up, were pretty good.. A favorite is caus.-caus. (pronounced us-us, long u's from N. Africa, a cracked wheat that cooks up rather like grits, served with cheese, or with sugar as a desert.

Giles was taught by several to fly fish and caught 16 fish, all but 1-2 released. Others caught fish regularly, all brook trout.

Aug 1, 86. Owl Prowl with Kevin Cook. Buckthorn Canyon. Played calls for flammulated, pygmy, and saw-whet perhaps 12 times. Got one saw-whet, flew in with a disturbed call, then sat in tree and gave territorial call, a two-parted call. Spotted it with big flashlight and looked at in binoculars for 15 minutes or so. White breast with stripes. A small owl. No flammulated owls heard.

These 3 calls are all really different. The flammulated is quite low and soft, can hardly be heard 50 feet away in wind. The pygmy is much higher pitched and notable. The saw-whet is two parted (at least as I heard it).

Several bats flying in the headlights. One porcupine along the road prowling.

Aug. 2, 86. Golf-ball sized hail, not at home, but nearby in town. We could hear the roar. Remember the sound.

Aug. 13, Wednesday. Mills Lake with Gene Hargrove, after driving Trail Ridge in the morning. Giles had stepped on a dog bone and couldn't hike. Left him in Estes Park. Good hike, but too many tourists.

Aug. 16. Owl prowl with Kevin Cook and about a dozen others. Called in one juvenile saw whet owl. Buckthorn Canyon.

Aug. 17-22. Hunky Dory, Seven Sisters, and Lake Constantine. Left Sunday a. m. and drove to Minturn and to Gold Park Campground. Wrecked trailer and one killed on 1-70 en route.

Monday, packed in to a pair of Seven Sisters Lakes between which the trail runs. Hiked up to Holy Cross City via the jeep road in the morning, dropped our packs at the turn off to Holy Cross City and walked in, returning for a late lunch at the turnoff. Hunky Dory Lake is shortly further in, crossing the Holy Cross Wilderness Boundary.

Good climb to the Seven Sisters Lakes, and camped above timberline at about 12,100 ft. Luckily someone had left some firewood.

Tuesday, climbed to Fall Creek Pass, and then dropped down to Lake Constantine, arriving about lunch. Well-used lake with about ten people there. We camped a quarter mile above the lake. Nice area, wildflowers in splendor.

Wednesday, packed back over the pass to Hunky Dory Lake, arriving about 4.00. Rain in the evening. This also is a nice area, but pretty well used. Thursday, packed out, and spent night at Hornsilver Campground on the main road. Rain in the evening but managed to cook supper in the dry. Friday, drive home.

Notable raspberries, especially on the road in the Half Moon (formerly campground), which we took shortly thinking to camp up there, but turned around when the "check engine" signal on the Scooter began flashing. But no trouble.

No big game seen. Hike was some 17-18 miles total, but more climbing than usual, about 5000 feet of climbing, coming and going. Collected about 50 mosses.

Sept. 13. Pygmy Owl at Kevin Cook's. Very tame, he was keeping it in his basement office. It had eaten a crippled nighthawk that was also brought in. It was hit by a car, but seemed first stunned, then recovered. Robin-sized, with long tail. Yellow eyes.

Sept. 19-21. Camper with Giles to Medicine Bow Range. Camped at Libby Creek Campground, Spruce unit. We had camped here as family July 15-18, 1976. Left as soon as Giles got home from school. Lovely evening in campground, aspen at prime color. 15 or 20 hawks on the road from Laramie to Centennial, but I couldn't tell what they were, pulling the camper.

Saturday, drove to Sugarloaf Recreation area and hiked to Telephone Lakes, from about 10.00 to 3.00. Windy but pleasant. Easy hike over flat to undulating tundra. Long-tailed shrew found dead near the side of one of the lakes.

Saturday night, Giles slept outside in a rigged bed, to pass off his Camping Merit Badge. Some rain. Sunday a.m. nice weather but rain by midmorning. Finished work on the merit badge. Packed up and drove home after lunch.

James Trefil

Scribner's, 1986

*Meditations at 10,000 Feet*

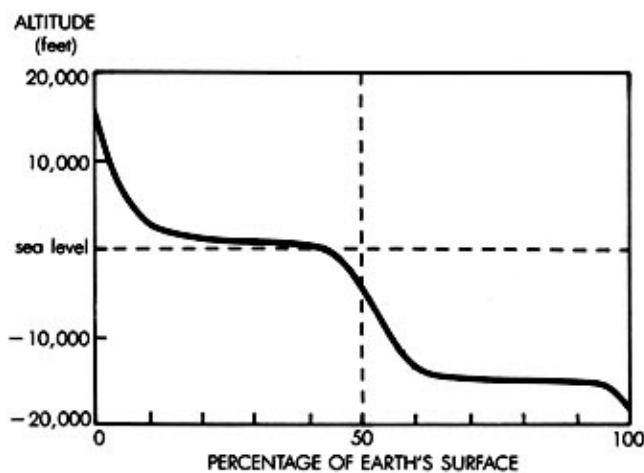


FIGURE 1.1

Our general impression that mountain heights are relatively rare is borne out by the fact that the graph shows that less than 5 percent of the earth's surface is at 10,000 feet or higher. A mirror image seems to exist at the ocean bottom, where there are very few places much below a depth of 15,000 feet. The data, in fact, show that the land masses on the earth's surface seem to split into two separate types: the level continents a few thousand feet above sea level and the deep ocean floor about 15,000 feet below. Both mountain peaks and ocean trenches are unusual places.

Brought home fairy shrimp, Brachinecta coloradensis (probably). A crustacean, Subclass Brachipoda (gill-feet) Order Anostraca, fairy shrimps, (without a carapace). Twenty or so flattened leaf-like structures that are both gills and feet. Eyes are stalked. Very pretty things to watch swim in the water. Long, thin abdomen, and a forked tail. They live in pools in the alpine and lower, and lay eggs that are very resistant to drying and to cold; then hatch out the following year. Egg sacs also seen.

Good picture in Barnes, Invertebrate Zoology, p. 393 (my copy). The standard reference for taxonomy is Robert W. Penna, Fresh-Water Invertebrates of the United States, Wiley, 1978, 2nd ed. He was at Univ. Colorado. Filliped is a now outmoded name for a subclass, including the Anostraca.

Giles and I earlier caught some of these on the Seven Sisters Lakes trip.

James Ward, CSU, is the local expert.

Theodore D. A. Cockerel, Zoology of Colorado, Univ. Colorado, Boulder, 1927, is old, but has a lot of information about what's to be expected in Colorado in it. In CSU library.

Oct. 10, 86. Talk by Nolan J. Doeskin, CSU Dept. Atmospheric Sciences, on Ft. Collins and Colorado Climate. Steamboat area mountains can get up to 70 some inches of rainfall a year (or precipitation), the most in Colorado. This should make it a good area for mosses.

Oct. 19-27. New York Zoo, Wildlife Conservation International. Flew to Richmond on Thursday, Oct. 23, and went up to Staunton on Friday, Oct. 24. Leaves were beautiful. Went with Mother and Aunt Willie Lee, Friday on the Skyline Driver. Friday night with Aunt Jacqueline in Staunton, and Saturday drove out to Rockbridge Baths, and up through Goshen Pass. Lovely leaves, but rain. The river had flooded last year and river channel very torn up. The school I attended (long out of use) had just been torn down.

Nov. 15, 86. Rawhide Reservoir with Ron Ryder and Audubon, for most of Saturday morning. Windy, and the usual ducks and geese. Loons can sometimes be seen here, but they are low in the water, almost like a floating log, and hard to see when it is windy.

Nov. 28, Friday after Thanksgiving. Donner Hill Trail, with Giles, from Buckthorn Ranger Station. But too much snow to get far up it. We went between the Greer Road and the Ballard Road. New, round cabin with central fireplace being built in here.

Afterwards, drove up the Ballard Road, and then Greer Road to where we had lunched. Snowpacked but no problem. Then tried further up the Ballard Road and going got too rough in deeper snow. The preferred trailhead for the Donner Pass Trail is now on the Ballard Road, as there is some private property (where the new cabin was) that is being developed some in here.

A few deer going up toward Horsetooth. Elk sign.

Dec. 24, 1986. 3:00 p.m. by Express Mail. Received the first copy of Science and Religion A Critical Survey, from Random House.

Dec. 27, 1986. Christmas Bird Count with Kevin Cook. Also Giles until noon, and Mark Schumann

in early morning. Around Dixon Reservoir and got a really nice look at a goshawk. Nice eye strip over eye, otherwise a steel blue bird, perched. Also a prairie falcon perched on a telephone phone, first mistaken to be an oversized kestrel.

Then up to Horsetooth. 3 snipe in the slough where the dirt bikes run at the north end. Lunched there, brought Giles home. Then up Rist Canyon, where the high point was on the way down, a pygmy owl, perched in the top of a pine, in good sun. Put the scope on him at 60x. Yellow eyes, robin sized, long tail. Really doesn't look like an owl in silhouette, could be thought to be just any medium sized bird, except for having too little neck.

Up to Greeley Reservoir filter plant, and then into Lory State Park, about 4.00 p.m. One more goshawk in flight overhead. A big accipiter, long-tailed and several wing beats, then a soar.

Herring Gull 2  
American wigeon 6  
Mallards 94  
Steller's Jay 9  
Green winged teal 6  
Raven 2  
Gadwall 6  
Magpie 12  
Rock Dove 13  
Robin 2  
Snipe 3  
Red breasted nuthatch 5  
Northern shrike 1  
Pygmy owl 1  
House sparrow 4  
Downy Woodpecker 1  
Black capped chickadee 10  
Flicker 2  
Junco 30  
Pine Siskin 95  
Goshawk 2  
Am. Goldfinch 2  
Tree sparrow 12  
Evening Grosbeak 19  
house finch 7  
Starling 59  
song sparrow 3  
prairie falcon 1

28 species

Dave Leathermann, active ornithologist, is forest entomologist for the state and good all round naturalist. He would be good to consult on insects.

Colorado Division of Fish and Wildlife does an aerial survey of geese; we didn't count them.

end 1986

1987

January 3, 1987. Snowshoed to Lefthand Reservoir (Brainard Lake area) with Giles. Thought we might drive car to Brainard Lake, but road is blocked off from about Nov. 15, with large skiing area, (Red Rock parking area) and various trailheads. There are four trails into Brainard Lake (1) the road. (2) CMC South Ski Trail, Colorado Mountain Club. Leaves just above the parking lot 100 yards. (3) Waldrop (North) Trail, leaves Just above the parking lot. (4) Little Raven Trail. This takes off from a Sourdough Trail, comes back and crosses (and uses part of) the Lefthand Reservoir road, and then goes up to the lake. Lower end of Little Raven Trail is marked most difficult. Trails seem to have good signs and be blazed in blue. There were perhaps 75 cars in here on our return.

Showshoed up to Lefthand Reservoir, uneventful climb on lovely day. Ate lunch at dam, but halfway through lunch got a major squall, and had to retreat. Windy thereafter for the balance of the day, but rather pretty.

Returned through Estes Park. Not far below Windy Gap on a frozen lake saw four coyotes, watched them through scope for 15 minutes. Handsome animals. They were rather playful with each other. Full tails. I don't think I have ever seen four together before.

Enroute to Horseshoe Park, really not far out of Estes Park, there were a dozen bighorn sheep, ten rams and two ewes. Watched them half an hour through binoculars, they were too close for the scope. Twenty Five yards from roadside.

Tried to find elk, but found none.

January 24, 1987. Saturday, Kevin Cook on his Snowy Owl Wild Goose Chase, with Giles, and 3 others. Drove north to Pinyon Pine Grove, then through Owl Canyon then back via dirt to Rawhide, then into Wellington, then Nunn Road, lunched at Cobb Lake Wildlife area, then to Pawnee Grasslands, around the Experiment Station, then down and back through Severance, and home.

Eight good golden eagles, variously in flight, perched. The two best were at the Experiment Station on the grasslands, flew up from a field and perched on fence posts and I got the scope on them in good light.

One bald eagle at Woods Lake, east of Severance (not far east of where I saw the whooping crane). Immature. The people who own the lake are fussy about going in there.

Mallards, lesser scaup, buffleheads, 75-100 common mergansers, most I have ever seen--all on

Rawhide Lake. There were hooded mergansers here; Kevin saw two, and had seen seven a few days before, but I didn't see them.

Rough legged hawks, about 12. Ferruginous, one. Kestrel, perhaps 8, redtail one, very dark.

Horned larks, one robin, magpies, a few crows, one northern shrike, house sparrows, starlings. House finch. Half dozen tree-sparrows.

One Brown thrasher in the manager's house yard at the Experiment Station; unusual for them to stay here through the winter.

12 antelope at Rawhide, 3 jackrabbits at Experiment Station, one cottontail. There are two species of jackrabbits, white-tailed, in mountains, can turn white in winter. Black tailed, on the plains. The blacktailed is a southern rabbit, but has moved north on the plains in recent centuries.

February 7. Crocus in bloom at the front porch! Maybe the earliest ever. Very mild days lately. One violet near the faucet.

Feb. 21, 87. Greeley and Brower State Wildlife Area. South from Greeley to the center of Evans (a few miles) then west on 37th Street. Rather trashy, but good riverside originally. Drove back to Eaton and west by Woods Lake. Millions of geese and mallards, but little else.

March 6. Trailhead from Michaud Lane west to Horsetooth (below Claymore Lake). High fenced trail across the flats, but more interesting after it reaches the public land where the hills rise. Not far through here. Two dozen bluebirds. Found one small deer antler.

March 13-15, 87. Whooping Crane Trip to San Luis Valley, with Kevin Cook. Took Giles, also along Catharine Moritz (grandmother from Nebraska originally), Dorothy McCartney (LaPorte Church), Walter Thayer, on sabbatical from Brown University, physician in internal medicine.

Left 4:30 p.m. Friday, drive South to Colorado Springs, then 115 to Canon City, then west to Salida, then south to Monte Vista. The last straight stretch (Route 285 north of Monte Vista) is called the gun barrel. Arrived about 11:30 p.m.

Up and out on Monte Vista Wildlife Refuge about 8:30 a.m. The refuge is about 5 m. south of Monte Vista. Large group of sandhill cranes in the field south of the headquarters unit and two whooping cranes there. They are easy to spot, white and bigger than the sandhills. Drove around avocet trail (a one-way dirt road, easy sedan travel), and where road returns to headquarters we got quite near the cranes, including two whoopers. By now two more whoopers were in a field on the west side of the road. Saw several of them fly off and on; the sandhills doing their mating dance.

