

Trail Log 2005-2009

Holmes Rolston, III

Summary

- 2005 Belize, March. Natural history, especially birds. Mayan ruins. Snorkeling, Hol Chan Marine Reserve, Shark Ray Alley. Toffy Channel, Tres Cocos. Iceland, June. Skaftafell National Park, glaciers. Whaling trips. Yukon Territory, June. Kluane National Park. Hiking. Overflight of glaciers, Mt. Logan. Selway-Bitterroot Wilderness, horsepacking, hiking, July. Yale University, New Haven, fall. Virginia Polytechnic Institute and Appalachian hiking, October .
- 2006 Yale University. New Haven. spring. Nassau, Bahamas. June. Cambridge, UK and East Anglia, July University of Montana, Missoula, and related trips. Backpacking and hiking, Rocky Mountain National Park. Bristol, Virginia, and Appalachians nearby, September.
- 2007 Yucatan Peninsula, Mexico, January. Mayan ruins and natural history. Serengeti wildebeest migration, March. Northland College, Ashland, Wisconsin, March. Davidson College, North Carolina. Presbyterian College, Clinton, South Carolina, and related hikes. Stetson University. Deland, Florida, and related boat trip. Bahamas, June. Powerboat trip to cays. Trips on Grand Bahama Island. Backpacking, hiking, Rocky Mountain National Park. University of Georgia, Athens. Gainesville, Georgia. Mount Toxaway, North Carolina.
- 2008 Morelia, Mexico, including Parícutin (Volcáán de Parícutin), January. Galapagos Islands, March. Zion National Park, Utah, March. Porto, Portugal, Serralves Conference, and tours of nearby countryside. Bob Marshall Wilderness horsepacking trip, Chinese Wall, with Christopher Preston, July.

September 28-November 15, Taiwan. Includes lectures at National Cheng Kung University, Tainan, and other universities. Visits to Shan-Ping Nature Reserve, Yang-Ming Shan National Park, Guandu National Park, Wulai area (ferns) National Museum of Marine Biodiversity and Aquarium, Shi-Tsao wetland area, Cilan Forest Conservation area, including Confucius tree, sprouted in 551 B.C., Taiwan Red Cypress. visit to Hong Kong.

2009 Finland and conference on Celestial Aesthetics, Valamo Monastery, Heinävesi, March.

Korea May. Jeju Island, Chen-ju University, climb of Mount Hallasan. Climb of Geomoneom and seaside Seongsan Ilchubong. mainland Upo Wetland, Chuncheon, and Hallym University, Seoul.

Yellowstone National Park, tracking seminar, May. Phoenix, AZ. Metanexus Conference., July. Backpacking, Rocky Mountain National Park, August. London and Royal Institute of Philosophy lecture, October. Derbyshire. Chatsworth, Lyme Park, Down House (Darwin's country estate). Tucson, Arizona, Madera Canyon, Coronado National Forest, December.

Trail log 2005

January 7, 2005. Red fox was briefly in the backyard in the snow. Beautiful sight with him trotting across the yard in the snow. I called Jane from the bedroom window, but the window was cracked to air out the room, and he heard me and vanished around the side by the gate. I later went out and looked at his tracks. Rather much in a straight line, though not perfectly so.

February 12, 05. Two crocus in bloom at front porch, on lovely day. Jane has been in cast and boot since early December, but she can walk out to see it. In fact, she took herself to Safeway yesterday.

Belize 2005

March 11, 2005. Left Ft. Collins, 4.30 a.m. Check in Denver 6.15 a.m.
Change Dallas/Ft. Worth
Arrive, Belize City 3.30 p.m.

In the group: Sally Bethea, active in Upper Chattahoochee Riverkeepers.
sbethea@ucriverkeeper.org
916 Joseph Lowry Blvd., Suite 3. Atlanta, GA 30318.

with two sons:

Charles Bethea, recent graduate in English of Brown University
Robert Bethea, a freshman at Colgate

Stephen Bissell, a retired banker, lives in Lake Worth Florida, but from the north
sbissell@optionline.net
Linda Bissell, his wife

Margaret Kennedy, born in Germany, an accountant in U.S. for decades. Morristown, New Jersey

Guide:

Nathan Forbes
7061 Pilicaw St.
Belize City
Belize, CA (Central America)

proved to be an excellent guide all round, and especially good ornithologist, as good as any I recall in his own habitat.

Belize was British Honduras, became independent in 1981, though it had had effective independence long before. The British sought timber and to that end brought many slaves from 1600's to 1833, when the British banned slavery throughout the empire. That has left the largest ethnic group African (pure Africans, Creoles and Caribs) at 57%. Mestizos (mixed European, mostly Spanish, and Maya) are 22%. Mayans are 13%. English is the main language.

Jane and I were picked up at the airport, and joined a van that had been waiting several hours for us. We drove to New River, north two hours. Turkey vulture. Spiny-tailed iguana on cement blocks. Drove through pine savannah, degraded landscape. Much of the land had been burned. Sugar cane on truck headed to sugar cane factory.

At Toll Bridge, 17 km. south of Orange Walk, transfer to motorboat for and ride back south on New River for 1 ½ hours to Lamanai. Orange Walk. In local English a "walk" was a name for

an orchard.

ringed kingfisher, nicely seen.

palmetto forests.

snail kite--black, yellow feet, nicely seen.

turkey vulture.

purple gallinule

rough-winged swallow

little blue heron, flew ahead of boat for half a mile

limpkin

neotropic cormorant

cattle egret, in rookery

We rode by a Mennonite community named Shipyard (Lonely Planet, 107). They own 40,000 acres here.

Morlet's crocodile seen several times. This is a freshwater crocodile and an endangered species.

night flowering cactus. Bat pollinated on a limb over the river.

nightjar in flight over the river and a hair sliver of a new moon

great blue heron

neotropic cormorant

Reached Lamanai on New River Lagoon. Lagoon is their word for a pond or wide area in the river. "Lamanai" means "submerged crocodile" (Lonely Planet, p. 137).

Lamanai is a Mayan site occupied from 300 B.C. to A.D. 700 or so and spasmodically thereafter, a long site along the New River. Excavated somewhat by Canadians.

March 12, Saturday.

Morning birdwalk. Black orchid, Enyclia cochleata

Ginger

Cow-horned orchid

melodious blackbird

common yellowthroat

Sibal palm

Bayleaf palm

house wren

Canna lily

Morning glory

Yellow throated Euphonia

guava tree

mahogany

butterfly pea, a vine

ground dove

great-tailed grackle

Cohune palm, *Bigyna cahune*
papaya
blue-black grassquit, small black bird in grass
magnolia warbler
castor bean

yellow-billed cacique
white-necked puffbird, our best bird of the day
red-billed pigeon
keel-billed toucan, their national bird
custard apple
key lime
Avocado
Cassia. Cassia grandis, with long pods

return for breakfast
hike to Maya ruins
rubber tree
Holocene, lobster flower
Hibiscus
Stemmenendia, with latex
prothonotary warbler
guava tree
Acacia -- shelters ants.
strangler fig. Guanacaste tree
mahogany, uneven leaf

reached Lamanai museum. A Mennonite family, father and five boys all dressed about alike and in straw hats. Mother retiring in the rear.
magnolia warbler, nicely seen.

allspice tree, with smooth light bark
reached Jaguar Temple, Early classic Mayan
army ants

black howler monkeys seen, and howling vigorously. Alouatta pigra. They eat fruit, young leaves. There are six species of howler monkey. This is the black howler monkey, less common than the others. Others include the mantled and red howler monkeys. Until 1970, A. pigra was considered a subspecies of A. palliata, the red howler monkey. The howling keeps spaces between group territories. They are seldom seen on the ground.

agouti - a large rodent Dasyprocta punctata 2.5 feet long, with tail, a yard long. They are much hunted for food and said to be very tasty.

The woods we walked through here were composed mostly of many huge palm trees, overarching the trail, Orbygnia cahune. Cahune wood thrush, nicely seen

reached Mask Temple, 100 B.C. to 150 A.D., with a large mask uncovered in 1970's, and now under shelter but still in place at a corner of the temple.

Spanish moss
more howler monkeys, juveniles
reached the High Temple, 100 B.C. to 800 A.D.
reached Stela 9 Temple

mahogany, Swietenia macrophila
Escoba, Crysophilia argentea, give-and-take tree, with spines
Rubber tree, Castille elastica

return and lunch.

After lunch, lecture on Morlet's crocodile

We walked to an abandoned sugar cane mill. Quite a picturesque ruin. A red-bricked ruin covered by a couple large strangler figs. From 1860's. British Honduras Company made a try at a sugar cane operation here, but it did not continue.

Drove through the village of Indian Church. In the village, we saw a violaceous trogon.

Cotton tree, Ceiba pentandra. Has a cottony fibre in it, used in life preservers.

four howler monkeys, one asleep, one hanging by tail feeding
agouti, crossing road.

Returned for supper.
After supper, night ride on boat, with big spotlight.
boat-billed heron

fishing bats over the water, quite a number of them seen in the spotlight. This is the great fishing bat, Noctilio leporinus, one of the largest bats in Central America. It echolocates ripples of fish breaking water. Then it trawls with feet to catch fish and swallows it in flight, or it can partly chew them and then hold them in a cheek pouch to be masticated later at a roost. It also eats insects caught in the wing or tail membrane.
Belize has dozens of species of bats.

gray-necked wood rail
glimpse of an opossum in the trees
northern potoo, perched at top of dead branch, nocturnal bird something like an owl

little blue heron, perched in tree
common paraque (pronounced: puh rock kee)
northern potoo, better seen
ringed kingfisher
several crocodiles, mostly eyes in the river
Eventually they caught a 12" small crocodile and we looked at it up close in the boat.

Provision tree, Pachira aquatica, flowers with large night flowers, bat pollinated, and flowers last only one night

March 13, Sunday.

Left Lamanai, returned on the boat now going north on New River.

Jaiburu stork, on nest, well seen. Others saw three high in the sky. The Jaiburu stork has a wingspan to eight feet, the largest flying bird in the Western hemisphere.

Water lilies

little blue heron, flock of 12-15

limpkin

anhinga. Seen nicely in a tree

nighthawk, sleeping on a branch over the river. Quite well seen, though quite well camouflaged against the bark of the branch. Saw it 10 feet away.

Passed a fisherman in a dugout canoe.

Got off the boat and drove south on the same route as before, then to Burrell Boom. Crossed the Belize River.

For a while the Peccary Hills were quite prominent off to the left.

Passed a cashew orchard.

Prominent flowering shrub roadside was Upland cotton.

Lunch in an open restaurant, with a marvelous vermilion flycatcher perched not far from where we ate.

Drove through Belmopan, the capital city. Rather ramshackled and only a big village.

Turned off on a dirt road and had flat tire along the road, at a point where the farmers had been burning. Changed the tire fighting some smoke.

Reached Pook's Hill, a resort occupying some 300 acres (particularly a pasture where there once were horses). The buildings occupy only perhaps 4-5 acres. There is a large jungle, relatively pristine adjacent, the Tapir Mountain preserve, a national preserve, but it is assigned to Audubon to manage, and the couple here manage it. Ray and Vicki. He is originally South African. She is originally English. Entering, there was a stark contrast when reaching the preserve, fields, rather sparse and degraded before, then shifting almost instantly to lush jungle.

yellow-headed oriole

black and white warbler

Erythrina, a red flower

passion fruit

bracken fern, lots of it seen coming in

Heliconia, with orange-red flower

clay-colored robin

balsa tree

chestnut-sided warbler

slaty-tailed trogon

white-tipped dove

kumquat tree

Louisiana waterthrush

short-tail hawk
grey catbird (heard not seen. Seen later.)
white-fronted parrot. In the trees.
king vulture, soaring
pale-vented pigeon
leaf cutter ants, carrying leaf fragments
banded-backed wren, a big wren
golden-fronted woodpecker
black-headed trogon
melodious blackbird
Sapodilla, chicle
white poisonwood
mahogany, Sweetie macrophylla, uneven leaf
bullhoof, with leaf in the shape of a bull's hoof

March 14, Monday.

6.15 a.m. Early morning birdwalk.

clay-colored robin
black-headed trogon
melodious blackbirds
northern waterthrush
white-tipped dove

crimson-collared tanager. Our best bird of the morning. Reasonably well seen

blue grosbeak
red-ored parrots
collared aracari, a toucan. Two of them.
sharp-billed pigeon
scaled pigeon
termite nest on fence post. The guide had broken a hole in it yesterday, and it was repaired today.
rose-breasted grosbeak, female
Montezuma oropendula
great kiskadee
yellow-throated Euphonia
rufous tailed hummingbird
plumbeous kite, seen perched
yellow faced grassquit

keel-billed toucan, one flying over, another perched, nicely seen. With a frog like call

return for breakfast

Off to the butterfly farm.
elephant grass, tall roadside, introduced
bracken, large areas it.

Houses are often on stilts. This avoids termites and is cooler. But doesn't have much to do with

flooding.

bromeliad, an epiphytic pineapple.

teak, not native to Belize, brought in from Burma.

Amish, driving a buggy. The men have beards. Mennonites do not have beards, usually.

Reached Green Hills Butterfly Farm.

butterflies

banana owl, a big one

blue morph

glass wing

returned to Poot's Hill.

After supper, night walk.

Leaf cutter ants, much more active in the dark.

kinkajou (Potos flavus). Pronounced: kink uh joo. Seen quite well in the flashlights, right at the end of the walk. A member of the racoon family, and about that size. Nocturnal. Only one species like this, big eyes, long prehensile tail. Reminded me of an oversized bush baby. Almost entirely arboreal. Sometimes made into pets, sometimes eaten, a popular name is "honey bear." Decent photo in Walker's Mammals, p. 1103.

March 15. Tuesday.

Early morning birdwalk.

yellow-billed casique

linneated woodpecker

pale-billed woodpecker

Baltimore oriole

crested guan

yellow-throated Euphonia

Montezuma oropendula

short-billed pigeon

black-cowled oriole

magnolia warbler

black-headed trogon

rufous-breasted pine tail -- only movement in the brush and a notable call

red-lored parrot

white-necked jacobin, a bigger hummingbird, and not common

black-cheeked woodpecker

pale-billed woodpecker

black-headed trogon

returned for breakfast

Left Poot's Hill, and set out on the road for Tikal. The dirt road comes out at Teakettle Village,

an unusual name for a village.

cashew orchard
cattle egrets

drove through St. Ignacio, and St. Elena.

crossed the Mopan River on a ferry, hand-cranked. Visited Xunontich ruin. (pronounced: shuu-nan ti nich. shoo NANN ta nich. An impressive ruin high on a hill. This, the common name for the ruin, means "Stone Lady," named for an appearance, an apparition, there. The earliest construction here about 400 B.C. What you see now is about 600-900 A.D. It was abandoned about 1000 A.D. or so.

striped basilisk, a lizard. The Jesus lizard, the same kind as we had had at the cabin.

huge iguana on a tree. Long spines on back. They are green when young.

hooded warbler, nicely seen in woods near ruin

Crossed the border into Guatemala. Hot and dirty drive along the first part of the road in Guatemala.

Nathan hears of sightings of jaguar two or three times a year, mostly by the park rangers, or by drivers seeing one cross the road.

After driving through residential areas, mostly pretty typical Third World, we reached Tikal National Reserve. After crossing the boundary, there is still a considerable drive in a park reserve area. The reserve covers 222 square miles, 2.5 million acres. It is largely to conserve the Tikal Mayan ruins, but also serves as a wildlife reserve.

spider monkeys (Ateles geoffroyi Yucatanensis). Geoffrey's spider monkey -- seen in the trees roadside

keel-billed toucan
brown jay

We reached the hotel inside the park with ample open grounds.

ocellated turkey, on the grounds at the hotel but wild, and habituated

We walked (not Jane) up to the ruins about dusk, to see the sunset from the top of one of the ruins. The ruins are from 600 B.C. to 900 A.D., about 6 square miles contain ruins. There are about 4,000 structures, many still unearthed. Some fewer structures are in a 25 square mile area. The area was mostly forgotten from 900 A.D. until modern excavations.

This is a UNESCO World Heritage site.

howler monkey

Montezuma oropendula, striking yellow outer tail feathers. Some nice pendulous nests in the ruin area seen later. loud, hollow, gurgling call.

Chico, Zapote tree, Monkkara ochres
great tinamou, chicken-like bird, glimpsed in woods

spider monkey, mother and baby. Seen on walk up to ruin toward sunset

yellow-winged tanager
olive-backed Euphonia
six turkeys, one gobbler, seen at the ruin
plumbeous kite

spider monkey doing some big jumping, nicely seen

crested guan, five of them nicely seen on the ground, twenty-five feet away. Red flaps of skin.

March 16, Wednesday.

heard howler monkeys in the night

morning birdwalk

brown jay
collared aracari, a toucan
black vultures, 20-30 of them in a roosting tree
cashew tree in blossom, Anacardium occidentale
melodious blackbird
slaty tailed trogon
black headed trogon
yellow warbler
Yucatan squirrel
golden-fronted woodpecker
rose-throated becard
red-lore parrot
purple martin
rough-winged swallows
olive-throated parakeet
yellow-throated vireo
social flycatcher
cedar waxwing
ocellated turkey
vultures, 30 of them
common yellowthroat

Nathan and I walked up to ponds at the visitor center area.

green heron
immature common black-hawk
turtles in pond -- Central American slider
immature northern jacana
immature little blue heron
yellow-rumped warbler
purple gallinule
northern waterthrush

white-collared seedeater, nicely seen
painted bunting
black and white warbler
agouti, (large rodent) quite nicely seen

Breakfast

Got a ride for Jane in a car to the ruins area.

bat falcon, seen flying about the ruins

visited the ruins, impressive and huge

We walked back, Jane included.

gray fox, carrying something in its mouth. He/she stopped and drank and then resumed its walking.

returned for lunch

In the afternoon, we visited the museum, good relics here and a decent interpretation

Late afternoon birdwalk, down the now overgrown old airstrip to a pond which they excavated to build the runway, now in second growth forest and a magnet for birds. The airstrip was built by the archaeologists, for there were no roads by which they could come here in earlier days.

chocolate tree. cacao. (cf. cocoa) Theobroma cacao. The fruit is right on a short twig on the trunk. Decent sketch in Jacques, Economic Plants, p. 126. Grows to 25 feet high. Native of tropical America. The Spanish found the Mexicans already cultivating it. Beans are removed from the pod, washed, roasted, and ground in heated mills. The resulting product is bitter or baking chocolate. (Cocaine is a different plant).

mango tree. Mangifera indica. From Asia somewhere, probably.

northern waterthrush
clay-colored robin
dusky-colored flycatcher
blue-black grosbeak
plain chachalaka - chicken-like bird, on the ground and then see in a tree
orchard oriole
green-backed sparrow
black-headed trogon
painted bunting, several beautifully seen
more chachalaka, on the ground
tropical kingbird
black-headed trogon, a brilliant blue

reached the pond

gray-necked wood rail
wood thrush

worm-eating warbler
catbird - half a dozen of them
white-collared swift
ruddy quail dove

gray-headed tanager. These are not easy to see, and we saw this one quite well.

agouti, seen at dusk

March 17, Thursday.

morning birdwalk

brown jays quite noisy
vultures
tropical kingbird
melodious blackbird
turkeys
clay-colored robin
13 turkeys and a gobbler, the gobbler in a great tail display
white-eyed vireo
golden-fronted woodpecker, nicely seen
12 vultures
olive-throated parakeet, 12-15 of them
brown-crested flycatcher
brown-hooded parrots, 6-8 of them
social flycatchers, nicely seen
crocodile, in pond
bigger crocodile, eyes only out of the water at first and later seen quite well.
jacana
red-ored parrot
grey-necked wood rail
purple martins
cattle egret
Montezuma oropendula
purple gallinule
green kingfisher
yellow-rumped warbler
cedar waxwing
green heron

I saw sensitive mimosa. Touch it and the leaves fold up, seen quite well. A small plant.

returned for breakfast

left Tikal, drove back through forested area
lunch at Lake Peten Itza, a huge lake.
lunch at a restaurant up a hill, adjacent to the lake, with souvenir shops below. The kid girls, begging you to buy their souvenirs, had lovely eyes and wanted to talk, and Jane got sad at their fate.

spotted sandpiper, at the lake shore
brown pelican

Visited island of Flores, went into a church there.

Flight back to Belize City, in 14 seat airplane. A Cessna Caravan, flown by Tropic Air. Airport was hot and noisy.

On flight back, poor visibility, lots of haze, and much of it from slash and burn agriculture--or at least so they said.

Reached Belize City. Separated from Nathan Forbes, guide, here and met new guide, Martin Meadows. He is British, studied forestry at the University of Aberdeen. Martin Meadows, P. O. Box 228, Belmopan, Belize

Took flight to San Pedro and Ambergris Cay (pronounced "key"). This only a 15 minute flight in the air, in the same kind of 14 seater plane.

Met and switched to a motorboat for a boat trip to Belizian Shores Resort, north on the Cay some five miles. There is no drive-able road although you can ride a bike or drive a golf cart there. Lots of the transportation on the island was by motorized golf cart.

Dinner in the restaurant there, on the third floor of a building, with kitchen on second floor and offices on the first floor. A reasonably good view.

But the electricity went out and the lights off during the meal, which we managed to complete by candlelight.

Went to bed in the dark, by flashlight.

March 18, Friday.

Morning birdwalk, first along the beach front and then behind the hotel in a mangrove swamp area.

Double-breasted cormorant
brown pelican. These were often seen flying over the water.
royal tern, seen both in flight and on shore, and often
great-tailed grackle
sanderlings
ruddy turnstone
spotted sandpiper
tropical mockingbird

linneated woodpecker, nicely seen, and once common here but now rare. Their habitat has been destroyed by all the development.

white-winged dove, white on wing nicely seen
yellow warbler, several of them
mangrove cuckoo, though only a glimpse of it, but heard calling
osprey

red-billed pigeon
yellow warbler

lots of racoon tracks

black catbird, well seen, and later often seen. This is only found in the Yucatan. Some of them have white in their wings.

magnificent frigatebird

We walked out on a built up area into a red mangrove swamp, a bit. Swamp prop roots. Also, further toward drier land, black mangrove and aerial pneumatophores

great kiskadee
black-headed trogon
prothonotary warbler

returned for breakfast.

Went snorkeling. I did it without glasses and could see reasonably well. The refractive index is different in the water and you see better than you think you might.

Went to Hol Chan Marine Reserve first, and then to Shark Ray Alley.

Corals seen:

staghorn coral, Acropora cerficornis. Stands up on the floor with hornlike branches

elkhorn coral, Acropora palmata. much heavier branches
club finger coral, Porites porites. low, more finger-like

mustard hill coral, Porites astreoides. More of a yellowish lump, a bumpy mound

mountainous star coral. Montastraea annularis. Major reef-forming coral forming beds five feet or more across and up to ten feet high

smooth star coral, Siderastrea radians.

massive leaf coral, Agaricia agaricities var. danai

grooved brain coral, Diploria labyrinthiformis. Like a huge brain, three feet high

giant brain coral, Colpophyllia natans. Like a gigantic brain, to six feet high.

pillar coral, Dendrogyra cylindrus. With thick columns reaching several feet high.

gorgonians:

sea rod, Plexaura flexuosa

Venus sea fan, Gorgonia flabellum. These are like huge leaves that face water currents to make food organism available to each polyp.





common sea fan. Gorgonia ventalina, bigger like a huge purplish leaf to five feet tall.

encrusting stinging coral, Millepora alcicornis.

Fish seen:

southern stingray. Flat and more or less diamond-shaped, with long tail. Fins extend forward to encompass the head. They do sting (a spine on the surface of the tail base), but unless stepped on or molested they are harmless.

nurse shark. Several, mostly maybe six feet long, with a distinctive tail. Found often in shallow water where it may lie motionless on the bottom. Not dangerous. These two were the biggest fishes seen.

tarpon. looks pretty much like an ordinary fish, and can get large.

great barracuda. The guide kept trying to point these out when he saw them, but I was never all that sure about it, due to seeing without glasses. Long slim fish.

trumpetfish. very long and slim bodied.

balao. smaller, long slim fish in schools.

sand tilefish. makes a burrow and hovers near it. Dives into the burrow if disturbed.

Nasau grouper. Zebra-like pattern. Groupers mature first as females and produce eggs. They change sex later in life to become males. Bottom dwellers, hide in caves and holes.

red hind. Lots of these. Another grouper, with red spots, like measles.

horse-eye jack

bar jack. With a dark bar on its back.

schoolmaster. A snapper

mutton snapper

yellowtail snapper. blue with yellow line down side and yellow tail.

grunts - named from the sounds they make

bluestriped grunt - lots of these

white grunt

porkfish

black margate

butterfly fish:

banded butterflyfish

four-eye butterflyfish, from a set of "false eyes," or eyespots on the rear to make it appear dangerous.

spotfin butterflyfish

gray angelfish

damsel-fishes:

sergeant major -- with strips like a sergeant
cocoa damselfish
dusky damselfish
yellowhead jawfish

wrasses:

yellowhead wrasse
bluehead
Spanish hogfish

Hogfish. These can change color to suit their background, but are characterized by three trailing dorsal fins

parrotfish:

rainbow parrotfish
queen parrotfish
stoplight parrotfish

blue tang a surgeonfish. With two poisonous spines.

Returned for lunch.

Jane and I (and Margaret) took a glass bottomed boat to Mexico Rock (largely because Jane wasn't doing any snorkeling), but we saw little or nothing through the glass bottom. One shipwreck seen reasonably well. The pilot was afraid to take the boat into shallow waters where visibility might have been better. We did eventually see a little coral and some fish, but generally the glass bottom boat trip was a bust.

March 19, Saturday.

morning birdwalk

cinnamon hummingbird
golden-fronted woodpecker
tropical kingbird

magnificent frigatebird. The weight of body to wing areas is the lowest of any species.

common ground dove
brown pelican

Sargasso weed, with floaters, BB-shot-sized floaters.

double-breasted cormorant
spotted sandpiper

In 1931 a hurricane destroyed entirely the Belizian coconut industry and also killed the main person who was entrepreneur for the industry. It never recovered.

Madagascar periwinkle, here an ornamental. This is the famous Madagascar periwinkle that

cures children's leukemia.

spiny-tailed iguana

white-collared seedeater. Male black and white. Female yellowish

palm warbler

indigo bunting, female

mangrove warbler, a subspecies of yellow warbler, with a ginger head

linneated woodpecker

mangrove warbler

tropical mockingbird

common black-hawk - feeds on land crabs

black catbird

white-collared dove

hooded oriole

grey catbird

The realtors are building large numbers of fancy housing, upscale, but tearing up habitat and throwing great piles of construction trash into the edge of the mangrove swamp to the back, which they say they will eventually cover over with soil from the mainland and plant with ornamentals and more desirable plants. The realtors even argue that this reduces the number of mosquitoes in the area. The hotels have flashy fronts but are quite trashy in the rear.

Returned for breakfast.

Snorkeling again.

The first site was Toffy Channel, the second site Tres Cocos (which means Three Coconuts). It was once located from three coconuts on the shore. This is the name of the channel and the area. If there is a channel near the coral reefs this tends to bring in food to the corals with the movement in and out of the water.

The guide and pilot were apprehensive about whether the current would be coming in or going out. If going out it would be unsafe for us to venture there, but it turned out to be coming in, so it made it safe for us to be in the channel some.

We put a few drops of shampoo inside the masks and swished it around and then washed out the mask, for much better visibility.

Great areas of the sea bottom have no coral at all, most of it does not. This a broad, flat expanse, like a sea pasture, the expanses are filled with Turtle grass, flat bladed, and Manatee grass, round leaves like thin horsetails. Both these are monocots, both flowering plants and both are quite important in the food base. Both also take up pollutants.

The coral grows on underwater ridges. There seems to be more to attach to there.

I went snorkeling both sites and did pretty well. Saw better than I thought I might, again, without glasses.

Returned for lunch.

Jane and I took the island ferry in to San Pedro. This is really a golf cart town, there are ten golf carts on the street for every car.

March 20, Sunday.

morning birdwalk

black-headed trogon
common ground dove
tropical mockingbird

There are strong trade winds this morning.

royal tern
ruddy turnstone
semi-palmated plover
sanderlings
double-crested cormorant
spiny-tailed iguana
brown pelican
linneated woodpecker
palm warbler
barn swallow
northern waterthrush, nicely seen
indigo bunting, female
blue grosbeak
tropical kingbird
laughing gull
American redstart, female
common yellowthroat

These birds are often yet in winter plumage.

osprey
black catbird
mangrove warbler, with ginger cap, quite nicely seen
golden-fronted woodpecker

We often saw these birds in the trash dumps. It's a pity to have to see great birds trying to find food in trash dumps.

white-collared seedeater
hooded oriole, female, quite nicely seen
cinammon hummingbird, brown all over
olive-throated parakeet
yellow-headed Euphonia

Trip home. Others left about 11.00 a.m. We left about 1.00 p.m., after a bit of lunch in our room. Boat ride back to San Pedro, then the 15 minute plane flight back to Belize City (though we had to wait some time in the airport for the plane to come).

In Belize City airport they told us that the Dallas/Fort Worth plane was much delayed, had hardly left Fort Worth coming south, and could not return in time for us to catch the Denver flight that night. So they routed us through Miami instead. In the Miami airport, there was a longer walk

than I like. Maybe we didn't do it right. We had to go through security again, a nuisance.

Arrived in Denver about 10.30 p.m., got car and drove home, arriving home about 1.00 a.m. (on now March 21, Monday).

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Lonely Planet Guide, Diving and Snorkeling Belize

Dorothy and Bob Hargreaves, Tropical Trees, Iahaina, Hawaii: Ross-Hargreaves, 1965. Good booklet, though lots in here are introduced.

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List of birds seen: 121 species

ringed kingfisher
green kingfisher
turkey vulture

snail kite
plumbeous kite
osprey

purple gallinule
little blue heron
limpkin
neotropic cormorant
double-breasted cormorant
sanderling
ruddy turnstone
brown pelican
magnificent frigatebird
royal tern
laughing gull

rough-winged swallow
barn swallow

cattle egret
melodious blackbird

house wren
banded-backed wren

yellow-throated Euphonia
olive-backed Euphonia

ground dove
white-tipped dove
ruddy quail dove
white-winged dove
common ground dove
white-collared dove
great-tailed grackle

blue-black grassquit
yellow faced grassquit

red-billed pigeon
pale-vented pigeon
short-billed pigeon
sharp-billed pigeon
scaled pigeon

prothonotary warbler
magnolia warbler
black and white warbler
chestnut-sided warbler
hooded warbler
yellow warbler
mangrove warbler, a subspecies of yellow warbler with a ginger head
yellow-rumped warbler
worm-eating warbler
common yellowthroat
Louisiana waterthrush
northern waterthrush
palm warbler
American redstart

rose-throated grosbeak
blue-black grosbeak
blue grosbeak
rose-breasted grosbeak

plain chachalaka

violaceous trogon
black-headed trogon
slaty-tailed trogon

boat-billed heron
gray-necked wood rail

northern jacana
northern potoo
little blue heron

clay-colored robin
wood thrush
tropical mockingbird

yellow-headed oriole
black cowled oriole
Baltimore oriole
orchard oriole
hooded oriole

short-tail hawk
common black-hawk
bat falcon

grey catbird
black catbird

white-fronted parrot
brown-hooded parrot
red lored parrot

king vulture

golden-fronted woodpecker
black-cheeked woodpecker
linneated woodpecker
pale-billed woodpecker

crimson-collared tanager
yellow-winged tanager

Montezuma oropendula
great kiskadee

rufous tailed hummingbird
cinnamon hummingbird
white-necked jacobin, a bigger hummingbird

keel-billed toucan
collared aracari, a toucan

yellow-billed casique
crested guan
rufous breasted pine tail
brown jay

ocellated turkey
great tinamou (chicken-like bird in woods)
rose-throated becard

purple martin
olive-throated parakeet

yellow-throated vireo
white-eyed vireo
mangrove vireo

social flycatcher
dusky-colored flycatcher

cedar waxwing

white-collared seedeater

painted bunting
indigo bunting

green-backed sparrow

tropical kingbird

white-collared swift

mangrove cuckoo

end Belize

May 15, Sunday. Spoke at Denver Montview Church, 7.00 p.m. Night at LaQuinta at airport and left Jeep there for the week.

May 16, Monday, flew to New Haven. Met Carol Pollard at The Liberty and rented apartment for the next year at Yale. Went to dinner at Mory's with tomorrow's speakers, and a chorus of Yale alumni (all well-middle aged) came in the room and sang "To the Tables Down at Mory's," marvelously done.

May 17, Tuesday. Conference on pandemic diseases.

May 18, Wednesday. Flew to Knoxville. Got car and drove to Gatlinburg, got set in motel and checked in at hazardous waste conference.

About 3.30 p.m., drove up into the park, eventually to Clingman's Dome. Saw 30-40 trilliums in bloom, Trillium grandiflorum. Clethra acuminata = White Alder/ Cinnamon Clethra / Mountain Peppercorn. Keyed this first in 1962.

Amelanchier in bloom.

Up top, lots of bluets. Hedyotis caerulea = Houstonia caerulea.

White fringed phacelia, Phacelia fimbriata, in spectacular bloom on the road from Newfound Gap to Clingman's Dome, in quarter acre plots roadside and back into the woods. From a distance you might think there was a light snow covering the green. Up close a great fringed corolla.

Fraser fir (Abies fraseri) all dead on top. Killed by balsam woolly adelgid, appeared from Europe in nursery stock in New England about 1900. Became serious in the park in the 1960's and now has killed 95% of the mature trees in the park, which contained three-quarters of the spruce-fir forest in the southern U. S. There may be as many as 50,000 adelgid's on a single tree. The adelgid co-exists more or less peacefully with the silver fir in Europe.

I walked up to the tower on the Dome, with zero visibility. Some views lower down.

Another one, the hemlock woolly aphid, from Asia threatens hemlock.

Dogwood anthracnose, Discula destructiva.

Gypsy moth on oaks defoliates up to 50,000 acres a year.

Dark-eyed junco

robin on top

unknown warbler calling

Lycopodium complanatum

I was last here June 12, 1985, driving over after stay in Joyce Kilmer forest, after conference at Athens, GA. Drove back and spent that night with Jackie Shires Hall.

Returned about dark. Saw a bear on return hardly half a mile from the Gatlinburg/Park boundary. Others had stopped, and I saw a sow sitting at the base of a tree, 30 yards away. Getting dark but I could see her head move around and well-profiled. There was (at least) one cup up a tree, and someone showed it to me in a scope, but really all I saw of the cub was a black spot in the branches.

May 19, Thursday. Gave my talk 2.50 to about 4.30.

Supper at the convention hall with Michael Stagg, a former student, twenty years back, who made himself known to me, but I did not recall. He took my PL345 Environmental Ethics and remembered it fondly. Now he is an environmental lawyer, hoping to go into conservation trust work.

After supper, escaping from a noisy band, I drove to Elkmont and walked a trail a bit. On the road, turkeys repeatedly. 1 hen, 1 hen, gobbler and 2 hens, gobbler and hen.

On the walk, just as I was about to return towards dark, I came upon an interesting plant and it seemed to ring a bell, thought then it was perhaps Fraser's sedge, Cymophyllus frazeri = (C. frazerianus). Checked it the next morning in books in the park bookstore. Pix in Jack B. Carman, Wildflowers of Tennessee (Tullahoma, TN: Highland Rim Press, 2001). Also in Richard M. Smith, Wildflowers of the Southern Mountains (Knoxville: University of Tennessee Press, 1998).

First found this years ago March 1961 on the Appalachian Trail near Damascus, VA. A primitive relict plant, and Dr. A. J. Sharp used to say it was one of the ten rarest plants in Tennessee. Took a bit home and checked it out there again.

May 20, Friday. Intended to hike Alum Cave Bluffs Trail to Mt. Le Conte, and was all set to go. But rained cats and dogs from midnight on and was still raining hard in the morning, so I postponed the trip till tomorrow.

Up and out in rain, stopped at Visitor Center, then drove to Cade's Cove in good rain. Gobbler roadside.

Lovely drive down, green woods in the rain.

At Cade's Cove, a gobbler out in the field, with tail spread wide, displaying to a hen.

Now clearing and I ate lunch with a beautiful long low banded cloud across the valley, mountains above and below. But while I ate, the cloud evaporated.

Nice from about 1.00 till 4.00 and I prowled Cooper Road Trail, Abram's Falls Trails, a nature walk trail.

partridgeberry in bloom. Mitchella repens

trailing arbutus

highbush blueberry, in bloom

galax

mountain laurel, in bloom

rattlesnake plantain Goodyear

Anemonella thalictroides

Thyme-leaved blues Hideouts michauxii = Haustoria serpyllifolia
Maple-leaved viburnum, in bloom

Rain again about 4.00 p.m., and I drove back in the rain. But clearing by the time I got to the Visitor Center.

I was last in Cades Cove Oct. 12, 1993, after conference at Oak Ridge, in good fall colors. Flew back to Ft. Collins later that same day.

May 21, Saturday. Up Mt. Le Conte.

On the trail by a few minutes after 7.00 a.m. Steady pushing up, and there is a lot of climbing on this trail, often with cables as handrails (more for ice in some cases). But excellently maintained trail. Cool and usually shady, sometimes the trail was almost dark. Saw no one until within about forty minutes of the top, after that lots of people.

Reached the Arch, where the trail goes under a rock arch, with steep steps up. Reached Alum Cave Bluffs. There is not really alum here, but settlers got something they thought related to alum. Recently a mineralogist has found some rare minerals here, but only microscopic flakes, probably because it is has been so dry here for centuries.

Sand myrtle. Leiophyllum buxifolium. In nice bloom, a rock hugging shrub, white flowers, 5 merous. Seems to grow on the coast, hence the Sand Myrtle, but, oddly also here at high elevations, and nowhere in between. Lots of Sphagnum.

Lots of thyme-leaved blues, lots of a small white violet.
Cinnamon Pepperbush, Clethra acuminata.

Moss with the stair step branching. Hylocomium splendens. Some nice stands.

Reached Le Conte Lodge. Jane and I stayed here a long time back. With a mouse in the cabin that got into our snacks.

Hiked on .2 miles to the summit and lunched there, with great clouds coming and going in the mountains below. Quite scenic.

6,593 elevation here. Climb is 2,853 ft.
Reached summit about 10.30 a.m, three and a half hours.

Looked around the lodge a bit, and started the long slog down, about 11.30. Steady descent and watching my steps, lest I fall. About a dozen trilliums in bloom on descent. Now a host of people on the trail, coming up. Out at 3.00 p.m., with all the hiking I wanted. 10.4 miles. Feet in good shape, but I had them taped up. Ham and biscuits for supper.

May 22, Sunday. Drove back to Knoxville and flew home.

Iceland 2005

June 6-13, 2005. Iceland

June 6, Monday. Left Denver, 1.47 p.m., left Minneapolis, 7.20 p.m., on Icelandair.

June 7, Tuesday. Arrive 6.40 a.m., saw only clouds, never an ocean.

Arrive Keflavik, grey sky, more or less rainy, quite brown landscape (later they said because of the driest spring in 60 years). Got car and drove east on Route 1, their "ring road," goes all around the island. Breakfast sandwiches and coffee, outside a café.

Passed waterfall, Seljalandfoss, quite nice (pix) and napped there. Many other waterfalls subsequently. Volcanic landscape, treeless, lava flows, most of it essentially uninhabitable, but here and there farmlands worked into the landscape. Lava fields covered often with moss and lichens. More green here than in vicinity of the airport.

On one occasion there was a waterfall from cliffs high above, a cascade down the steep mountainside, dividing into three plumes, and the wind was so strong where a rock jugged out abruptly that it took the plumes instantly at right angles and dispersed the water into the wind. A waterfall with a right angle turn halfway down. Quite a sight.

Stopped at supermarket in Vik.

Rainy all day, sometimes hard rain, and poor visibility.

Reached Kirkjubæjarklauster, and found the bed and breakfast, more accurately at a settlement a kilometer or two away called Geiland. Farmhouse had built modern (and prefabricated) cabins, 6-8 of them. Very decent accommodations. Big water fall nearby and we walked there after our pickup supper. (pix) Better weather, some sunshine in the evening.

Silene acaulis, Moss campion, which is found in alpine Colorado.

(Pink) Thrift, Armeria maritima, which I recalled from Scotland, Shetlands.

June 8, Wednesday. Drove to Skaftafell National Park. Reasonably good weather, and spectacular glaciers, first seen at a distance and the you draw near as you approach the park. Outwash plains for many kilometers.

Reached the park and visitor center. Walked to a glacier, Skaftafellsjökul (pronounced Skafta fetch, more or less).

The glacier a couple km to the west (which I photographed from the road) was Skeioarárjökul.

Arctostaphylos uva-ursi, Bear-berry, as in Rocky Mountains

raven

Sea campion, Silene uniflora

Hördur Kristinsson, A Guide to the Flowering Plants and Ferns of Iceland, 1986, 2nd ed., 1998. Reykjavik, Mál og Menning.

Walked to a waterfall in drizzling rain. Svartifoss. Without Jane, as this was wet and rather steep.

Returned and watched video on an under-ice volcanic eruption and resulting flood.

Drove back toward Reykjavik in rain until 2.00 or so, then better weather and we did have nice views of the ice caps, at the park Vatnajökul, the big one (3,280 sq. miles).

whooper swans
arctic terns

Then a little west of Vik, we could see Myrdalsjökul, smaller icecap (pix).
Better weather.

Reached Reykjavik about 8.00 p.m. and found Guesthaus Andraea, a college room for international students in winter).

It does not get fully dark, but there is a twilight effect in the middle of the night.

Celebrated Jane's birthday with a bit of cake.

Thursday, June 9.

Ate Jane's bit of birthday cake for breakfast!

Off on whaling trip from Olafsvik. Pickup at Guest House and transfer at bus station to van. I was the only one on van, decent guide.

Drove two hours to Olafsvik.

Signs give wind direction, velocity, and temperature. Motorists need this information deciding whether and which way to go.

There are 6-8 foot tides here.

Lupines (Lupinus nootatensis), Nootka lupine, were planted for soil fertility and erosion control since the 1940's, but have now become something of a pest.

Long tunnel under a fjord, 5.7 km., opened in 1998. Engineers said a bridge would not stand the winter winds.

Passed an aluminum plant, ALCOA, controversial here. They bring the bauxite from Australia, but the energy is cheap here. A few weeks back I was passing through Alcoa, Tennessee, with the same situation, bauxite from Australia and cheap TVA energy. But building more plants is hotly debated, as they must destroy waterfalls to do it and build big dams in earthquake country, often in remote areas. Some of the energy comes from geothermal, but not so much.



Skaftafells Glacier



Mid-Atlantic Ridge

Geothermal does give them heat, used in greenhouses. In result they grow more of their food than you would expect.

vik = peninsula

They formerly burned some peat.

There are no mosquitoes in Iceland; seems to be too windy for them.
But there are midges that bite, also black flies.

Foxes, Icelandic fox, black fox is the only land animal here. There are some mice, which they can eat, but the foxes eat mostly birds and scavenge the seashore.

This has been a dry year, the driest in 60 years, and the landscape is more brown than usual. The spring is also cool, odd weather. Maybe global warming.

We crossed several rivers said to be quite good for salmon, with high cost for the licenses.

Volcanic crater seen, nicely, about a kilometer to left of the road, in good sun.

aa lava

Rather scenic trip, with sunshine and simultaneously dark clouds hanging over the mountains.

whooper swans, all white

black ice is more of a problem in the winter than snow on this road.

Outwash plains and steep mountains, 2-3 km. wide, quite flat, and the mountain cliffs rise at almost 90 degree turn.

arctic terns
black headed gulls

Climbed a pass in rhyolite rock, grey with some tinges of pink.

cairns - marking an old route over the top.

Very light green patches of moss in striking contrast to the brown/gray landscape.

The higher parts of the road were a hard packed gravel. 10-12 nice waterfalls.

The people of Olafsvik are mostly fishing, cod and haddock, which are iced down and mostly sold in Europe. Fisherman go out and return the same day, all year long.

Got on the boat and boat ride all day, rough ride and saw only a dozen or so dolphins. White-beaked dolphins. This late on the return trip. On the whole a disappointing day.

Boat was a fast, double-hulled boat, not a lot of roll, but a great deal of pitching and difficult to stand up in, even when holding on.

On return, came close to some nice cliffs with crashing waves, and nesting birds.

guillemots, razorbills. One gannet seen flying somewhat close to boat.

Back into the van and drove home.

Saw scarecrows put up to keep predators from eating the chicks of eider ducks.

greylag goose in field, 2 of them. Common goose in Iceland, also in more northerly parts of Europe.

June 10, Friday. Whale trip.

Some confusion at the start about pickup and eventually they transferred us to another, similar trip.

passed Puffin Island. 30,000 puffins, 15,000 pairs, and we saw thousands of them. On cliffs, nesting, and many in the water, where you could see their bills better.

white-beaked dolphins, reasonably well seen, perhaps two dozen of them.

some porpoises, small, which I hardly knew to be different from the dolphins, some of which were also small.

eider ducks.

minke whales. Seen mostly as black backs in the water, 6-8, maybe ten of them. You can't be sure whether you are seeing the same one twice.

Humpback whale, the highlight of the day. Seen for half an hour in 6-8 dives. Several times I saw the blow, and there were half a dozen great tail displays when diving.

Once a minke whale and the humpback were seen together, and this excited them.

www.fauna.is

Benny Génsd and Jon Feilberg, Plants and Animals of Iceland. Reykjavik: Mál og Menning, 2003.

Whale trip over about 1.00 p.m., and we were dropped off back at Guesthouse Andrea. Then wandered around town for the afternoon. Jane bought her expensive necklace, made of lava stones and silver. Then we had some time to spare before joining conference group.

5.15 p.m., transfer to the bus station, courtesy of the guesthouse owner.

Bus to Selfoss. En route, nice views in distance of their most famous volcano, Hekla.

Conference, Saturday, Sunday.

June 12. Tour after the conference.

Kerio, a volcanic crater. Striking and well formed, with lake at bottom.

This is on the mid-Atlantic ridge (several pix), here above water and several kilometers wide.

Lots of summer homes in the area.

Lots of Icelandic horses. They brag about them having an extra gait, a fifth gait, in which the rider is hardly tossed about at all.

Visited Geysir. The original Geysir is now rather inactive, but there are 10-12 geysers in the area. One was going off every five minutes (pix).

Visited Gullfoss, which means "gold falls". Impressive, world-class waterfall. (various pix).

Dinner in hotel Gullfoss.

On return, icecap Langjökul seen in distance. The name means "long glacier." Nice view with mountainous skyline.

Thingvellir National Park, which is where you can see the opening up of the mid-Atlantic ridge especially well. Mostly the plates pull apart at 2 cm. a year and lava fills the openings, welling up as the ridge. But here it opens up as a rift.

Mink introduced, escaped, and considered a pest.

Caribou, introduced from the 1700's.

mice and rats with the Europeans.

An occasional polar bear arrives from Greenland on an ice floe, but they do not continue here.

Reached Reykjavik and hotel.

June 13. Interview by Thorvador Arnason, and then talk at University of Iceland at noon. Trouble getting DVD audio, but eventually a technician worked this out. Decent audience. Afterwards, interview by Icelandic Radio.

On drive to airport, nice view of Snæfellsjökul, a small glacier on the tip of the Snæfellsnes Peninsula, visible in the far distance over the sea, which Thorvador Arnason said was quite unusual for the distant clarity.

Reached Minneapolis without event, but there a rush to change planes and then we sat on the plane on the ground for three hours waiting for thunderstorms to clear. Home late, barely making the last limo, 11.20 p.m., without bags.

end Iceland.

Yukon Territory, June 2005

June 15, 2005, Wednesday. Left Denver, 8. 29 a.m., to Vancouver, after rather quick turnaround from the Iceland trip. Spent an hour and a half in an immigration line. In the line I was spotted by Leann Foster, former student, and visited with her and her husband, while in line. She is now Leann Foster-Sitar, Policy Director, American Littoral Society, Sandy Hook, Highlands, NJ and does coastal conservation.

Flight to Whitehorse. We were delayed landing quite a while due to a bad thunderstorm and eventually landed anyway, with several lightning bolts on both sides of the plane and a rather bumpy landing. In this storm there was 25.8 mm of rain, with considerable hail, the most on record for June 15, and the whole monthly average rainfall for June is 29.7 mm. of rain. There was a funnel cloud and seven lightning strikes in the Whitehorse area.

Whitehorse is the latitude of Anchorage and well north of Juneau on the panhandle.

June 16, Thursday. Conference on Rapid Landscape Change and Human Response in the Arctic and Subarctic.

At the conference:

Thomas Heyd (rhymes with hide, long i)

Evening (there is no night here at this time of year, although the sun does set): Hike with Bob Jickling and Jennifer "Jen" Eakins. He was formerly at Yukon College and still owns a home here, but is now on the faculty at Thunder Bay, Ontario. She is on the faculty at Yukon College, though somewhat part time. Both teach environmental ethics.

Hike was in good woods but with far too many mosquitoes and some black flies. Started at a place called Fish Lake and hiked into some alpine country.

Labrador tea, Ledum palustre, lots of it

Kinnikinnick, Arctostaphylos uva-ursi

Bluebells, Mertensia paniculata

Soapberry, Shepherdia canadensis

Rock cranberry, Vaccinium vitis-idaea

White spruce

Aspen

Balsam poplar

Crowberry, Empetrum nigrum

Fireweed, Epilobium angustifolium, the Territorial flower of the Yukon

Spotted saxifrage, Saxifraga bronchialis

Death camus, Zigadenus elegans

Pasqueflower, Pulsatilla ludoviciana = P. patens. In fruit, not in bloom, quite a number in the alpine area.

Alpine forget-me-not, Mysotis asiatica
Alpine Arnica, Arnica angustifolia

In the last Ice Age, most of Canada was under a huge icecap, but not the Yukon, Alaska, and Eastern Siberia, and the area had more land because of lowered sea level. This ancient area is called Beringia.

June 17, Friday. Conference continues.

June 18, Saturday. Field trip.

Bus toward Haines Junction. There are frequent forest fires in the Yukon, and the smoke can hang over much of the province.

Stop at Takhini River at Takhini Crossing. Permafrost has caused the Alaska highway to slump and also there is river cliff clump adjacent. Bumpy area in the road, Alaska Highway, 3 meters of subsidence in 15 years. Permafrost thaw and ground subsidence.

Permafrost in this part of the Yukon is discontinuous, meaning that there are extensive areas of permafrost but it is not continuous over the whole landscape. The upper half of the Yukon is continuous permafrost; it is everywhere.

80% of the Yukon is classified as wilderness.

The expansive flat areas here are sediment - lacustrine, on lake bottom, from Lake Champagne.

Burned area and aspen doghair stands, over 4-5 km, first stage in the succession.

Stop: Yukon wild meadow. Permafrost research, temperature gauges stuck down in pipes in three different kinds areas: (1) a stand of spruce that escaped burning (2) a grassy meadow, and (3) a burned area, now regenerating after fire. Records kept since 1982.

Various lakes once here have filled in or dried up.

Takhini Bridge salt flats. Some unusual plants are here because of the salt flats. Tour with botanist Bruce Bennett.

thermokarst, more salty than usual.

Hedysarum alpinum, Liquorice-root, Bear-root. Looks something like vetch. Has jointed seed pods. Bears dig it up, a favorite foot of grizzly bears, and we saw a clump that bears had dug up. A similar species, H. boreale, is poisonous and the bears are good at telling them apart.

yarrow, Achillea millefolium, lots of it.

common yellowlegs, a tell-tale bird, calls and lets other things know you are around.

flax, Linum lewisii

Salicornia rubra or S. borealis.

Arabidopsis, a species here that survives cold and salty areas, which is a close species to the one genetically decoded. Arabidopsis is an Old World mustard.

Atriplex, sp. unknown

Hieracium tectorum, introduced

Second site visited near the salty area, burned in 1958

Rumex

Artemisia frigida

Erigeron caespitosus

Gorman's penstamon, Penstamon gormanii

Balsam poplar

Aspen

White spruce, has hairless stems

Black spruce (not seen) has reddish hairs on stem

We left the main road, and took bus up a dirt road to see Kusawa Lake. Stopped some time at the lower end of it at an overlook, with various discussions of the landscape features, including landslides and fans at the edge of the lake from outwash and slides in the tributaries.

One flow in 1982 buried a previous campground here, and they rebuilt it in the same area. Slides and slumps often leave visible scars on the landscape. This is quite a long, sinuous lake.

White River ash, a thin layer in the soil, and widely noticeable.

Visited Marshall Creek Fire and resulting slides. Multiple debris flows, presumably from thawing permafrost after fire removed the vegetation cover.

Boreal forests seem in the past to have burned between 30 and 500 years (a wide range, indicating probably that they don't really know, or that it was more contingent than orderly. In the last twenty years the annual burn area has doubled.

The general picture is of an especially geologically active landscape, compared to other kinds of landscapes.

Continued toward Haines Junction.

Broad flat expanses of old Lake Champagne, covered with white spruce and some aspen. Mountains on either side, and some snow fields in the mountains.

Reached Haines Junction and Kluane National Park. Visited the Information Center, for brief talk there.

82% of the park is mountain icefields. The park is half the size of Switzerland. The whole area is the largest international protected area in the world.

Mostly you don't see it, the ice cap is west and out of sight.

Mt. Logan, nearly 6,000 meters. Canada's highest and the second highest in north America. (I flew in to it later.)

Draba yukonensis, only 13 plants are known.

Boreal forest has little biodiversity, but the alpine and subalpine can be more diverse.

In the last few hundred years, glacial Lake Alsak has inundated the area near Haines Junction several times due to repeated advances of the Lowell Glacier.

We continued north from Haines Junction.

Saw "spirit houses" of the first peoples, a sort of cemetery.

Raised benches along the river course, from former lake levels.

The spruce bark beetle, has killed the spruce for many kilometers.

-40° F is the same as -40° C. They formerly had this temperature up to five weeks at a time, and recently only a few days a year. This is favoring infestations of the spruce bark beetle.

Northern hawk owl can be seen here (but I didn't see it). Active during the day.

Redtail hawk is the most common raptor.
Harlan's hawk, similar but has a black tail.

Silverberry, Elaeagnus commutata, closely related to Shepherdia. Striking silver leaves, and silvery fruit.

Rock glacier. They flow about one centimeter a year.

Sheep Mountain.

Crossed Slim's River. Slim was a horse that didn't make it.

Lots of landslides which at times have closed the Alaska highway.

Reached Burwash Landing, and spent night there.
Stayed with Tom Heyd and Luis Borrero, from Argentina.

Horned dandelion, Taraxcum ceratophorum, a native one, has horns on the phyllaries. Seen.

Magpie

Talk by First Nations elder
dinner in hotel.

June 19, Sunday. Rainy morning
Moose seen on roadside

Talk on aboriginal peoples by person who came on board the bus. They lived in small family groups and were good with snares.

Northern Lady's Slipper Orchid, or Sparrow's Egg Lady's Slipper Orchid, Cypripedium

passerinum.

Major damage caused by a reversal of Kluane Lake due to glacial advance blocking a previous drainage, earlier into the Pacific, and today into the Yukon River and Arctic Ocean.

Bus would not start, so we waited for a jump start and went across the road and dug down to permafrost. They used a satellite phone to call help. About two feet down. Or at least this is where it was today, it could thaw another six inches during the summer. You could feel it frozen.

Clearing weather now, and quite scenic.

Alaskan (Alcan) Highway was built in a panic to give inland access to Alaska against possible Japanese attack. 25,000 men, U.S. Army Engineers and civilians. Took 8 months and 12 days to build it.

Cotton grass, Eriophorum scheuchzeri, roadside

Foxtail barley, Hordeum jubatum, lots of it

Lunched, in pullover area. With Green Flowered Bog Orchid, Habenaria aquilonis = H. hypoborea.

Pasqueflower was once the territorial flower of the Yukon, but changed to fireweed (Trelawny, Wild Flowers of Yukon, p. 41), a less philosophical title, but another flower that comes back after the landscape has been blasted.

With Pasqueflower, let the circumboreal distribution serve as how widespread its symbolism might be.

Wild flax, Lewisii

Visit to Arctic Institute of North America, and airstrip used for research on the icecap and other research projects.

Horizontal juniper, Juniperus horizontalis, a creepy juniper.

Drive back to Whitehorse. Talk on caribou pellets in the ice patches, preserved several thousand years, but of interest because First Nation artifacts are also found there, mostly fragments of throwing darts that preceded the bow and arrow.

magpies

reached Whitehorse, and got the rental car.

June 20, Monday.

Drove to Haines Junction.

Glacial surges are rare in the rest of the world but common here, for unknown reasons. They do not seem to be related to warming or climate, but are somehow related to the internal

mechanics of the ice.

Pitched camp at Kathleen Lake, almost nobody in it.

Cornus canadensis, lots of it.

Kokanee are a sockeye salmon that no longer returns to the ocean. They once did via the Alsek River but the Lowell Glacier surged and formed Glacial Lake Alsek in the 1700's, creating an enormous lake. Around 1850 the dam broke, and the whole lake may have drained in one day. During the century and a half, the salmon adapted to fresh water and spend three years in Lake Kathleen and then migrate a short distance upstream in their fourth year, and spawn and die.

Labrador tea, Ledum groenlandicum, lots of it.

showshoe hare

Virbunum edule

Camping adjacent are Triston, Jessica, Jadah, Matthew.