Drove fields south of this through the morning, picking up a good many eagles, mostly bald eagles, and some more whoopers. Returned to town for lunch, and afternoon drove around n.e. of town, then later took in an art show briefly, and went back to the Monte Vista Wildlife refuge, two whoopers (presumably same as before) there.

Monte Vista has a Whooping Crane weekend, and there was a banquet, about 125 people there, speaker Jim Lewis, Coordinator of Whooping Crane project for U. S. Fish and Wildlife. Also Dr. Rod Drewien, University of Idaho, who is

in charge of the Grays Lake project. These birds are taken as eggs from Wood Bison Wildlife Refuge in northern Alberta or Saskatchewan and then replaced as one of the two eggs in Sandhill Crane nests at Gray's Lake. The sandhills then foster the young whooper. Several dozen have been raised this way, since the 70's, and there are now about two dozen with these sandhills, but they do not yet breed. There are 14,000 sandhills in the Sand Luis valley this weekend, by estimate of the Fish and Wildlife aerial survey.

Sunday morning, drove back to Monte Vista Wildlife refuge, saw 3 whoopers, and then drove to Alamosa unit, which is on Rio Grande River, where there were reported to be (from the aerial survey) 50 bald eagles this weekend. There is a dirt drive south to Baluff Overlook, and the road does not seem very promising through the greasewood wood. There is a good deal of water flats to the west, but too far to see birds in detail. Nevertheless we saw a few lower down, but then on return happened to stop to look at one eagle flying over the marsh low, to discover many more. There were about ten sitting on the edge of ice in one direction and another group flying low, landing, taking off, landing, perhaps feuding over some fish or something. We counted eighteen here, mostly adults. Returned to drive home via La Veta Pass and Walsenburg. Saw a merlin along the road climbing the pass.

whooping cranes 12  
great blue heron - a few  
coots - dozens  
bald eagles 47  
killdeer - dozens  
golden eagles 7  
ring-billed gull - a few  
red tailed hawks 22  
rock dove  
rough-legged hawks 9  
horned lark - hundreds  
marsh hawks 11  
flicker - a few  
magpie  
prairie falcon 1  
merlin 1  
crow  
kestrel half a dozen  
robins  
bluebirds - mountain  
sandhill cranes - several thousand  
starling  
meadowlark - hundreds  
Canada geese  
red winged blackbird - hundreds  
snow geese - several hundred  
song sparrow - a few  
mallards - many  
junco - a few  
gadwalls - dozens  
tree sparrow  
pintails - hundreds  
mountain chickadee (La Veta Pass, on return

green-winged teal - dozens  
cinnamon teal - half a dozen  
wigeon - a few  
shoveler - a few  
redhead - a few  
lesser scaup - dozens  
ruddy duck 4  
ring-necked duck - 4

1 skunk, watched at some length in the fields. 18 antelope, 2 jackrabbits.

This is my two-day record on eagles; there were 43 on the March 85 trip out on the plains.

March 21, 87. Eagles on the plains. Lovely day, after icy snowstorm early Friday. Two bald eagles at Riverside, one adult. Two adults at Empire, both across the arm/inlet. One in the sky, another good one along the river toward Orchard. Lunched at Jackson Lake, but none there. Four more at Prewitt, one perched across the lake, adult, two in the sky, and one perched at the upper end. Total ten. 6-8 redtails, 6-8 rough legs.

Perhaps too much toward spring; people were boating, fishing, and the lakes somewhat disturbed. Go in February next year. A dozen great blue herons in a rookery on south side of Prewitt.

April 11, 87. About an hour around Fossil Creek Reservoir and Duck lake. The usual spring waterfowl, nothing spectacular.

April 18, 87. Wellington and Cobb Lake. Rather good ducks -- scaup, mallards, widgeons, shovelers, buffleheads, redheads, all 3 teal, and better look than usual at ruddy ducks. Best look at a muskrat in a long time, prowling along the shore at Cobb Lake, fully out of water. 6 avocets, many coots, 3 swallows. A dozen pheasants. Lots of yellow-headed blackbirds. Unidentified shorebird: best guess -- marbled godwit.

April 26, 87. Crow Valley, alone, though promptly ran into Fred Johnson there, and Tony. Lots of Yellow-rumped warblers (both races: Mrytle and Audubons, often both kinds in the same flock. Otherwise not too active. One orange-crowned warbler. Chipping sparrows; white-crowned sparrows. Half dozen shrikes. One pair of cowbirds. 12 or so Say's phoebe, more than I remember seeing. Water was drained dry, nothing at all in the creek. Magpie, half dozen Swainson's hawks. Lots of meadowlarks, horned larks. One Eastern kingbird seen on the road on the way out. Redwings, starlings.

May 2, Poudre Valley cleanup, around Greyrock, with Giles. Pasqueflowers.

May, 9, Saturday. Riverbend Ponds on Audubon trip, lead by Carol Smith, wife of Dan Baker (who took my Environmental Ethics class, Fish and Wildlife The usual birds, several black-crowned night herons, a nice overhead flight of cormorants and a few Wilson's phalaropes.

Book signing for Science and Religion is today at Stone Lion bookstore.

May 10, Crow Valley, stumbling over Shonny and her friends after Senior Prom, to get out at 4:30 am. Get out to Crow Valley early; it's more active.

lark sparrows - perhaps two dozen  
white crowned sparrow - half a dozen

house sparrow

Western kingbird - perhaps a hundred, very fussy

Eastern kingbird, a dozen. Birders there overnight said they were not there the previous evening.  
olive-sided flycatcher, one, seen well

mockingbird - one, singing loudly

thrasher - three or four

Swainson's thrush - perhaps a hundred and fifty. All over the place. But no hermit thrushes seen.

yellow rumped warbler -- all Audubons! not over a dozen

yellow warbler, three or four

orange crowned warbler three or four

goldfinch, two dozen

siskin, several dozen

downy woodpecker

killdeer

starlings

grackles

brown headed cowbird

rufous sided towhee - half a dozen

robins

others saw green-tailed towhee and blue-grey gnatcatcher

oriole - Bullocks, only one

black headed grosbeak - very nicely seen, at close range.

no owls seen, but someone had heard them the night before

marsh hawk, only one, and no other hawks seen

no water birds, the place is still dry as a bone.

barn swallows; dozens of doves meadowlarks, one shrike on the road, lark buntings, horned larks.

Green tailed towhee in the yard, two days running.

May 17, 87. Well Gulch trail in Lory State Park, alone. Giles had gone camping with Steve Newlin. Hiked all the way to the park boundary on the north west side (where the bull was when Fred Johnson, Giles, and I came through from the north).

Lovely flight of about 40 pelicans overhead, shortly after leaving the trailhead. Magnificent in flight.

Lazuli buntings, lots of towhees, one green tailed towhee. Two Cooper's hawks. Chat. Chipping sparrows. Black headed grosbeak, Western tanager. Stellar's Jays, black capped chickadees, wrens, goldfinches, solitary vireo, Audubon's warblers, one buteo, probably redtail, one large dark bird, probably golden eagle. Several white-breasted nuthatches.

Three black Abert's squirrels, two deer. Collected Astrichum selwynii on the side of the road, not far below where I turned around; disturbed area and didn't seem like a wet site.

May 29, 30, 31. Colorado Native Plant Society Field Trip, from Crow Valley, led by Rick Brune, 2060 Garland, Lakewood, CO 80215, who works with Denver Botanical Gardens recreating grassland sites within the gardens. Wife: Doxa, a nurse. Other participants: Harlan and Velma Richards; she is a taxonomist (now volunteer) with Denver Botanical Gardens; they camped nearby.

Susan Bernatas, works at Florissant, from New Hampshire, degree also from University of Idaho in environmental science. Eleanor vonBargen, teaches 5th grade, quite good with plants; camped nearby. Miriam Denham, quite good, taught botany at CU.

Day participants: Marvin Shoop (drove the van), works with Central Plains Experiment Station (north of Nunn); Mary and Terry Calvert, connected there. Janet Wingate, best on grasses on the trip, works at Denver Botanical Gardens and does something else for federal government.

Friday, arrived about 5.00, and set up camper. Some birding after supper.

Saturday, early birding, then left at 8:30 to visit sand prairie, well preserved, on ranch of Jack Wells, south of Crow Valley some 12 miles, a private ranch that the Nature Conservancy has some interest in preserving parts of. The climax here is with the dominants Andropogon hallii, Sand bluestem; Calamovilfa longifolia, prairie sandreed; Stipa comata, needle and thread grass. Succession is restarted after a blowout, with bare ground, presumably wind originated because of some prior disturbance. Then it moves through four stages back to the climax. Of some interest here is Astragalus ceramicus, which has a painted pod, inflated with red stripes.

Several nests of lark buntings, with blue eggs. A good deal of Indian rice grass, Oryzopsis hymenoides in here.

Lunched at campground, then off in the afternoon (without Giles) to a fossil river bed, which now is an elevated rock ridge. The rock once in the river bottom was larger and consolidated more than the silt that was at the edge of the river; so now there is an elevated ridge, wavy across the plains (and hence unlike a sedimentary ridge). There are several of these around Keota; the one we walked over is on Road 95, north 2 3/4 miles from Colo. 14. A buffalo wallow is just south.

Afterward, to a scarp woodland, with remnant Pinus flexilis, relict from the Ice Age, nearest Pinus flexilis is 70 miles west now in the alpine. This is a couple miles east of Pawnee Buttes, marked on map. Rather scenic area. Then to an overlook of Pawnee Buttes, now marked with a trailhead. The scarp woodland seems locally to be called "The Pines."

Evening in camp.

Sunday a.m. birding, then off (without Giles) to a site, 3 m. north, to see Marsilea, clover-fern. This is the only known site in this area, it is not much known in Colorado. Like a four leaf clover floating on the water..Also seen here a horned lizard (horny toad), presumably Phrynosoma douglassi, armed with horns, two garter snakes, and, in the water, tadpole shrimp, presumably genus Apus. This is like a big tadpole, but has a forked tail like a fairy shrimp. Order: Notostraca. Good pix in Barnes, p. 393. They are remarkable because they only appear infrequently, presumably surviving dry years as dry eggs. But they have appeared where they were absent for forty years; perhaps eggs can be carried on the muddy feet of migrating birds.

On north and west, and hiked about a mile across the prairies to a 50 year exclosure, from cattle, an area of some acres in the midst of lands badly overgrazed by cattle. Seen here in the water, killifish, genus Fundulus, presumably F. floripinnis, little red fin, with a red tail and ventral and anal fins yellow. The common name, killifish, is apparently derived from an old name for brook or creek, which also survives in the word Catskill.kill, a watercourse, or small arm of sea, used in place names in Delaware and NY. These can be so-called annual fish; they survive when the puddles dry up as eggs. (= F. sciadicus? plains topminnow) (see below).

Also seen here an enormous snapping turtle, Chelydra serpentina, in a depression not all that much

bigger than he was. He was eventually poked out and got angry. Large, thick head and long tail. Perhaps 15" across.

Myriophyllum, aquatic plant in the water here, with Ranunculus aquatilis.

Birds of interest: not too many migrants. Nighthawks, orchard orioles, Swainson's thrushes, lark sparrow, least flycatcher (told by che-beck), wrens, brown thrasher, Swainson's hawk, lots of gold finches, Western kingbirds, one shrike, one mountain plover (enroute to Keota, seen briefly), chipping sparrows. I did not see owls, have not seen them here this year, but Rick Brune said he heard them about 4:30 a.m. Warbling vireo, Western wood peewee, told by call, a nasal pewee.

Small Cyprinodont fishes, especially in Tropical Africa and South America, produce eggs capable of surviving in the bottom detritus of dried-up ponds. Adults die annually, even if there is no dry up, so the fish is geared to an annual cycle. They have been known for forty years, but are not well understood . J. R. Norman, A History of Fishes, 3rd ed. by P. H. Greenwood, Wiley 1975, p. 253f.

For Colorado fishes, see, Everhart, W. H., and W. R. Seaman, Fishes of Colorado, Colorado Division of Game, Fish, and Parks, 1971, 75 pp. in CSU library.

June 6. White Rocks Natural Area, Boulder. Led by Rich Smith. Left Ft. Collins, 4:30 a.m. to get to Boulder by 6:30 a.m. Good trailhead, really south on the extension of Hover Road (Rd 95 = Colo 19) and then east on Valmont Dr. about half a mile, see maps marked. Anna Taylor, Nature Conservancy Representative.

Asplenium andrewsii is rare here, said to be the only place it occurs, though Weber and Harrington give this as A. adiantum-nigrum, Arizona, Utah, Eurasia and Africa. Area is closed to public, though a Boulder trail runs right by it and is open, and the ponds, etc. can be seen well from the trail. The fern was in a crevice in a cliff, the "white rocks".

Nice look at a pair of common yellowthroats. Many great blue herons: several red tails, deer (mule); white tailed deer are in here.

Georgia trip. June 8-Aug 5, 87. And Ozarks.

June 8. Drove with Giles and camper to Wilson Lake State Park, Kansas. Quiet evening, notable for coyotes in small hours of the night, howling as I had heard them before.

June 9. Drove to Tenkiller State Park in Oklahoma. This is good deciduous woods. Notable for whip-poor-wills in the night. Pitched the camper in the pouring rain. Several armadillos killed roadside. One scissor-tailed flycatcher seen.

June 10. Drove to Haw Creek Campground in Ozarks. Hiked the Ozark Highlands Trail a couple miles up to Fort Douglas, a junction, old schoolhouse, and one land bridge. Rain. Camptosorus, walking fern. Good deciduous woods.

June 11. Hiked the Ozark Highlands Trail east all day and return, about eight miles. Good Cooper's Hawk in here. Then went round the narrow bridge at Ft. Douglas, and hiked into the Hurricane Creek Wilderness area a mile or two. Arkansas has twelve designated wilderness areas.

June 11. Drove to Wall Doxy State Park, Mississippi, just south of Holly Springs. Nice camping area. Notable for bats flying at twilight, many coming in quite close (3-4 ft away).

June 13, Saturday. Drove to Athens, and pitched camper at Frank Golley's farm outside Athens, near Hull, on Morris-McCammon? road. Well water, and generally enchanting place, a sharecropper's cabin, refitted as a weekend cabin. Privy and a wash house with wasps in them, and a nest of wrens in the wash house. Birds are active, especially Carolina wrens and a whoop-poor-will at night. Saw one once at dusk flying from the oak tree in the yard.