They had all hiked earlier this day, a pretty good hike.

Galium boreale

Went to bed about 10.30 in pouring down rain, and it rained hard and steady all night long.

June 21, Tuesday. I managed to get myself up and out in pouring down rain, something of a challenge. This is my Yukon experience, I suppose, on the longest day of the year.

I drove down to an enclosed shelter at the lake edge and cooked breakfast and changed clothes there to the warmest and most waterproof I had.

But I had a good breakfast in the shelter and it was manageable there, still pouring down cold rain. It was not all that cold (no frosty breath), but still a bit of a fight to stay warm.

A lot of the trail guides warn against being unprepared if the weather turns worse, or having extra food for layover days, if the weather socks in, so I guess this is it.

The park has some short trails, but most of them are long, 3-5 day backpacks, 50-80 km.

Others saw a black bear sow with three cubs at the lake/trailhead yesterday evening.

Mid-morning we went into Haines Junction and got there about noon. The rain stopped.

The others piddled around there, e-mail at "The Library" until 3.30, longer than I wanted to, now with good weather.

Hiked some on Auriol, a 9 mile (15 km) loop, but heavily infested with mosquitoes, and I didn't want to do the loop at their pace. So I went in about 4 km, and came out alone, fighting bugs and calling to alert bears. I did have Mace and Bear Bangers. No bear sign seen.

I survived the mosquitoes with a head net, but it wasn't pleasant.

But on return to the campground they were not bad in the campground, which is on higher,

drier, windier ground.

June 22, Wednesday. Mt. Decoeli. Not a trail at all, but only a "route" Marked "difficult" and "advanced" so I never expected to do the whole thing. I walked in 2-3 miles and back out alone, scampering up creekbed and through willows, some times difficult to pass. Some bushwhacking. The lower end does have more or less a trail.

Lycopodium annotinum

Sedum lanceolatum

Cardamine

Rosa woodsii

Epilobium latifolium, Dwarf fireweed, or River Beauty. Striking purple flower.

A single white spruce, isolated, can be rather spindly beside a Colorado Blue spruce or an Engelmann spruce. But en masse across the Yukon flats, the exuberance of the species here is impressive. Similarly with the willows and aspen.

Mertensia paniculata

Northern bedsteaw, Galium boreale

Yellow Dryas, Yellow mountain avens, Dryas drummondii, leathery basal leaves, crenate, dark green above, white fine hairs below. Flower never fully opens, but is striking in a twisted whorl, and which eventually become unfurled and blow in the wind.

Arctic lupine, Lupinus arcticus

Pulsatilla ludoviciana = Anemone patens. One of the first flowers to bloom in the spring in the Yukon. In Kluane Flower book at the Park Headquarters

I kept getting water at the Park Headquarters, since the water in the campground had to be treated before use.

"Kluane mountain landscape is one of the youngest and most geologically active in North America."

Kaskawulsh Glacier is 60 km. long.

Glaciers here usually move 10-50 meters a year. But they can surge up to 100 times faster, and the surge can last 1-2 years.

Dall sheep are seen spring, fall, and winter, but not summer (alas), when they are higher up.

Cotton-grass, better called cotton-sedge.

Thursday, June 23. Rose to some sun but increasingly cloudy.

Northern paintbrush, Castilleja hyperborea. Yellow bracts, abundant in the campground.

Went to Haines Junction to airport, and took flight over icecap, after some doubt about the weather, but we lucked up. I was in the plane with three professional photographers.

Seen from the air, four Dall sheep on a mountain side. One moose in the river.

Spectacular flight up Kaskawulsh Glacier. First great outwash flats, then the toe of the glacier, and then the glacier. At one dramatic point, the south arm comes in (pix) and makes a great glacial Y, producing a medial moraine in the midst of the flow. The main arm continues back 15-20 miles to the icefields. The Kaskawulsh Glacier in the lower part moves 40-50 centimeters a day.

Vast expanses of ice and spectacular jagged peaks. Half a dozen named glaciers, sometimes flowing together. There is a plateau like area of ice in the highest part which joins glacial arms radiating out in all directions. The ice is 1,000 meters (3,000 feet) thick in spots. Some of the surface ice moves several centimeters a day. Most of what I saw is unnamed and unclaimed. Often there are serrated narrow ridges in the 7,000 foot range.

Continued up the main arm to the icecap fields, and came in view of Mt. Logan massif from the north east side. Lots of pix, generally showing well the East Peak (on the left) and the West Peak, next right, and lots of other peaks trailing off to the left. The main summit is generally obscured behind the East Peak in many of these, but we saw it well when we flew around on the Columbus Glacier and Seward Glacier side, the south side.

From there we could see the Seward Glacier flowing into the Malaspina Glacier, which is broad and flat like a huge pancake. This flows into the Pacific, which we could see in the distance.

Mount Logan (5,959 meters, 19,551 feet) is the highest mountain in Canada and the second highest in North America (after Denali (Mount McKinley in Alaska). The Logan massif rises about 3,000 m. (9,000 ft) from the surrounding glaciers and has the largest base circumference on any mountain on Earth. It is still rising, due to active tectonic uplifting. A glaciated plateau, about 20 km. long and 5 km. wide covers the top of the massif. Numerous ridges, some of them unclaimed, lead up to the plateau from all directions. About a dozen peaks rise from the plateau, the highest is Mt. Logan's main summit. First ascent was in 1925.

There were melt water ponds now and again in the middle of the glacier, with an azure blue color.

Flight returned first over the Hubbard Glacier, then an exciting flight over a high area to reach the Lowell Glacier, north arm. No vegetation at all visible in the icefield portions of the trip. Mt. Vancouver. Lowell is huge, long glacier (pix). Then flew over the Dusty Glacier, which is covered with dirt, dust enough to make it browner. Then outwash and back to the airport. Plane was a Cessna 205. Quite a flight. I was left with various thoughts (recalling Antarctica. Mt. Everest) about whether this is an ecosystem, or what to make of the place by reason of conservation of what kind of value. I had been flying through the Ice Age. Of course water from this ice is essential to the ecosystems at lower elevations.

The park contains some 60 glaciers than can surge, moving several kilometers per year.

These glaciers are "temperate" or "water-based." The weight of the overlying ice, friction, and other factors raise the temperature of the bottom ice to the pressure melting point. The glacier can move by sliding over its bed on a cushion of water, which increases the spread up to 90%. In cold-based ice, the glacier is frozen to its bed and cannot slide (although the ice can flow), which is usually the case with cirque glaciers.

Dezadesh River trip. I hiked a trail not far south of Haines Junction.



Kaskawulsh Glacier, Kluane National Park, Yukon



Mount Logan, Kluane National Park, Yukon, 5,959 meters, 19,551 feet

East summit, center, West summit right

Wild strawberry Fragaria virginiana

One-leaved Rein Orchid, Platanthera obtusata = Habenaria obtusata
green flower.

Arctic wintergreen, Pyrola grandiflora, white flower

Pink-flowered wintergreen, Pyrola asarifolium

Returned to camp to find Thom Heyd, Kark Jad remaining there with the others gone.

June 24, Friday. Packed up with a wet fly. Summer sausage in tomato soup, and English muffins made good breakfast.

Waited too long for the other two to get up and pack up.

Walked the Cottonwoods trail at the lake for maybe one and a half hours, but lots of mosquitoes, and they wanted to turn back, though I was doing well enough with headnet.

Lunched at park headquarters and drove back to Whitehorse.

Visited Beringia Museum Interpretive Center. Museum of Beringia, the Pleistocene landscape, with a landbridge across the Bering Straits.

Went to bed about 10.30 after a good shower.

June 25, Saturday. Drove south to Atlin, B.C.

Yukon does not have haze. Apparent haze is always smoke, but it can be from great distance. If you can clearly see one mountain in front of another, that's smoke, not haze. And it was quite hazy = smoky yesterday.

Reached Swan Haven, viewpoint on M'Clintock Bay on Marsh Lake. This is a staging ground for Trumpeter Swans and Tundra Swans in mid-April. The water here is open earlier because of flow at the lake exit. There are four such staging areas in the Yukon.

Swans need to nest early and need 120 days to rear their young and get the strong enough to fly south.

The boreal landscape compared with others has a vegetative simplicity, but also an exuberance. Also often flat and monotonous.

The growing season is 63 days, with long light. With luck you can grow potatoes and some root crops, carrots.

Boreal people are more inclined to note the solstice and equinox.

Much of it is an essentially uninhabited landscape. There are frequent lakes, sometimes large.

Drove south on Alaska Highway to Jake's Junction, got pop, and lunched a little further south, after leaving the Alaska Highway on the Atlin Road. This was a good gravel road, somewhat poorer after crossing into British Columbia, and, later, becoming paved again. I passed less than a dozen cars in seventy miles. Massive numbers of dandelions.

Reached Atlin, a quaint town/village left over from gold mining days, situated on large Atlin Lake. They found gold here in 1898, and it played out about 1905, placer mines.

Got a bed and breakfast from information in the information center, also a museum.

Drove down Warm Bay Road, further than I intended, to Warm Bay, and backtracked to the Llewellyn Glacier viewpoint, scenic, across the lake at considerable distance, but with binoculars an evident glacial tongue.

Returning walked half an hour up Monarch Mountain Trail.

Twinflower, Linnea borealis
Lodgepole pine here

Night at B&B, Caroline Moore, with spectacular view from my bedroom window.

There is a huge mountain island in Atlin Lake, Teresa Island.

Watched a video on Taku Wilderness, narrated by David Suzuki. Made the wilderness seem rather more glamorous than actually being there would have been.

June 26, Sunday. Nice day.

Atlin Provincial Park lies between Atlin Lake and the Alaska panhandle, a vast and entirely undeveloped wilderness, access is mostly to the edges by boats. No roads in it.

Visited the Atlin cemetery, quite picturesque, with mostly wooden grave markers. Lots of hardship stories on the tombs. Mostly immigrants from England, Ireland, Scandinavia. The men often died in 20's, 30's, 40's.

One had starved. Groundcover in the cemetery is Kinninnick and Twinflower!

Discovery - the name on Pine Creek once of a town, where gold was discovered. The whole area is torn up for several miles up along the creek.

In 1900 there were 10,000 people living in Discovery, and 10,000 in Vancouver.

Wild rhubarb, Polygonum alaskanum, in the mining area.
Snowshoe hare

Returned and drove back to Whitehorse.

10 Dall sheep, ewes with lambs, in the middle of the road and I watched them fifteen feet away for about ten minutes.

Red squirrel.
Dwarf/Scrub birch, Betula glandulosa

Reached Whitehorse and turned in the rental car.

June 27, Monday. Flew home, taking all day.

William J. Cody, Flora of the Yukon Territory, 2nd ed. Ottawa: National Research Council of Canada: NRC Research Press, 2000.

Trelawny, John G., Wild Flowers of the Yukon, Alaska and Northwestern Canada, 2nd ed. Madeira Park, BC: Harbour Publishing Co., 2003. I bought a copy.

Selway-Bitterroot Wilderness, July 2005

July 1, Friday. Left Ft. Collins, 7.15 a.m., after early rise and going by school to finish out the first Super-8 to DVD finished disks.

Drove north through the greenest Wyoming I recall seeing at this time of year. Maybe two dozen antelope, mostly in one large group of 12-15.

Stayed in Columbus, MT, in excellent and cheap small motel, Big Sky Motel, P. O. Box 336, Columbus, MT 59019. 406/322-4111

July 2, Saturday. Stopped in Bozeman at used camera store there. Bought 400 mm. doubler lens. Reached Christopher Preston's about 3.00 p.m.

Visited Tom Birch in his cabin, so crammed with stuff we could hardly find a place to sit. Cordial visit. Wild turkeys in field on return.

July 3, Sunday.

Off to Hamilton, MT, about an hour away, with drive down the Bitterroot Valley. Lots of builders of log homes in here. We met the outfitters at Ace Hardware. Outfitter is Jim (and Chandra) Vitale, Birch Creek Outfitters. Our wranglers are Butch (George) Ewalt, 62 years old and long with Jim Vitale, lots of hunting experience in these woods. He has killed 34 elk. Jim Vitale moved out from Minnesota ? 5-6 years ago and bought the business. The other wrangler is Jeff Rosmon, brand new, just out of guide school, age 36, and who just met Butch a few minutes before we did. Jeff was in the Marines as a security officer for about ten years. They want him to go in during this summer trip to learn the country so he can be prepared to guide hunters in the fall.

South of Hamilton we took the Lost Horse road to Twin Lakes, a slow drive up the mountain on a dirt road, not bad, but not fast. About 20 miles, and took two hours. Jim Vitale was pulling a horse trail after us with four horses and four mules, and not fast either. The road makes really a large indentation west (fifteen miles or so) into the wilderness, the boundary of which is here mostly further east. But wildernesses can't contain used roads.

We reached the trailhead at the first of the Twin Lakes. Took another hour to get loaded up.

My horse is Opie. Christopher's is Buck.

Opie was a fair horse. He would rein in well from trotting. But once you stopped him, he could only see the nearest grass to eat and moved there while you tried to dismount, grab his mane

or not.

There was nice Beargrass (Xerophyllum tenax) in excellent flower, both at the trailhead and throughout the trip subsequently. Best I have ever seen by far. Beargrass flowers after 3-10 years, often a whole hillside at once, and then no flowering thereafter for 3-10 years. Bears do eat it in early spring some. Deer eat the flowers when young and we quite often saw the flowers bitten off during the trip.

Pink Mountain Heather, Phyllodoce empetrifomis. In excellent flower here and throughout the trip. Mat-forming shrub.

Buttercup, Ranunculus, sp.

Shooting star, Dodecatheon pulchellum. Frequent throughout the trip.

We didn't really get off until maybe 1.30 p.m. You ride past the upper twin lake and then on shortly to a trail junction just past and then we took the trail down East Fork Moose Creek maybe four miles and pitched camp.

Technically, when you cross the divide into Idaho you are on Pacific Time, but we never re-set our watches. A time zone in the wilderness is definitely a social construction!!

The camp is in a lovely spruce grove, some Doug fir. These are great trees, tall ones, and there are great lichens. Particularly well developed, hanging long on the trees, is one that seems to be Common Witch's Hair, Alectoria sarmentosa (to judge by photos in Kerhaw, Plants of the Rocky Mountains). The light on the trees with their lichens was aesthetically stimulating almost constantly and right in camp. Good stream nearby with some fish in it.

Queen's cup, Clintonia uniflora, white lily from basal rosette. Quite common and attractive.

False Solomon's seal, Smilacina racemosa.

Trillium ovatum. A few seen, now in fruit, all past bloom. But we saw them steadily if infrequently throughout the trip.

False Hellebore, Veratrum viride

Yellow columbine, Aquilegia flavescens

Glacier lily, Erythronium grandiflorum

Foam flower, Tiarella trifoliata. Lots of it.

Arnica sp.

Mertensia ciliata

Speedwell, Veronica sp.

Valerian, Valeriana sitchensis

Lycopodium annotinum

False azalea, Menziesia ferruginea. Often the most common shrub, and the arrangement of the leaves does give you an "azalea" gestalt.

Main fern is Mountain woodfern, Dryopteris sp. (taxonomy within the genus has been shifting around).

Claytonia lanceolata, notched petals and pair of opposite leaves, in camp.

July 4, Monday. Nice day. Up 7.00 a.m., and leisurely ride down through a burn some 4-5 miles. Very decent regeneration from a 1988 fire, same year as the Yellowstone fires. The Selway fire.

No fireweed; the regeneration must be past that stage.

Buckbrush, Ceanothus velutinus

Cornus canadensis, lots of it and quite attractive.

Serviceberry, Amelanchier alnifolia

Yarrow, Achillea millefolium

Wild rose, Rosa woodsii

Subalpine spiraea, Spiraea splendens. Quite pink in flowers not yet opened. But subalpine spiraea has pink flowers, unlike the one lower down (S. betulifolia), which has white flowers and is larger.

Elephantella, Pedicularis groenlandica. Not all that much of it, but every now and then.

Reached their hunter's camp and lunched in burned area.

There are two small dogs along on the trip. Both are quite adept at moving through the woods and often run along twenty feet left or right of the trail and move through the bushes and over the downed tree logs at the same speed, or faster, than the horses on the trail. Surprisingly fast through the woods.

But I think they will prove a nuisance in scaring off the wildlife.

Plantain

Strawberry

some tiny borage

I think these are weeds brought in by the horses.

Alpine rock jasmine, Androsache chamaejasme

Mountain sorrel, Rumex paucifolius

Meadow-rue, Thalictrum occidentale

Willows, Salix, of course, but I didn't have anything along to figure them out.

Elk thistle, though not many. And these horses do not seem to have learned to eat the flower.

Yellow Penstamon, Penstamon confertus

Blue Penstamon, probably Wilcox's Penstamon, Penstamon wilcoxii

Bracted twinberry, Lonicera involucrata

Naked broomrape, Orobanche fasciculata

The horse was too pushy walking it, so I tied it up to Christopher's horse in front and walked at my own speed after it. Continued to do this throughout the trip.

They walk horses downhill more than any of the other outfitters I have ridden with.

Back to camp about 2.30 p.m. and leisurely afternoon. I washed up.

After supper, two horses (one of them Opie, my horse) got loose and headed back up the trail. Butch and Jeff saddled up to go get them and Jeff got a bad kick.

They both rode out for a while, but then Jeff returned after dark. Butch continued and chased the horses to the Twin Lakes trailhead where we had started. He brought them back in the dark, returned about midnight. I can't say I am impressed with their handling of the stock in camp. They try an electric fence, single strand of wire, and it doesn't work. But Butch did ride after them all the way, had to gallop to get around them, and brought them back, in the dark. Not for me.

We had to ride today with the mules, carrying nothing. But they say they have to take the mules, because they get restless with no horses around. Asked Rick Knight about this and he said this is called "herd sour." Better conditioned stock don't do this but lots of ordinary stock does. Also horses can be "trail sour," which means they will not stop if the horse in front of them goes on--a common thing but well-trained horses ought to stop.

July 5, Tuesday.

Packed up, nice day. Headed out to ride back up and get re-stocked with food.

One-sided Pyrola, Pyrola secunda. Nice clump in the woods.

Old wolf scat regularly seen, though wolves were not seen or heard. Wolves were not reintroduced here but a pack has moved here, from elsewhere in Idaho, probably. They are a wide-ranging pack. Butch has seen single wolves twice, never the pack.

Butch and Jeff both pack big pistols and brag about their firepower and kick.

Little buttercup, Ranunculus uncinatus.

Three-spot Mariposa lily, Calochortus apiculatus. A nice one, small, saw only one or two here, but hundreds later in the trip. Grass-like leaves.

Grand fir, Abies grandis.

We rode back up to Twin Lakes, got there at 1.20 p.m. They are not fast packing, and, among other things, lost their axe, or thought they had. So I had to dig mine out of the Jeep.

Repacked, with confusion, and off to Wahoo Pass and down Wahoo Creek. Rather scenic riding up to Wahoo Pass and a walk down the other side.

Cushion Phlox, Phlox pulvinata. Long tube and 5 petals, whitish, spiny leaves.

Vetch, Vicia sp.

Western dock, Rumex aquaticus
lots of the Calochortus apiculatus, Three-spot Mariposa lily.

The lower part of this trail was a rough ride with the trail badly eroded, deeply gutted, maybe three and four feet, and the horses did some jumping over logs and eroded ditches, more jumping than I liked.

We camped on Wahoo Creek, a good campsite, with creek down below. Steak supper.

July 6, Wednesday.

Christopher and I hiked down the trail, with a dicey crossing of Big Creek, and then up that trail a couple miles.

Geranium richardsonii
Silverleaf Phacelia, Phacelia hastata.

Spectacular beargrass, you could be totally surrounded by masses of it in full blossom.

Cushion buckwheat, Eriogonum ovalifolium

Arenaria capillaris, Thread-leaved sandwort, grasslike leaves.

nice bear scat, and rather recent.

Twayblade orchid, Listera cordata.

I did the tricky crossing of big creek on the return in a different area.

There was a huge boulder, 4-5 feet in diameter, sitting isolated on a dome-shaped rock, and you could rock the boulder with your hands. I recalled the recent stories of hikers getting pinned in tragically by such rocks.

Back to camp about 3.30 p.m., and took bath in the creek.

steak supper

Wild hyacinth, Tritella grandiflora = Brodiaea douglasii. Striking, erect, leafless stem, 1-2 feet with blue flowers. There are fused petals and petal-like sepals. A monocot with 6 flaring tepals (sepals) and three inner tepals.

White-tailed deer in camp, a few feet from the tent. 4-5 deer around camp.

July 7, Thursday. Nice day. Packed up. Off about 11.30. Quite scenic ride, the first part (pix).

Then we rode through a burn, the same 1988 burn we were in fifteen miles away in East Moose Creek. Rode the burn a good while. There is good recovery.

Dwarf lupine, Lupinus pulsillus. Lots of it.



Bistort, Polygonum bistortoides.

Reached Indian Lake about 3.30, a good ride, and about all I wanted. Nice campsite at Indian Lake, quite scenic, and we pitched our tent with a full view of the lake (and some worry about mosquitoes and hopes for a breeze).

garter snake

Swamp laurel, Kalmia microphylla.

After supper, a hen duck and 6-7 ducklings swimming on the lake.

July 8, Friday. Clear morning, cool, and lots of dew.

Pipit over the wetlands area, wagging tail.

Towhee calling

Pileated woodpecker pecking

Ride to Freeman Peak.

Rode through Horsefly Meadows, then through a burn. Quite large patches of Pink Mountain heather, Phyllodoce empetriformis, spectacular display.

They call the burn area the desert. No wildlife, I suppose. Decent recovery.

On the walking parts, I was slow and had tied my horse to Christopher's Buck. But Jeff wanted to follow me. He walked his horse, with a different gate from his mule and this led to constant hollering at the mule, with cursing and swearing, so much so that eventually Butch tied the mule to his string, lest Jeff's hollering chase all the game away!

Passed Monument Creek Trail.

Passed Pettibone Ridge Trail.

Reached Freeman Peak, 7,294 ft. With view 25-30 miles in all directions and no sign of humans in sight, except for the trail. Lunched there. There was formerly an observation tower here, now vanished. Lots of burn visible, almost as much as remaining forest. Regeneration good.

It is a mistake to think of this as a museum piece; think rather of the freshness of creation.

Lots of walking on the return, down what we had ridden up. Walking for over an hour on steep, rough trails.

Back about 3.30 and I washed up in the creek.

Willow-herb, Epilobium

After supper, a sparrow with a spot on its breast and stripes, looked like a song sparrow to me.

But I never heard any such calling.

Swainson's and hermit thrushes, both calling.
American robin.

Antennaria sp.

We were about to go to bed when Christopher saw an elk cow across the lake, which they called in with a horn across the lake. We saw her reasonably well, eventually, toward dusk.

Owl glimpsed briefly, although it could have been some accipiter.

All with a sliver of a new moon in the sky above.

July 9, Saturday. Cool, damp morning. Overcast all day, and some threatening of rain, which barely came as more than a mist now and again. We packed up halfway wet, and with some apprehension about the 24 mile ride out.

Cow elk was still around the lake shore. Noisy ravens. Stellar's jay.

They burned up the unused food, though they also just dumped some of it here and there in the woods.

Packed up and headed out. Butch was on virtually a non-stop trip to get out, didn't stop for any lunch, just rode out. But the day was cool; it never did really rain, and the ride not bad. Toward Wahoo Pass we were riding in and out of clouds, but never lost decent visibility. Got out about 5.00 p.m., and met by Jim Vitale. Drove back to Missoula and glad to get a shower.

Distances ridden:

East Moose Creek, about 20 miles
to and from Indian Lake, 24 miles each way, total 48 miles.
ride to Freeman Peak, 12 miles roundtrip.

Total about 80 miles.

July 10, Sunday. Up and out for the trip to the western side of the wilderness, on the Selway River. Drove over Lolo Pass and down the western side, more or less all day.

Moose killed on road.

Moose and calf on the side of the road.

2nd moose killed on the road.

Spent some time in the Lolo Pass visitor Center, 5, 225 ft. Lewis and Clark passed here and the center was much upgraded for the Lewis and Clark bicentennial.

Continued down, now alongside the Lochsa River. Technically again, we are on Pacific time, but we never reset our watches.

Visited DeVoto Memorial Cedar Grove, huge Western red cedars that really belong in the Pacific Northwest.

also Western (Pacific) yew, Taxus brevifolia

Wild ginger, Asarum caudatum, in good bloom.
splendid Maidenhair fern, Adiantum aleuticum = A. pedatum
Baneberry, Actaea rubra
Galium
Mountain sweet cicely, Osmorhiza berteroi
Coral root orchid, Corallorhiza maculata

Back on the road, lots of Ocean spray, Holodiscus discolor

Reached Lowell, with gas, motel, 1,280 feet elevation. It is quite low here. Lowell is the confluence of the Lochsa and Selway Rivers to form the Middle Fork of the Clearwater, thence into the Clearwater, thence into the Snake, thence into the Columbia. The Lochsa and Selway are both quite beautiful rivers.

Selway River is a wild and scenic river, since 1968.

Drove up the Selway River corridor. The road is paved 5-6 miles, then quite good dirt, recently graded. Got a nice campsite in Selway Falls campground, really just 7 campsites strung out along the road. Camped at a great red cedar tree.

Set up camp and that evening Christopher did recorded interviews about events in my life.

Prunella vulgaris
Rocky mountain maple

Some tree with a cherry like fruit, but I don't think it was a cherry. Never figured it out.

Pacific flowering dogwood, Cornus nuttallii, lovely plant and said to be (in Phillips, Northern Mountain Wildflower, p. 184) only known in Idaho from the Lochsa and Selway Rivers, where it is among the rarest of plants in the state. This dogwood is much troubled by the introduced anthracnose, reduced to 5% of its original extent.

Harebell, Campanula rotundifolia. Basal leaves are round but stem leaves narrow and linear.

Lots of bracken, Pteridium aquilinum.

Monday, July 11. Up and out at 6.00 a.m.

13 mile drive up a 4WD road to Big Fog Saddle, never all that bad but quite slow, 5 mph or so and sometimes only a crawl over some challenging washouts. Took two hours and 15 minutes to do the 13 miles. Often clouds lower down drifting in and out about the mountains. (may be why this is Big Fog Saddle and Mountain)

On the trail by 10.15 or so. Great highline trail after a climb through some woods. Essentially alpine. Sign: entering Selway-Bitterroot Wilderness. Good trail to junction at Big Fog Mountain (with warnings that trails are not maintained). Becomes more of a pick-up trail, and for a while we laid out cairns for a safe return. Got to a saddle and the trail became better after that. Lunched at a rocky spot overlooking an unnamed small lake/pond. With views eastward, speculating about whether we could see any of the peaks seen last week. This is a big wilderness. Lovely day, clear with lovely clouds adding to the scenery.

Snow patches here and there.

Some good Globeflower, Trollius laxus.

Excellent pink mountain heather, Phyllodoce empetrifomis.

Golden eagle flew out from the crags above where we lunched. Nice sight in an alpine wilderness.

Some flora on top that I did not know and, alas, no time to work them out. Some strange buckwheat.

Steady hike out. Passed four backpackers, the only users besides ourselves that we had seen in the Selway Bitterroot in eight days.

Back to the trailhead about 3.00, and the slow drive cranking down the hill. Great forests in here, lower down some fine Ponderosa pine.

Got out about 5.15 p.m., pulled the tent and drove back to Missoula. Supper in a café in Lowell.

More recorded interviews on the drive back.

Never saw any bitterroot on the whole trip! Also never saw any Arctostaphylos, Kinnikinnick.

Tuesday, July 12. Drove home all day, virtually non-stop. 850 miles, too much for a day. Home about 10.15.

Continental Divide above Butte, MT is 6,393.

end Selway-Bitterroot

July 26-28, 2005. Backpacking, Pingree Park, over Stormy Peaks Pass and down North Fork Big Thompson, with Phil Cafaro. I've been in this country many times but this is the first time I have done it over the top.

July 26, Tuesday. Left home 7.00 a.m. with Phil Cafaro, after having met Jane in K-Mart Parking Lot in Loveland the night before and driving her car and my Jeep to Dunraven Glade, leaving the Jeep there. I was returning from a Boulder meeting planning the Encyclopedia of Environmental Philosophy and Ethics.

Phil and I drove over in Horsetooth area and picked up Jeff Snodgrass, Anthropology, as a driver to return Cafaro's car. Drove to Pingree Park, making better time than I thought.

On the trail by about 8.45 a.m. Steady climb but I got along rather well all morning (and I wasn't carrying tent or stove). Weather had been threatening but turned out cool, no rain. Nice Twinflower, Linnea borealis. Lunched at Stormy Peaks North campground area and weather got more threatening. Still rather interesting clouds coming and going but got more socked in and was some rain and windy at the pass, by which time I was tiring. A couple ptarmigan hens and chicks, and then, right at the pass, a mother hen and 6-8 chicks running around, with weather threatening and some thunder, and I didn't want to linger in the higher country. Great sight in great environment. She was at home; I was not.

Descended slowly and about quarter of a mile from the Stormy Peaks South Campground I twisted my leg somehow making a step and began to cramp in my leg, so I dropped the pack and walked on. Phil came back and got the pack. Part of the problem was the wind blowing the parka, which troubled my visibility placing steps. But it was clear at the Stormy Peaks South, at least at first and later clearing coming and going, actually quite impressive aesthetically. Nice evening, though cool, even cold, and clouds socked us in.

July 27, Wednesday. Lovely day, great weather, and I felt fine. Nicely visible from the rock overlook just out from the campground: Icefield Pass, Skull Point, Mt. Dickinson, Mr. Dunraven. Cold in the morning, some frost in patches on the ground, plenty of frosty breath. Packed up, slow descent but went o.k., and reached Sugarloaf Campground for lunch. Some confusion at the South Signal Mountain trail, which I had forgotten about. Blue grouse. Pitched camp, lunched, and then walked up to Lost Lake for the afternoon. Leisurely lingered there a while and a great day. After supper, walked back up to Lost Meadows, the open area half mile back up. Yellow warbler, yellow-rumped warbler. Orange-crowned kinglet. White-crowned sparrow. Otherwise the usual birds. Saw some people, not many.

July 28, Thursday. Great weather. Walked out, longer and harder than I thought. Lunched at the turnoff to the Ranger Station, then a long slog out. Out about 4.00 p.m., and drove home.

Big toe on left foot was getting sore, and though it looked o.k. with shoes off at home, a couple days later it did remain sore and showed bruising in lower half of the big toenail. I don't know how I could have prevented this. Backpacking 16 miles, total hiking 20 miles.

August, moved across the nation to Yale for the year.

Great weather in New Haven all September.

Oct. 2, 2005. Spent Sunday morning in East Rock Park, with 2-3 miles of walking in woods there. Great day. Drove to the top where there is a lookout over New Haven, and walked down and back up some from there. Halfway decent woods, lots of trails intersecting with one another.

Oct. 15, 2005. In southwest Virginia at Blacksburg, for talks at Virginia Tech (= VPI), hike up the Dragon's Tooth, on the Appalachian Trail. Drove to trailhead on Route 311. Hosts: John Peterson, dendrologist at Virginia Tech, and Barry Anderson, lawyer who is active in leading YMCA hikes. Also along: Catharine Snyder, my principal host for the long weekend and campus pastor at Va. Tech.

Went up via a longer route that makes it mostly a circle route, reaches the AT for a couple miles on it, and then returned by the usual route. Some squeezes and scrambling here and there getting to the top, especially right at the Dragon's Tooth. Total about 7 miles.

Buckleya distichophylla, Buckleya, Sapsuckbush, a waist high shrub and an endangered species. In Santalaceae, Sandalwood Family. It's in Britton and Brown, marked very rare, and I have an earlier note there that it was found on Wolf Creek vicinity of Holston River.

Also a good deal of Pieris floribunda, Mountain Fetterbush, superficially like laurel, and in Ericaceae.

Lots of Table Mountain Pine. At the top there is a fruiting chestnut and I ate one good American chestnut seed. Lots of dying hemlock from the adelgid aphid that is killing it. Lovely day, great weather. But not much fall color.

John Peterson

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He and John R. Seiler have produced Woody Plants in North America, Kendall/Hunt, a book and CD, massive dendrology reference, which I later purchased.

Nov. 12, 2005. Mushroom hike at Southford Falls State Park, Southford, CT., about 40 minutes n.w. of New Haven, sponsored by School of Forestry and Connecticut Mycological Association. Dianna Smith, the woman who led it was excellent, an amateur, but she knew them all by scientific name. Found perhaps two dozen, a number were typical sorts of mushrooms, but she also knew the tiny and non-typical fungi in the woods. Armillaria, Honey Mushrooms, are the ones whose hyphae glow in the dark and produce foxfire. Wish I had had the time to pay more attention to learning some of the details, but I was just filling in the mid-day, preparatory to going up to Bradford International Airport to get Jane that evening, returning from Fort Collins, grandmothering Shonny's new baby.

November 24, 2005. Thanksgiving day, quietly in the apartment. A couple inches of snow in the morning and impressively hard snow for an hour out of the apartment window. Generally mild and dry fall has not been particularly colorful, leaves mostly stayed green quite late and then turned brown. But some nice color. One of the nicest was a yellow ginkgo tree halfway across the churchyard green that I walked past every day. One day a redtail hawk took a squirrel in that area, ate it on the spot, with a crowd of people watching.

2006

January 9, 2006. Nice bald eagle seen from the Shamrock Van, at a Loveland area lake, headed south to catch the plane back to New Haven.

New Haven CT for the winter, spring and shut up in 152 Temple St., Apt. 617. Mild winter, a couple good snows. More blue sky than I might have thought for New England in winter.

February, late, whole of March. Pieris floribunda, maybe Pieris japonica in great flower at the Sterling Library. But I could never figure out what it was when there, so brought back a piece and identified it with the help of Fort Collins Nursery. P. floribunda grows in Southern Appalachians, I have a note that I had seen it on display in the Smokies. But most of the ornamentals come from Asia, Himalayas, and so I am not exactly sure what horticultural form this was.

Splendid dogwood in town, late April, early May, as fine as I recall seeing it in Virginia.

April 27, Thursday. Flew to Chicago, and got out to Montrose Point for a couple hours. Took the "el" (elevated train) in from the airport to hotel, and then on to Wilson, and walked 15 minutes in more or less ugly Chicago, and found the park and point. Nothing spectacular to see, and as much space to soccer fields as to wildlife habitat. Bike and jogger paths all round. Boats, mostly sailboats, in adjacent marina. Hedge is patches of decadent honeysuckle, and now some birches and natives have been planted. A few birds, not many, though several people were looking for warblers.

Friday, EPA meeting with Chicago Wilderness people.

May 4, Thursday. Birding stroll with Stephen Kellert at Eli Whitney Park, trail along Mill River. Area called a fresh-water tidal marsh. Water is a little salty, not much. Rather busy with warblers. Chipping sparrow. Black and white warbler, 10-12 of them. Yellow-rumped warbler, 10-12 of them. Redstart, one male seen rather nicely. Yellow warbler. Palm warbler. Parula warbler (I only saw a bird in motion; others identified it.) Black crowned night heron, three of them; they nest here. Baltimore oriole, a couple quite nicely seen. Grackle. Redwing blackbird. Eastern kingbird, nicely seen. Orchard oriole, well seen. Robin. Met ranger Dan Barbier, been there 25 years.

Plants: Solomon's seal, False Solomon's seal, skunk cabbage, one area with an acre of it. Jack in the pulpit, though not yet in flower. Lots of a vine, European bittersweet, which the ranger identified for me; quite invasive here. Actually rather poor woods, full of invasives. Some nice beech. Their hemlocks are dead from adelgids. Virtually no precocious ground spring flora.

Dogwoods at the moment are splendid in town.

May 7, 2006. Sunday afternoon with Shannon O'Roarke, former student of mine, now teaching philosophy at Quinnipiac University, and her husband. She has been attending my seminar fairly regularly this spring. They took us to Gillette Castle, high overlooking the Connecticut River, a castle of a former eccentric actor who played Sherlock Holmes. Now incorporated into Gillette State Park. To reach it we took ferry across the Connecticut River, on Route 148 (vicinity of Chester). Took a couple little hikes (strolls) here, but the precocious spring flora is generally disappointing. Lots of invasives in the woods. They drove us around a good deal; once I saw a wild turkey standing on a pond dam. Supper at a fish restaurant at Old Saybrook.

May 26, 2006. Drove to Bridgeport, in pouring down rain, and caught ferry to Port Jefferson, NY, on Long Island. About 45 minutes ride across Long Island Sound. Met by Don and Bonnie Kisiel, from whom we first rented half their duplex when arriving in Fort Collins in 1978. Spent the day with them. Returned on 4.15 ferry.

May 27, 2006. Drove to Kingston, Rhode Island, for lunch with Cheryl Foster and her husband (and two small daughters). Hard rain going up. She teaches philosophy, University of Rhode Island, did aesthetics with Ronald Hepburn at University of Edinburgh. Pretty drive, especially when getting off the Interstate and driving south to her place.

May 15, 2006. Monday about 10.30 a.m., left New Haven after some close packing to get it all in the Jeep. Drove back Route 80, as before, and arrived in Ft. Collins Thursday about 3.00 p.m. Hard rains for the first two days, with some serious flooding in Massachusetts and northeast. Jeep did quite well. Nice to be back in my Rocky Mountain habitat. Nigel Dower and his wife Mary, University of Aberdeen, and my replacement here spring semester, have been living in our house.

June 9-13, 2006. Bahamas, on a Templeton Advisory Board trip.

June 9, 2006. Jane's 75th birthday, well-celebrated the night before at Shonny's house. I bought her two hydrangeas, at Shonny's suggestion. Set the alarm for 2.00 a.m. !!! and left Ft. Collins in Jane's Chrysler at 2.45 a.m. Reached parking lot at 4.15 a.m., and take off to Dulles 6.00 a.m. Uneventful flight. Flight from there to Nassau, there about 3.15 p.m. Fancy dinner that night. Stayed at British Colonial Hilton, with nice view over the water. Cruise ships coming and going incessantly the next several days.

The Bahamas is its own nation, with 700 islands and some 2,000 cays (pronounced keys, as in Key West), small islands. Only 30 are permanently inhabited. Also in the region is Caicos Islands (6-8 of them) and Turks, which are still a UK colony. Turks is two main islands (Grand Turk and Salt Cay) and a few smaller ones. Famous for breeding grounds of humpback whales.

Bahama is from a Spanish word for shallow waters.

Nassau is by far the largest city, and is on New Providence Island.

June 10, Saturday. Went to the conference in the British Royal Hilton all day, 40 people present,

two-thirds of them Templeton family, one third Templeton Foundation staff, and a handful of Templeton laureates like myself. Charles Townes, Paul Davies, John Barrow, also Owen Gingrich. A lot of kow-towing to the great Sir John!! He was present, though said little, now in his nineties.

June 11, Sunday. Exuma trip canceled on account of high seas, tropical storm Alberto is in the region further north, though not here. Booked the trip with a different company for tomorrow. Then we took a tour of Atlantis, huge resort complex, casino, shops, built on Paradise Island, connected to the mainland here by two bridges. Totally artificial, all glitz. Transferred to a cheaper motel mid-day (Red Carpet Inn). That afternoon walked to Fort Montagu, nearby, and then a bit further to a sea shore park used by the locals. Vendors cooking grouper and conch here, rather picturesque and you got the local flavor.

June 12, Monday. Got all ready to go to Exuma Cays to discover the trip canceled again. Tough luck. So we went into town on bus, took a tour from down near the cruise ships dock.

Lots of poinciana trees, striking orange blossoms. Royal Poinciana, also called Flamboyant. Delonix regia = Poinciana regia. Leguminosae, or Caesalpiniaceae. Originally from Madagascar. Others in tropical Africa, India. Fern-like leaves. Irregularly shaped 5 petalled flowers.

Also coconut palms.

Visited Fort Fincastle, on Bennett Hill. Drove through the "Over the Hill" section of town. Again, we got the local flavor.

Silk Cotton tree, Ceiba pentandra. Also called Kapok. Bombaceae. Large, spiny-trunked tree from tropical North and South America. Handsome tree.

Sea grape. Coccoloba uvifera. Polygonaceae. Round-leaved hedge. A native. Forms long clusters of grape-like fruit with a large seed, acidic, not really edible as a grape. though it is used to make jams and jellies. Lots of it seen as a hedge. Commonly planted on seashores throughout tropical America.

Back to Atlantis for half an hour, the tour took us to see some ritzy real estate on the west end of Paradise Island.

Exuma Cays, where we planned to go and got twice foiled on account of weather, is a string of cays 100 milers or so long and trending a little northwest. The northernmost cay is Sail Rocks, then Ship Channel, about 40 miles s.w. of New Providence Island and Nassau.

Milkshake at McDonalds, and then took the No. 10 bus and got a good tour of the n.w. end of the Island. Lots of the bus ride was right along the beach. Passed Cable Beach, Sandyport, Caves Point, with recessed "caves" where relics of the first people here, the Lucayans have been found. Nice beach. Passed Love Beach.

Reached Lyford Cay, ritzy residential area, gated community, where Sir John Templeton lives. Saw his office building here. Here Cay does not refer to a separate island.

When the bus driver reached the end of his route and realized we were just along for the ride, he took us to some nearby sights, on the southwest side of the island. Clifton Point and Clifton

Pier (where their petroleum is unloaded). Some studies here of some ruins from the early 1800's. There are very few homes on the south side of the islands, because that is where the hurricanes hit hardest.

Returned to town and caught bus to motel.

June 13, Tuesday. Flew home through Philadelphia. Reached home about dark.

S. A. Seddon and G. W. Lennox, Flowers of the Carribean, 1978 and variously thru 2006. ISBN 0 333 26968 3. Macmillan Education.

S. A. Seddon and G. W. Lennox, Trees of the Carribean. 1980 and variously thru 2005. ISBN 0 333 28793 2. Macmillan Education.

Anthony W. White, Birder's Guide to the Bahama Islands. American Birding Association, 1998. ISBN 1-878788-16-7.

Kirby, Jill, Bahamas and Turks. Lonely Planet Guide, 2005.

Frommer's Bahamas 2004.

end Bahamas trip.

June 20, 2006. Julia and Gray (Hampton) to Rocky Mountain National Park. Drove up Trail Ridge Road, nice elk just above Forest Canyon Overlook, quite good bulls. Six and seven points (you count only one side). Drove on to picnic past Milner Pass at Lake Irene, with too much rainshower for the girls. Returned to Bear Lake and walked around the lake.

June 24, 2006. Julia and Gray to Zimmerman Lake. Stopped off at Poudre Chapel to show the baptismal site. Hiked to Zimmerman Lake in good weather, good hike, but too many mosquitoes at the picnic at the lake (especially for the girls). Dogstooth violet, Alp-lily (Erythronium grandiflorum) spectacular on this trip, as good as I have ever seen it.

July 3, 2006. Alone to Loch Vale and Mill Lake. Well, hardly alone, since there were hundreds on the trail, especially coming back. Left 6.15 a.m., and just missed the last open parking area in the Glacier Gorge Parking Lot; saw the car ahead of me pull into it. So I went on to Bear Lake and walked down; this is hardly different, even better. .5 mile down from Bear Lake to the old junction on good wide stairstep trail to the old trailhead junction. .3 mile up from the new Glacier Gorge Parking lot (which I did down at the end of the hike).

On the main trail about 8.15 a.m. Steady climb and did well, nice day. Made it to Loch Vale about 9.45 and lingered there a while. Nice view. Some big boulders came crashing down on the other side, and I looked for sheep, or people, that might have caused it, but saw none.

Returned to the junction and hiked up to Mill Lake. I've been overlooking this one, lovely view, with the keyboard of the winds above you and Long's Peak. Lunched there. Mother mallard came right by me at water's edge with six ducklings lined up behind her. Quite a sight.

Nice timing as I had no sooner put lunch away than it started to rain, and it rained more

or less all the way out. Nevertheless a good day. I was at Mill's Lake (and Black Lake) July 21, 1973. I was here with Gene Hargrove August 13, 1986. About 7.5 miles total.

July 7-19. Cambridge and East Anglia. International Society for Science and Religion meeting at Clare College Cambridge, and then four days in East Anglia, coast of The Wash, Norfolk Coast, and Norwich.

July 7, Thursday, left Denver 11.20 a.m., flew to Chicago, then London Heathrow. Caught bus to Cambridge, arriving mid-day, July 8, Friday. Crown Plaza Hotel, at Sir John Templeton's expense. Got some sleep and dinner in Clare College that evening.

July 9, Saturday - July 12, Wednesday. Conference, ending with evening meal. I was chair of a committee to produce a statement on intelligent design, but they lacked proper procedure for this and worked out a procedure in business meetings, then assigned it to a new committee, which I am also on.

July 13, Thursday. Picked up rental car at midday and drove north. Jane toured Sandringham House, a country home of the Queen. Queen Victoria bought it for her son, the future Edward VIII. Elaborate gardens.

Reached Heacham and B&B, where I managed to put a scrape in the bumper getting out of the tight backyard and narrow arched driveway. Eventually cost me \$ 300. Car was a kind of Renault with a molded plastic bumper that was like thick tissue paper and easy to scrape. I never heard it happening.

July 14, Friday. Jane took the Norfolk Lavender tour. Lavender is a mint, genus Lavendula, in some 25 species. A typical one is Lavandula angustifolia. From Mediterranean and India, brought here by Romans. Subshrubs, grown as ornamental and aromatic, seeds produce oil used in many ways, from perfumes to medicines. Grown here over hundreds of acres.

Lunched at the car in a parking lot at Titchwell, a RSPB bird sanctuary on the coast. Coastal area through here is largely marshy, essentially filling up from the rivers.

Night at West Runton, near Sheringham, in bed and breakfast converted from an old barn. Walked down to the beach after supper.

July 15, Saturday. Open-air market in Sheringham, with hordes of people. Also took a walk on the causeway, which forms a long coast trail. Then tried a forest near Sheringham Park, drive through some dense forest, but really couldn't find a place to park. On to Bacton, village on the coast, and Bacton Wood (halfway between Bacton and North Walsham), where we picnicked and took an hour's walk in a forest. This is said to have been forested since Saxon times, which may be so, but it is nowhere near an original forest, much planted and harvested, though with concern for preserving its scenic beauty. Half conifers, I don't know what. Half native deciduous trees, beech, birch, basswood, maple.

Night at Marsham, south of Aylsham, at an inn called The Plough. A couple of fine English oaks in the pasture out the window of the room.

July 16, Sunday. Drove to Norwich, and went to church at Norwich Cathedral, an impressive service, though the choir was from Connecticut! Trouble parking here. Lunch in a refectory operated by the cathedral, quite nice. After lunch, walked to St. Julian's church, a small Catholic church with a reconstructed "cell" of St. Julian of Norwich. Jane had been reading a biography of her. 13th century, lived through episodes of the black death.

Night at a farmhouse at Old Buckingham, south of Attleborough. Interesting stay; we got the daughter in law, and not her mother in law next door. Until a couple years ago a dairy farm mainly, but they had to give that up, couldn't make enough money with the competition from the big food chains driving the price forever down and turning to imports. He especially hates Tesco. They now raise grain, mostly for alcohol, and some sugar beets.

July 17, Monday. Drove to Cambridge, returned the car, apprehensive about the bumper scratch, but they were pleasant and reasonable about it.

Roads were narrow and traffic much too fast. Highways much overgrown at the "verge"; you were watching bushes at the side as much as cars in the oncoming lane. I never enjoyed the driving but I made it without incident, except for the bumper scratch.

Afternoon, walked to St. Giles Cemetery, again. I was there in October 1998, after I found out about the cemetery from a remark by John Polkinghorne that someone had put flowers in Wittgenstein's grave. Conference on "The Works of Love, October 1-2, 1998, Queen's College.

Ludwig Wittgenstein (1889-1951). His grave was the strangest, a sort of miniature shrine, with one flower on it, several coins, a small morrow, and a tiny ladder.

G. E. Moore (1873-1959), and, as before, right beside him:
John Wisdom (1904-1993)

Elizabeth Anscombe (1919-2001). She was not buried here yet when I was here before.
She is near Wittgenstein.

James George Frazer (1854-1941) of The Golden Bough fame.

John Cockcroft (1897-1967), Nobel prizewinner for first splitting the atom

Arthur Stanley Eddington (1882-1944), and I had the hardest time finding this one. Bushes much grown over it. Curiously the top of the stone names his wife, and below "Also Arthur Stanley Eddington).

Walked back. Jane's foot did better than I expected.

July 18, Tuesday. Rising early 3.30 a.m., for what proved to be a disastrous return home. Bus to Heathrow at 5.00 a.m., arriving Heathrow 8.00 a.m., to discover that the plane was forced earlier to land in New York for repairs. Waited 15 hours in Heathrow, though it did prove manageable in a side waiting room, with Internet. Cool and reasonably quiet. United gave us food vouchers amply for the day, but they could find no hotel rooms.

Eventually in flight about midnight.

July 19, Wednesday. Arrived at Dulles some 3.00 a.m., to discover, awkwardly that they had no

hotel room here either, though they had promised one. About 4.45 we tried for an earlier Denver flight, but got put on standby and missed it. Eventually took a flight that put us into Denver about 10.20, and caught 11.20 shuttle, home at 1.00 p.m. 36 hours since we got up in Cambridge.

end Cambridge UK

July 26-30, 2006. Missoula. July 26, Wednesday, left and flew thru Salt Lake City. Met at Missoula airport by Christopher Preston. Stayed with Dane Scott in new home, his wife and children had gone back to North Carolina. Dinner that evening, Christopher, Dane, Albert Borgmann, Ned Hettinger, John Hartt, Yuriko Saito, partly to discuss the panel next night.

July 27, Thursday, visited Yuriko Saito's class on landscape aesthetics all morning. Evening panel on Religion and Environment, Ned Hettinger, John Hart, Albert Borgmann, and me, moderated by Christopher Preston.

July 28, Friday. Walked up the Rattlesnake Creek trails in the morning, but mostly creekside in suburban area, although the upper part was woods. Friday evening: Lecture: Generating Life on Earth: Six Looming Questions.

July 29, Saturday. Hiked Kootenai Creek, into Selway Bitterroot Wilderness area, though we hardly got further than the wilderness boundary. Christopher Preston, also Dave Strohmaier. He wrote Seasons of Fire, and I wrote a blurb for it. He went to Yale Divinity School, took environmental ethics under Richard Fern, and now does various kinds of consulting. Also Peter Stark, writes for Outside and Random House. Book with Random House on Twelve Ways to Die in the Wilderness, doing one now on Blank Spaces on the Map.

Walked in, looking at flora, until about 12.30, lunched with Christopher (Peter was fishing, David walked out earlier), then walked about by about 3.30.

I did see Kinnickinick on this trip, which I failed to see last year.

Syringa, Lewis's Mock-orange. Philadelphus lewisii. Hydrangeaceae Family. (which Gray has as a subfamily of Saxifragaceae). 4-merous shrub common in the lower part. Past flower but I brought in fruit and keyed it. Has white blossoms and is the state flower of Idaho. Decent pix in Kershaw, Plants of the Rocky Mountains, p. 72. Some four Philadelphus in the East (not to be confused with Osage Orange, Maclura pomifera, the mock orange of my youth.

Spotted knapweed, Centaurea biebersteinii, a badly invasive weed in town and in Montana, somewhat resembling Chicory, Bachelor's Buttons, introduced from Asia in alfalfa seed.

Meal that evening at Rattlesnake Restaurant/Sandwich Shop, sitting outside on a picnic bench.

July 30, Sunday, flew home.

August 4-5, 2006. Fern Lake, overnight backpack with Phil Cafaro.

Friday, Aug. 4. Left 5.30 a.m., and picked up Phil. Drove to RMNP and got backcountry permit.

Left Jeep at Cub Lake trailhead and caught shuttle to Sprague Lake Shuttle center, then took another one to Bear Lake. Nice day, and good hike, lovely scenery, not too fast but I made it well. Several elk in the woods, including one with season's calf.

Lunched at Odessa Lake, lovely views of Notchttop Mountain, Little Matterhorn. In camp at Fern Lake about 3.00 p.m. Now the campsites have been moved some distance from the lake, off the Spruce Lake trail. Nevertheless a decent campsite and good water in stream nearby. Pitched camp, and I took a nap.

Supper, and we hiked back up to Odessa towards dark, with less time to spend there than I thought. Returned and walked into camp with barely enough light to see the trail. Shortly turned in.

Saturday, Aug 5. Up about 7.00 a.m., and took our time packing up and spent a bit of time about the lake. Then hiked out. Some time at Fern Falls, lunched at the Pool, and out about 2.30. Phil walked up from Fern Lake Trailhead to get the jeep at Cub Lake Trailhead. More or less overcast all day, but nice weather for hiking. 8.5 miles, with the return to Odessa 10.5 miles. I did well.

Lots of Twinflower, Linnaea borealis on the way out, as much as I recall on the Eastern slope, now past flowering.

Lots of Clustered Lady Slipper, Cypripedium fasciculatum, noted as rare in Colorado, but nevertheless some good colonies about Bear Lake area.

Cowbane, Oxypolis fendleri, across the stream at Fern Falls.

Wild Sarsaparilla, Aralia nudicaulis, in the Pool area. Don't confuse it with Mountain Sweet-Cicely, Osmorhiza berteroi, also seen.

I hiked the loop, Bierstadt to the Pool and then to Bear Lake with Frank Vattano, Oct. 2, 1972. I was at the Pool with Giles and his Kodiak Patrol!, in 1983. Giles went on solo backpack to Spruce Lake, Sept. 4-5, 1988. I was at Fern Lake with Will Aiken, Sept. 23-24, 1995. Can't find the date I was here with Ann Causey and her husband.

August 7, 2006. Four deer, two young bucks, at the corner of Stuart and Heatheridge (corner of Heatheridge, where I turn, at midday, coming home. Looking a bit confused.

Sept. 2. 2006. Twin Sisters, with CSU Graduate Students, but only two. Phil Cafaro, David Newman (teaches logic part time), Josh Gambrel (Joshua Gambrel, finished East Tennessee State University, Johnson City, TN, spent time in Afghanistan and Mongolia in Peace Corps), Win Staples (Winthrop Staples, Alaska bear biologist, now a grad student here). About eight bighorns roadside on way up, all ewes and lambs or yearlings. Off at 7.00 p.m., and on trail about 9.00. Trail now leaves from the new visitor center opposite Lily Lake.

Steady climb to top. The usual birds and some flowers still out. Weather cloudy, with some blue sky overhead, but no visibility, until we broke out in the alpine, and afterwards good visibility, though still some clouds lower down. Nice aesthetically. I did pretty well on way up.

On top for lunch, with excellent views. Began slow descent, and I had to pick my way slower than I like, but did o.k., tho this was all the hike I wanted. 7.4 miles, 2000 feet elevation gain. Rather boring lodgepole woods, though some interesting things here and there. Out about 4.00 and got sodas at the lodge where I performed the wedding ceremony for Phil and Kris Cafaro in 1999. I did this trail with Giles on May 8, 1982, when he was 10 years, now almost a quarter century back.

Sept. 6, Wednesday. Skunk in the backyard wandering around in twilight at 6.00 a.m., seen quite well from bedroom window. Sizeable skunk with striking black and white. Seen off and on for half an hour.

Sept. 8-12, 2006. Friday through Tuesday. Bristol, Virginia, preached at Walnut Grove Church and spoke King College. Left early a.m., with Jane, drove to DIA, parked car and took off, 7.00 a.m. Arrive Tri-City Airport, rented car and reached King College guest house about 4.00 p.m. Stayed in what was once the home of Bob Liston, president of King during my years in Southwest Virginia. Drove around the Walnut Grove area, now known as "Exit 7," a chaos of unplanned development, big Wal-Mart, and all the rest. Church did look well kept, lawn mowed. Drove out to High Point and walked around the cemetery, to find most of the leaders I once had in that church in their graves. Brief visit with Jay and Sally Melvin.

Saturday, Sept. 9. Drove to Damascus, too much kudzu on the way there. Damascus has been re-born as a tourist town, with lots of biking on the Virginia Creeper Trail, and elsewhere, also crafts. Drove up Route 58 into Thomas Jefferson National Forest, and found Route 90, gravel road to Feathercamp, in excellent shape. On the trail about 9.30 (Iron Mountain Trail) and meandered to Shaw Gap, mile and a half or so, mostly wanting to see the woods. Trail in good shape. Familiar flora, but didn't try to keep a list. Toward Shaw Gap, met (over a period of half an hour) a "race" of mountain bikers, though most of them were glad to make it, barely racing.

The Appalachian Trail ran here when I was living in Bristol, but in the mid-eighties it was moved south to route it over Burke's Garden with Whitetop Mountain and Mt. Rogers nearby. In my day, Whitetop was private, and the Forest Service couldn't get permission. Now much of the region is included in the Mt. Rogers Recreation Area.

Reached Shaw Gap, and took an hour or more for lunch and reminiscing, as I was in these woods many times in the 1960's. Nice day.

Returned, and drove east on Route 58. There is a huge camping area strung out along Straight Branch. Drove in there, long ways in, 3 miles or more.

Reached Bear Tree Gap, less open than I recalled, maybe just more overgrown now. Trail from here to Shaw Gap, which I used to hike, must mostly go thru the huge camping area now.

Drove east enjoying the country, and hoping for a good view of Whitetop, but didn't get one. Lots of Christmas tree farms in here now.