Phoebes, titmice, chickadees, cardinals, mockingbirds, doves, cuckoos, and several warblers. Lizards and one black snake seen.

Old dog left a litter of six pups in the shed, which I first couldn't figure out what it was, then after several days, saw them. Shonny came later and was much attracted to them; eventually took them in to the Animal Control-Humane Society unit.

John Hammond, Don Crosby, Charlotte Crosby, and Jack Weir came out one night for supper, afterward several days later John Hammond spent the night. Jack Weir and Walter Gulick came out another night, and John Compton (Vanderbilt) came out one afternoon. John Hammond is at Oregon State; Jack Weir at Harbin Simmons in Texas, and Walter Gulick at Eastern Montana.

July 3. Jane, Shonny arrived and I moved into town, Charles Hasty home. Giles and Shonny went to church camp at Government Street Presbyterian Church, Mobile, June 20-June 26, and to Montreal, June 27-July 3, so I was essentially alone at Galley's second half of June.

June 20-21 went to Gadsden and Noccalula Falls. Pocket wilderness preserved around Noccalula Falls. Camped in campground there.

June 27-29, went to farm at Marion and Birmingham.

July 18-19, went to Savannah, and camped at beach, Tybee Island. Very satisfactory campground.

July 25. Left Athens and drove to Richmond.

July 29, drove to Huntington, W. Va. and stayed with Mary Jack and Julia.

July 30, brief hike with Mary Jack and Julia at nearby natural area.

July 31, toured Centre College. Camped at Wyandotte Woods area, vicinity of Corydon, south of 1-64. Nice area.

Aug 1, Saturday Drove west and camped at Graham Cave State Park, vicinity of Montgomery City, Missouri. Tried to ride up the St. Louis arch, but crowds were overwhelming. Graham Cave is large rock overhang, mainly a notable archaeological site. At one time the earliest known evidence of human habitation of North America was from here, 10,000 years ago. Nice camp area, but it is very hot and too many yellow jackets.

Aug 2, Drove west to Wilson Lake State Park again. Very hot and camp somewhat dirty from boaters. If using this campground in the future, drive on across the prominent bridge to the other side; there are more and better campsites over there (which is where we stayed 3 years ago).

Monday, August 3. Car trouble, and lost the day. Had to get towed down to Wilson, made it to Hays, and got car fixed there. Trouble seems to have been a few inches of high voltage line from coil to distributor, but it took a while to find it out.



Tuesday, August 4. Drove home.

Wednesday, Aug 5. Evening talk at Audubon, South Platte Riparian Institute, Riverview, half mile above (n.e.) of Buffalo Creek (Pike National Forest). Overnight there and drove back next morning.

Aug 17-19, 1987. Mammals Seminar, with James Halfpenny.

Notes below.

Notes, Mammals Seminar, with James Halfpenny, Aug 17-19, 1987.

with Giles, camping at Little Horseshoe Park, in RMNP.

Stackpole books are especially error ridden. Tom Brown is especially bad on gaits, though he can sometimes be a keen observer. Motion studies tended to develop independently of track identifications and are not well integrated.

Direct register. Rear prints in the front ones.

Stride. Distance from where one footprint appears in a trail to the next point that a footprint made by the same foot appears.

Straddle. Width of the tracks, left to right.

Group measurement. Front foot pad to rear pad.

Intergroup measurement. Between groups. Though this is arbitrary on symmetrical gaits.

Measurements do not include claws.

Interdigital pad - in dogs one lobe, in cats 2 lobes. Dog tracks are longer than wide, cats more round.

Rabbits, 2 big, 2 small. Claws usually don't show. Rabbits have hair all over foot. Pika does have pads, and extra toe, seldom shows.

Raccoons. Well-developed heel. Plantigrade, plants its heel. (vs. digitigrade, runs on toes, no heel)

Bulbous tips to toes.

Ring-tailed cat. Loud scream.

Weasel - spacing, 1/3/1 Chevron (upside down V) pad

Bears. Smallest toe is on inside (not outside, not like humans)

Ungulates.

Moose is really a more delicate track than you think.

Antelope have no dew claws

Bighorns and mountain goats are hard to tell apart.

Red fox is delicate track. Coyote is more robust.

Aging. Put your own footprint in mud nearby and come back several hours later. Gravity ages tracks. As does rain.

Try different shades of light on tracks to accentuate relief.

Gaits:

Run -- technically only humans run. No four legged animals run.

Walk -- looks like hind feet are treading on front feet.

Amble

Trot See detail in Halfpenny's book.

2x trot

gallop - gathered suspension

extended suspension

transverse gallop

rotary gallop - c shaped.

lope

jump

stot - jumps straight up

cats are walkers

bears walk.

Dogs -- c-shaped roto gallop

weasels

2x2 at an angle

Voles - tracks are like small rabbits.

Animals that live on the ground put front feet together at an angle. Animals that live in trees, put front feet together straight across.

Voles eat vegetables, as do gophers.

Mice eat seed, but not the vegetables.

Snowshoe hare -- hard snow can be mistaken for dog family. Big rear foot may not show up.

Scat

nipples and dips - never on rabbits.

thick cords with indentations. Cats.

Rich black scat - has lots of protein in it. Stinks.

Rodents and rabbits make a secondary scat, seldom seen, that they re-eat to get the protein.

Vole runways. In summer.

Vole nests with central cavity. In winter the young are there. The nest can be invaded and inhabited by weasels, when the central cavity will be lined with vole fur.

White urine rocks. Pika does this.

Gopher gravel pit. Where the gravel is left amid grass hummocks. Avens grows here and this later becomes a gopher garden.

Marmot. High variability in scat, but cords, from small to coyote sized.

Mice are little found unless there are rocks nearby to nest in. They don't burrow. Voles and gophers burrow, though mice may use vole and gopher burrows.

Owl pellets are coughed up, but hawks and other raptors also make them.

Muskrat "Post office" - piles of scat.

Otter track - seen in Kawuneeche Valley - like a medium-sized, five-toed dog.

Bighorn sheep hair. Wavy

Marvelous bear tree found down below Little Horseshoe Park. Clear claw marks. Took picture of it.

end of notes

Trail log continues below

Aug. 23 - Aug. 28, 87. Sun-Fri. Five night, six-day backpack to Lost Lake and Stormy Peaks, to fulfill Giles' backpacking requirements for merit badge.

Left Indian Head Ranch about 9.30. Shonny drove us there, after we dropped off the Scout at Duraven Glade trailhead. Very rainy the day before and we didn't see the sun all day, but really not too bad. Rained off and on after lunch. Took North Boundary Trail, dropped over to West Creek Valley (where Giles surprised the porcupine), and then over to Fox Creek. Lunched there. Husted Trail seems to be there, but weak, not marked as such, but there is a sign: Research Area, no horses. Might try the Fox Creek Trail sometime. Somewhat uneventful trail on to North Fork Ranger Station, a good bit of up and down, and then level round a mountainside. Camped at Halfway Campsite. Rained some, and hard time getting a fire started. (I was here earlier in August 1972).

Mon. Aug. 24. Hiked up to Lost Lake. Rather easy day, and weather not bad, but cool.

Tues, Aug. 25. Hiked to Lake Husted, then to Lake Louise, then to Lake Dunraven. Rather windy at first, especially around Lake Husted, but after that it got pleasant. Stumbled on six handsome bighorn sheep on the scramble up to Lake Dunraven, and stopped and ate lunch there. Lovely-animals, one a full curl ram, the others half and 3/4 curl, though one was only 1/4 curl. Had all six in the binoculars at once. They were sunning on a slope, rocks to their backs looking out below, perhaps 50 yards away. Cold evening.

Wed. Aug. 26. Hiked to Stormy Peaks South, pitched camp, and then hiked up to Stormy Peaks Pass. Spectacular campsite overlooks the Big Thompson River Valley (N. Fork), the peaks from Sugarloaf around to Hagues and Dunraven, and up to Stormy Peaks and Pass. Good weather, though off and on graupel. Something prowling the tent at night, and a snowshoe hare about the campsite In the morning so that was probably it.

Thurs, Aug. 27. Hiked down to Boundary Creek Campsite, stopping to look for mosses various places, including a hike back up the N. Boundary Trail past the Sylvanmere campsite. One band-tailed pigeon (white crescent on nape) seen in tree top at the Stormy Peaks/Signal Mountain Trail turnoff. Surprising to see a pigeon so deep in the woods. This is the first one I have seen, apart from about ten that came to a feeder at the Howard Haise Cabin. Listed as uncommon, conifers to treeline. There may have been another one at dusk at the campsite. A couple of falcons seen above timberline. Kevin Cook says it's a real treat to see the band-tailed pigeon

Aug. 28, Friday. Hiked out by lunch, lovely day. Giles saw two coyotes on the trail, but I missed them. Two blue grouse seen at close range, and then three more from the Scout. There is good tracking along the trail here, nice mud for tracks. Racoon tracks constantly seen. No bugs at all, but something of a fight to stay warm mornings and evenings though not in the sleeping bag at night. Stretching it a little, this is a 30 mile hike for Giles' merit badge; counting the round trip around the three lakes, and the extra mile or so up to Stormy Peaks Pass and back, this doesn't miss 30 miles much.

Sept. 11-17. World Wilderness Congress in Denver and Estes Park. Camper with Baird Callicott in Moraine Park for the week, but we only slept in it. A few deer and heard one elk bugle once. Coyotes heard. Drove up on Trail Ridge Road on Wednesday with Baird, Ron Engel, Bill Dewall. Met Barry Lopez in Denver, also Anne LaChapelle.

October 17-21. Society of American Foresters Convention in Minneapolis, Minnesota. Went up Saturday, and, after checking through the hotel about selling Philosophy Gone Wild, drove out on

Minnesota Valley Trail, 40 miles or so s. w. of town. Camped at campground in Lawrence Unit, pitched camp about 3-4 p.m., and then went back and hiked in Louisville Swamp Unit, 3-4 miles. Northern hardwoods, but rather cut-over, and the biggest trees often dead. Most of this area floods in the spring, at least in many years, and so was never developed much, although often cleared for pasture. Lovely day, and quite pleasant. Temperatures falling to upper thirties that night. Heard a good barred owl, also great horned in the night.

Saturday, hiked around Lawrence unit area, 6 miles or so. Spooked a Great Horned Owl (presumably) at close range. Beaver cuttings in here are fresh. Spooked a few deer. Perhaps a dozen bluebirds (first eastern bluebirds I remember seeing in several years). Lots of nesting boxes have been put up in here. Some of the sparrows look different, but I didn't have the guide to figure them out. One was the clay-colored. Northern prickly-ash (Xanthoxylum americanum) very common.

Saturday night was colder, down to 29°. I was comfortable in the down sleeping bag, but coolish getting out and packing up in early a.m. Drove in to Minneapolis for the convention on Monday. Corylus americana, Am. hazelnut, which I hadn't seen for years. Gave paper on Tuesday. In the audience was Dale Robertson, Chief of U. S. Forest Service.

Nov. 13-16. Meadowcreek Project, Fox, Arkansas, on task force to write World Conservation Strategy folio on Ethics, Culture, and Sustainable Development. Lovely conference center and self-sustaining farm (more or less), north of Little Rock, n. e. of Clinton. The creation of David Orr, formerly in political science at University of North Carolina.

Lovely day Friday and Saturday, sunshine all day long, then rain much of Sunday, hard rain Sunday night, and rain off and on Monday. 25-30 bluebirds Saturday morning and then again Sunday morning, in a flock feeding about the area. This is perhaps the most I have seen, though there were a dozen or so just last month in Minneapolis, and prior to that I had not seen them for several years. One good look at pileated woodpecker. One deer one morning, and three one afternoon. Creeks in the Ozarks often dry up in late summer, and Meadowcreek was bone dry, until the rain, and then seemed back to normal creekbed size overnight.

Nov. 11, 87. Pete died.

Nov. 15, 87. Fred Hermann died.

Nov. 21, 87. Ten years ago, daddy died.

Dec. 6, 87. Up Big South Trail about 2 ½ miles, with Giles, walking over snow. Lovely day. Five deer on way up, five bighorns on way back, one half curl, ram. Tried out the winch mate (anchor); it did fair.

Dec. 26, 1987. Christmas count, with Kevin Cook, Joel and Kathy (computers at Hewlett Packard), and, after lunch, John Baker (US Forest Service) and son, Tom. Spent morning at Dixon reservoir and on Horsetooth Dam road. Lunched at base of Rist Canyon and spent afternoon in Rist Canyon, going up the Davis Ranch Road (where Ron Williams lives). Snow underfoot all the way, 8-10 inches lower down, 12-15 inches higher up.

robins - flock of 65 seen in town on way to Kevins. 3 seen in field

magpies - 55

starlings - 8

goldfinch - American. 36, big flock at Dixon reservoir

downy woodpecker - 3 at Dixon

hairy woodpecker - 3 Rist Canyon  
black capped chickadee - 12  
junco - 5  
siskin - 36  
flicker - 19  
raven - 14  
house finch - 13  
song sparrow - 4  
rock dove - 16  
brown creeper - 1  
towhee - 2  
mountain chickadee - 8  
dipper - 1  
kingfisher - 1  
tree sparrow 5  
Stellar's jay 7  
snipe - 1 - at pond below end of dam  
Townsend's solitaire - 5  
red breasted nuthatch - 3  
white breasted nuthatch - 1  
golden crowned kinglet - 6  
Canada goose - 383  
Goldeneye - common 6  
Am merganser 1  
Western grebe - 1 -- unusual  
Gadwalls - 7  
Widgeon - 45  
Mallards - 74  
Greenwinged teal - 7  
Bald Eagle - 3 adult, one nicely over Dixon reservoir  
one in Rist canyon  
    4 immature  
Golden eagle - 7 - in singles or pairs throughout the day  
Redtailed hawk - 2  
Rough Legged hawk - 1  
Goshawk - 1  
Pygmy Owl - 1

Total: 40 species

Nice look at the goshawk, which I spotted, almost the last bird of the day.

Kevin found the pygmy owl, just above where we had seen the goshawk, very near the road, when it was getting dark. Small, with long tail.

Fell down and cut my brow over the left eye, slipping on rock in snow along ridge along road along Horsetooth Reservoir.