Returned to shower, change clothes, and go out to supper at Perkins Restaurant with Kay Tolley and Susan Clements, who had driven in from Norfolk area, formerly members at Walnut Grove.

Sept. 10, Sunday. Preached at Walnut Grove. Pleasant surprise how many from my former youth group there (forty years ago) turned up for the service, several having driven in from a distance. Cecil Morris, Barbara Jordan, Marcia Barr (still in the church and playing the organ), Susan Clements, Debby Miller, Drucilla Miller, Kevin Miller (their mother is still in the church), Pat Breedlove (still in the church), Teddy Neeves, Lynn Neeves, Gary Hicklin (brought his mother, Clara Hicklin), Marlene Bays (still in the church), Guyetta Mullins. I assisted in the baptism of the grandchild of Bob and Sue White, still in the church, whom I married when there. Church was packed. Jeep Latham, wife, and now-grown daughters, is now in this church, formerly at High Point. Pastor is John Markel and they had most or all of the pastors between my time and now present.

Dinner at the church. That afternoon, visited Jr. Melvin, at High Point, now frail and on oxygen, but still of good mind. That night, showed slides from forty years back, mostly of the building of the church, also of the youth group activities. Well attended, and they know many of the faces I didn't. Supper at the church.

Sept. 11, Monday. Drove out to Hall's Bottom, where there have been spectacular changes, from farmland to trophy homes and a golf course. Host at King: Earl Rohr, retired in philosophy, lingering on as chaplain and part-time teacher. Heard Ben Mathes at King in Chapel, with a high velocity talk on his ROW, Rivers of the World.

Spoke in philosophy class at 1.00, then gave talk on human uniqueness to a science seminar, with 50-60 present, including Eddie and Elizabeth Nash. Fine dinner in their new auditorium, gymnasium, and then I gave my "Genes, Genesis, and God" lecture.

Sept. 12, Tuesday. Flew home. Met by accident Fielding Rolston and wife at Tri-City Airport and had good conversations. By further accident they were flying to Denver and visiting his brother, Reuel Rolston, in Ft. Collins. Made it to class at 7.00 p.m., without much time to spare.

Oct. 15, Saturday. Hiked alone up Roaring Fork, Poudre Canyon. Overcast day, sometimes cloudy bright. Did the climbing well, and then enjoyed the "Silent Forest," which was indeed rather silent, no wind, only the roaring fork some distance off, usually, through trail runs along the creek some. Mostly nicely developed lodgepole pine, often bigger than usual. On the climb up some good Ponderosa. Some birds, squirrels, no elk, deer, nor was there much sign. Lunched in a nice spot, sitting on a log with creek below. Evidently fall, leaves underfoot, though a few aspen still had leaves and color. On the trail about 9.00, off about 3.30. Maybe six miles roundtrip. Trail is in good shape. Hiked this before in 1977 and 1978 all the way thru to Nunn Creek. My Green Mountain backpack trip was June 16-19, 1978.

Pine beetles in Rocky Mountain National Park.

Following is from Rocky Mountain Nature Association Quarterly, Autumn 2006:

What is mountain pine beetle and how is Rocky Mountain National Park managing their infestation in the park?

Mountain pine beetle (*Dendroctonus ponderosae*) is a species of bark beetle and is the principal species killing lodgepole, ponderosa and limber pine in the park. Bark beetle refers to a large number of different species of beetle that impact pines, spruce and fir trees. Currently the park has mountain pine beetles and Ips beetles killing pine trees, balsam fir beetles killing subalpine

fir, spruce beetles killing Engelmann spruce trees, and Ips beetles killing blue spruce trees. All told, there are sixteen native species of bark beetle that can be found in the park. The current outbreak of beetles is a result of global warming and the ongoing drought in Colorado, coupled with milder winters and warm summers. The park is only managing the spread of bark beetles in developed areas of the park, which includes campgrounds, housing areas, visitor centers and picnic sites - an area representing about 1 % of the park land. "High value" trees are being sprayed using Carbaryl, a pesticide that works as a repellent to prevent the beetles from attacking and killing a tree. High value trees are defined as those that provide shade or vegetation screens between campsites and around the above mentioned locations. Throughout the majority of the park the beetles are not being interfered with because they are a native species, and, having evolved naturally with the forests, they are part of the natural process. The park continues to monitor their impact, and the USDA Forest Service has been conducting aerial flights on an annual basis to assess the impact on the landscape over time. Resources Management Specialist Jeff Connor.

Nov. 11, 2006. Splendid red fox running across the road at Heatheridge Apartments, as I was driving into Darrah House, about 10.00 a.m., to spend the day grading papers.

Nov. 30, 2006. Generally a mild fall, but good snow last day or two, and this morning the temperature is - 8.0, according to weather service, - 0.9 on my remote thermometer on the back porch.

Dec. 2, 2006. Excellent sun dogs in the evening sky.

Dec. 13, 2006. Half-day in RMNP with Michael Zimmerman and wife Teresa Toulouse. Pike's Peak visible when I drove south to Loveland. One bighorn halfway up on steep cliff face hillside in the Canyon, but I couldn't stop, cars behind me. Met Zimmermans at Park Headquarters and we went to Bear Lake, quite wintry at the lake, then hiked up toward Nymph two-thirds of the way, good snow, well enough packed on the trail to walk on, but evidently wintry--for two New Orleans "camellias" as they put it. Found a couple elk, a few deer, nothing more. Windy.

Zimmerman, long at Tulane University, is more or less a refugee from Hurricane Katrina, had to flee the city, expecting to be gone a few days, and couldn't return for six months. Spent that time eventually in Seattle, where she has family. He took a job as director of a humanities center at Boulder. She is English faculty, at Tulane, now half time at Boulder, and does American literature, especially New England, including Emerson and Thoreau.

They had to return to Boulder at 1.30, and I came home.

December 20-22, 2006. Blizzard, 25 inches of snow in town. Started Wednesday morning, university shut down at noon, and I came home about 2.00 with some apprehension about getting home. Snowed hard but powdery. DIA shut down for two and a half days with thousands stranded there. Spent Thursday digging out, got stuck on first try getting out. University remained shut, from Wednesday noon thru Christmas and two days following, i.e. Wednesday, making it closed for over a week.

end 2006

Trail Log 2007

Big blizzard before Christmas in two snowstorms, and the snow continues piled high. My jogging has been disrupted a month. Have to do it indoors in the gym, though we do now have a treadmill in the basement at home.

Yucatan, Mexico

January 15-25, 2007. Yucatan, Mexico, and Complexity Conference.

Had to leave night before and spend night in Denver to catch early plane. Left home 4.00 p.m., Shamrock to Denver. Cold waiting for shuttle to Red Roof Inns. Decent night there.

Jan. 16, Tuesday. Up at 3.30 a.m. and hotel shuttle to airport. Take off 6.00 a.m., to Dallas/Fort Worth. About 40 minutes late leaving Dallas/Ft. Worth. Arrived Cancun about 1.00 p.m. and was met by guide, Arturo Romano. Worked it out thru Terra Maya tours, the company handling the conference. Good guide and good van. Drove down the coast to Tulum. Lots of plush resorts, invisible from the road, which is 2 km. inland. Much of what you see is a scrubby palm/palmetto forest, not very impressive.

Yucatan Penninsula is a big limestone plateau, with many underground caves, which is where the drainage is. There are no surface rivers or creeks. There are many ceonotes (pronounced seh NOE tays), sinkholes now caved in and filled with good fresh water. Largest such area in the world, and probably results from the huge asteroid crash, 65 million years ago. Chicxulub Crater, found in 1981 by Mexican oil geologists, though not confirmed until 1991. 2.5 km deep and 200 km. wide. Largest and best preserved crater on Earth. Impact temperature was three times that of the surface of the sun.

Ceonotes are often sacred, gateways to the underworld, as well as sources of water. Some dive in them.

This is the state of Quintana Roo, established fairly recently.

flamboyant tree, with pods.
palmetto chit, used for thatch roofs
coconut palms. (Cocos nucifera)
grackle
sea grape (Coccoloba uvifera), in Polygonaceae
sisal

Tulum Ruins. In a spectacular location, perched on cliff above the Caribbean. Largest fortified site on the coast, walled around as a fort. To enter you still walk through a small arched gate, another one to exit. Ruins from around A.D. 1200. When the Spaniards saw it from their boats in 1518 it was in decline, but they wrote that it was the equal of Seville.

Visited Well of the Sacrifice, a cenote (sinkhole filled with water).
Visited Temple of the Wind God, Temple of the Descending God. A god is pictured often upside down.
The most impressive and main building is El Castillo.

Visited Temple of the Initial Series
Gran Palacio

Temple of the Frescoes, with a little red color surviving yet on the stones, some mineral they used for a red paint. Later built, around 1450, so doesn't precede Columbus long.
Tulum means "City of the Rising Sun," from sun alignment.

Maya means "gate to heaven"

Drove to Los Lirios Hotel. This road leads down a narrow peninsula to Punta Allen, and most of the road is dirt and rough. I went down a bit of it next day.

Hotel was on sea, and I had a good room overlooking the ocean. Nice room. But only fair service in the restaurant, and only tepid hot water, so I did not shower.

Jan. 17, Wednesday. Boat trip to Sian Ka'an Biosphere Reserve. (pronounced see ahn khan)
Good day. Picked up at hotel, and drove further south. Good guide, young woman, born of Italian father and English mother, fluent in several languages, and she knew the birds quite well.

580,000 hectares, 120,000 of which are marine. 1.6 million acres of biosphere reserve, a UN site, and over 50% is tropical rainforest. Mexican federal government owns 98% of it, but most of this is otherwise unusable swamp. Reserve is zoned; some of it is pristine, some of it for light habitation, and some of it can have tourist establishments and light industry.

Much of the reserve lies in a zone of recent origin (Pleistocene), and appears to still be in a transition stage. The reserve lies on a partially emerged coastal limestone plain, and includes coral reefs (part of the extensive barrier reef system which has formed along the eastern coastline Middle America), the marine zone between reef and shore (including two large bays), coastal dunes, mangroves, marshes, and inundated and upland forests. A large series of sink holes (cenotes) exists in the area; these are characteristic features of the Yucatan peninsula. The hydrological cycle is complex, and the water table is permanently close to the surface (never deeper than 8m). As a result, up to 75% of the terrestrial part of the reserve is flooded each year by the end of the rainy season (the dry season figure is 20%). There is little surface running water within the reserve, and water usually filters fairly rapidly through the shallow

rendzina and 'saskab' (granular whitish and brittle limestone) soils and the limestone rock to subterranean channels. Due to their hardness, the waters in the reserve are generally very clear. A geological fault crosses the reserve from the south-west to the north-east influencing its topography and hydrology. In general, soils are not suitable for agriculture.

Vegetation types in the reserve: medium altitude semi-evergreen forest; medium and low altitude semi-deciduous forest; low altitude flood forest; tasital (or palm savanna) formation; freshwater and saltwater marshes; petenes (or hammocks); dwarfed mangroves; fringing mangroves; and dunes and keys. A total of 4,000 plant species has been recorded.

A sort of scrubby forest. Once much of the forested area was planted in coconut palms, but there was a disease, yellowing disease, that kills trees. Still attacks the survivors.

chit palm. Thrinax radiata. Thatch palm. A useful palm for the thatch, and even the tourist hotels like to use it. Found in Florida and generally in Central America. Almost circular leaves

chechen (pronounced: cheh chen). Metopium brownei. Black poisonwood. With a poisonous skin irritant. Anacardiaceae. Sumac Family.

Reached an eco-tourist resort, Cesiak, and stopped there. Power lines do not come down this far, and here they make their own electricity, with half a dozen wind turbines.

There is a long coral reef, which could be seen offshore a couple hundred yards, because the surf and water color was different there. This is the second longest coral reef in the world.

Area here is flat limestone platform, mangroves and dune thickets, barrier islands, and coastal lagoons. All with subterranean stream system.

Boat ride will be over Campenchen Lagoon, then up a canal (Cayo Venado, "cayo" is "key"), and into Chunyaxche Lagoon, only into the upper part of it. Then return through the canal and to Laguna Boca, with an entrance to the sea.

Savannah vultures.

Termites making a tunnel across the trail.

Walked through a mud ecosystem, with white mangrove, black mangrove, lots of pneumatophores (wooden fingers sticking up above the water level, now entirely visible above a muddy floor. Black mangrove has salt glands. Red mangrove secretes salt to a single leaf, and then drops that leaf.

In the boat:

white ibis

little blue heron

yellow crowned night heron

olivaceous = neotropical cormorant (seen in Belize)

Two large epiphytes on the mangroves.

One a bromeliad. An epiphytic pineapple.

One an orchid, not now in bloom, with some root like stalks that looked like bananas. Couldn't find the botanical name.

termite nests in the mangroves, some of them 3-4 feet across, and all this above the water.
Lots of small fish in the water.

tricolored heron

great egret

belted kingfisher

Some higher areas had taller trees. Here called hummocks (or hammocks).

laurels

an epiphyte that looks like a cactus. Night flowering cactus. Bat pollinated. Seen in Belize.
saw grass.

Reached Laguna Chunyaxche, and rode out into it several minutes. Then returned to a temple ruin at the start of the canal. Dated 900-1000 A.D., and somewhat reconstructed.

bare-throated tiger heron

mangrove warbler

social flycatcher (robin sized). Seen in Belize.

green-backed heron

Start the return, and some of them floated down current in the water for ten-fifteen minutes, though I did not. Can't see that well without my glasses. Returned to Laguna Campuchén and went south into Laguna Boca Paila, windy ride.

Went under the bridge that has the highway over it, actually two bridges, one left from an earlier bridge.

tiger heron, up close, quite nicely seen, after going under bridge.

Now getting right at the sea.

brown pelicans. Seen in Belize.

sanderlings. Seen in Belize.

sandpipers

ruddy turnstones. Seen in Belize.

great blue heron

frigatebird. Seen in Belize.

returned to eco-resort for lunch.

Ulrich Seelinger, ed., Coastal Plant Communities of Latin America. San Diego: Academic Press, 1992.

Beletsky, Les, Ecotravelers Wildlife Guide, Tropical Mexico. San Diego: Academic Press, 1999.

moonvile

spider lily

beach morning glory

sea lavender

Bad hurricane here was Wilma, October 2005.

On return, walked in over steps (made of sawn stump cuts) to a cenote. I went for a swim in it. Not bad. Good water temperature.

Termite tunnels on the ground, and also up tree trunks.

Returned to hotel and changed clothes.

Drove inland for several hours to Chichén Itzá (pronounced chi chen itz uh). North toward Tulum, and then to Coba, then to Chemax, then to Valladolid. Mostly little inhabited country. Farmers here grown some corn, tomatoes, chilis. There were a few commercial places. Houses, like huts often, had thatched roofs. At first a good road, but then got marginal. Then north of Valladolid, reached a good toll road. Toll road was privately built for the Mexican government to move tourists around fast, but the tolls are high and many do not use it. Went into bankruptcy once and the Mexican government had to rescue it.

Then to Pisté, then south a bit to Chichén Itzá. Made it to the hotel with only a few minutes to spare before the evening light show. Colored lights on the main temple and a couple others. Sound in Spanish, but I had an English translator headset. Went on an hour and a half. The light show was essentially unrelated to the text, which recounted Maya history, with lots of buzz and bonk background sound, more or less indistinguishable from noise.

Chichén Itzá is one of finest Mayan ruin sites in Mesoamerica. Mostly 9th century onward. Palaces, temples, altars, and largest known ball court in the Mayan world.

Returned to the hotel, and got soup, with chaya leaves. Lovely hotel, Hacienda Chichén Resort, an old hacienda, with some ruins of earlier buildings.

January, 11. Thursday. My room was in an outbuilding not far from the main hacienda. Very decent room and good shower.

Got breakfast and went for an early walk. American breakfast, but with some Mexican add ons, such as black beans. Very interesting grounds.

blue-crowned mot mot. Seen well, asure eyestripe and a long tail. Orange belly. Very striking bird.

white-tipped dove. has white stripe on side. seen in Belize.

red-lored parrot

bouganvilia

peacock

hummingbird, in an amorphia tree, in flower w/o leaves

kapok tree, seeds make a kind of cotton

2 iguana lizards

sisal

Walked back to ruin area. Main temple, El Castillo, Temple of Kukulan, has 91 x 4 sides = 364 steps, with the 365 step on the top. Constructed about 850 A.D.

The Maya had a number system based on twenty: counted with hands and feet, 20 fingers plus toes.

They chipped the limestone blocks with obsidian, sylex.

A problem with lintels and they used some wood ones. Some fragments remain (seen) from 800 A.D.

Group of 1000 columns impressive. Relief carvings on the square and circular pillars.

Jaguars, on the frieze at the temple top.

Often ascending and descending serpents entwined on the walls at the edge of the steps. The serpent is the rattlesnake, because you can see the rattlers.

On the spring and autumn equinoxes, the sun lights up a zigzag strip on the outside wall of the north staircase and the giant serpent heads at the base, giving the appearance of a serpent slithering down the steps. The effect was discovered relatively recently and the original builders may not have intended this. Large numbers of people may assemble here for ceremonies at the equinox (30,000 to 40,000).

famous chac-mool figures. Maybe a reclining god. Maybe used in the human sacrifices. They practiced human sacrifice, with a gruesome picture of this.

Went to Sacred Ceynote, 22 meters down. Sacred well of sacrifice. Used for human sacrifice to rain god Chac.

Many pieces from here are in a museum at Harvard University, there were lawsuits over this from 1910 onwards.

Reached Great Ball Court, with stadium. Long rows of relief skulls. Game played with 12 pound hard rubber ball. Object was to hit ball into carved stone rings, seven meters high.

Notable echo standing in the middle of the court.

The winners decapitated the losers, shown in panel. Or at least the chief winner decaapitated the chief loser.

jaguar throne

Observatory, Caracol, where they observed sun, and used line up for sightings of equinox.

Osario, ossuary, depository for bones of the dead.

Returned, walking through the grounds of another hotel.

iguana lizards

huge juancasta tree

Ficus trees, with notable roots.

Returned, left the hotel, driving back in van.

Reached Dzitnup, and went into town square. Said to be a very traditional town.

Truck with loudspeakers, advertising a bull fight.

They also have cockfights. The cocks fight until one kills the other (they have razor blades attached to their spurs). The owner of the losing cock may spray it with Tequilla and return it to the fight, rejuvenated.

Got some fruit (bananas and tangarines) in the market and made do with that and a roll I had for lunch.

Reached just outside of town: Cenotes de Dzitnup (pronounced tsee noop).

There are two; we visited one. Descend long stairway into the cave and there is the lake, some size, with opening to the sky and long tree roots descending to the water.

The word "Mexico" comes from the Aztec, for the navel of the moon.

Bushy, scrubby forest.

Driving further east, nearing Cancun. Hurricane Wilma did a lot of damage to the forest, and all the larger trees are dead. The area was swamped with salt water for a time. They have lots of fires here in May and June.

cecropia trees

chicle tree seen - from which comes chicle, the original chewing gum

There is no gambling in Mexico.

Transfer to Iberostar Paraiso Maya Resort.

Opening dinner, excellent food, but ruined with loud Mexican band and singers, couldn't have any conversation. Ate with George Ellis and Paul Davies.

Good rains twice this evening, and this is supposed to be the dry season.

Outlandish all-inclusive resort, must have huge ecological footprint.

January 19, Friday.

January 20, Saturday

January 21, Sunday

At the conference, with little to do Sunday. There is a beach front area and I walked there some.

January 22, Monday. Flew home. Pickup at hotel at 9.00 a.m. for 1.10 p.m. take off. Uneventful flight. Home about 9.30 p.m.

Ernest Preston Edwards, Field Guide to the Birds of Mexico and Adjacent Areas. Austin: University of Texas Press, 1998, 2003. I own it.

Serengeti migration 2007

March 3, 2007. Saturday

I took Camcorder and made a decent DVD of this trip. Copy in CSU Library, Rolston archives.

Up at 3.00 a.m. for limo pickup 4.25 a.m.

Denver, with some apprehension about the Minneapolis flight, since that airport had had snow and many delays and cancellations the day before. But no problem and off to Minneapolis at 9.14 and good flight, though Jane and I were separated in seats.

Minneapolis - Amsterdam. Leave 3.20 p.m. and good flight on huge Airbus.

March 4, Sunday.

Arrive Amsterdam 6.30 a.m. and got decent sleep. As often before, I crossed an ocean I never saw. Air temperatures outside were as low as -81 degrees F.

Several hours in Amsterdam and then off to Kilimanjaro. Long flight and got tired in cramped seat. Some delay waiting for a plane from Paris in fog with 30 people coming on this Paris flight who needed to be on our plane.

Reached Kilimanjaro about 9.30 p.m. 7 1/2 hour flight. 40 min. wait to get a visa and then we were met. Taken by van 40 minutes to Dik Dik hotel in the dark.

March 5, Monday.

Slept surprisingly well, good room. Nice grounds to the hotel

Guides: Bilali J. Lunduman = Billie pronounced bee lah lee
e-mail: lunduman@hotmail.com

Says he is a Muslim, married to a Christian. "No problem." Says she wanted to raise their children as Christians. "No problem." Says he now has a son who is thinking about marrying a Muslim. "No problem." "We all get along together fine here." Maybe this is ecumenical. Maybe it is that his Islam is more superficial than he thinks. Certainly Muslim-Christian relations are a considerable problem in nations to the north.

Stephen Oue ? Meshally
P.O. Box 2708
Arusha, Tanzania

His father was some sort of chief and had ten wives and 80 children. Then he became a Christian and had to choose one wife, so he chose another by whom he had 13 children. So Stephen has 93 brothers, sisters, half-brothers, half sisters, though he does not really know any of the 80 previous ones. !! population problem??

The vehicles are Toyota Land Cruisers, 5 forward speeds, high and low range. Each carries two spare tires.

Participants:

Dietrich von Wettstein (= Diter)
diter@wsu.edu
205 NW Anthony Str # 6
Pullman, WA 99163

He is agricultural geneticist, Austrian, long in Denmark, and forced to retire, when he moved to Washington State University. Does genetic modification of barley to suit the growers. Barley is used about one third for brewing, but two thirds for cattle feed. They would rather grow wheat but can't grow it every year, depletes the soil, so they have to rotate with barley. He genetically modifies barley to get some toxins out that the producers don't want.

Christine Gietl
Technische Universität München
Dept. of Botany
Biologikum-Wehenstephan
Am Hochanger 4
D85350 Freising
Germany

A geneticist, once Diter's student, now his wife--an intercontinental marriage! But they seem to get together about every six weeks either in Pullman or in Germany. She is also quite a singer in church choirs.

Ric Thiboden
Kate Joye, husband and wife.
918 SE 10th Way
Pompano Beach, FL33060
krjoyce@juno.com
954-784-8677

He sells cleaning materials for cruise ships, many of which depart Orlando, where he works. She is travel agent, though not dealing with individuals directly, but marketing to groups.

Dan and Jan Rucker
1401 Timber Creek Dr
Friendswood, TX 77546
drucker@cbsd.net
281-482-9904

He is real estate developer.

They are Lutherans and took soccer balls, ballons, to the AIDs orphanage, also later went back to set up further support from their home church in Texas.

Olga Silvay-Mandean, M.D.

306 East 72 St, Apt 10-B
New York, NY 10021
osilvay@nyc.rr.com

She calls herself a pharmaceutical industry consultant. Husband was M.D. and died a long time ago. She is Czech.

Eva Sujansky, M.D.
233 South Birch St.
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She teaches genetics at Univ. Colorado Med School? She is also Czech, and the two women have known each other for years.

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judshin@bellsouth.net
older woman, much travelled in Africa.

Tanzania was German East Africa prior to World War I, then made a British mandate, called Tanganyika from 1920 on, from WW I until its independence in 1962. When it combined with Zanzibar, later in the 1960's, it took the name Tanzania. Zanzibar was since 1890 a British protectorate. Julius Nyere was first president, president for 20 years, committed to radical socialism, always in the forefront of African liberation struggles. He tolerated little dissent and, at the same time that Tanzania harbored many exiles from elsewhere in Africa, Tanzanian jails sometimes held more political prisoners than did South Africa. The country has remained generally poor, getting worse, and socialism is still the rhetoric, capitalism increasingly the practice, although it is mostly a nation of small farmers.

My impressions in 2007 were more positive than in 1995. Plenty of poverty, but less evidence of desperate poverty (children with swollen stomachs). Tanzania has been spared the agony of many of the African nations elsewhere, civil wars, warlords, and so forth. AIDS is here but not as rampant as elsewhere. Generally the people seemed more upbeat than before.

Tsetse flies made most of central and southern Tanzania unsuitable for agriculture and stock and the British mostly neglected it.

First morning, we were off to Arusha National Park. Mt. Meru was see quite well seen, commanding presence on the skyline. We passed coffee, rice.

Candle bush, with prominent yellow flowers. Senna alata Introduced from California!, also in

tropical America. Often put in Cassia. Cassia alata. Planted as an ornamental, and they may also plant it as fencerows.

Mt. Kilimanjaro visible in distance, the summit above clouds.

9-10 giraffes near the road at the entrance gate, with Mt. Meru on the skyline and Mt. Kilimanjaro in distance.

2 warthogs

great egret

Egyptian goose

grey crowned crane

200 buffalo

150 zebras

6-8 warthogs

hammerkop

Abdin's stork, three of them, migrating

warthogs mating

2 hammerkop

croton tree, heart shaped leaves. Croton megalocarpus. Native. Grown as a shade tree, used for timber. But don't burn it, the smoke irritates your eyes.

Veronia sp. - bush, pinkish flowers. Used for toilet paper.

Sodom apple, Solanum incanum, shrub with flower like a ball nettle. Small fruit. Thorny. Lots of chemicals in it and variously used in indigenous medicine.

Some mint, unidentified.

paradise flycatcher, orange outer tail feathers

black mongoose, seen running in the road briefly. Species? So the guide called it, but there is none by exactly that name in Collins Field Guide.

We drove some distance through fine forests, with dense large trees.

strangler figs

Eventually we reached a viewpoint, with 150 buffalo in distance, at an opening

little bee eater, well seen

sacred ibis

jacana

We passed a field with 200 or so baboons.

150 buffalo

2 bush buck

3 common water buck

3 giraffes

50 buffalo (pix)

50 warthogs

common water buck, male with nice horns, seated on the ground

sacred ibis, 6-8 of them

grey crowned crane - 3

reached Momella lake

pied avocet
snipe, presumably common snipe
5 Egyptian geese
75 lesser flamingos

Ate picnic lunch at a lake overview with flamingos behind

Augur buzzard

2 water bucks at road

Lake Rishattan

long-tailed cormorant, adult and immature

northern double collared sunbird

(so the guide called it, though Birds of East Africa doesn't show this range for it)

spotted eagle owl. Seen in bush roadside, 12 feet away, with ease. Somebody spotted it while we were trying to look out over the lake.

vervet monkey

There are no lions in this park.

2 dik-dik, rather well seen, 12 feet away

another dik dik, roadside

toilets

black and white colobus monkeys, first seen 400 yards off in trees. They guides had been looking for them.

The ones we saw had an all white tail, black body, and didn't fit the color scheme of anything in the guide, presumably the Abyssinian black and white colobus.

Later, we saw 8-10 Colobus monkeys, now in trees adjacent to the road and quite well seen. We watched them jumping in the trees, limb to limb, some spectacular jumps, as they moved a hundred yards through the tree tops, taking five minutes. Nice sight.

4 more Colobus

blue monkey, seen briefly

6 giraffes

Return to hotel, stopping by an orphanage for AIDS children on the way back. Jane gave some magic markers and Dan and Jan Rucker had brought soccer balls and balloons. Kids were all eyes, took the balls and started playing with the. Blew up the balloons on the spot.

Return to Dik Dik hotel about 5.00 p.m. They served a wonderful four course meal.

March 6, Tuesday

Up at 6. 15. Vervet monkeys on the hotel grounds. 6-8 of them, one a mother with a small youngster in her arms.

Walked to Kilimanjaro tower, five minutes away on the hotel grounds, and climbed it to see Kilimanjaro, all of it but hazy in distance.

Left hotel and driving to Arusha

lots of bananas.

stopped at Ranger headquarters

stopped at cultural center/tourist shop. Very decently done, and Jane and I bought a few things.
coffee plantations
sisal
plowing with oxen, and also some tractors
cows and goats
camels in a field, surrounded by cattle egrets
Repeadly on the drive we say herds of cattle with 2-3 men watching over them, often in quite colorful dress. Cowboys, I suppose.

Fearing a bit the terrible roads from 1995, we were surprised to find a new road, built by the Japanese, and fine road, in strong contrast to the bumpy one when we were here in 1995.

termite mounds

We reached Mto Wa Mbu village (means river of the mosquito), at the base of the escarpment. We stopped our guides expecting to a local guide to appear to lead us on a nature walk. But there was much confusion, no guide appeared, and so the trip failed.

white storks, 40-50 in tree, with black wings. These are in migration and will migrate back to Europe (to deliver the babies in Holland!)

We drove up the escarpment and had lunch in hotel, a quite ample lunch and a nice hotel. But there was in the group confusion and mutiny about what was going in. The schedule had said we were to be in Laka Manyara this afternoon.

Four of us drove back down the scarp about 3.30 for a village walk, with a local guide.

70 olive baboons

We took a tour of the village and its environs, a clinic, banana plantation, craft shop (where Jane bought some items, bookends for Shonny).

Toured a banana beer "factory."

Finished the village tour with a visit to the local market, 100% Third World.

Returned to hotel.

March 7, Wednesday

We left for a morning tour of Lake Manyara, and drive in the afternoon to Ngorongoro Crater.

50 baboons, 4 with infants on back

large baobab tree

Baobab tree, a famous tree. Genus: Adansonia. Odd looking, massive trunks and very contorted. Pix in Blundell, Wild Flowers of East Africa, pl. 53 and 54. They live 1,000 years, some say 2,000 years. They have leaves only in the rainy season. They cannot survive frosts. According to the Palgrave book on trees (see below), the tree is short and grotesquely fat. There may be annual rings or a sort and large ones may be 3,000 years old.

We entered Lake Manyara National Park

banded mongoose, in bushes (pix)

25 baboons, with young (pix)

50 baboons (pix)

blue monkey in tree (pix)

African white-backed vulture in tree

2 elephants, one eating (pix)
2 Southern ground hornbills
vervet monkey in thorn bush (pix)
cattle egrets
3 vervet monkeys
hippos (pix), with oxpeckers on hippos
great white pelicans
marabou stork
goliath herons
terns
saddle-billed storks
superb starling
long-crested eagle
impala male (pix)
oxpecker on impala
giraffe
helmeted guinea fowl, 5-6
helmeted guinea fowl, 3 (pix)
large elephant in road (pix)
30 impala
3 giraffes
15 impala

dik dik (pix)
6 elephants

We stopped at a picnic area, with toilets, toward noon, but guides decided to go on to the lake and eat later at the lakeshore.

1 elephant
2 woodland kingfishers
elephant
elephant
2 elephants
2 lilac breasted rollers
3 warthogs

30 wildebeest
lilac breasted roller, nicely seen
1 buffalo in distance

100 baboons
50 impala, all together
50 lesser flamingos, in water, 200 yards out
150 great white pelicans at shoreline
3 warthogs
2 impala close in
7 giraffe
4 impala
150-200 buffalo, with Lake Manyara behind, and some zebras

We had a picnic lunch in sight of the lake, with buffalo running along the shore. There were 200

of them at a trot along the shore, and not 100 yards away. In my earlier Africa experiences, guides would have been concerned to have people out of the vans on a picnic, with running buffalo nearby. Buffalo are notorious for charging. But these guides did not seem concerned.

Buffalo have increased in number in recent years, with some debate about why. Some say because of more effective anti-poaching policing; others say it is mostly a recovery from post drought conditions. R. Hilborn et al, "Effective Enforcement in a Conservation Area," Science 24 November 2006, p. 1266; Julie K. Young et al, "Wildlife Population Increases in Serengeti National Park," Science 30 March, 2007, p. 1790.

2 elephants
60 buffalo
50 zebra
50 impala

elephant
30 giraffes, 15 of them sitting. A sitting giraffe is quite a funny sight.
2 elephants
30 flamingos, nearer the shore
2 Egyptian geese
12 giraffes
12 baboons
2 impala
50 flamingos
200 flamingos

martial eagle
2 ground hornbills

About 2.00, we turned around to return, out of the park and on to Ngorongoro.
flamingos (pix)
dik dik in closeup (pix)
lizard buzzard
monitor lizard
2 pancake turtles

I mostly did not record the wildlife on the return trip, presumably often the same animals.
silvery-cheeked hornbill

Toward the park entry there is a good thick forest, with big trees. This can oscillate with acacia shrubland, or open grasslands.

Left the park and drove back up the escarpment. The 4-5 miles up the escarpment would take two hours of challenging 4wd when we were here before, but now on the Japanese road takes 20 minutes.

The group bought cold drinks at a roadside stand. They were cold; somehow they made refrigeration work, with no electricity on sight.

Bought diesel fuel in Karatu

Karatu is famous for marathon runners.

There were lots of people walking to and from the village, on market day, for 4-5 miles on each side of town.

We reached the gate to Ngorongoro Park (technically a Conservation Area. and not a park to allow the Masai some grazing there). This is also the end of Japanese road.

Mercer, Graham, The Beauty of Ngorongoro, Nairobi: Camerapix Publishers International, 1993. ISBN 1 874041 46 6. The crater is more or less circular, about 14 km in diameter. Normally the only elephants there are bulls. Cows and calves stay further up in the forest thickets. Elephants really have no enemies in the wild; cats can't take them. Lake Magadi is alkaline, or "soda" which is "magadi" in Swahili. Lions succeed in only 15-20% of their hunts.

Stopped at an opening for a scenic view of caldera, as it was beginning to get dark. We reached Ngorongoro Serena Lodge. This lodge is at 7,500 feet, the elevation of Estes Park, CO at the edge of Rocky Mountain National Park.

March 8 Tuesday

Our room overlooks the crater with the lake in distance. Up before daybreak.

Got breakfast and off to the crater for the day.

Masai village seen on outside of crater rim (pix)

Start descent into crater.
candelabra tree (Euphorbium candelabrum)

12 helmeted guinea fowl

50 Thomson's gazelles

buffalo, with cattle egrets

Kori bustard (pix)

50 Tommies

We reached lake, with various unidentified shorebirds. This is a soda lake with no external drainage, like the Great Salt Lake.

blacksmith plover (lapwing)

black-winged stilt

red-billed teal

avocet

200 buffalo, 100 yards out

grey-crowned crane (pix)

500 zebras and wildebeest, 1/2 mile out

200 wildebeest, rather scattered over a mile or so

Alerted by some chatter on the radio, we set off on a drive to find a rhino people had been seeing.

500 wildebeest/zebras

10-12 elephants

After 4-5 miles drive, we sighted the black rhino 1/2 mile off and barely distinguishable from a

rock -- with ten or twelve other vans also trying to get a glimpse. Leopards are hard to see of the big five because they are out mostly at night. Rhinos are so rare they are hard to find, only about fifteen in the crater, and this is about the only place they can be found in Tanzania.

hippo and infant (pix)

flamingos (pix)

The rhino got up and started walking, now evidently seen though at a distance (pix).

golden (common) jackal (pix)

200 zebra/wildebeest

200 zebra/wildebeest

kori bustard

300 zebra/wildebeest

kori bustard

1 young male lion

toilet stop, halfway decent toilets and that too is a change from practically nothing but bushes in 1995.

Speck's weaver

21 hippos in the pool adjacent to the toilet stop

black kites 5-6 of them, especially at the toilet area where they swoop down and snatch food from your hand.

There are now so many vehicles and the roads are so dry that the dust is objectionable at times.

20 ostriches, half a mile off

200 wildebeest

3 female lionesses

1 male with good mane (pix)

and 20-25 vehicles trying to get a good angle on it!!

jackal

25 ostriches

25 Tommies

8 grey-crowned cranes

warthogs

3 grey-crowned cranes in flight, close in to the van, lovely.

kori bustard

kori bustard

6 Tommies

Abdim's stork

nursing zebra (pix)

wildebeest - scan with young (pix), including kori bustard

Returned for lunch at the toilets area, ate in the van to avoid black kites stealing out lunch food.

Abdim's stork

500 buffalo

500 wildebeest

grey-crowned crane

50 wildebeest

10-12 Grant's gazelles, in with some Tommies

50 wildebeest
30 zebra

50 eland, half mile out.
100 wildbeest, mixed with 50 zebras, right at the road
50 zebras
500 zebra, huge herd
300 zebras
500 zebras. This was the highest concentration of zebras in a couple of miles here, seen anywhere on the trip. We drove 2-3 miles with hundreds always in sight.

lionesses, 3 right at the road, lying down (pix), one with sores covered with insects, and she seemed to be breathing heavily.

no giraffes, no baboons seen in this area

2 male lions, both subadult, right at side of road (pix)

cheetah, 300 yards out (pix)

kori bustard
6-8 ostrich
2 elephants

Left the floor to return to the rim. There was a steep and rough climb back out. The road is one way down, a different road one way back up.

We reached the lodge.

March 9, Friday

Another sunny day in the supposedly rainy season

whistling acacia = Acacia drepanolobium. An insect eats a hole in the fruit and when the wind blows through the hole, there is a whistle.

2 giraffe

We visited a Masai village. Jan Decker is sick and fainted at the Masai village. At least she is in a van with 3 MD's. There was some shifting around in the vans so one car could go straight to camp and the other visit Olduvai Gorge.

Visited the Masai village. We were cordially received by dancers and other festivities, and each given a local guide, who took us into his hut-home. Pretty primitive. And of course they have lots of trinkets to sell you. There were lots of pink flowers around the village, Gutenbergia.

Continuing toward the Serengeti, you descend and the land dries out.

30 Tommies
500 wildebeest in distance, said to be migrating
50 zebra
giraffe

reached Olduvai Gorge

Louis Leakey (1903-1972) and Mary Leakey (1913-1996)

Louis Leakey (1959-1960) found down in the gorge the then-named Zinjanthropos, subsequently re-named Australopithecus boisei. Found tracks only?? 3.6 million years ago, so this was not, of course, Homo. Nevertheless considered an ancestor, and thought to have walked upright. Maybe did not use tools (but even chimps use some tools, more or less, fishing sticks and the like).

Australopithecus afarensis, later, more clearly walked upright and yet there is no evidence of tools for another million years.

Also found here Homo habilis, found 1960, and said to use stone tools, from a much later time.

The gorge is 55 km long. There are five levels of ash, with hominds in each layer.

Olduvai means wild sisal, Sanseveria ehrenbergiana, locally called mother-in-law's tongue.

A butterfly collector found the fossil bones that led to the start of Leakey's search.

Billie does lots of socializing with the other drivers, and I often have to go and get him to tell him we are ready to go.

500 wildebeest

50 Tommies

1,000 wildebeest, migrating

Masai, now with 200 goats

Increasingly rough ride in the van,

2 sacred ibis

500 wildebeest

African white-backed vulture

red capped vulture ??

Nubian (= lappet-faced) vultures, all three feeding on a carcass near the road

50 Tommies

12 Grant's gazelles

1000 wildebeest

50 Tommies

We reached Serengeti National Park boundary (pix).

There are 1.4 or more million wildebeest here, 200,000 zebras, 700,000 Thomson's gazelles. There are 26 herbivores, 20 carnivores, 4 primates. The short rains are November through December. The long rains are February through May. Rare here are: leopard, roan antelope, rhino, wild dog. The wildebeest population is up five times since the 1900's when they were first counted, then presumably decimated by rinderpest, introduced by colonial cattle. When removed from the cattle it disappeared from the wildebeest.

An individual wildebeest may walk 3,000 km. One gets different answers about which month to see them where. There really isn't a beginning and an ending to the migration; they are always moving. About 1.25 million wildebeest migrate. About .25 million will die during the migration. About .5 million calves will be born at the same time, and only about half the calves will make it.

50 Tommies
50 Tommies
500 wildebeest
50 Tommies
50 Tommies
50 Tommies

We passed half a dozen vehicles with flat tires.
50 Tommies
The landscape is treeless plains, with occasional Acacia hummocks.

Grant's gazelles (pix)
50 Grant's
100 Grant's
30 Tommies
500 Tommies

1,000 wildebeest (pix with scan)
There was now an endless line of them for 4 miles or so, 1/2 mile out.

We reached our pitched camp at Nungunungu (pronounced: none goo none goo). No sign that any one had camped here this year, but it is a marked camp site on the Veronica Roodt, [Tourist Map of the Serengeti](#), insert Map 3. This is the woman who did the excellent Shell guides to Botswana, now publishing some things in Tanzania.

We got assigned to a tent Then lunch was served, rather finely. Our tent is heavy and large, room-sized, with bucket shower rig at the back end of the room, a basin, and a dug pit toilet. Bed is virtually standard size.

There was a large tent for the dining hall. Linen cloths and napkins. Candelight at night. Three course meals of a variety of foods served very nicely. Before dinner, a campfire was built in an open area 20 yards outside and drinks served.

Kitchen was in a tent 25 yards away in another direction. Cooked there on propane and some wood fires. They also had a generator for power, which they used there, and to recharge the batteries driving the fluorescent lights in the tents. I recharged my camcorder at a 220 v. outlet on the generator.

During lunch we began to hear thunder and there were a few drops of rain after lunch, but not enough to settle the dust.

The staff took a day and a half to set camp, and they will pull camp the morning after we are gone.

After lunch, mid-afternoon, went out for game drive, headed toward Lake Ndutu, another soda lake.

By now there were hundreds of wildebeest right outside camp, even visible from camp in the acacia trees when we returned.

We watched a lost calf, and in about five minutes its mother came back, returning, and found it. The group in the van cheered.

There were racing wildebeest just outside camp (pix).

booted eagle
yellow-necked spur fowl
wattled starling, on the backs of wildebeest

tawny eagle
2nd tawny eagle, in picturesque tree, zoomed in (pix)
batelleur eagle, two, perched and then flew
batteleur eagle
bateleur eagle

African white-backed vulture in dark pictureque tree, and zoomed in (pix)

black chested snake eagle

black-headed heron at edge of lake and flamingos in the mmiddle of the lake, standing, since it is shallow. (pix with zoom from heron out to the flamingos)

changed tapes

2 Egyptian geese
gray heron

lovebirds (small parrots), presumably Fischer's lovebird

dik dik (pix)
Hildebrand's starling
helmeted guineafowl
crowned lapwing (= plover)

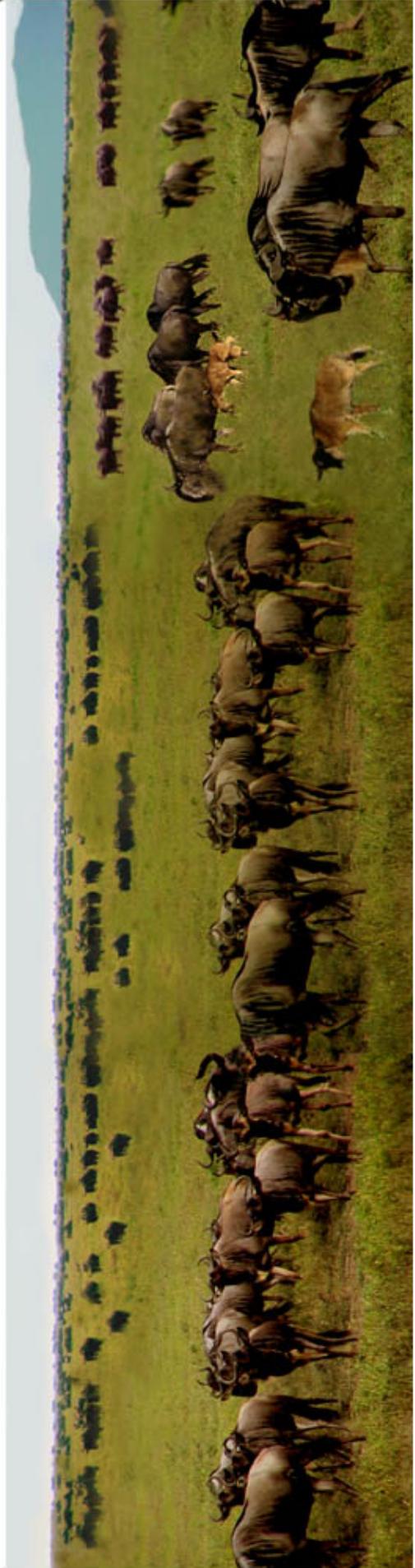
By now it was getting dark.

Returning, a chain of wildebeest on the horizon 1/2 mile long

marabou stork
tawny eagle

back to camp

Took a "hot shower" with hot water poured into a tank lowered to the ground, filled with water



heated by staff in a fire out back, and then on a pulley elevated 8-10 feet high behind the tent. I helped Jane shower in the dark, as there was poor light in the shower. Had to shower by flashlight, and we didn't yet know how to work the controls to get the water turned on and off, lest it all pour out at once. Got wet, soaped up, and then turned water back on to rinse. Maybe five gallons for your shower.

There is a decent florescent light in the main room of the tent, but it is sometimes troublesome to get it on. Have to switch and re-switch it to get the starter to start it.

There is no light at night in the washbasin area and the toilet behind. We had to hang up a torch in there on a hook (that I fortunately had brought along). That gave enough hands-free light to make do with.

dinner in the dark, by candlelight

hyenas heard in the night several times, but not close

March 10, Saturday. There was a little shower of rain as we got up.

Breakfast and off for the day. About half mile from camp, we spent forty minutes or so in a huge herd of wildebeest. They were 360 degrees on the horizon as far as you could see ahead and behind. We drove some 4 mile or so with this scene continuing. The guide estimated we were passing 200,000 wildebeest, or at least that there were that many in this herd. This is the largest single concentration we saw.

2 long photo pans, and filmed 2 long video pans.

Rüppell's griffon vulture
African white-backed vulture
Lappet-faced (=Nubian) vulture feeding on a carcass

wild cat - Felix silvestris lybica seen in broad daylight, briefly but clearly. This is a lucky sighting as these are nocturnal. I had seen them before on night drives in Botswana.

6 Tommies
80 Tommies
20 Grant's

another photo pan series
and other lines in the distance.

110 Tommies, and some Grant's

jackal (pix)
4 common ostriches (pix)
20 Tommies
6 ostriches
12 Grant's

Harley's harrier ?

white stork
2 tawny eagles
12-15 white storks

Reached Naabi Hill, with park visitor center, small shop, and took a toilet stop.

10 marabou storks
black-shouldered kite
jackal
50 zebra
6 kori bustards
We drove out toward Gol kopjes.

The low summits here are called kopjes. Elevated areas with rounded rocks. I never got a very good geological explanation for the origin of these formations.

reached the first of the kopjes
found a lioness in rock cave, well seen but not active
common kestrel, presumably
400 wildebeest

lioness without tail and with radio collar
spotted hyena (pix)

cheetah at great distance with gazelles behind, hardly recognizable as a cheetah.

bateleur eagle
martial eagle - perched on a horizontal limb, and nest in tree overhead
cape rook
black-shouldered kite

black-backed jackal, seen well and close at a kopje, but briefly

We lost a lunch spot (occupied by others) and will try for another.
hyena (pix) with evident nipples

lunch in car under acacia

hyena

15 hyena at a pool, 13 in the pool and 2 more nearby (pix)

100 Tommies
kori bustard
50 Tommies
150 Tommies - in distance

6 eland
1 eland (brief pix)

50 Tommies

hyena

Rock Agama = Agama agama, purplish pink lizard = Northern lizard

hyena, hiding in the rocks covered by trees

50 Tommies

lioness, lying atop rocks under the shade of tree limbs

kori bustard

lioness, lying upside down, sleeping in the rocks

lioness and cub in a rock cave, sleeping

50 Grant's

2 topi - lying down, 50 yards out. Would like to have seen them better

martial eagle

back to headquarters at Naabi Hill.

There were mice at the rock fence around the parking lot. Native, but otherwise unidentified.

50 Grant's (pix)

15 ostrich (pix)

500 wildebeest at some distance

500 wildebeest

50 Grants

500 wildebeest

500 wildebeest

but the huge numbers seen in the morning along this road were gone.

migration map, insert in the Roodt map

On the Roodt map there is a place to buy her Botswana books

On return to camp, there were wildebeest right outside the camp, within 100 yards.

We returned and got showers, now in the day light. I filmed the staff putting in hot water and raising it for the shower.

glorious stars in the night.

March 11, Sunday

hyenas calling in the night, much closer than on the previous night

300 wildebeest (I took 35 mm. slides of cows with calves.)

75 Tommies

2 golden jackals

12 Grant's

150 gazelles, mixed Grant's, Tommies
jackal, black-backed

cheetah, nicely seen (pix)
crocodile, at the far edged of a pond/river, fully out of water.

Ker and Downey has built a number of concrete crossings of the wet creeks crossed, to keep the 4WD vans from getting stuck in the mud, and often making a pond of a little size upstream.

2 Egyptian geese
crocodile (pix) in water
4 helmeted guinea fowl
giraffe
2 buffalo
northern white-crowned shrike
lilac breasted roller
giraffe
one impala

Again alerted by radio traffice, the guides found 2 leopards - making the big five in less than five days.

There was one in a sausage tree, at first hardly visible, though you could see the tail moving. They we went around to the other side and saw two leopards, this one and a mate. Once one got up and walked to the other, and then returned, and saw good silhouette.

But mostly they were sleeping and not interested in pleasing the tourists (pix of first, then second, the latter the male)

Leopards are usually solitary, and pair only for 2-3 days when mating, so this is unusual.
5 giraffes.

We reached village of Seroma.
lunch

dwarf moongoose, wandering around the picnic area (pix)
hyrax, Cape rock hyrax, Procavia capensis, likewise wandering around the picnic area (pix)
Collins, Mammals, 252. Lonely Planet, p. 28 of Safari Guide at end.

There was a bit of rain, enough to close the top for a while.

From the visitor center

The wildebeest drop 8,000 calves a day over a three week period.

2 hipos in pool
nursing vervet monkey (pix)
impala (pix)

Then we started a Marathon drive back to camp. I would have preferred to take it more slowly, but the guides had found the big five and we had seen the migration. So!

50 Grant's

150 wildebeest
50 wildebeest
back in camp about 4.15 p.m.

evening farewell dinner (and tips to guides)

March 12, Monday

very hard rains in the night, loud on the tent roof. If this continues, this is the rainy season.

My breath was frosty in the morning in the early dark -- and this not far from the equator.

Up early, to make the charter flight. But the staff did pour good hot water in the wash basins out front.

Up at 5.30, breakfast at 6.30, supposedly off at 7.00 a.m., but maybe off by 7.20, saying good by (and tips) to camp staff.

5 white cranes
3 hyenas
1 hyena
50 wildebeest, half mile off
12 Grants
2 ostriches
12 Tommies
6 Grant's

helmeted guinea fowl hen, and four chicks, seen well

hyena

Weather cleared up, but the hard rains in the night were widespread, as you could tell from big puddles on the road.

serval cat - seen in the road well, for half a minute. Splendid sight and it walked right by the car in good light. But the top was not up and I could not photograph it (though I got a glimpse on film thru the car window). More luck with the cats, since we saw the wild cat a day back. But the lions seen have been lazy. Several cheetahs, some seen well.

Serval, a slender, long-legged cat (genus Felis). I saw one briefly in the dark at Sweetwaters on a night drive in 1995. Again, the only such occasion on the trip. Something like a super-sized house cat with extra long legs.

jackal
secretary bird (pix and shaky)
5 hartebeest
jackals

25 baboons
6 hippos
6 warthogs

3 warthogs
2 impala

reached airstrip
plane is a Cessna Caravan

We flew back passing an active volcano, in which there was some sort of eruption two weeks ago, but it must have been slight. We saw the crater in part, but many clouds. This is Mt. Lengai (Ol Donyo Lengai), (pronounced leng-eye) the world's only active sodium carbonate volcano. The Masai call it the Mountain of God. It erupts natrocarbonatite lava. It contains no silicon and is cooler than other lavas. (Later: April 15, the Conservation Area issued a warning for tourists to stay out of the area, because there were indications it would erupt again.)

Much of the terrain over which we flew showed no auto track roads at all, mostly flat plains, and later dissected, with one or two quite spectacular gorges.

reached Arusha airport, and van thru town to Dik Dik hotel

lunch

day room for the afternoon, shower.

dinner, 5.30 and transfer to Kilimanjaro airport

The airport was fair, but hot and evidently Third World. Long line to get our baggage X-rayed, with locals constantly breaking in line claiming some domestic flight (of which there are few or none in Tanzania).

one hour flight to Dar Es-Salam, one hour waiting there on the plane
Overnight flight to Amsterdam, 9 hours.

March 13, Tuesday.

slept rather well on the plane

The distance from Amsterdam to Arusha is not all that different from the distance from Minneapolis-St. Paul to Amsterdam.

Lv. Amsterdam 10.15. Amsterdam to Minneapolis-St. Paul is 4,150 miles

Relatively empty plane and I had a whole row to myself, where four seats across cuts down to three across toward the back of the plane, with more legroom.

To avoid turbulence, the flight was lower and longer than usual.
100 mph. headwinds at times

48 hours in transit, from the Tented camp to 1712 Concord, could be the longest I have ever been in transit.

In general I was satisfied with the migration which I went to see. But the lions were less well seen than on previous trips. More zebra and many more buffalo than before. Billie did not know the small birds as well as my previous guides.

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end Serengeti

March 21-24, 2007. Northland College, Ashland, WI.

Flew to Duluth, MN and drove to Ashland, stayed south of Bayfield at B&B named Pinehurst in the country on the edge of Lake Superior. With a peek at the lake from the window of my room.

Host Steve Sandstrom, who also teaches at the college, took me in his 4WD a couple miles up a barely passable road, lots of snow, to a "sugarbush," forest of original sugar maples in process of being tapped for sap, about sixty trees with plastic sap bags catching the drip. Tasted a bit of the sap. This area is now owned by state for conservation, owing in part to the work of Steve Sandstrom. There is an old cabin, a classic, in which they render the sugar, boiling it down. Kitchen with wood range, seats and tables carved out of stumps. The area is adjacent to Chequamegon National Forest.

Wolves here kill the bear hunters' dogs, not as prey, but defending their territories when the dogs range widely over them. In late summer, bear hunters are permitted to do trial runs with their dogs, and then the wolf pups are still in their denning areas, and wolves find the dogs a threat to their pups.

A good many apple orchards in this area, also cranberry bogs and blueberries are produced commercially. Drove through that area with some views out over Lake Superior.

Lots of deer here and they overbrowse Canada Yew = American Yew = Taxus canadensis = Ground Hemlock, a low shrub, evergreen with hemlock like needles, spreading to two meters, to the extent that you can hardly find it, except on the islands where there are seldom deer. It is still widespread in southern Ontario.

Off shore is Apostle Islands National Lakeshore, 22 islands, 20 are in Wilderness Designation, with a few lighthouses and boat docks, but otherwise uninhabited. Madeline Island is largest, with a town on it named LaPointe and private land. It is within easy sight of the mainland, from Bayfield, and there is a ferry in summer. But in winter the ice freezes hard and they create a road over it, driving back and forth (a mile or so) over an ice road with the route marked with little pine trees stuck into the ice. The ice road is still visible from town nicely, though they stopped using it two weeks ago.

But there is still ice, so until the lake thaws they use a wind-propellor driven ice sled, which also works in water, and carries about thirty people. There are about 250 people there in winter, 2,500 in summer. In winter schoolchildren come back and forth on the ice to school in Bayfield and on the wind sled. The moderator of the panel on stewardship, the episcopal rector at LaPointe, came over for the event and returned on the windsled.

The main open body of Lake Superior remains ice free all winter, but the coves, bays,

nearshore waters freeze solid. About 10% of the fish taken from Lake Superior are sports fish; the rest are commercial fisheries.

Two men fell through the ice on Saturday, one went underwater for twenty minutes and was airlifted by Flight for Life helicopter to Duluth. Host, Nancy is EMT and had this on the radio with a lot of activity to get them out. Presumably fishing.

Lake Superior has the largest surface area of any fresh water lake on Earth. It contains 10% of the surface fresh water on Earth. Lake Baikal is deeper and contains more water, but Lake Superior is second in volume. Lake Superior could contain all the other Great Lakes and add three more the size of Lake Erie. The shoreline is 1,826 miles, the distance from Thunder Bay to Orlando. The lowest point in the continental U.S. is not Death Valley but an area in southeast Lake Superior.

A little further east is the Bad River Indian Reservation. Canoe Area, September is the best month of all, no insects and not crowded.

Forests here threatened by emerald ash borer, a beetle whose larvae destroy ash trees. Unknown here before 2002. Within two years infested 3,000 square miles in southeast Michigan, with 5 million ash trees dead or dying. Now spreading here.

Also threatening is gypsy moth on many different trees, but especially oak aspen. Caterpillars defoliate trees.

Wisconsin loon population is 3,400 adults. Minnesota has 12,000. Michigan 400. Loon is very primitive, little changed in a million years. First loons were 25 million years ago and six feet long.

Insects can be bad in June, not bad second half of summer, and, in Boundary Waters

The peninsula that Bayfield is on is part of a low mountain range called the Gogebie Range.

North of here is not Canada immediately but the Minnesota peninsula, and north of that Thunder Bay, Canada in Ontario.

There are many lighthouses in the Great Lakes region because the iron ore deposits make compass readings unreliable.