Great horned owl feather has evident secondary feather. Only owls and fowls (such as chickens, but there are wild fowls) have the secondary feather coming out from the main one.



**Great horned owl feather**

1988

February 13, 1988. Bald eagles with Audubon Society trip. None at the lakes around town, but a fine one at Fossil Creek, perched in a tree and visible from the boat store. Nice adult. Another adult was across the road, less well lighted. We went down the access road, and into the north area; immature eagle there, and another immature on the way out.

February 27. Rawhide alone. Several nice redtails on way out. One puzzling hawk with white tail, maybe "Krider's (redtail); maybe a Ferruginous. Harrier.

At the reservoir coots, scaup, mallards, buffleheads, gadwalls, pintails,, widgeons, Western grebe red-heads, canvasbacks.

Main bird of interest here is a stray European lesser back-backed gull, which has been around several weeks. This is casual to uncommon on East Coast and unheard of here, but Ron Ryder and others have verified it, and it is on the Denver hotline. I saw it way across the lake and wouldn't have known what it was otherwise; but it did have a black back and was a gull!

Marianna Wagers arrived with a Questar (scope) and I used it a little on the lake, but by that time had lost the gull. She was looking for scoters (sea ducks). All 3 (black scoter, white-winged scoter, surf scoter) were seen here on Christmas count and have been here this winter, in small numbers (one, two, three or so). Scoter with long o. A few antelope and some prairie dogs.

March 6, 88. Plains reservoirs looking for eagles with Giles. Got to Riverside about 9.30, and saw five there, all adults, two in the dead tree way west, where I have often seen them, two on ice, and one on ground (sand, scrub) way on fax side. None at Empire. None on the road to Orchard, but three in the air between Orchard and Goodrich, one adult two immatures.

At Jackson, 2 on ice, one immature. One immature flying straight at me through the scope, watched cross the whole lake. One in tree (the closest one of the day) on the way out from the uppermost part of park. One adult overhead leaving park. One adult overhead near the river s. of Goodrich. At Prewitt, 9, all adults and on the far side, some on ice, some in trees. None were close, but once I had four good adults in the scope at once. Total 23, mostly adults. Where are the immatures?

Pintails; mallards, Canada geese, scaup, coots, lots of gulls, a few common goldeneyes. Pheasant.

Nice kangaroo rat recently killed at the roadside, couple hundred yards before turning into Empire at the beet barn.

March 25-27, 1988. Sandhill cranes at Kearney, Nebraska. Left Ft. Collins about 8.00 a.m. Friday,

and drove across the plains in high wind. So much tumbleweed on road west of Sterling it made driving difficult. Nice golden eagle, several red tails. Kestrel. Lunched at first rest stop in Nebraska. Arrived Kearney about 4.00 p.m., passing some 350 sandhill cranes in last 30 miles or so.

Arrived in time to get in on trip out the South Tower blind, led by Pat Miller, high school science teacher from Omaha. About twenty of us in the blind, ten on lower deck ten on upper deck, where we stayed until dark. One van carried the lower deck, one the upper. Several thousand cranes came in variously circling around, mostly going upstream, and some eventually landing out from the blind. They feed in the fields during the day and come in to "roost" in the water, about six inches deep. Very noisy.

Returning to Ramada Inn, heard Ken Strom speak about the cranes. He is manager of the Rowe Sanctuary here, about 7,000 acres of Audubon acquired land, primarily for cranes. The cranes migrate from various us parts south and funnel through this area of the Platte, here in March. They will leave in early April, migrating mostly to arctic tundra in Canada and Alaska, some to Siberia. Platte River today has only 30% of the original flow and this means woodlands encroach what were wide sandbars, 20-40 years ago. This reduces available roosting area, and the cranes crowd in the little remaining area that is suitable for roosting. Fears are that still further reduction of the Platte by water development (especially Two Forks) will break even this link, and the population (now 500,000) will crash. Of some fifteen species of crane in the world, all but one, the sandhill are threatened or endangered. Only the sandhill exists in this large population. Most of the cranes in the world are within 50 miles of Kearney in this season.

Saw two whooping cranes in the water at Minden bridge, at some distance. Closely monitored by U. S. Fish and Wildlife people to prevent disturbance. Rumors of a third one, an immature in the area, but no one was seeing it.

Up at 4.00 a.m., to leave by 5.00 a.m. in van, returning to the South Tower blind. Walked in in dark and waited for sunrise. Three or four thousand cranes in area in front of the blind, closest ones about 100 yards away in the water, though, after daybreak, when they get up and fly, they come right over the blind. They left gradually in small groups of a hundred or so, sometimes in pairs and singles. Quite spectacular. Led by Ken Strom.

Returning, we found the whooping cranes again, this time out in a field in the midst of some sandhills.

Peter Berle, President of Audubon, was in the van and in the blind, and I met him. Good conversation. He spoke at the noon lunch. Also heard Chuck Frith, who seems to have done most of the work on the ecology that supports the cranes in this area. They eat corn now, formerly grassland seeds, but they still need to feed in wet meadows, to catch insects for protein. Apparently the protein they get here in March determines whether the females will produce eggs well a month from now in the arctic. Cranes are a relatively primitive bird; fossil evidence shows the species little changed for 9 million years, and present migration patterns may have been set up with the retreat of the last glaciers. (Though the Platte River has not been here any 9 million years).

After lunch, drove down to Funck wetland area--dowitchers and various ducks, but didn't have time to do this area justice.

In evening rode in van out to Gibbon Bridge, where, approaching dark, several thousand fly up the river to roost.

Back at the Ramada, heard Colonel Steven G. West, the chief ? district engineer of Omaha District, on the Corps of Engineers commitment to the Platte River.

Sunday, up at 4.00 a.m. again, and left at 5:00 for South Tower. The birds were not coming in well at the North West and North East towers. But the south tower was the best yet. The birds were in much closer than usual, about 50 yards away, and more than ever. Watched them leave gradually over a period of several hours. Colonel West was in the blind, so I had Peter Berle one morning and the colonel from the Engineers the next!

Two deer also came out in front of the blind--whitetails.

We were unable to find the whooping cranes, but in the process of the search, came on a field with 62 wild turkeys in it, at the edge of a woods, but out into the cornfield. They were not too spooky. Turkey population in the riparian area is escalating, despite a hunting season on them.

Ken Strom is longtime sanctuary manager. Ron Klataske is for 18 years the regional Audubon Secretary, based in Manhattan, Kansas. About 300 people present from 15 states, a lot of big birders and a good many members of the Audubon board of directors. Betty Olt, Public Affairs Department, New York. Ed Pembleton, director, Water Resources Program, and formerly in the office in Kansas. Met Bill West, English professor at Univ. Colorado, Denver. Dan Gish, Topeka high school teacher, knows Ken Rock, History, CSU.

Nice bald eagle, adult in tree on roadside, driving home. Also one immature bald eagle in the air. Another group of 8 wild turkeys in a field, seen from the Interstate.

Rainwater basin is an area that has a lot of wetlands that fill up with spring rains and stay wet 2 months, they dry up. But a lot of these have been drained for corn land.

Miscellaneous birds: cormorants, dowitchers, coots, scaup, pintails, mallards, lots of crows, red tail hawks, harriers, flicker, robin, starlings, song sparrow, pigeons, English sparrows, redwing blackbirds, gulls, horned larks, meadowlarks, mergansers, great blue herons, one roughleg hawk. magpie.

Ft. Kearney Inn, just south of Interstate might be cheaper place to stay, as they advertised \$ 22 single, against the Ramada rate for the conference of \$ 34.

Typical estimates were that people there for the weekend and actively watching would see 50,000 cranes.

Beautiful weather throughout, though very windy Friday. Cold in the blinds in the mornings, but warmed up rapidly. And it was snowing in Fort Collins by Monday morning!

April 16, Saturday. Wellington and Cobb Lake area. 48 white pelicans were more or less asleep in the lake just down from where I typically park. Watched them some time in the scope. Eventually they woke up, swam off, but regathered on the far side and went back to sleep a while longer.

Coots, mallards, geese quite noisy, pintails, rather more teals than usual, all 3 kinds. Lots of yellow-headed blackbirds. Several marsh hawks. Avocets. About half a dozen dowitchers. A few sandpipers that I couldn't identify. Western grebe, pied-billed grebe, scaup. A few swallows on the road home. Two deer in the grass in the area where I usually walk in. One muskrat.

April 21-24. Eckerd College, St. Petersburg, Florida, with Shonny, to look over the college.

April 30, Saturday. Bear Lake and Rocky Mountain Park with Frederick Ferré, after Fred spoke at AAR/SBL Conference at Colorado State. About 250 elk, close in. Most of them above the Beaver Meadows entrance station in Beaver Meadows. Closer to the road than usual, and lovely in the evening sun. Several ravens, including one quite tame at Bear Lake Parking lot. Still pretty frozen up at Bear Lake. About 12 deer in Moraine Park on way out.

Saturday, May 7. Grandview Cemetery and Riverbend Ponds. Nothing unusual. Black-crowned night herons.

Book signing for Environmental Ethics, at Stone Lion bookstore

Sunday, May 8. Duck Lake, Nelson Lake, etc. White-faced ibis in the slough you come on first driving down Timberline Road. Really nice view and nice glossy chestnut colors. Several dozen Wilson's phalaropes on Nelson Lake. Two good golden eagles on return. The usual in ducks, but no small migrants. All the teals. Lots of avocets. 2 harriers.

Sunday, May 15. Spring Creek below dam. Chat, wren, yellow warbler, bluejay, unidentified sparrow. Also a warbler, seen rather clearly, that looked like black and white warbler. Kevin Cook says a few are here every spring.

May 20-22. Crow Valley alone. Colorado Native Plant Society trip, led by Rick Brune, for second year. Took camper. Windy and largely overcast weekend.

Birds:

rose-breasted grosbeak

blue grosbeak (others saw it, I didn't. distinctive call.)

Swainson's thrush. lots of them.

cowbirds - lots

hermit thrush -

one brown thrasher,

three or four great horned owls. Two, sitting on branch of tree to south end. Seen about 2.00 p.m. on Sunday in full scope. One seen Friday at dusk.

Western wood pewee

yellow rumped warbler

yellow warbler

orange crowned warbler

McGillivray's warbler

yellowthroat (I didn't see it)

Say's phoebe

blue jay

catbird

Swainson's hawk

goldfinch - lots

mallard

pintail - pond nearby

kestrel

horned lark

Western kingbird lots

Meadowlark

Eastern kingbird lots

redwing blackbird

robin  
doves - lots  
grackles  
burrowing owl, one at Keota  
orchard oriole (I didn't see it)  
Northern oriole  
harrier  
barn swallow  
house wren  
green tailed towhee  
lark bunting - millions  
McCown's longspur - walking in to exclosure some miles north  
killdeer  
chipping sparrow  
rose breasted nuthatch (I haven't seen this here before)  
female redstart (first one I have seen in Colorado)  
Western tanager (half a dozen)  
loggerhead shrike  
red headed woodpecker (first I have seen here)  
Empidonax flycatcher

total of 46 species

no mockingbirds seen  
no bobwhites. Heard them here only last year

Weekend pretty much as before, but omnipresent wind. Saturday morning to Jack Wells ranch. Saturday afternoon to fossil stream bed and thru Keota to scarp woodland. Afternoon was partly led by Grant Godbolt, Ranger there.

Sunday, morning to see Marsilea clover-fern, and then walked into fenced exclosure.

Other participants: Betsy Neely, works for Nature Conservancy in inventory, a plant ecologist. Her husband, Alan Carpenter, Colorado Land Steward for Nature Conservancy, will manage Phantom Canyon. He has been post doctoral student in range management at CSU; both live in Ft. Collins. Don and Donna ? Mullano; he is retired geomorphologist; she is good birder and does something volunteer for Denver Botanical Gardens. Joined us on Sunday Bob and Dorothy Udall. He is retired from Vet Med at CSU; do volunteer work for Mature Conservancy. Chris Hartung, with Rick Brune, finished Univ. Nebraska two years ago, works as caretaker in horticulture at Denver Botanic Gardens.

Alan Carpenter knows Carex, Juncus, etc., and between him and Betsy they know most everything in the field.

May 28, 1988. Lory State Park, birding, and Fred Johnson saw me go by and joined me. Browsed around lower end of Arthur's Rock Trail, and, later, Well Gulch Trail. Birds of interest: solitary vireo, black headed grosbeak, lots of towhees, Virginia's warbler, wood pewee, lots of chats, and otherwise the usual. Fred showed me a patch of white shooting-star, Dodecatheon. Park doesn't open until 8.00 a.m., even in summer, but sometimes the horse people go through and leave open the gate, in which case you can purchase a ticket without a clerk, and go on in.

June 11, 1988. Yellow ladyslipper at Rist Canyon Picnic area, Cypripedium calceolus. 76

blossoms counted, after a tip by Kevin Cook that they were there. The area has been obliterated as a picnic area and a restoration effort made. Walk up the old road, now covered with brush. Some of them on the left 100 yards up. The follow the second (not the first) trail uphill. A good many in there. This is the first time I have seen these in Colorado, and more than I have seen in my life before.

June 12, 88. Drive to Meeker, Colo., for Univ. Colorado botany class with Bill Weber, curator of the herbarium at CU. Pulling the camper in the Scout. The Ford is in the shop after Shonny had a rear-end bump-to. Lovely and pleasant drive. One antelope in North Park, a dozen s. of Craig. One immature golden eagle in North Park.

June 13, Monday. West Slope Flora at Meeker.

Participants: Ernie Johnson, high school science teacher, baseball coach, line coach  
3531 Shandon  
Midland, TX 79707

Evelyn Reisser, 7th grade science teacher  
9009 Great Hills Trail # 725  
Austin, TX 78759

Robert J. Swanson, biology, Minneapolis Community College.  
wife: Carole  
10309 94th Ave., N.  
Maple Grove, MN 55369

7411 85th Ave., North  
Minneapolis, MN 55445  
North Hennepin Community College

Bill J. Schaeffer, high school science teacher, track coach, line coach, Fruita Monument High School  
Master's in mammals from New Mexico State  
wife: Mary  
2352 K. Road  
Grand Junction, CO 81505

Led by Bill Weber, Curator, CU Museum

Monday a.m., met at high school. In Colorado, the East-West mountain ranges, uncommon compared to N-S ranges, are likely to have species related to Altai mountains on border of Russia and China. Look for areas with least amount of stress from alternate wetting and drying. Hoosier Pass (on Continental Divide, Park and Summit Counties, 11,542 ft.) has a lot of disjuncts to Siberia and American arctic.