Friday afternoon, went to the Great Lakes Visitor Center. Well done. Took a 3/4 mile nature walk with some good Northern White-Cedar, Thuja occidentalis, or Eastern White-Cedar, in an area where pollen indicates it has been growing since the Pleistocene period. This white-cedar is also in spots in Virginia, North Carolina, and Tennessee.

Wisconsin has 425-455 wolves in 108 packs.

Minnesota has 3,000 in 485 packs.

Michigan has 400 in 85 packs.

Isle Royal, above here, in Michigan has 30 wolves in 3 packs. Hurt by parvovirus and lack of prey.

Canada has 50,000-60,000 wolves.

Michigan is considerably closer to Ashland than is Duluth, from which I drove.

Spoke at the Presbyterian/Congregationalist Church, Friday night, and was preceded by the Homespun, group of three musicians, including mother, Ann Mahan, and lovely daughter Jennifer Mahan, doing folk music with a nature theme they had composed, guitar, flute, dulcimer. Afterward Ann Mahan gave me a book she and her husband Johan Mahan had done, photography and text on Lake Superior. She asked me to sign her husband's copy of Philosophy Gone Wild, which was so full of his markings and copying sentences of mine into the opening pages and margins that I could hardly find space to autograph it. Rather moving experience.

Pileated woodpecker heard drumming on a snag very close by.

Came within 25 yards of hitting a deer on the road on the drive back in the dark of the night.

Saturday, spent a good hour and a half with Pam Troxell, timber wolf alliance coordinator, and Adrian Wyevevan, chief wolf biologist for the state of Wisconsin. Wisconsin wolves were once as few as twenty-five and have re-bounded with perhaps 500, and with no reintroductions. Chief opponents are the bear hunters, whose dogs they kill. But bears kill many more of their dogs than do the wolves. Wolves kill maybe 25 bear hunters dogs a year, and the hunters are reimbursed for their dogs. Wisconsin is the only state that does this.

Minnesota hunts with dogs.

March 25, Sunday. Up and out to speak to the Unitarians.

Off to Duluth about 10.45, congratulating myself on the good weather. But, alas, to discover increasing fog in Duluth, and the Duluth airport was shut down. Nothing coming and going all day. But the airlines got two busses and took about 100 passengers to Minneapolis-St. Paul, so I got an unexpected tour over 150 miles Duluth to the Twin Cities. Fortunately I was at Duluth early enough, twenty minutes later and I would have missed the busses. Fortunately I had some wait over in Minneapolis-St. Paul and still made the 6.45 flight easily. Met Jane in Charlotte and towards midnight, in rental car, found our hotel.

March 27, Monday. Off to Davidson and spoke in Andy Lustig's class.

March 28, Tuesday. A.M. Drove out to Davidson's Lake Norman facility.

Bloodroot
blueets
chickweed
henbit

Dogwood is in good bloom, as is redbud. Nice along the roadsides and in the woods. Lake Norman is built for power. Catawba River is hardly free-flowing, but is a series of stair step dams. Lake Norman is largest man-made lake east of the Mississippi.

Tuesday evening. Dinner at President Bobby Vagt's and Andrew Lustig gave his inauguration speech, as first holder of the Rolston Chair in Religion and Science, funded with my Templeton money. I make some remarks. Clarence Morrison and Gerry present, Malcolm and Jackie Doubles, Ernest and Mary Jack Thompson, Gray and Julia Hampton. About 24 at the dinner, maybe 175 at the lecture.

March 28, Wednesday. Drove down to Clinton and Presbyterian College to lecture there, for Jim Thompson. Went out to Duncan's Creek Presbyterian Church and found graves of Robert and Lizabeth Long, and others.

Racoon in Jim's back yard. Dogwoods in bloom, azaleas, redbud is past bloom.

March 29, Thursday. Met Jim Thompson's class on reason and faith, and lectured that evening to a good audience.

March 30, Friday. Hike in Sumter National Forest with John Inman, ecologist, and Daniel Hanks, fisheries biologist, but knew the flora better than John Inman. Good stroll, but not much out.

Carolina jasmine = yellow jasmine was in good flower. Vine in woods with sizeable yellow blossom and sometimes conspicuous in the woods. This is South Carolina state flower.

oaks are dominantly willow oaks, in flower and coating everything with pollen. Also pines in pollen. As much of it as I recall seeing in the east.

blue violets
wintergreen
pignut hickory
blueets
Smilacina
American Holly
red juniper
Christmas fern
Goodyeara. Rattlesnake plaintain
resurrection fern



**President Bobby Vagt, Holmes Rolston, and Andrew Lustig
at Inauguration of Rolston Chair in Science and Religion
March 28, 2007**

wild ginger, in good flower. Quite nice
American beech

In afternoon drove to Laurens to check family records.

March 31, Saturday. Drove to Charlotte to get Jane on plane about noon.
Small-flowered crowfoot
henbit
chickweed, at wayside.

April 1, 2007. Sunday. Stetson University, DeLand, Florida

Waited an hour to check in at U.S. Air in Charlotte, longest lines I have seen. Plane an hour and a half late. But reached Orlando, and drove north to Deland.

April 2, Monday. 7.30 a.m., out on his boat with Don Musser, Stetson University, in St. Johns River, freshwater here, to Blue Spring State Park, manatee sanctuary. This is huge spring, 100 million gallons a day, half mile from the river and flowing into it. West Indian manatees like it in winter, though they come out to feed in day on water hyacinth and other plants. They are slow and easily hurt by scraping propellers, and an issue here is boat speed, with carefully marked speed and wake zones. About 2,000 manatees in Florida, 85 in St. Johns River. None seen, though they are regularly seen here, especially in earlier winter. No alligators seen either, though they are also typically here. Area is spectacular for its huge live oak trees draped with Spanish moss, also at water's edge, bald and pond cypress draped in moss, and this is was a perfect day, good sun, pleasant temperature.

Manatees are in order Sirenia, that includes the dugong in Australia. There are three species. Manatees seem sluggish and squinty-eyed, with rotund bulk, like an oversized sweet potato, in strong contrast to dolphins, which seem fast and graceful. But this is a misperception. Manatees feed on vegetation, not fish, and don't need the fast mobility. Nor do they have predators from whom they need to escape (hence their little fear of motorboats). They don't need good eyes in muddy waters. They do have slow metabolism. But in recent studies, Roger L. Reep, neuroscientist and University of Florida, and Gordon B. Bauer, psychology, New College of Florida, find that the manatee is unusual in its sensory capacities and brain organization, with a highly developed sense of touch. They have thick, bristly hair, each of which is a sensory device, 2,000 of them on the face, which are used to explore objects, rather like complex whiskers. They do not have folded brains, characteristic of other mammals. Elsewhere 3,000 on the body.

Florida weather is not always so pleasant. We drove out to his boathouse through the area devastated by the unusual tornados that hit Florida when I was in Lakeland, in February. Tornado was on and off the ground for a stretch of 65 miles across Florida, and here there were

5-6 miles where in a strip perhaps 300 yards wide everything was destroyed, leaving ruins of houses, not just mobile homes but frame and brick houses, and twisted and thrown trees, often large ones. In some cases newer construction had survived with not much more than roof damage. Also with the wind much high water and flood damage.

great white heron

mullet - jumping out of water to four or five feet high, ten times the length of the fish, to catch insects.

great blue heron - 12-15 of them often at quite close range. They are used to the boats.

kingfisher

osprey - one flew right over the boat and in front of it at close range

squirrels

gallinule

anhinga - a dozen at close range

limpkin

water hyacinth, Eichhornia crassipes, all over the place, an invasive species, some in flower

gar fish in Blue Spring drainage. Can be six feet long.

resurrection fern, Polypodium polypodioides var michauxianum, lots of it crisped up on the tree

leatherleaf fern ?? The main ground cover in the park, acres of it.

black vultures - quite tame at shore of boat ramp in park

redwing blackbird

spoke at Stetson Univ in the evening

Apr. 3, Tuesday. Spoke in two classes.

Evening, at Don Musser's home in the woods outside of town, fine pileated woodpecker at close hand fifteen feet away, watched fifteen minutes. He was flying up to the reflective windows and clinging there, pecking at his image in the window. Handsome bird.

Evening meal at a restaurant on the St. John's River, with wilderness on the other side of the river. Quite aesthetic, even the oysters.

June 4, 2007. North Fork Big Thompson, with Fred Johnson, looking for spring flowers.

Good day, fair weather in morning, rain after lunch, then some clearing. Got as far as the Deserted Village and ate lunch there. Walked back out thru Cheeley Camp, then did a bit at base of Crosier Mtn trail, and a bit at Loveland Mtn. Park. About 30 deer during the day here and there, from the road. Fred has gotten quite good with flower identification, often better than I am. Still hikes well, though he had triple heart by-pass surgery four years ago.

Cerastium arvense Field Mouse-ear

Androsace septentrionalis

Mertensia lanceolata

Thlaspi montanum Wild Candytuft

Ranunculus ranunculinus Nuttall Buttercup

Antennaria umbrinella Pussytoes

Ribes cereum Wax currant

Eriogonum compositus Cutleaf daisy

Lupinus argenteus Silver lupine

Senecio fenderi

Delphinium nuttallianum Early larkspur

Arabis hirsuta

Cryptantha virgata Miner's candle

Scutellaria brittonii Skullcap

Erysimum asperum Western Wallflower

Purshia tridentata Antelope brush

Penstemon rydbergi Rydberg's Penstemon

Collinsia parviflora Blye-eyed Mary

Lesquerella montana Mountain bladderpod

Mertensia lanceolata (viridis) nivalis (in Ells) Green Mertensia

Dodecatheon pulchellum Shooting star

Fragaria sp. Strawberry

Rubus deliciosus Boulder raspberry

Corydalis aurea Golden Corydalis

Prunus pensylvanica Pin cherry

Thermopsis rhombifolia Golden Banner

Sambucus racemosa Red Elder

Smilacina racemosa (Maianthemum racemosum) False Solomon's seal

Geranium richardsonii White Geranium

Hydrophyllum fenderli Waterleaf

Lonicera involucrata Bush honeysuckle

Capsella bursa-pastoris Shepherd's purse

Mertensia ciliata Tall chiming bells

Viburnum edule

Arnica cordifolia Heartleaf Arnica

Viola canadensis Canada violet

Stellaria longipes Starwort

Clematis occidentalis Blue Clematis

Calypso bulbosa Fairy Slipper Orchid

Castilleja integra Orange penstemon

Claytonia lanceolata Spring Beauty

Clematis hirsutissima Sugarbowls

Astragalus crassicaarpus Ground plum
Potentilla sp.
Heuchera parviflora Alumroot
Erigeron sp. purple rays, yellow center
Oxytropis sericia White locoweed
Sedum lanceolatum Yellow stonecrop
Harbouria trachypleura Whiskbroom parsley
Coryphantha (Esobaria) vivipara Nipple Cactus
Draba sp.
Thalictrum fendleri Meadow Rue
Silene (Lychnis = Melandrum) dioica White Campion
Cornus sericea (stolonifera) Red Osier Dogwood
Linum lewisii Blue Flax
Oenothera coronopifolia Cutleaf Evening Primrose
Rosa woodsii Wild rose
Lithospermum incisum Narrow-leaved puccoon
Allium cerneum Nodding onion
Galium boreale Northern bedstraw
Lappula redowskii Stickseed
Tradescantia occidentalis Spiderwort
Gaura coccinia Scarlet Gaura
Arnica fulgens Foothills Arnica
Symphoricarpus albus Snowberry
Viola nuttallii Yellow violet
Camelina microcarpa False flax
Matricaria (Chamomila) discoidea Pineapple weed
Physalis virginiana Ground cherry yellow saucer shaped flower with purple center
Sisymbrium altissimum Jim Hill mustard

June 15, 2007. Bobcat Ridge Natural Area, just south of Masonville. With Phil Cafaro and Alex. got there about 1.45, and hiked up to an old cabin. Mostly across weedy grasslands, emormous spread of Jim Hill Mustard. Pleasant trail, developed in this newly acquired natural area, still under development. Bobcat fire was here several years back. Met up with Dave Steingraber, CSU botany, coming back. Goldfinches. Maybe four miles.

Bahamas

June 18-24, 2007

Leave Denver 7.25 a.m., with 3.10-3.50 a.m. pickup. Uneventful to Fort Lauderdale and considerable wait there. Reached Nassau and Atlantis Hotel. Huge hotel with great extravaganza. I snacked for supper (Jane's sandwich) and located the pier for Powerboat Adventures tomorrow.

June 19, Tuesday. Powerboat Adventure. Full boat, with local black schoolteachers on board celebrating the end of school and too much noisy socializing.

Good fast ride to Allen's Cay, a de facto nature reserve. Laughing gull.

Had to get wet getting off the boat, but I had swimsuit on. Fed iguanas (*Cyclura* spp), grapes on a stick, or, for the more cautious ones, tossed to them 3-4 feet away. The iguana is native on the islands, but these were transplanted here from another island for their safety. Maybe 65 brought here, now maybe 650 on the island.

Formerly there were many iguanas, but people ate them. A fossil one was six feet long. Also the feral pigs eat them.

Back on board and ten minutes to Ship Channel Cay, where the company has an installation, dock, sheltered eating area, kitchen, with some staff that stays here.

Members of the group, after demonstrations by staff, fed stingrays, big flat fish. They really do not have teeth but eat on their underside. So they put strips of fish on the back of their hand, held them kneeling in the water with their hands in the sand. The stingrays swam by and nibbled up the bits of fish.

They also fed nurse sharks, maybe four feet long, by tossing out fish left over from preparing the meal, grouper. The fish carcass was strung up with a rope through the gills and tossed out, pulled back in to lure the sharks in closer. Some of the sharks were said to be Caribbean Reef sharks. About 12 sharks.

Barracuda seen underwater further out, one or two of them, but they did not come in to eat.

Lots of sargent majors, little fish with black stripes, like a military sargeant.

On top of the sharks were Remora, a sucker feeder, which attach to the back of the sharks and

then glean from what the shark eats. They are not parasitic on the shark directly. These are called commensals.

A congenial visitor was living on a sailboat seen a quarter mile off. His wife was helping serve the drinks. He lives on the sailboat, moves up and down the East Coast U.S. and the Caribbean at his leisure. Born in Montana.

There is about 3 1/2 feet of tide here.

The owner of the company, Nigel ..., from UK but living here, had the boat built. He has a 40 year lease on the Cay which is owned by the Bahamian government.

Good lunch with lots to eat.

I took a rocky walk by the sea, while other snorkeled. Got out of sight of the others and some feel for the landscape. Sometime good sand to walk on and sometimes so rocky it made walking difficult. There were cliffs enough to make it difficult to move inland much where I walked.

Returned and found an inland trail, with the bushes overarching the pathway. Reached an old well, which the owner said is still functional, but there is a sulphur taste to the water. Tree marked cascarilla tree. Croton eluteria = Sweet Wood Bark. Bark used in making liquers. Euphorbiaceae.

Returned.

A feral boar appeared at the back and people were feeding him apples and plums. Four huge tusks (teeth, the canines) (Sus scrofa?), two from below, and two uppers curving spirally upward. This is the ancestor of domestic swine.

Back on the boat and headed to Nassau. Rained hard on the way back.

Wednesday, June 20. At the Templeton Foundation event, with presentations of their work, and too much worshipping of Sir John.

Sea grape. Coccoloba uvifera. Polygonaceae. Round-leaved hedge. A native. Forms long clusters of grape-like fruit with a large seed, acidic, not really edible as a grape, though it is used to make jams and jellies, also fermented into an alcoholic drink.

Poinciana trees, striking orange blossoms. Royal Poinciana, also called Flamboyant. Delonix regia = Poinciana regia. Leguminosae, or Caesalpiniaceae. Originally from Madagascar. Others in tropical Africa, India. Fern-like leaves, which may be absent much of the year when it is dry. Irregularly shaped 5 petalled flowers. Escapes and may be considered an invasive along roadsides.

Thursday, June 21. Off for an 8.00 a.m. flight to Grand Bahama Island. Flew over various islands/cays, typically linear. At times you could see the bottom, often again with linear formations.

Reached Freeport Airport, and taxi to Lucaya, virtually the same town but the resort area.

Named for the Lucayan Indians, the aboriginals here.

Lots of damage from Hurricane Francis in 2004. A Category 3 hurricane on the island for 6 hours.

Lovevine. Dodder. (Cassytha filiformis). Boiled for a tea, said to be an aphrodisiac

Bahamas has 700 islands, 2,000 cays, 29 inhabited.

Grand Bahama is 96 miles long, and 18 miles wide at the widest. Some 60,000 people. 25 national parks, but many of them are quite small.

The Bahamas National Trust was founded by Prince Phillip.

Met guide for the day, Sam.

Forest is tall skinny pines, Caribbean pine = yellow pine (Pinus caribaea var. bahamensis), with thatch palm as six foot high understory. Island is limestone, poor soil. Bahamas nowhere have much good soil. Local farmers who want to grow bananas may grow them in the sinkholes, where there is more soil. It was much more forested in Pleistocene times, with better soil. Some 1,370 species are known from the Bahamas today, with many extinct ones known from fossils, often found in the caves.

The pre-European forest is almost entirely gone, by agriculture, lumbering, and fire.

Too much Casuarina, Australian pine.

Tourism is the largest industry, larger than oil.

We kayaked on Gold Rock Creek, a red mangrove swamp (Rhizophora mangle). There are no rivers or freshwater creeks on the island. This is a sort of creek, really a waterway in the swamp, brackish water, though where it passes over underground springs it may be somewhat fresh.

1,350 plant species in Bahamas.

Raccoon seen crossing the road.

Poisonwood (Metopium toxiferum), with shiny leaflets, compound leaf, and easy to recognize. Sumac family. Even standing under it in the rain will give you blisters on exposed skin. The sap does not wash off, even though the rain washes it down, and the blisters may persist for several weeks. Reddish bark of the tree is dotted with black spots, which are the poisonous sap. Many birds eat the berries, which seem to be non-toxic.

Thatch palm (Thrinax microcarpa = morrisii ?). Leaves are a yard wide. Used for thatch, mats, baskets, rope, shoes, hats.

Curly tailed lizards. Leiocephalus spp. No reason known for the curly tails.

Redwing blackbird

turkey vulture.

Carib = as in Caribbean. The Caribs were cannibals.

West Indies. Columbus thought he was in India.

bromeliad air plant

gumbo-limbo tree (Bursa simaruba). sap is an antidote to poisonwood.

blackland coppice

"dogwood" Piscidia piscipula. Also called Fish poison. Native beat the surface of the sea with branches and it releases a chemical that temporarily stuns the fish, making them easy to catch. bracken fern, said by both guides to pack down and start fires from spontaneous combustion, but Erica denied this.

coconut palm (Cocos nucifera), introduced, possibly as early as 1550, rather naturalized around the islands.

Reached Ben's Cave in Lucayan National Park, a small park, 40 acres, about 20 on each side of the road. Hole descends to water; we walked down a ladder fifty feet or so. Buffy fruit bats, couple dozen seen, flying and perched. Not much bigger than insect bats at home.

Three divers, two instructors guiding a client.

Ben's Cave was found in 1961, presumably from a then collapsed hole. A priest needed water and some local boys brought him some. A parishioner in the church, Ben ..., was a diver and the priest told him. Second to Mammoth Cave. Mostly known from a National Geographic exploration team here.

Second longest known underground (and underwater) cave system, after Mammoth Cave in Kentucky. Charted six miles of caves.

Some fish in the water in the cave. Saltwater fish, grey snapper = mangrove snapper. They came in from salt water, but once they acclimate to fresh water, they cannot go back to salt water.

There is a blind crustacean here, like a swimming centipede, Speleonectes lucanensis (Lonely Planet, p. 118), known from only here.

Natives were taken off the island by 1512 (Ponce deLeon's visit) and nobody on the island for 150 years.

Loyalists (in American Revolution) often moved out of eastern U.S. and resettled in the Bahamas. Still called "Loyalists"; I heard the term in use several times.

Burial Mound Cave. Four skeletons of indigenous people (maybe connected with Mayans from Mexico), found here in 1986 in a sort of cemetery on the floor of the cave near the water. Skeletons from about 1400 A.D.

Five ecosystems

(1) Carribean pine forest

(2) Whiteland coppice Areas with salt spray, less soil, more rock and lime. There is less rainfall the further south you go in the Bahamas, and more whiteland coppice.

(3) Rocky coppice. transitional between mangrove swamp and the pine forest. May be flooded at high tide. Limestone outcrops more or less vegetated.

(4) Blackland coppice. These are the interior forests, more soil, or what was there, now cleared.

(5) Mangrove swamp

gray snapper = mangrove snapper

Hibiscus (mostly an imported Hibiscus rosa-sinensis, but there is a rare native, Hibiscus brittonianus). Grows to small tree sized, with spectacular red blossoms, though horticulturalists have other colors. Blossoms year round. Planted around the world in tropical climates.

Lunch at a picnic area.

raccoon came to be fed.

ruddy turnstone, a sandpiper that turns stones to feed on insects below.

Spider lily (Hymenocallis arenicola), a lily (Amaryllis family). Often on the dunes, white, thin, linear "petals" from a central white tube. Tolerates salt.

Sea purslane (Sesuvium portulacastrum). Succulent creeping herb, fleshy leaves, fleshy flowers. Tolerates salt.

Joe-wood (Jacquinia keyensis), small tree, iron coppice. Salt and wind often shape it into a natural bonsai tree.

Dancing Lady orchid (Oncidium lucayanum), nicely seen five feet up on tree, in bloom and sizeable specimen. Said to resemble a lady holding the sides of her skirt as she dances. Pix in Erica Moultrie book.

Mangrove swamp vine

Friday, June 22.

Guide Chris Basile, went to Green Mountain College, Vermont. Met there his Bahaman wife,

and she persuaded him to move here. He knew Bill Throop, philosophy and now provost there, but had no classes under him.

poinciana trees, red in bloom.

pluie - pink bloom

mahogany tree

Went by the Dolphin encounter. They have 17 Atlantic bottlenose dolphins in pens, but they are opened up into a larger area, and at times the dolphins can go out to sea, but they return to be fed. Really domestic dolphins, but they make some claim to their customers that these are wild dolphins.

turtle grass

53 miles west is Palm Beach, Florida

parrotfish, deposit the coral

Both thatch palm and the pine survive fires. Lots of the areas we saw had burned, often recently.

Ming tree (Bucida spinosa) = Brier tree, a prickly shrub, with tiered branches, like a bonsai tree.

white mangrove (Laguncularia racemosa)

black mangrove (Avicennia germinans)

Agave (sp. Agave, there are several species). Century plant. Something like a big yucca. Sisal is in the same genus, and is here, introduced, the sisal plantations closed, and sisal is an escape.

Owl's Hole, a blue hole, about the size of a small swimming pool across. Water is 40 feet or so down. Barn owls nest here in season.

Devil's potato (Echites umbellata), long climbing vine with large white flowers. Apocynaceae, Dogbane Family.

Sea oats

shark seen in water

Lunch in shade of a couple trees at the edge of the ocean

Walked up the beach and found Wilson's plover nest, with splendid broken wing display

returned to hotel.

June 23, Saturday. Went on birding hike with local bird group. Erika Moultrie-Gates, my host, picked me up. She was originally German, but long in the Bahamas, and runs Kayak Nature

Tours, has 25 vehicles, and 12-15 guides.

Saw a number of birds near the parking lot, waiting for others, which was near a pond on the edge of a golf course.

laughing gull, the main gull here, black headed.

grey kingbird
black bellied plover

common moorhen
pied-billed grebe
green heron
ani

Driving out to Barbary Beach:

zenaida dove. Several glimpsed in flight and this excited them. My first Bahamian specialty. Pix in Erica Moultrie book

Eurasian collared dove

yellow-crowned night heron

malaleuca tree
oleander

started hike at Barbary Beach and hiked six miles often at a pretty good clip, but we stopped when we saw something interesting.

northern mockingbird
tropical fritillary

"Buttercup." "Yellow Alder." Turnera ulmifolia In Alder family, or Wood calls it Turneraceae. Not a Ranunculus at all. But does have bright yellow flowers, 5 petals. Shrub to one meter tall.

Saw Peterson Cay, quarter mile out. This is a national park.

Bridle terns, seen at great distance over Peterson Cay. All I could see was birds, but they knew what they were.

sabal palm (Sabal palmetto), black fruit. The Florida state tree.

crabs often running along the trail

Black Torch, Erithalis fruitcosa, or related species. Three species are similar. Large shrub, tolerates salt. White flowers. Gets its name from producing lots of black smoke when burned.

Queen butterfly

bahamas swallowtail (with no tail in the Bahamas)

Battus

Ink Berry (Scaveola plumieri), white flower, looks as though it has been cut in half. This is the native one. An introduced one, Scaveola taccada, is an invasive, introduced for landscaping, which we saw a few minutes later.

Geiger Cordia sebestena. Bright orange, trumpet-shaped flowers. Seen as a shrub but it becomes a tree.

There is one native land mammal, hutia, Geocapromys ingrahami, about the size of a small cat. A rodent kin to a guinea pig or nutria. On other islands, not Grand Bahama. Once thought to be extinct. A small population lives on East Plama Cay in the Exumas. Other species in Cuba and Jamaica. Almost completely nocturnal, eat bark, leaves, twigs.

bay ?? geranium, a dune stabilizer

nicker bean, multiple pinnate leaf.

Railroad Vine, Beach Morning Glory, Bay Hops, Pomoea pes-capre. It is in the Morning Glory Family. Runs like a railroad across the sand, up to 10 meters. Succulent leaves. Funnel shaped pink flowers. Grows along the beaches.

Stripe-headed tanager, male, juvenile. My second Bahamian specialty. Pix in Erica Moultrie book.

nurse sharks seen in water
green heron

ruddy turnstone, a sandpiper, turning stones!!

Wilson's plover

black whiskered vireo

redwing blackbird

Bay Lavender, Mallotonia gnaphalodes, a borage. Distinctive sage colored bush with furry, succulent leaves. Common on coastlines.

turkey vulture, chased by kingbirds

white crowned pigeon, nicely seen

least terns. They are at sea except to nest.

more sharks seen in the water

black mango, small tree-sized. No pneumatophores

Greater Antillian bullfinch, a third Bahamian specialty. Not seen particularly well. Pix in Erica Moultrie book.

They have a Fort Lauderdale address;

Erika Gates
757 S.E. 17th St.
Fort Lauderdale, FL 33316

yellow-billed cuckoo, killed on the road

My clothing was drenched with perspiration at the end of the hike.

Also, I was wearing a brand new T-shirt (given to me by Jane for Father's Day) and it turned out I was allergic to the soap or chemicals in it. Broke out with a rash.

In the evening from the hotel balcony: night jar, chuck will's widow call.

June 24, Sunday, off at 5.45 a.m., too early, for 8.00 a.m. flight out of Freeport to Nassau. Abysmal P.A. system in a dinky airport. Western Airlines, pretty much "seat of your pants" flying.

Nassau to Fort Lauderdale, Continental Airlines, but a subsidiary, and still "seat of your pants" flying. But we did fly low and you could see the water.

Flew over South Bimini, and you could see the bottom 2-3 miles east of it. Bimini is just 50 miles east of Miami, and you can see the glow of Miami at night. Hemingway fished, fought (boxing), and caroused in the Biminis, though mostly based in Miami. World record fishing here, and The Old Man and the Sea comes out of this ambience. In 1987, Gary Hart was spotted here with a woman not his wife, which ruined his presidential hopes.

Fort Lauderdale to Denver. O.K., but we barely landed in Denver when the airport was closed due to a thunderstorm, and we sat an hour and a half forty feet from the jetway. Nobody moves in a lightning storm, until there are no strikes within five miles for fifteen minutes.

Caught limo an hour late. Home about 7.45 p.m.

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Frommer's Bahamas 2004.

End Bahamas

July 10-11, 2007. Milner Pass, head of Poudre River, down and out at Corral Park, with Phil Cafaro and Win (Withrop) Staples, graduate student and bear and lynx biologist, Alaska. Win Staples and I left my jeep at Corral Park on Monday, July 9. Three moose on long draw road, two females, maybe one yearling, and a bull (the latter I did not see on way in).

Tuesday, July 10. Left home at 7.00 a.m., with Rod Adams (former graduate student) driving us up in Win's truck. Nice coyote leaving the RMNP Headquarters Visitor Center, after feting packpacking permit. Heavy overcast, then quite heavy mist, ground fog on Trail Ridge Road, but it broke up about the time we got to the Alpine Visitor Center and was gone by the time we got to Milner Pass.