The original botanizing of Colorado plants was done to the North in Wyoming and to the south in New Mexico, where the trails were going through. The Hayden Survey was the first Colorado survey. Alice Eastwood was the first resident botanist in Colorado.

Asa Gray saw that a lot of things in the southeastern U. S. are related to Japanese plants. He was a friend of Sir Joseph Hooker, at Kew Gardens, who knew Siberian plants. Gray knew American

plants. Gray and Hooker spent five days in Colorado, and Hooker spotted a possible relationship to the plants in the Altai mountains. But Gray didn't take to the Rocky Mountain--Siberian connection. This took 60 million years of separation.

Nathan Meeker, of the New York Tribune founded Greeley to try out theories of cooperative agriculture, and got Horace Greeley to sponsor it (about 1869). Meeker later became the Indian agent and plowed up the Indians race track to get them to go to work, and was massacred by the Northern Utes in 1879. I saw the plow in the Meeker museum. Mt. Meeker next to Long's Peak is named for him.

Stanford has abandoned its herbarium. Missouri Botanical Gardens abandoned lichens. Carnegie Museum abandoned liverworts and lichens. Lichen interest rose in the U. S. in the 1950's for a while, but has lately declined. Japanese and German interest is still fairly high.

Every family name should be derived from a genus within the family.

Compositae Asteraceae

Leguminosae Fabaceae

Labiatae Lamiaceae

Gramineae Poaceae

Umbelliferae Apiaceae

Started with grasses, and, after lunch, did grasses around town.

Dactylis glomerata, Orchard grass

Poa praetensis, Blue grass

Elytrigia (Agropyron) repens, Quackgrass

Bromopsis (Bromus) inermis, Smooth Brome

Alopecurus pratensis like Timothy

Puccinellia distans, Alkali grass

Oryzopsis hymenoides, Indian Rice grass

Elymus (Sitanion) longifolium, Wild rye, like a foxtail

Critesion (Hordeum) jubatum

Tetradymia canescens, Horsebrush. like a sage

Symplocarpus rotundifolius, Snowberry

Hippuris vulgaris, Mare's tail

Sphaeralcea coccinea, Copper Mallow

Calochortus, Mariposa lily

Phlox hoodii, Phlox

Potamogeton sp. Pondweed

Tuesday, June 14. Did mustards around town, in the morning.

Descurainia sophia, Tansy mustard

Chorispora tenuella, Blue mustard

Sisymbrium loeselii, Jim Hill mustard, but a different one

Salix fragilis Crack willow

Malva neglecta, Cheeseweed

Thlaspi arvense, Penny Cress

Euclidium syriacum Syrian mustard, newly introduced

Camelina microcarpa False flax

Lithospermum ruderale, Puccoon

Kochia sieversiana

Atriplex spp.

Salsola australis, Russian thistle.

After lunch, drove out of town to arid area

Sabina scopulorum, Rocky Mountain juniper, formerly in Juniperus, a tree Physaria acutifolia, Double Bladder Pod

Pinus edulis, pinyon pine

Quercus gambelii, Gambel's oak. This species is quite prominent here, and runs way up into the aspen. Here it is further north than on the eastern slope, where it does not run north of Denver.

Amelanchier utahensis

Cerocarpus montanus, Mountain mahogany

Toxicoscordion (Zygadenus) venenosum, Death Canas

Balsamorhiza sagittata, Balsam root, yellow composite with enormous taproot

Chrysothamnus nauseosus, Rabbit brush, waist high

C. depressus, a foot or less high

Schoenocrambe linifolia (Sisymbrium)

Artemisia frigida - silver sage. named from a specimen first in Saskatchewan, hence the "frigida"

Artemisia ludoviciana, sage, a green one.

Seriphidium (Artemisia) tridentata. Shrubby sagebrush, the big one

Physaria acutifolia, Double bladder pod

Krascheninnikovia lanata (Eurotia) , winterfat, from sheep depending on it in winter.

Wednesday, June 15. Marvine Lakes campground.

Austrian Copper Rose. There is a mutation in the branch primordia that means that red flowering branches gradually mutate to become yellow flowering branches.

Driving up the mountains, you could see a mist of pollen from the spruce out across the valley.

Picea engelmannii, Engelmann spruce

Picea pungens, Blue spruce

Juniperus communis, Juniper. The low one. Trees are in Sabina now Osmorhiza occidentalis

Hydrophyllum fendleri

Heracleum

Galium bifolium

G. triflorum

Stellaria obtusa, only 2nd time collected in Colo.

Hydrophyllum capitatum

Hydrophyllum fendleri

Nemophila breviflora. Baby blue eyes!

Carex utriculata, a common Carex on edges of montane ponds

Lemna trisulca, duckweed

L. minuscula

Vicia americana

Lathrus leucanthus

Noccaea--(Thlaspi) montana

Ranunculus inamoenus

Delphinium nuttallianum (D. nelsonii, a later synonym)

Purshia tridentata

Poa compressa

Barbarea vulgaris

Viola adunca

Symporicarpos rotundifolius

Sambucus microbotrys

Veronica americana

Cardamine cordifolia

Mertensia ciliata

Lupinus bakeri, open faced lupine Lupinus caudatus, closed faced

Sparganium - floats on water Amelanchier alnifolia Erigeron flagellaris Wyethia amplexicaulis -  
Weber did his Ph.D. thesis on this genus yellow composite, kin to Balsamorhiza

Boechera (Arabis) sp.

Veratrum, False Hellebore

Tragopogon dubius

June 16, Thursday. Roadside about Fritzlan's café, halfway up toward Trappers Lake and Marvine Campground.

Wyoming herbarium and CU herbarium are complementary. Wyoming has range plants and Wyoming plants, nothing much international, not all that strong on Colorado. It has no bryophytes or lichens. Wyoming has fungi, CU has few fungi.

John Thompson at Wisconsin in lichens taught both Culberson and Hale and they have been denigrating him ever since.

Claire Norton in Fort Collins worked on Colorado algae all her life but published nothing.

Alnus incana ssp. tenuifolia, Alder

Capsella bursa-pastoris, Shepherd's Parse

Oenothera caespitosa, Evening primrose

Geranium viscosissimum

G. richardsonii The two seem to hybridize

Pulsatilla patens

Sisymbrium altissimum

Boechera (Arabis) drummondii

B. (A.) divaricarpa

Ceanothus fendleri

Eriogonum alpinum

Ipomopsis aggregata. Scarlet Gilia

Lepidotheca suaveolens

Crataegus rivularis

Lappula squarrosa

June 17, Friday. Hiked up Ute Creek Trail, all day. Collecting at 9100 ft., 390 59' N, 1070 30' W.

Saturday, June 18. Spring Cave and up South Fork Canyon with Ernie Johnson. Collecting at 7880 ft., 390 51' N, 1070 30' W

Went in spring cave a hundred yards or so. Third largest cave in Colorado. Cave runs through the long room, with side room off the "Pirates Den," and on to a 10 foot drop over cliff to lower passages in cave, made with rope and a broken ladder. Later there is an underground stream and a lake. Full extent of the cave is still unknown. Some parts require a swim with only a little air

space overhead. See Lloyd E. Paris, Caves of Colorado, Prat, 1973.

Five bighorn ewes on the cliff above S. Fork canyon.

June 19, Sunday. Hike up to Mirror Lake, with grapple storm and lots of lightning and thunder rolling around in the cirque on top. Strange topography with some sinking creeks and the lake in general much lower down in a depression than most cirque lakes.

See later on geology. There is lava from the Tertiary overlying Mississippian and Pennsylvanian limestone.

21 miles of hiking this weekend.

June 20, Monday, Pachinko Basin trip.

The Pachinko Basin has some peculiar soils, often with upturned strata that mean that a particular locality has a soil uncontaminated by layers above and below it. Especially on a white clay this can produce endemics. The Basin has been threatened by oil shale development, particularly with regard to where all the spent shale would go, and what it would do when it leached elsewhere.

Lesquerella congest - recently described species endemic to the Pachinko Machaeranthera grindeliioides

Stenotus armerioides

Hymenopappus filifolius

Galium coloradense

Chamaesyce fendleri

Ipomopsis congest

Astragalus lutosus--on white clays, endemic to White River Valley

Atriplex convertifolia

Leymus salina - big, tall grass, prominent in the area

Sarcobatus vermiculatus - Greasewood

Stipa

Astragalus detritalis, only here in Colorado, also in Utah.

Eriogonum lonchiphyllum

Tetradymia canescens

Chrysanthemum (not nauseosus)

Leucolene ericoides

Lupinus parviflorus

Tithymalus (Euphorbia) montana

Physaria obcordata, endemic to Pachinko, recently described

Calylophus lavandulifolia

Aquilegia barnebyi - red columbine, seen on a shelf up a small canyon

Aletes anisata

Rhus aromatica ssp. trilobata

Penstemon gibbensii, recently described

Phacelia glandulosa

Penstemon osterhoutii

Phacelia heterophylla

Tetranervus ivesiana

Argillochloa dasyclada, previously mistaken for a Festuca, endemic to Pachinko and Utah. Also being raised at the Plant Center. Weber took a Festuca expert from Zurich down to see it.

### Phacelia sericea

Barneby was an Englishman who wrote two volumes on Astragalus in the U. S., he was attached to the NY Botanical Gardens.

Endemic - means restricted to one locality, which can be as small as a county or less, or as large as a continent. The opposite is disjunct, which are in two or more locations, separated in between.

Typically, the discoverer of a new species cannot run it down in the existing keys and sends it off to an expert to find out what it is, who describes it, and may name it for the discoverer.

June 21, Tuesday, worked on sedges halfway up into the mountains.

Juncus arctica - the green in the center of mountain meadows

Carex is always unisexual. Where the male flowers are above the female  
on the spike, male/over/female - androgynous

female/over/male - gynocandrus

Mackenzie was a corporation lawyer who did Carex and got to be the authority on the East Coast. Stacey was the authority on the West Coast. Fred Hermann became the authority on both, and was especially loyal to MacKenzie. Mackenzie wrote a technically accurate but tough key for nonspecialists to use, and Weber abandons it.

Miriam Fritz in Boulder, taught instrumental music for years, retired now in Tuscon and got to know Carex, has put a key on a microcomputer, a multiple access key.

Carex utriculata - bright green, big leaves, at the edge of the water in mountain points, often with a belt of Juncus artica next inward toward the wet.

A willow meadow typically has 2-3 species in it.

Salix is insect pollinated, and the seeds are viable only for a few hours. Compare the top and bottom of leaves, in various lights, and see if there is any difference at all in how glaucous it is.

Pseudostellaria Jamesiana (Stellaria)

Distegia (Lonicera) involuerata, Bush honeysuckle

Astragalus bisulcatus

Alyssum alyssoides

Oxytropis lambertii x sericea

Eriogonum umbellatum

Populus balsamifera

Bromus japonicus

Ceratochloa carinata

Penstemon strictus

Carex geyerii

Salix drummondiana

S. monticola

S. exigua

S. lucida

Carex microphylla

C. languinosa

Wednesday, June 22. Dinosaur National Monument. Drove down to Echo Park, and then walked out to Harper's Point. Notable for Mormon crickets, crawling all over the road in concentrated areas. Anabrus simplex, a wingless grasshopper, usually occur singly but sometimes appear in immense hordes. It threatened to wipe out the early Mormon settlement in Utah, giving the gulls a feast, and resulting in the monument in Salt Lake City.

Whispering Cave, notable cool air coming in strong currents out of the rock. Not far from Echo Park.

Saw about two dozen deer, two dozen antelope coming and going. One small fawn.

Desert varnish -- a manganese deposit on the rocks.

Staurothele--a lichen that looks like desert varnish, but is not.

Thursday, June 23. Drove up road where Bill Schaeffer was camped, road goes on toward Newcastle.

Androsace septentrionalis

Psychrophilia (Caltha) leptosepala, Marsh marigold

Erythronium grandiflorum, Avalanche lily

Lithophragma glabrum, Star saxifrage

Carex reynoldsii which isn't in the book

Claytonia lanceolata

Festuca thurberi

F. idahoensis

Ribes wolfii

R. montigenum

Epilobium saximontanus

Veronicastrum serpylifolium (Veronica)

Sagina saginoides, small

Plantago tweedyi

Ranunculus uncinatus

R. alismifolius

Stellaria umbellata

Draba albertina

Poa annua

Osmorhiza occidentalis

Ligusticum porteri

Geranium viscosissimum

Delphinium barnebyi

Watched red-tailed hawk chicks in a nest on a stone ledge. These were first alleged to be eagle chicks.

Bill Schaeffer hit with his truck a mink, and later skinned it. It was a lactating female. You can count the scars on the uterus and tell how many young she has had in last 2-3 years.

Several voles (Microtus) seen in the grasses where we ate lunch.

There is a family of skunks at the high school, 2 young and the mother seen.

Friday, June 24. Hike to Wall Lake, on top. 12 miles round trip. Start at Trapper's Lake, about 9600 ft, and my high point was about 11,300, above the pass above Wall Lake. Wall Lake is 107° 15' W. 39° 55' N.

Saw one elk going up. Mel Cundiff says there are tens of thousands on the Flattops, but I did not see much recent sign. They are limited by winter range, not summer range, and come down, even into the town of Meeker in the winter.

Six deer going up. One Great Horned Owl killed on road. Snowshoe Rabbit in campground. Saw one vole (Microtus) in grass that jumped into the water and swam a while, then dived underwater. Voles are active both day and night. More the size of a rat than a mouse. Short tail and small ears.

The Chinese Wall is a headwall on the north side that runs almost north-south. Very visible from the climb up.

Bill Weber says lava soil is relatively sterile soil. Mel Cundiff does not know why the Flattops surface is meadow and not totally forested.

There was a big spruce kill first spotted in 1939, which ravaged the forests in the forties, despite efforts to control it, and was finally stopped by a dry, very cold winter in 1951 that killed the beetle, temperatures 50° below. The replacements in the "ghost forests" are subalpine fir and spruce. There is enough shade for the shade reproducing species to come back immediately.

Aspen is much more prominent in the forests on the Western slope than on the East. It covers miles and miles, and isn't just in the wet hollows. Why is this? Is this all replacement by fire? Trappers Lake is where the wilderness concept was born, perhaps simultaneously with Leopold in New Mexico. In the summer of 1919 Arthur Carhart was assigned to lay out Trapper's Lake for summer home development and while he was doing it he came to the conclusion that it should remain forever undeveloped. He prevailed on his supervisor to abandon the development scheme. In December 1919 Carhart met with Leopold to make further plans for wilderness.

Tough getting around the snow in the headwall just before getting to the top, and had to make my way around willows. Found a steep but easier descent on return. Mel Cundiff doesn't know how he is going to get his horses past this point. He packs in the backpacks by horse the first day, and after that they carry their own.

Got out about 5.00, and drove up the Ripple Creek Pass road enough to reach an overlook point.

Saturday, June 25. Drove home. Good weather until Ted's place and suddenly the skies got very dark, car's with headlights on, and by the time I got home there was a tornado warning, but nothing locally. Some funnel clouds spotted out on the plains. Shonny was home alone, Jane in Richmond, and Giles at church work camp in Iowa.

Sunday, June 26. Drove Giles to Ben Delatour Scout camp. About 15 deer.

Monday, June 27. Drove back to Meeker.

Tuesday, June 28. Marvine Trailhead, on a cool, cloudy morning.

Rubacer (Rubus) parviflorum, Thimbleberry  
Actaea, Red baneberry  
Geum macrophyllum  
Linanthus harknessii  
Bromelica spectabilis  
Ranunculus macounii  
Gayophytum diffusum  
Mimulus guttatus, Monkeyflower  
Veronica americana  
Heracleum sphondylium = lanatum in Rocky Mtn Flora  
Angelica ampla  
Micranthes odontoloma  
Mitella stauropetala  
Osmorhiza depauperata

Tuesday afternoon. The drought breaks with a good rain. Read geology and history of Flattops and White River National Forest in Forest Service Office.

The lava cap is Tertiary lava, overlying Mississippian and Permian limestone, with a big unconformity between them. But the peaks above the Flattops surface is still another 300 ft, and have 300 feet of lava eroded away to make a peneplain there, now elevated to 10,500 ft.? W. W. Mallory, E. V. Post, P. J. Ruane, W. L. Lehmbbeck, and R. B. Stotelmeyer, Mineral Resources of the Flat Tops Primitive Area, Colorado. USGS Survey Bulletin 1230-C, USGPO 1966

Wednesday, June 29. Ripple Creek Pass.

Heard mating display of snipe, made by tail beating? Winnowing. Snipes are common in sedge hay, up to 11,000 ft., more on Western slope than East.

They make a low arc high in the sky and use their tails to pull out of the low arc, flying fast. (Kevin Cook)

Vaccinium scoparium  
Micranthes (Saxifraga) rhomboidea  
Trollium albiflorus  
Polymonium pulcherrimum, Sky Pilot  
Dugaldia hoopesii  
Rudbeckia occidentalis, no rays, only a dark purple cone  
Viola labradorica  
Epilobium anagallidifolium  
Ligusticum porteri  
Oreobroma pygmaea (=Lewisia)  
Salix planifolia  
Juncus drummondii  
Luzula parviflora  
Ranunculus eschscholtzii  
Sibbaldia procumbens  
Pseudocymopterus montanus  
Podistera eastwoodiae  
Castilleja sulphurea, sulfur colored paintbrush  
C. rhexifolia, rose colored paintbrush  
Carex reynoldsi

Ernie Johnson says he regularly sees bobcats, sometimes with kittens, hunting quail in Texas in the fall.

Thursday, June 30. Around town in the morning.

Thursday p.m. Lecture. Mel Cundiff has been going to the Flattops since 1955, is especially interested in the elk there. They rise from a general surface of 10,500 in the south to 11,000 in the north. Shingle Mountain is volcanic layered, which looks like shingles.

Devil's Causeway from Stillwater Lake, 4 miles, is a good hike, and spectacular causeway at end.

Aspen do reproduce sexually in Colorado, but not often. There are 200 lakes in the Flattops, 80 with fish in them, stocked by Fish and Wildlife. The others get too much snow cover to support enough photosynthesis in winter, and winterkill. There are 7,000-10,000 elk, and Cundiff hears some bugling all summer.

90,000 of 100,000 acres were destroyed by spruce beetle. In 1975 there was the largest fire ever in Colorado, in the down timber, 5,000 acres and that was superceded in 1977 by a fire over 10,000 acres, again in down timber.

Cundiff frequently sees weasels there now.

Dinner afterward at the Sleepy Cat.

End, Meeker CU Summer School trip.

July 8-10, Jack's Gulch with Giles, Steve Newlin, and his family, camping. Saturday, July 9, hiked Old Flowers Trail into Pendergrass Flats. This is good road for 4 WD, no problems, and I talked with others who had come in from Stove Prairie. Said there were gates, but easy access, and easy 4WD. Wren and Yellow-bellied sapsucker nesting near camp in hollowed aspen. Pushing Giles through his Pioneering and Wilderness Survival Merit Badges.

(did this again, Dec. 19, 1995)

July 17, 88. Mt. Audubon alone--if you call 100 cars in the parking lot alone. Left about 10.00 a.m., after getting Giles off on the Scout long-term camp to Crested Butte. Nice climb, steady climb upwards of 3,000 ft. Nice day, with grapple storm on top as I was eating lunch. Cleared later.

Returned to the car to find a rescue squad going up to rescue a man who had broken his ankle and smashed his head in a fall, trying to descend into the cirque that comes on down to Mitchell Lake. Lots of backpacked rescue equipment.

Aug. 5-7, 88. McIntyre Lake in Rawahs, with Giles. Hiked up Rawah Trail, leaving trailhead about 9.20. Lunched at Halfway Creek, and got into McIntyre about 4.15. Took a little longer than I thought. Lovely day. We packed in my movie camera; Giles carried it.

Aug 6, Saturday. Hiked around via Link Trail to Medicine Bow Trail and up to Packtrail Point (not named on map). Nice day, though there were some clouds. In evening after early supper, hiked up to Sugarbowl Lake, in a spectacular cirque

Sunday, Aug. 7. Hiked out, again taking all day. Got out at 3:30. 8 miles each way, plus 6-7 on Saturday, 23 miles round trip. Saw one elk and one deer. Others had seen fifteen bighorns above

Rawah 2 Lake. Two deer close range driving in. Rangers had a llama on the trail. The usual in birds.

Having a little trouble with my Achilles tendon on the left foot, but it did o.k. on this trip. I was last on this trail July 27-29, 1970! Eighteen years ago.

August 10, 88. Out on plains to see Marsilea, Clover Fern, with Kevin Cook. Thousands of plants at the first road west of the Agricultural Experiment Station Dorms, turn north. There are two dumpster pickup boxes; some is opposite the first alongside the road, but much more is opposite the second, west side of road in a long slough that runs alongside the road 100 feet, but isn't more than 2 feet wide.

Marsilea seems to be in all the ponds in this immediate area to some extent. One burrowing owl, watched in scope.

Brought in Cyzicus, clam shrimps, somewhat like fairy shrimps, Branchinecta, also brought in, from the temporary pools here. Good pix in Barnes.

August 15-21, 1988. Ghost Ranch, New Mexico. Drove down Monday, to Walsenburg, then over North La Veta Pass to Alamosa, then to Antonito, then over LaManga Pass to Champa. This latter leg is quite scenic, and there is a narrow gauge railroad of 64 miles length operating at the top. On to Ghost Ranch, which is about 12 miles n. of Abiquiu. Good road all the way, but last part slower than I anticipated.

Monday afternoon, hiked up Chimney Rock, following the geology guide to the strata. Entrada sandstone is prominent, of which the chimney is made. Above that is a gypsum/limestone cap, Todilto Gypsum (all Jurassic). Above that, forming gentler slopes is the Morrison Formation (Jurassic) and the highest through here is Dakota, Cretaceous. Below the Entrada is the Chinle formation, often covered here by talus.

Thursday after supper, hiked part way up the Kitchen Mesa trail. This drops over into the next canyon, and then climbs what looks like a big canyon with no exit, but makes its way to the rim and back over the flat top to overlook the Ranch.

Saturday afternoon, drove into Abiquiu to get gas, then hiked the Box Canyon Trail as far as I could before supper.

Living Museum here, ceded to Forest Service on former Ghost Ranch land, has live animals, a small zoo. Coyotes and one mountain lion there. There were also two Mexican wolves, of which only about forty survive, all in Mexico, none any more in New Mexico. Took the nature trail one afternoon to figure out the local plants.

Sunday. Drove back through Taos, with a descent into the Rio Grande Canyon getting there, a few miles outside Taos. Then drove back through some good mountain country, out to Raton, and back north up 1-25. Several dozen antelope seen on the plains in southern Colorado.

August 28, 88. Climbed Long's Peak with Giles.

Wasn't sure I could make it, but it came off fine, though I was hiked out when I finished. Left at 3.00 a.m., with Giles driving (his third day of driving! He failed the test early in August and passed it Aug. 26, Friday). Left trailhead at 4.40 a.m., and hiked an hour and a half in the light of the moon.

The moon was full and gave ample light for night hiking. We carried flashlights but hardly used them. Reached timberline at daybreak and were almost to Granite Pass at sunrise. Hazy weather due to massive fires in Yellowstone National Park. Saw a long-tailed weasel a couple times in and about the rocks, trailside, shortly past Granite Pass. Many people on the trail. Giles got stomach cramps, but these eased off.

Reached mid Boulderfield at 9.00, or a little before, and climbed to the Keyhole. Lovely day, incredible view. Got to the summit at 11.30 with no problems. Bullseye markers are still there. Follow them!

About 50 people on top. Started down about 12.15, and I still don't like the Homestretch coming down; others seem to take it much easier. A pair of tennis shoes would really be better here, as the boot cleats grasp less well. Steady climb down, and got to Boulderfield at 3.00. Giles could have moved much faster than I did here. On out by 6.40 p.m. Plenty tired, but I did not have headache, though Giles took six aspirin to prevent one! No blisters, tho upper leg muscles were a little sore the next day. Wore gloves nearly all day; leather work gloves; don't go without them. Day was cool and we didn't get as pushed for water as I remembered before.

Most of the 200 or so hikers we saw were in their twenties. Some were jogging, and one, who looked nearer forty had climbed the old cable route and returned in a jog by the time we got to the Keyhole.

I carried the slide camera and the movie camera and had 17 pounds on my back, which is really too much. Stay as light as you can; possibly take tennis shoes for the Homestretch if it is dry. Gloves. Work on a boot arrangement that cushions your feet more. Saw only one person older than I; he and I were the only people evidently in our fifties. Previous climbs Aug. 10, 1970 & Sept. 6, 1971.

Sept. 1, Thurs. Shonny leaves for St. Andrews.

Sept. 4-5. Sunday, Monday, Labor Day. Giles went on solo backpack, his first, to Spruce Lake, west of Fern Lake. I went to Sourdough Campsite, toward Lake Odessa, from Bear Lake.

Left him about 10.00 a.m. at trailhead to the Pool, and went back into Estes. Lunched at picnic table not far above the Museum/Ranger Station. Left Bear Lake about 1.30 and hiked in. Rather dry. Without a clock, but reached Sourdough site perhaps 4.30. Had to hike to Lake Helene to get water, as this seemed easier than to make it out to Two Rivers Lake. All the ponds through here, some sizeable, have dried up. Cloudless day, and I slept under the stars, no tent. Giles took the Svea stove, I packed in the Coleman, heavy, but not bad for a short trip. He took the Black Ice tent; I took the pocket hotel.

Rather uneventful camp, though I did see two elk on the Flattop Skyline at dark, nice silhouettes. Hiked out next morning under cloudless sky and met him about 11.30. There has been a small bear cub seen in this area, got into the food back of some campers at the Pool.

Sept. 24. Hike to Chasm Lake, with John Leslie, University of Guelph, and Don Page, theoretical physics, Penn. State University, both attending CSU Philosophy conference on cosmology. Left about 2.00 and got to Lake about 430, out by dark. Afterwards, saw and heard elk bugling, then dinner at Nicky's with the rest of the group from the conference, and Kevin Cook.

Oct. 8. Nice great horned owl sitting on the street light over the road, at the Grease Monkey on



South Shields, about 7.00 p.m., coming home from Gorillas in the Mist, story of Dian Fossey.

Oct. 14. Stormy Peaks, alone, before Philosophy Dept. Retreat. Nice day, somewhat windy on top. The alpine part of this trail takes an hour one way.

Nov. 11, Friday, through Nov. 20, Sunday. Wisconsin and Death Valley.

Friday, flew to Central Wisconsin airport, and Stevens Point, and to Central Wisconsin Environmental Station. Joe Passineau is the Director. Environmental Ethics Conference for Nature Interpreters.

The Center is in the woods in a glaciated area, with Sunset Lake just below the camp. Saw a pileated woodpecker there Saturday morning, also what must have been a mink playing about a dock, then retreating to a hole under a boat. Also raccoon tracks in the beach sand, which was a good tracking bed. At noon, saw an immature bald eagle flying over the lake. Also walked down in spitting snow to a nearby lake with heavy beaver activity. One loon on the lake.

Sunday, Monday, various tracks, including opossum. Two later seen by car headlights in driveway and roadside. Good woodpeckers in here. Mostly attended by national, state local interpretive naturalists.

Tuesday, tour to the John Muir homestead, with guide at the original homesite who lives there, Erik Brynildson, and is a Muir buff. This is at Fountain Lake, and the homesite is still marked by a depression and lilac trees, brought from Scotland. A marsh visible from the homesite is the one that Muir tried to save, but it has only been recently set aside. Muir was here from 1849 until 1856. The Muir family moved four miles away to Hickory Hill farm in 1856, and that frame house stands, but we did not see it.

About 100 sandpile cranes in a field.

Then we went to the Leopold shack, met by Nina Leopold Bradley, who reminisced about her father (Aldo Leopold) at the shack, while about a dozen of us were inside--hard rain outside and some lightning. I sat in a sort of lawn chair that Leopold had made. A very plain shack but she has kept it in vintage condition with the implements, furnishings, etc. that were there when Leopold was there. Quite a nice experience. Leopold's Sand County Almanac was gleaned from experiences here. Returned to speak at the University of Wisconsin, Stevens Point.

Wednesday, Nov. 16. Flew to Las Vegas, and met Allan Riggs, U.S. Geological Survey, who drove me to Death Valley National Monument. Good tour of the country enroute. Riggs is a scuba diver who has explored Devil's Hole and its underground, water-filled chambers.

Roomed at Furnace Creek Ranch with Phil Pester. This was the Desert Fishes Council, 20th year anniversary symposium, on the conservation of desert fish. Shirt sleeves weather in day, cool nights.

Saturday, Nov. 19 (my birthday). Went to Ash Meadows for field trip. We were let inside the fence and got right down to water level at Devil's Hole where the endangered pupfish is, and I saw them well. Then went to Big Spring and Jackrabbit Spring. Lunched at the shack/residence of Bob Love, active conservationist in the area. About 250 fishery biologists here, the principal ones in the West and many prominent ones from the nation. Saw several wild mustangs, which have supposedly been removed from this area. It has recently become the Ash Meadows Wildlife Refuge.



Gene Hargrove and Nina Leopold Bradley

at "The Shack," 1988

Saturday night, spent in Las Vegas with Jim Deacon and Mary Dale Deacon, and their guests, Walter Courtney and his wife Francine. He is ichthyologist at Florida Atlantic University, Boca Raton. Jim Deacon is probably the principal biologist involved in the defense of Devil's Hole. He is now in a wheel chair.

Sunday morning, went out for brunch to Bonnie Springs in Red Rocks area, restaurant with old West decor. Saw wild burros and some more mustangs. Flew home Sunday afternoon.

Dec. 24, 1988. Christmas bird count, with Kevin Cook and others.

Only worked half a day as it was Christmas eve. Only worked lower Rist Canyon

mallards 31

gadwalls 7

greenwinged teal 12

widgeons 6

dippers 3

kingfisher 1

snipe 1 - seen nicely in full field in the scope, at water's edge, river crossing just before Bellvue. Stayed there ten minutes.

downy woodpecker 1

hairy woodpecker 3

rock dove 5

magpie 8

Am. goldfinch - 7

Junco - 80

Stellar's jay - 11

solitaire 5

pygmy nuthatch 4

red breasted nuthatch 1

Cassian's finch - 26

golden crowned kinglet 6

black capped chickadee 3

mountain chickadee 10

flicker 1

golden eagle, adult in the sky

1 bald eagle - immature 2. One perched on sandstone cliffs just west of Bellvue.

roughlegged hawk 1

robin - 1

creeper -1

Dec. 27, 1988. Skiing at Estes Park with Shonny, giles, Wendy Bateman, Seth Sandstrum. Only 10° at lunch. About 40 elk at the horse stables in Estes Park, east edge of town.

end 1988

## 1989

January 14-17, 1989. Trip to Winnipeg, Manitoba, to speak at University of Manitoba. Wintry there.

January 20, 1989. On the Long's Peak climb (Aug. 28, 1988), coming down I scraped my boot on a boulder and the heel ripped loose from the uppers. I could still walk in it without much trouble. I took it to Mountain Shop in October and asked if they could fix it. They sent it to Steve Komito in Estes Park, and then to Vasque, who said the boot design was defective, and credited me \$ 94.00 on the boots! I bought them August 2, 1982 (or wore them then for the first time at any rate) and don't think I paid but \$ 80.00 for them. But they have no boots in stock my size at the moment.

January 26-29. Trip to Montana State University, Bozeman. Symposium on Fee-Based Hunting and the Public Trust. I was on panel on ethics of hunting. Dinner Saturday evening with Gordon Brittan and wife Vanessa on their ranch near Livingston. We drove down toward Yellowstone Park in the afternoon. About two feet of snow fell the week before. Saw 3-4 dozen deer, mostly whitetails. Also at the supper, Jim Posewitz, Montana State Dept. of Fish, Wildlife, and Parks, who has been important in Montana conservation.

Flight back was lovely. Foggy at first, but by lower end of Yellowstone it was clear. Flew over Wind Rivers, over Medicine Bows, and down in front of Long's Peak. Everything but central Wyoming covered with snow, and a light skiff even there.

Feb. 9. Talk on bears in Yellowstone and Rocky Mountain National Park by Hank McCutchen, research biologist at Rocky Mountain National Park. He worked for a number of years with the Craigheads in Yellowstone and had pictures, especially of the dump near Hayden Valley, which was in open country, and visited by 40-150 grizzly bears each evening. Black bears axe forest bears, spend little time in open country, and did not use it, though they used other dumps.

Rocky Mountain park has about 35 bears, more or less distributed all around the park east and west, high and low. He has radio collared 16, caught 21. He has dug a number out of their dens in winter. The cubs are active, and quite small, resembling a puppy. The sow seems to wake up somewhat when they are born, but afterward hibernates even though the cubs are more active. The dens are in remote country, the steeper the better, often dug out back under rocks. Some of the dens seem to have been used for decades and more, but they don't seem to use the same den two years in a row. A black bear sow normally gives birth to cubs only every other year, and she will keep yearlings with her the second year.

They eat vegetation in early spring, berries as often as they can, almost exclusively from midsummer on. In the fall they go up to get nuts from the limber pine, and den higher than you would expect on occasion. They will dig out a rotted log in deep timber to find a chamber of ant

larvae; this can be a cluster a pint or so in size, and eat it. They seem to be able to scent them out. This makes quite a mess, and you can see these in the woods a year or two afterward. Rocky Mountain Park bears are in marginal habitat and the subadults try to move out to find territory and are often shot by hunters.

Grizzlies were once in Rocky Mountain Park and it really isn't much worse grizzly habitat than it is black bear habitat.

March 7, 89. Sharp-shinned hawk eating a robin in the back yard.

March 7, 89. Nice view of Mono Lake from the plane, enroute to Japan. Also saw it again on return, with nice view of Big Thompson Canyon on approach to Denver. I could see from Estes Park all the way down to Loveland, with the forks at Drake especially clear.

March 7-22. Japan trip, with too little opportunity to look at the flora and birds. Lots of heaths and azaleas.

Especially impressive at the Ise shrine (outside Kyoto) are the tall, magnificent Japanese cedars, Cryptomeria, cryptomerias (Taxodiaceae), like sequoias (though not nearly so big) in general aspect. Japanese: sugi. Also the camphor trees (Cinnamomum) (Lauraceae, Japanese: kusunoki). Another impressive tree is the white cedar, Chamaecyparis, a cypress (Cupressaceae) Japanese: hinoki), of which the shrine is made. Also these were in the Hotel Rantei garden.

Elsewhere noted the cycads, Cycas, like a palm tree. There are also some palms here.

Tea is Camellia siensis, a camellia (Theaceae) from China and the Himalayas, brought to Japan by Zen Buddhists. It has only been drunk by most Japanese in the last 100 years. It is really subtropical, an evergreen that needs a moist climate. Still it is widely grown in Japan, a low evergreen in long rows. Green tea is the crushed buds.

One morning across from the hotel I saw 5 macaques (Japanese monkeys), who live in a wildlife preserve there. They were ranging along the road along the shore of the river.

March 22-26. Enjoyed the flora at Oakland, during the American Philosophical Association there. Oakland is named for the oaks, common in the area.

Shadow of the contrail of the jet was prominent on the cloud cover as we flew out.

March 28-Apr. 6, 89. Trip to Pittsburgh, New Haven, Richmond, and Nashville. In Nashville, Bob Crumby (seminary roommate) took me up to a falls, with magnificent redbud, Cercis, as nice as I have ever seen it. Burgess Falls.

On Wednesday afternoon, Perry Biddle and Mack Pritchard (Tenn. Dept. of Conservation) took me to the Radnor Lake area in Nashville.

Polygonatum, Solomon's seal

Trillium grandiflorum

Trillium (a red, sessile one) recurvatum?

nice Delphinium

Hop hornbeam, Ostrya (hop like fruit cluster)

Hornbeam, Carpinus (muscular trunk, 3-lobed leaf bract subtends fruit)

Hackberry, Celtis

magnificent Spring-Beauty, Claytonia  
Chickweed, Stellaria media  
Great chickweed, Stellaria pubera  
Ranunculus abortivus, Small-flowered crowfoot  
Anemonella thalictroides  
Podophyllum, Mayapple  
Lindera, spicebush  
Sanguinaria, bloodroot (past flowering)  
Dicentra, Dutchman's breeches  
Dentaria, Toothwort  
Arabis, Rock cress  
Saxifraga, Saxifrage  
Amelanchier, Sarvis  
Cercis, Redbud  
Euonymus, Wahoo  
Violets, Purple, yellow  
Flowering dogwood  
Phlox divaricata, Wild Blue Phlox  
Phacelia purshii, Fringed phacelia,  
Henbit, Lamium  
another purple mint

April 14-17, 89. Tacoma and symposium on water quality in Puget Sound. Nice flight up, with good views of Grand Tetons and Yellowstone Lake, frozen solid. Saturday night and Sunday spent with Bob Stivers at his cabin on Puget Sound, vicinity of Longbranch. Sunday afternoon took a boat ride around McNeil Island, a prison, once a federal penitentiary, now a state prison, though most of it is under conservation. Sunday morning walked along the beach, also some walks in the woods.

Some interesting water birds: pigeon guillemot, lots of surf scoters. Brant, scaup, buffleheads. Cormorants. Saw a gull dropping a clam from 50 feet high to break it open.

Lovely forests of Douglas fir, larger than it ever gets in the Rockies. Also Western hemlock and Western red cedar. Trillium ovatum, rather like the Trillium grandiflorum of the East. A Ceanothus. Madrona, a Heath in genus Arbutus, with reddish bark, peeling. (Trailing Arbutus of the East is in genus Epigaea.)

Alders that reach good tree size. Bigleaf Maple (= Broad-leaved Maple). Swordfern (a big Polystichum, like Christmas fern in the East, with serrate margins), in fine deep woods displays. Huckleberry, Vaccinium, an evergreen one with small berries. Salal (Gaultheria shallon), broader leaved evergreen shrub. Salmonberry, Rubus spectabilis. Red Elder, Sambucus racemosa.

In the boat, we saw three seals, and one sea lion. The seals were swimming in the water. The sea lion had climbed out on a buoy sunning himself.

Seals (Phocidae, phocid seals) are smaller, no external ears, feet incapable of being turned forward for use on land. More completely adapted for aquatic life. Evolved independently from otter, mustelid, line. Found in all oceans, mainly high latitudes, also in Caspian Sea and Lake Baikal, some entirely in fresh water. (later seen on Baikal trip)

Sea lions (Otariidae), larger, external ears, feet can be turned forward for use on land. Evolved independently from canid stock. On Pacific and Atlantic coasts, and on many islands in the

Southern Hemisphere.

Apr. 22. Crow Valley, alone. Really too early for the migration. Saw great horned owls half a dozen times, all around the area, and one camper who had been there overnight said there were at least four, maybe six in the area. They were spookier than usual, and flew on anything like an approach. One yellow-rumped warbler, Myrtle's; the camper said he had seen one Audubon's. Unusual view of loggerhead shrike on coming in, I had the scope on it on the phone wire and it flew down right beside me on ground and on fence post. Filled the scope at 30x, watched it fifteen minutes. (Long eared owl?, see May 6)

Two burrowing owls at the bend in the road coming home, one was kicking dirt and dust up greatly from a hole. Home before lunch.

Apr. 30. Two golden eagles, separately, driving back from Billings, Montana, and AAR/SBL Regional meeting there. The plains country in this region is often lower than you would expect, 4,000 feet or even 3,500 feet.

May 6, Crow Valley alone. Got there by 7.00 a.m. Nice coyote on the way out, in overgrazed field/grassland. Watched him in binoculars a minute or so. Great blue heron, meadowlark, blackbirds, lots of yellow-rumped (both Audubon's and myrtle), a handful of Swainson's thrushes. One Say's phoebe? Several white-crowned sparrows, a couple of house wrens. Green-tailed towhee, about 6 barn swallows.

Doves, lots of bluejays (they weren't here two weeks ago), robins, 3 Swainson's hawks, redwings, one unidentified sparrow. Sharpshin hawk (female) was eating a bird in the treetops, and it flew away with the bird a couple times, as I stalked near it. Killdeer. Rufous sided towhee.

Two burrowing owls at the prairie dog colony on the way back.

Stopped at the pond about a mile east of Windsor Reservoir (Junction of Roads 76 and Route 257) on the way back. Good shorebirds. Marbled godwits, avocets, Wilson's phalaropes (on the pond just below at the farmhouse there were hundreds), blue-winged teal, green-winged teal, cinnamon teal, mallards, white-faced ibis, willets, yellowlegs.

A woman from Greeley said there had been a long-eared owl there in the last two weeks and a number of people had been out to see it. Smaller than Great Horned, with longer ears.

May 7, 89. Back to Timnath area in late evening. In addition to yesterday, dowitchers, yellow-headed blackbirds, widgeons, sandpipers. Western grebe, scaup, buffleheads. One muskrat swimming in Timnath reservoir. Lovely sunset there.

May 13, 1989. Crow Valley in morning, Wellington State Wildlife Area, and owls with Kevin Cook in evening.

Coyote running across grasslands on way out. A few moments after I arrived I saw a male redstart in the trees near the big picnic area, first male I have seen in Colorado. I saw a female here last year. Area was generally rather quiet, though. Swainson's thrush (a couple), Audubon's warbler, 12 lark sparrows, two great horned owls (one seen nicely in scope), wren, blue jays, one shrike, magpies, too many doves, Swainson's hawk, two yellow warblers, a few barn swallows, one Eastern kingbird, one Western kingbird, robins, a few cowbirds. Enroute horned larks, lark buntings (these were not here last week), two burrowing owls. Others saw a rose breasted grosbeak.

At the Wellington State Wildlife area, the middle pond had been drained, and there were perhaps 500 birds there, in the muck, mud, and residual water. 24 white pelicans, 12 great blue herons, hundreds of California gulls, lots of dowitchers. Mallards, gadwalls, cinnamon teal, green-winged teal, coots, avocets, phalaropes, avocets, 2 muskrats.

Out in the evening with John Barber (U. S. Forest Service engineer), Joel and Cathy ?? (computers at Hewlett Packard). Went to the old picnic area in Rist Canyon and waited till dark, looking to see how far the yellow ladyslippers had come along. Heard a flammulated owl calling about dark, and played the call, moving over a little in that direction. It flew in and lighted on a nearby branch, and we had a good look at it for five minutes or so. Small owl with dark eyes and small horns. Call is a very low, hoo, hoo, hoo.

Later, on top of the Canyon tried the saw whet owl to no avail. Returned to town in a good rain.

May 18-21. Yellowstone Park as keynote speaker for the Greater Yellowstone Coalition Annual Meeting. Flew up through Salt Lake City and had rough flight from Salt Lake. Arrived at Bozeman in hard snowstorm, and the drive down to Yellowstone in Cliff and Joan Montagne's van was like winter, although less snow had fallen in the Yellowstone Old Faithful area. About 2 inches on the ground there, which pretty well disappeared by morning. Stayed in Cabin 121, within view out the window of Old Faithful geyser. Roommate 2nd and third nights Larry Mehlhaff, Northern Plains Representative of the Sierra Club.

In conference all day Friday and Saturday, but got spectacular overflight of the burned area in s.e. portion of park from small plane on Saturday afternoon. Some major areas burned and then fire would jump and burn area the size of football field and then burn out, or spot and burn elsewhere just a few trees, size of swimming pool. You could see where it had been driven by the wind. Several speakers insisted that the park was ready to burn, regardless of source of ignition (lightning or human), but if so it was ready to burn in a spotty fashion. Ride down to West Yellowstone airport was with Kent Young, lawyer at Red Lodge (halfway between the park and Billings, past Cooke City exit), a CSU graduate. (Montana). Pilot was Bruce Gordon of LightHawk, the Wings of Conservation, Santa Fe, NM. Sunday, left at 4.00 a.m. on field trip trying to see grizzlies, but saw none. Went to Hayden Valley, with Matt Reid, Research Associate in Fish and Wildlife Dept. at Montana State University, studying logging and grizzly bears.

Saw five coyotes (one pair in Hayden Valley), heard them several times. Saw perhaps 300 bison, much more in evidence than before, despite the slaughter of them last winter (this is not the portion of the herd that wandered into Montana and got shot). Saw few elk, not more than fifty. Trumpeter swans several times, probably the same pair. Nice weather after the snowstorm on Thursday night.

A good time to try to see the grizzlies is when the elk drop their calves, first half of June, as the grizzlies prowl to try to find them. Grizzlies are seen regularly in open country. Though they retreat to forests, they are not particularly a forest bear. Black bears stay in the forest.

Tom Brokaw, anchor and managing editor NBC nightly news (later: 1982-2004), was keynote speaker the second night, defending rather lamely the media coverage of the fires.

May 21-24. Snowbird, Utah, outside Salt Lake, at U.S. Forest Service conference on recreation. Nice setting and lovely weather high in Little Cottonwood Canyon. Not too much out up here, but took one good hike lower down, with Marvin Henberg, George Peterson, and others. Some oaks in here.



Long's Peak from the air, May 1989

Spectacular view of Long's Peak, Boulderfield, Keyhole from a rather low elevation on the return flight.

May 26-29. Camper with Shonny, Jane, and Karen Sherwood, Moraine Park, Rocky Mountain National Park. Saw perhaps 150 elk, still lower down. Saw five coyotes, watched three at some length through the spotting scope in Beaver Meadows. Watched two of them for perhaps twenty minutes prowling the meadow, when they returned to the third rather hidden in the woods.

Saw a good sized beaver in twilight at the Cub Lake Trailhead. Birds of interest: a nice western (not mountain) bluebird. Saw a female chestnut-sided warbler, also near the Cub Lake Trailhead, seen very clearly with the chestnut sides. There is a local population in the Front Range, but this bird is not on the Rocky Mountain Park list that I have (rather old one).

June 3, 89. Field trip with Colo. Native Plant Society to grasslands. Led by Clint Wasser and Don Hazlett (who lives on site at Long Term Ecology Research site on road below Central Plains Experiment Station, see under NREL in CSU Directory). Also Will Moir, taught at CSU in Range years back, then ranched in New Mexico, now back in research here. Beth Painter is Dieter Wilken's wife.

Various roadside stops, then went to Owl Creek (a dry wash) and then to old stage station for lunch. Cloudy day, sometimes bright. A lot of knowledgeable people about grasslands on the trip. Siberian elms were often planted on the old ranches 50 years ago and are now nearly dead. Slime flux, an ooze out of the trees as the trunk rots, microorganisms inside metabolize the sap and cause the stain. Increased pressure forces it out.

Spruce budworm was named from an occurrence on spruce, but it does not affect spruce much. It is primarily on Douglas fir. Cattle bite out the centers of yucca flowers while they are still young; they had gotten almost every one of the many yuccas seen during the day. The hard pack of a dirt road (to say nothing of blacktop) causes a water runoff that increases precipitation on the roadside and so the vegetation is richer there (even where the roadside is not fenced from grazing). That also means that exotics get into the roadsides, since often they do not really compete all that well with the grasses in the dry lands fifty yards further in the fields.

Don Hazlett doubts that cactus comes in after overgrazing; he thinks the cactus was there all along, but just not visible. He also says most of the exotics stay along the roadsides, and can't compete in the real grassland. Though there are exceptions, esp. Bromus.

Brian Geils, 639 Hollywood, Ft. Collins, 80521, 482-8607, rode with me; he is forest pathologist (fungi) for Rocky Mtn. Experiment Station.

June 10, 89. Phantom Canyon, with Alan Carpenter and Nature Conservancy. Looked for the great horned owl's nest at Bingham Hill Road turnoff and saw one chick. Did birds around Watson Lake a while, a few white-throated swifts, lots of cliff swallows. Several Bullock's orioles. Lark sparrow.

Drove north of Cherokee Park Road to meet the group at the entrance to the Phantom Canyon Road, which is within sight of the Red Mountain Road, turning off to the right. Phantom Canyon Road turns off to the left, but you have to have chaperoned access across the ranch land, about 3 ½ miles to the Nature Conservancy Land.

Some good botanists along and we keyed plants in the field throughout the day, though nothing

particularly spectacular. Toward the end we were taken to about 5 clumps of Aletes humilis, an umbellifer, the common one is Aletes acaulis, Mountain Caraway. This is known from only five populations and by far the largest is here. Gathering storm and lots of lightning, most too close in, at the end of an otherwise fine day.

Deer skulls with two teeth marks making holes in the skull are lion kills.

June 21, 1989. Jan McKee's study site on Larimer River Road. Spent day collecting mosses with her. Of particular interest in the site is Salix candida, known from only two stations in Colorado, but probably overlooked. See notes.

The oily film on water in the bog is not plant oils but a bacteria. A USGS study team has worked this site, since there were traces of radon gas here and presumed uranium below. They cored the peat bog, down about 15 feet or so, which is dated back 16,000 years, when it was a lake in glacial times. Someone in the East is figuring out the pollen. There are two head-high willows in here: Salix plantifolia, newer twigs red, and S. monticola, yellow twigs. To separate S. candida, from S. brachycarpa, also low and similar, also lanate, see notes. It's easy.

The site is rather notably well developed with Helodium blandowii, in the transition zone on the far side.

June 23-29. Encampment River backpack, alone. Giles is gone with Steve Newlin on his motorcycle.

Friday a.m., drove to Walden and visited Arapaho Wildlife Refuge to get Steel Shot sign. 2 deer, bucks, enroute, then a doe with spotted fawn between Gould and Walden. 3 golden eagles, one sitting on a telephone pole as thick in body size as the pole was. Drove on to Pearl and on over to Hog Park Guard Station. This is good dirt road, but there is one place a big drift lies late, and it probably would have been impassable on that account only two weeks before. Several trees down across the road, but I was able to drive by. 11 antelope, one mother with two fawns.

Camped south of Hog Park Guard Station, where the roadway ends. Porcupine after supper not far from camp. He seemed to be deliberately walking down small pines and examining the tips. Several deer near camp.

Saturday, June 24. Hiked to West Fork Lake. Had to ford the West Fork several times, and used the ski-plastic waders. Big surprise of the morning was the discovery of a lovely patch of Trilliums as I looked for a place for lunch. Trillium ovatum, restricted in Colorado to subalpine forests of the park range, and an endangered species. First time I have encountered them in twenty years of hiking in Colorado. At camp, lots of birds: pine grosbeaks, pipits, two snipe seen in the evening, siskins, yellow-rumped warblers, juncos. One muskrat swimming in the lake. Lots of Trollius and Caltha, and Erythronium under almost every step. Several Calypso orchids. Swainson's and hermit thrushes. Hundreds of Trilliums seen later in the day. Creepers, nuthatch.

Sunday, June 25. Hiked to Gem Lake, with daypack. Up and over and down into Encampment Meadows. Forded river once, and the rest of the tributaries I managed a way around, also a log over the river where it goes back up the Gem Lake Trail. Rhacomitrium canescens and Sphagnum in Encampment Meadows. Main trails are well marked, but the turnoff to Seven Lakes and to Gem Lake is obscure, and these trails in poor shape. Enough snow to make the climb to Gem Lake something of a problem. Lunched at the lake in marvelous weather. One elk in Encampment Meadows; several deer.

Monday, June 26. Packed out down river. Fell into the Encampment River, when the stick broke, unsteady in the high water. Dried out pretty soon. A few Trilliums seen on this drainage, but by no means as many (maybe 12 all day). Nice Purple Lady Slipper, Cypripedium fasciculatum, two dozen plants, trailside.

Camped in the uppermost of the three meadows on the north end of the trail. Hiked out, Tuesday by noon. Elk and several deer in last backpack camp. Coyotes howling in night

Tuesday, p.m., drive in to Encampment, and returned to camp in Ryan Park. 50 miles of driving on dusty dirt roads. 16 elk in Ryan Park that evening, and about half a dozen deer.

Wednesday, June 28. Hiked down Encampment River on Wyoming side. This is Encampment River Wilderness in Medicine Bow National Forest. On the south side it is in Mt. Zirkel Wilderness in the Routt National Forest. Lunched at the footbridge. Returned to camp in Ryan Park. 3 deer in Commissary Park. One nice redtail hawk.

Thursday, packed camp and drove home via a stop off in Beaver Creek area. Walked around the swamp in waders. Sprung a small spotted fawn, also found about half a dozen Trilliums here.

Look up the Savage Run Wilderness, Platte River Wilderness, Huston Park Wilderness, all in this area. Some should be accessible earlier and later in season.

About 32 miles of hiking on the backpacking trip, about 8 on the dayhike; total 40 miles.

July 28-30, Friday through Sunday. Mirror Lake alone. Went with bad hands, but went anyway. Good morning Friday hiking in, lunched on trail and arrived about 2.30. Light rain later on, and hard rain that night. Good Saturday morning. Could only camp at Mummy Pass Creek, as Koenig and Mirror Lake sites were all taken. This is reasonably good site just above where Mummy Pass Creek drops over as a hanging valley into the Hague Creek Valley.

Saturday, hiked up to Mirror Lake and prowled around, in good weather, but after lunch weather caved in and it rained essentially the rest of the trip. Hard rain evening and night, and I made it reasonably well, but the water was getting in. Also my hands were swelling, in apparent allergic reaction to the rubber gloves I was using. Packed out Sunday morning in drizzle.

The Pocket Hotel really doesn't give enough protection from rain in this situation, as it gradually works in, although I slept comfortably both nights. The sleeping bag was getting wet.

Two or three elk in the meadow at the campsite, one deer. One good immature golden eagle on the drive up. Several deer along Long Draw Reservoir road.

The Long Draw road was rebuilt about two years ago and is now a good all weather road in summer. Many big rig trailers come up to Long Draw Campground, just above the Corral Creek Ranger Station, which was also put in a few years back. It is manned in the summer by volunteers. I hiked up toward Comanche Peak Saturday afternoon, in drizzle, and got a little above tree line. Lots of Rhacomitrium canescens up here.

I passed a ranger who said he hadn't seen much of anything but blue sky all summer, until a few days ago, when it had been raining, afternoons and evenings since.

Trap Park Trail is marked off the Long Draw Road. Try it. I was here before, on Sept. 4-6, 1972, and got snowed out.

Aug. 14-19. Ghost Ranch, New Mexico. But not much time to get out into the country. Good drives down and back, and nice weather while there. Heard coyotes one night.

Aug. 19-23. Seattle, at Redemptorist Palisades Retreat on Eco-Justice Task Force. Nice setting. Chestnut-backed chickadees in the woods here. Went to salmon bake at, Bob Stivers cabin, and there was one nice osprey flew in and perched while we were eating.

Sept. 2. Trap Park. Alone. Drove up and started about 10.00 a.m., casual hike to the head of the park. Lovely day, with a touch of fall. Small birds active in flocks, chickadees and siskins. One kestrel in the park, hovering. No deer or elk seen, but one elk heard calling. Nearly to the head of this trail, the old road crosses a good stream, a side stream, and just above is a good campsite. This would be an easy backpack and probably pretty private. Nice view and protected.

Sept. 22-24. Weekend camping at Tunnel Campground in camper alone. Delightful weekend. I read Jim Cheney's paper on Annie Dillard and nature, refereed another paper on ambivalence toward wild, nature in Protestant theology and Christianity.

Went to the wetland that Jan McKee is studying Saturday morning and met her there, with her husband. Aspen were lovely all round. Briefly went up Rawah Trail Saturday afternoon and walked around swamp there in waders.

Sept. 29. Went up to Estes Park to hear elk bugle. Heard over 200 calls and saw two bulls trotting around, one chasing the other off a harem of cows, in Beaver Meadows. More in Horseshoe Park.

Oct. 13-14. In camper with Jane at Highlands Camp. Lovely weekend, giving talk at Retreat Saturday morning.

Oct. 28. Heard Faith Campbell, Natural Resources Defense Council, at Golden on conservation of plants.

Nov. 8. Tom Regan at CSU.

Nov. 12. Sunday. Prewitt Reservoir with Kevin Cook looking for loons. Saw about 8-10, 2-3 of them fairly close up. Look for the loon shape, body about half underwater, often diving down under. Note the winter plumage. We saw all common loons. The Pacific loon is smaller, and can be seen here more rarely. Also heard one give a bit of a call. You can go round to the east end and walk up on the dam down there, which I had not done before.

On the trip were Kevin Cook, Mildred Norman, Jeune Reinhold (British), Donna Singer (husband a radiologist, originally from North Carolina; she drove).

Nov. 18, Saturday night. Talk to Kevin Cook's group at The Eyerie. Present: John Barber, wife Mary Ellen, daughter, BJ. He is engineer with Forest Service, builds campgrounds, bridges. Has been on winter bird counts. Jeune Reinhold, British, was on loon trip, bought Philosophy Gone Wild, Janet Smith, works at CSU, bought Philosophy Gone Wild, 2 copies, one for a brother who is a fishing guide in Yellowstone, in summers. Allan Shoer (=shore) and wife Mary Lou. He is lawyer, hopes to do environmental law; she is in graduate program in English literature.

end 1989.