Left Milner Pass about 9.45, at head of the Poudre and walked down it. Decent trail when dry but often wet underfoot and a little hard on the feet with the twisting and turning, but nowhere deep enough to come over my boots. Lunched en route and reached Cache Camp about 3.45 p.m., with some threatening thunderstorm. Set camp and took nap, with a bit of rain now and then. Phil hiked up Chapin Creek, but the river bridge is broken and too dicey for me to cross. Phil had packed in a cantalope, also a freeze dried chicken meal, and Win had baked a fine peach cobbler on his stove, rigging it like an oven. Walked around after supper, and got back in camp just before a good rain started. Went to bed in the rain, with rain on the tent for about an hour. Mosquitoes not too bad. Colder than I thought in the night. Western screech owl with its tremulo call in the early morning.

July 11, Wednesday, up at 7.30 and hiked out. Sunshine bright all morning. Spotted



sandpipers. Found a cougar kill of a deer, lots of hair over 30 square foot area and cougar scat in amongst it. Lunched 20 minutes short on Hagues Creek/Mummy Pass Trail, then out about 2.30, reporting the bridge out to a trail crew there. Total hike, 12 miles.

Three bull moose on way out, one with the largest rack I ever recall seeing and we saw them quite well.

Flowers:

Antennaria spp.

Erigeron spp.

Thlapsi montanum, Wild Candytuft

Cerastium nutans, Mouse-ear Chickweed

Epilobium, Willow herb

Platanthera (Limnorchis) (Habenaria) dilatata, White bog orchid

Androsace occidentalis (septentrionalis)

Caltha leptosepala, Marsh Marigold

Trollius laxus, Globeflower

Fragaria virginiana, Wild Strawberry

Pedicularis racemosa, Lousewort

Harbouria trachypleura, Whiskbroom parsley

Agroseris sp., False Dandelion

Arnica cordifolia, Heartleaved Arnica

Senecio sp.

Ranunculus probably eschsoltzii, Subalpine buttercup

Agroseris aurantiaca, Orange Agroseris, like an orange dandelion or hawkweed

Arctostaphylos urv-ursi, Bearberry

Polygonum bistortoides, Bistort

Polygonum viviparum, Viviparous Bistort

Lewis pygmaea, Pygmy Bitterroot, 8-10 of them on second day, best flower of the trip.

Castilleja spp.

Pedicularis groenlandica, Elephantella, lots of it

Mertensia ciliata, Bluebells, Tall Chiming Bells

Polynonium sp. Skunkweed

Aquilegia coerulea, Colorado columbine, and often quite lovely

Viola adunca, Mountain blue violet, lots of it

Valeriana edulus, Western Valerian

July 13-14, 2007. Estes Park Land Trust, Breakfast

Went up with Jane Friday, July 13, and stayed with Dr. Bruce and Carmen Johnson in a home almost slabside on a mountain, upscale homes, a little past the YMCA of the Rockies.

Out early for the breakfast in Hermit Park, to become a Larimer County Park, with the Estes Park Land Trust a principal agent in making it possible. Area bought from Agilent, offshoot of

Hewlett Packard, which they used for corporate recreation, and sold at a discount to make possible its conversion to a public park. My main hosts was Kent Keller, wife, Janet, retired Presbyterian minister, active in the Land Trust.

Spoke to 185 persons, an enthusiastic audience, on "Residing on Landscapes."

July 20, 2007. Deer at Heatherridge on the road above the irrigation ditch.

August 3, 2007. Hiked to Mills Lake with Michael Northcott, University of Edinburgh. Good hike and decent weather, with enough clouds drifting about the peaks to add to the aesthetic experience. Mallard with ducklings at Mills Lake.

Highlight of the day was a sow with two cubs at the Halowell Park curve on Bear Lake road, on return. She was rather nonchalant about the people watching her, continued down in the woods more or less visible from the road for ten or fifteen minutes, then turned up and crossed the road and went uphill into the Halowell Park woods. Northcott got good photos. We went up into Halowell Park to see if she would reappear there, but she did not.

August 4, 2007. Trail Ridge Road and hiked to the Crater on the Specimen Mountain trail. Good weather. Three bighorns down in the Crater, one a ewe with a lamb and the other a ewe. Magnificently framed in the setting. Not close, 100 yards out, but clear in binoculars and perfect in their setting. Some elk, not many. This trail is now permanently closed past the Crater, to protect the bighorns.

August 11-22, 2007. Burned out of a Montana outfitters trip with 7 Lazy P, a Continental Divide Trail ride, I was to take with Christopher Preston. Fires had forced them to evacuate stock from both their ranches, and the USFS has closed the forest.

August 12-15, 2007. In consolation, car camping alone at Long Draw Campground. Went up Sunday leaving about 1.00 p.m., arrived about 3.30 p.m. Stopped en route to take pictures of huge bull moose roadside about Trap Lake. Tried out the 2x extension for the 400 mm. lens bought a couple years back in Bozeman. Second good bull in here also. Nice day.

Pitched camp, the big tent. After supper walked in to the Corral Park Camp at the head of the park, and almost walked into another huge bull moose, lying down and chewing the cud. So close I worried about whether it was safe to continue on the road. But he seemed placid enough so I went on. This is the first time I recall running into a big bull moose on a trail, though I have done so with cows now and again. There is a USFS cabin at the old Corral Park Camp site now, seems fully functional, must be used by their staff. Tore my sleeping bag in the night, snagging it on the cot bars.

August 13, Monday. Hiked to Thunder Pass. From the trailhead at the end of the road, hiked to Poudre Pass (half mile), mostly on the ditch road. Then hiked the ditch road for 3 miles, a rather boring hike, but it is pretty country. Reached a ditch camp building, where three men live six months a year overseeing the ditch. Also some sheep researchers camped there.

Then got on the Thunder Pass trail, 1.7 m. to Thunder Pass. Pass Box Canyon campsite. First



a gentle climb, then steeper. The trail is mostly along an old wagon road from Lulu City days, now barely visible as a wagon road, though in the forested parts the cut-out for the trail remains as wide as a wagon. About 12-15 elk at timberline, two bulls. One cow prowling around tents at the Box Canyon campsite.

Reached Thunder Pass at 1.00 p.m. and lunched there. Nice weather, but with some thunder beginning to roll at Thunder Pass! Couple there from Loveland Hospital. Lovely views of Nokku Crags and into the Lake Michigan area.

Returned, something of a forced hike out along the 3 miles of the ditch road. Out about 4.00 p.m. Back in camp discovered I had bruised left big toenail with too much hiking. A little over 10 miles roundtrip.

Ate supper peacefully enough, but went to bed in the rain and lots of rain in the night.

Tuesday, August 14. Leisurely day prowling around, because of bruised toenail.

Arctic gentian, Gentiana algida

Fringed gentian, with purple twisted petals. Gentianopsis deonsa (thermalis)

Pearly everlasting. Anaphalis margaritacea, lots of it. Likes the dry ditch roadside.

Shrubby cinquefoil. Pentaphylloides floriibunda = Potentilla fruitcosa

Dwarf birch, Betula glandulosa.

Northern gentian. Gentianella amarella

Cladonia cariosa. lichen, matched pictures

White bog orchid. old Habenaria, now with various new names

Subalpine arnica. Arnica mollis.

Saw perhaps a hundred boletes, Boletus edulis. Quite a good year for them.

Rain off and on, but on the whole a good day.

Ate supper watching the gathering rain clouds, but o.k., then went to bed when it started to rain. Frequent rains, but not all that heavy, during the night.

August 15. Wednesday. Packed up wet, though the rains had paused. Prowled around Peterson Lake area about mid-day, and only partly located the old trails there.

Rain coming down the canyon. Home about 3.30 p.m.

Thirty four years ago (a third of a century), I hiked on August 28, 1973 to American Lakes, Thunder Pass, and then walked up Lulu Mountain. I knew I was in that country but had forgotten that I actually walked up to the pass from the other side, until I checked it out in my records. Met up then with Jim Puckett, a geologist from Univ. Utah, with M.A. from CSU. That was a shorter hike from the other side, round trip on foot maybe 6 miles.

August 18, 2007. Bear wandered into town and got up a cottonwood tree at the corner of Mountain Avenue and Meldrum Avenue. Lots of bear encounters this summer, including some right in Estes Park.

September 10, 2007. Gray Hampton died. I flew to Huntington on Friday (September 14), attended the memorial on Saturday, stayed with Julia on Sunday, and flew home on Monday (September 17).

October 12, 2007. Coming home from school about 6.00 p.m., lovely red fox running across one of the dorm years. Nice view.

November 1, 2007. Red fox in the night at the corner of Concord Drive and Constitution, coming home from night class. Seen well in headlights, but briefly.

November 9-13, 2007. Athens, Georgia and Gainesville, and Mount Toxaway, NC.

A trip to give the Eugene Odum Lecture at the University of Georgia, with spinoff trip to Gainesville, Georgia, Frank Armstrong and wife Carol Ann. He is lawyer, went to Davidson, and active in Elachee Nature Science Center there. Also has a nephew, Robert Ballentine, wife Betty, who is wealthy and runs a private gardens/nature reserve at Toxaway Mountain, NC, and we spent Saturday and Sunday there.

November 9, Friday. Flew to Athens and Armstrong picked me up. Drive in too much traffic to Gainesville, maybe 45 miles north of Athens.

November 10, Saturday. Armstrong lives within sight of Lake Lanier, and we walked down the lakeshore early morning, daybreak. Atlanta is in a severe water drought and Lake Lanier is their main water supply. Lake is drawn down half again as much as usual, and Atlanta says it has only three months of water. Many mussels dead and out of water; raccoons are also eating them. Sidney Lanier (91842-881) was Civil War era poet, wrote Song of the Chattahoochee, which is the river here, and the Marshes of Glynn. Born in Georgia, prisoner in the war, caught TB, later in poverty, eventually taught briefly at Johns Hopkins University. Keen on producing in verse the rhythms of music.

Later morning, drove north, through Toccoa, cutting a corner of South Carolina (through Walhalla), into North Carolina. Great fall leaf colors, surprisingly late and surprisingly good considering the dry weather. Passed Whitewater Falls. Reached Toxaway Mountain, vicinity of Brevard). This is an upscale gated community of private homes, somewhat like Highlands, where Frederick Ferre formerly lived and where I previously spoke.

Robert Ballentine has bought the top of the mountain (several hundred acres) and created the Southern Highlands Reserve. A part of the area is his private gardens, where he displays plants native to the Southern Appalachians, featuring all the shades of azaleas. Also the area is filled with ferns. He has moved lots of huge rocks around to suit his tastes in the gardens. Most of the area is set aside under conservation easement as wilderness, and it does adjoin a federally designated wilderness, which is a bear reserve.

Ballentine went to Washington and Lee and serves on their board of trustees. His wife, Betty, went to Mary Baldwin.

They had a lunch at which I was presented to some two dozen guests that had come for the occasion--Mary Pat Matheson, director of the Atlanta Botanical Garden, for instance. I made a few remarks. Some prominent conservationists in the area here. Then we did a walk around the gardens. After that a more extended hike in wilder areas, featuring some waterfalls over steep cliffs, often now not much more than a good trickle. They had built in lots of steps here, otherwise it would have been too difficult.

Evening there with fine meal.

November 11, 2007. Big breakfast and some more walking around. Duke Power has a high voltage transmission line across the wilderness property. Witch hazel in bloom.

Returned to Gainesville. I met with locals interested in conservation, prospective to a return here next spring.

November 12, Monday. Met with the staff of the Elachee Nature Center and gave them a short talk. Couple of deer nearby in the woods. Then Armstrong drove me to Athens.

Dinner with 10-12 students in the Environmental Ethics Certificate Program, including Zach Anderson, grandson of Frank Golley, now dead. Lecture at 4.00 p.m. to perhaps 175 persons. Dinner afterward, hosts Peter Hartel and Dorinda Dallmeyer.

November 12, Tuesday. Up early and shuttle to Atlanta, too much traffic, and flew home, pushed somewhat to make my Tuesday evening class in environmental ethics.

November 19, 2007. Monday. Ran 5 miles to celebrate my 75 birthday! Or, more accurately, jogged 5 miles. But I got along fine. Warm weather, ran in short sleeves.

November 21, 2007. Raccoon well seen in car headlights on campus, coming home in the dark.

November 24, 2007. The Pool, in snow, with Giles and Alex. Turned cold mid-week for Thanksgiving, 4-5 inches of snow. Giles came home from Salt Lake City, ate Thanksgiving dinner on Friday. Then Saturday we went to the mountains. Hiked on 3-4 inches of snow, mostly packed down by previous hikers, here and there a bit slippery. But we had to hike in to the summer trailhead, since the road is closed a little beyond the Cub Lake Trailhead. Roundtrip with the extra road hike, 5 miles. Clear but cold, and, thankfully, not much wind in the 20 degree weather. But kept a brisk pace and did well. Poor area was totally in shade and full of snow. Returned a mile and ate lunch pleasantly on a big rock above the trail a bit.

To Sprague Lake and Giles and Alex played around on snowshoes, with hardly enough snow to snowshoe on. Maybe 200 elk during the day mostly in big groups of 50-77. Some good bulls. Picked up a guy from China at Sprague Lake who had been trying to climb Long's Peak and gotten separated from his buddies. He is post-doc in high energy physics at University of Boulder. Left him in Estes Park. Full moon on return.

December 28, 2007. Minus 1.1 degrees at home. Minus 7 in local weather reports. Snow has covered the ground for three or four weeks, with more snow off and on. Snowed off and on all Christmas day making a white Christmas. Snowed more or less all day yesterday, I shoveled the driveway twice! Maybe 14 inches in the yard cumulative total at present.

December 29, 2007. Wolf spotted in Rocky Mountain National Park. Coloradoan newspaper story, p. A1, A2. Seen in Moraine Park by experienced park volunteers for 30 or 40 seconds, and the tracks were investigated the next day by biologists, with strong conclusion that it was a wolf. Wolf was thought to be sighted near Walden in February 2006. Collared wolf from Wyoming was killed on Interstate 70 in 2004.

Trail Log 2008

Trip to Morelia, Mexico.

Jan 15, 2008. Left Ft. Collins 7.10 a.m., left Denver 11.38 a.m., on Continental thru Houston, arrived Morelia 7.52 p.m., and, fortunately was picked up. 40 minute drive into the city and in hotel Fiesta by 9.00 p.m. Decent hotel. Fighting a cough.

Jan 16, 2008. Trip with guide Ricardo Aguilar, who turned out to be a graduate student at the Universidad Nacional Autónoma de México (UNAM), Morelia Campus, doing a master's thesis on the forms of government of some of the local indigenous peoples at the time of the Spanish conquest. Congenial and knew the landscape, but not the fauna or flora that well.

Drove some 75 miles on rather good roads, through Uruapan (pronounced oo ruh ah pan). Generally a dry landscape but forested. Doesn't rain here in the winter, but rainy season in summer. Eucalyptus is an invasive and problematic. Climbed some mountains with mostly pines, and other stuff I did not know. Pleasant day, we are at 6,000 feet. Basically shirt sleeves, though you would need a jacket at night. Landscape seems mostly unused, maybe abused, though there are numerous avocado orchards, which is profitable here. Picked May-August. Sold in U.S.

Cassava on roadsides. Various dry looking flowers in bloom, often yellow composites. Passed several lakes, apparently of volcanic origin. Frequent banana plants, though I did not see any in fruit. Some sugar cane.

Reached trailhead for the volcano, driving through a poor looking village with men riding horses.

Walked in to the San Juan village destroyed by the volcano, took about three and a half hours in and out (3 km. in, 3 out).. Somewhat rough trail in at times, often eroded by horses—with various people trying to get us to ride their horses in. Then you reach the lava fields and have to walk through that, not too bad. I had my good boots and walking sticks. Then the last bit into the ruins of the village which was about as rough as I wanted. Reached a church of which twin towers stand, one tower half down. Chapel 50 yards away also partly survived, but none of the houses. People all got out before the village was covered. Ate a bit of lunch here.

Walked out, now mostly uphill, but did o.k.

Parícutin (or Volcáán de Parícutin, commonly also accented Paricutíín or spelled unaccented as Paricutin) is a volcano in the Mexican state of Michoacáán, close to a lava-covered village of the same name. It appears on many versions of the Seven Natural Wonders of the World.

It began as a fissure in a cornfield owned by Tarascan farmer Dionisio Pulido on February 20, 1943. Pulido, his wife, and son, all witnessed the initial eruption of ash and stones first-hand as they plowed the field. Much of the volcano's growth occurred during its first year, while it was still in the explosive pyroclastic phase. Nearby villages Paricutíín (after which the volcano was named) and San Juan Parangaricutiro were both buried in lava and ash; the residents relocated to vacant land nearby.

At the end of this phase after roughly one year the volcano had grown 336 metres tall. For the next eight years the volcano would continue erupting, although this was dominated by relatively quiet eruptions of lava that would scorch the surrounding 25 square km of land. In 1952 the eruption ended and Parícutin went quiet, attaining a final height of 424 metres above the cornfield from which it was born. The volcano has been quiet since.

Like most cinder cones, Parícutin is a monogenetic volcano, which means that it will never erupt again. A monogenetic volcanic field is a volcanic field of small, scattered volcanic vents. These volcanic fields, containing numerous monogenetic volcanoes, are noted for having only one short eruptive event, instead of regular volcanoes that have several eruptive events in their history, like Mt. St. Helens. Monogenetic fields occur only where the magma supply to the volcano is low or where vents are not close enough or large enough to develop plumbing systems for continuous feeding of magma.

Volcanism is a common part of the Mexican landscape. Paricutíín is merely the youngest of more than 1,400 volcanic vents that exist in the Trans-Mexican Volcanic Belt and North America. The volcano is unique in the fact that its formation was witnessed from its very conception. Three people died as a result of lightning strikes caused by the eruptions, but no deaths were attributed to the lava or asphyxiation.

Rarely do volcanologists get to watch the birth, growth, and death of a volcano. Paricutin provided such an opportunity. The eruption that created Paricutin began in 1943 and continued to 1952. Most of the explosive activity was during the first year of the eruption when the cone grew to 1,100 feet (336 m). The cone continued to grow for another 8 years but added only another 290 feet (88 m). Effusive activity began on the second day and continued to the end of the eruption. Lava flows covered about 10 square miles (25 square km) and had a volume of about 0.3 cubic miles (1.4 cubic km). The rate of eruption declined steadily until the last 6 months of the eruption when violent explosions were frequent and violent.

Shots of the volcano during its active phase were included in 20th Century Fox's film Captain from Castile, released in 1947.

Foshag, W.F., and Gonzalez-Reyna, J., 1956, Birth and development of Paricutin volcano, U.S. Geological Survey Bulletin 965-D, p. 355-489.

Luhr, J. and Simkin, T., 1993, Paricutin: A Volcano Born in a Mexican Cornfield, Phoenix, Geoscience Press, 427 p.

There is a rebuilt town of Nuevo San Juan Parangaricutiro, which is apparently rather prosperous. We did not go there. With some controversies with the former owners of that land where the new town is built.

Went to Parque Nacional Eduardo Ruiz, a sort of gardens and nature park. There is a sizeable river, Rio Cupatizio, which arises in mountain springs some miles away and has a steady year round flow. Back in the 1920's, they made this park, diverting some of the water into waterfalls, fountains, cascades, etc., all gravity fed, no pumps. The river runs below all this and is also nicely visible Verdant foliage in here, most of it, I suppose, native. Youth did an impressive dive off a tree above a bridge into a pool below in the river.

Then went to Tzararacua waterfall, (pronounced Tarah ruh kwa), which is a natural waterfall, 10-12 miles away, but only saw it from a distance, though nicely. Did not walk down to the bottom.

Fighting voice becoming more hoarse by now.

Back in hotel by 6.15, showered and got meal alone in hotel restaurant. Decent meal until at the end I took a bite of what looked like okra but turned out to be a really hot pepper. Took me fifteen minutes to get over it.

On e-mail got the news that Christopher Preston has signed contract for my intellectual biography with Trinity University Press.

Thursday - Sunday, conference. I made my keynote: "Promised Land and Planet with Promise," Friday night, after fighting being quite hoarse on Thursday and wondering if I would make it. But I did, and had good voice.

Sunday, January 20. Trip to see the Monarch butterflies. Two and a half hour ride on a fine bus, first on a good four lane and then on progressively deteriorating roads, wondering at times if the bus would make it. Passed through Angangueo, village. Slow bus ride up a steep cobblestone road. Eventually reached a large parking lot.

Nor were we prepared for the rather strenuous walk, eventually reaching over 10,000 feet. First some climbing though market vendors of all sorts, then the vendors were prohibited and walk through some woods, including an entrance gate to the reserve. Eventually reached the refuge, El Rosario Sanctuary, with lots of climbing. I did this part with Lisa Sideris. Continued climb on a step path, hundreds of steps. Now we reached an alpine forest and much wetter than below. As I got higher I began to see more butterflies, and eventually reached the main roosting site.

There were thousands mostly hanging off the branches of oyamel firs (Abies religiosa) quite tall. (religiosa comes from the tip of the branch forming a cross). This is a unique mountain habitat, relict from earlier colder times. The firs retreated up the mountain when the climate got warmer and drier. Oyamel firs grow only at high altitudes, between 2,400 and 3,600 meters. The distribution of the oyamel fir forest in Mexico is extremely limited, confined to high mountain massifs. The monarch overwintering sites are found on only 12 isolated

mountaintops in Mexico's Transverse Neovolcanic Belt. The cooler climate slows down their metabolism, and they are protected from freezing by the tree cover and by their hovering together.

Other firs nearby were similarly loaded, so the total numbers must have been in the tens of thousands, probably reaching 100,000 in sight. Some would open up from their hanging spots and fly around a bit and then settle down again. One tree, for a time in the sunshine was most active. Watched them forty minutes, perhaps an hour.

Returned and we had a sort of supper in a restaurant in the market stalls. Slow leaving as some of the party were slow climbers, particularly two elderly women, but they made it. Left at dark, and back in the hotel a little after 10.00 p.m.

Rather poor interpretation and I got most of what follows from the web.

All monarchs start migrating when the sun at their latitude drops to about 57 degrees above the southern horizon.

Each autumn, thousands of monarch butterflies gather, especially in southern Canada, to migrate south. Some travel 4,000 miles to overwinter in places such as Michoacan. . Other Monarch butterflies also overwinter in Cuba, and Pacific Grove, as well as Newark, California. In sanctuaries such as the one in Angangueo, Michoacan in Mexico there are millions of butterflies. From morning until about 1:00pm, they are most active.

After decades of searching by scientists, Cathy and Ken Brugger, Canadian scientists, "discovered" these Mexican monarch winter colonies on January 2, 1975. The locals about the monarchs, but not where they went in summer. Canadians and Americans knew their butterflies went south, but not where they wintered. The butterflies arrive in Mexico about the first of November - Dia de los Muertos, or the Day of the Dead. In Indian folklore, they are the returning spirits of dead children or the souls of lost warriors. The spring monarch departure signals planting time.

The 4,000-mile round trip holds a central mystery that a network of entomologists are trying to solve. The butterfly that goes from Canada to Mexico and partway back lives six to nine months, but when it mates and lays eggs, it may have gotten only as far as Texas, and breeding butterflies live only about six weeks. So a daughter born on a Texas prairie goes on to lay an egg in South Dakota that becomes a granddaughter. That leads to a great-granddaughter born in Canada. In autumn, how does she find her way back to the same grove in Mexico that sheltered her great-grandmother?

Like other moths and butterflies, monarchs pass through four life stages: egg, larva (caterpillar), pupa (chrysalis), and adult (butterfly). The eggs hatch in three to five days, and the new larvae promptly devours its spent eggshell.

As the caterpillar outgrows its skin, or cuticle, it forms a new skin, then sheds and eats the old one during the process called molting. After four molting cycles, the caterpillar forms a chrysalis, which hangs under a milkweed leaf.

After a couple of weeks, the butterfly inside emerges from the cuticle and extends its wings, which become ready for flight in about an hour.

Monarch larvae live and feed exclusively on members of the milkweed family. Because these plants are toxic to most vertebrate animals, this feeding strategy makes monarchs poisonous, and most birds shun them. Monarchs produce three to five generations in their summer territory, which is largely north of 40 degrees north latitude. Each summer generation lives from two to six weeks.

As fall approaches, the last generation of butterflies starts to fly toward Mexico, where it will spend the winter. With luck, and some puzzling survival tactics, these can live eight or nine months, and will die after laying eggs in Texas or nearby states.

Although many other insects migrate, no other butterfly is known to overwinter in huge clusters at the same sites every year.

When they start south, anywhere from Montana to Maine, they must get the direction right to avoid drowning in the Gulf of Mexico or hitting a dead end in Florida. The majority manage to thread a geographical needle, hitting a 50-mile-wide gap of cool river valleys between Eagle Pass and Del Rio, Texas.

Entomologists have moved butterflies from Kansas to Washington, D.C. If released right away, they take off due south, as they would have where they were. But if kept a few days and exposed to see the sun rise and set, they reset their compass heading. They depend on late-summer hurricanes that normally soak the Texas prairies and sprout nectar-heavy wildflowers where the monarchs refuel.

Entomologists rather think they do not use the earth's magnetic field or the sky's polarized light. They may use the sun to reckon generally only to the south, while mountain chains and the Gulf of Mexico funnel them toward southern Texas. But once in Mexico's mountains, they gain elevation and make several sharp turns. How is unknown.

Orley Taylor, directs Monarch Watch and is a professor of biology at the University of Kansas. His group has recovered about 12,000 of about 1 million tagged butterflies.

Monarchs must know how to ride a good wind, and how to cover in a bad wind. They have all sorts of sensing capabilities to take advantage of thermals and wind speeds. All this is housed in a brain much, much smaller than a microchip. Their flying south requires astonishingly little energy. On a sunny day with almost no wind, they will ride a thermal updraft climbing to 1,200 feet. If they can catch some wind for three to four hours, they can make tremendous headway. The average monarch migrates about 25 miles a day, but they can make 100 miles if winds are favorable.

The biggest threat to the migration is the steady cutting of forests because of illegal logging. Although the Mexican government turned 366,000 acres into a butterfly sanctuary, it has failed to protect them. Convoys of trucks laden with old firs worth \$300 each are a common sight on the roads; nearly half the preserve has been logged since 1984. The indigenous farmers, the ejidatarios, live in poverty in the overwintering areas, and some depend on logging this wood that is taken from the same forests where the monarchs overwinter. Only about 2% of the original oyamel fir forest remains.

Bron Taylor adds: I learned some additional things from Jose xxx, who was with our party but few really got to talk to in detail.

The reserve we visited was 4 hectares, one of eleven such reserves in Michoacan state, and there is one other in Mexico state. They are all tiny. Illegal logging continues in the reserve we visited and the other ones. A police official says he cannot put an officer by every tree but the roadblocks designed to prevent this are not maintained at night and so the illegal logging continues. The Monarchs southern refuges remain imperiled both from the loggers, and because their winter hideouts are so few that wind throw and ice storms can kill tens of thousands quickly, and of course, because in the north, the milkweed upon which they feed and depend continues to be destroyed through by human enterprises and agriculture; they are also susceptible to pesticides, of course. People like William Jordan, who was with us on our trip and conference, who are engaged in prairie and other restoration projects, are helping to give the Monarchs a fighting chance.

Jose said that very few of the people in the region really care about the butterflies and that there are illegal loggers even in the indigenous communities that benefit from the tourists who come about 4 months a year. A tour guide who comes daily for several months a year and then leaves to make money in the states, Jose would like to help save these trees and has been engaged in frustrating efforts at reforestation. He had an brilliant idea – to honor those who die crossing into the U.S. by naming trees in replanted groves for them – with the respect for the dead common in their culture – he thinks then finally the trees would be respected and not cut. He was, without the terminology, envisioning the planting of sacred groves, with an entirely new convention and strategy. Maybe such is something like how some of the tree shrines around the world got started. (Those who would like to help him in this strategy should contact Bron who is doing the same by contacting NGOs in El Norte who might be inclined to help.)

The butterflies also winter in Los Osos, California (on the Central California coast nearly due west of San Luis Obispo) where they shelter with non-native Eucalyptus trees. Bron Taylor has seen them there and they do not have the same kind of trees and seem not to cluster in such large numbers.

Up early (2.45 a.m.!) they next day for a 4.00 a.m. departure for airport, and a 6.32 a.m. take off. To Houston, then Denver, where it had been snowing and was cold. But no problems.

Hustling to get ready for first class next day.

Galapagos 2008

Few photos. I made a good camcorder to DVD record of this trip. Copy in CSU Library archives. Also I wrote an article for the Coloradoan Newspaper.

"Galapagos: Following in Darwin's Footsteps," *Fort Collins Coloradoan*, June 1, 2008, p. E4, p. E3. Online at: <http://lamar.colostate.edu/~hrolston/Galapagos.pdf>

Also online at: <http://hdl.handle.net/10217/37331> CSU Library, Digital Archives.

March 7, 2008. Friday. Up at 2.00 a.m. for a 3.10-3.40 Shamrock pickup to get to Denver, 3 hours early for international trip!

8.35 a.m. Uneventful flight to Miami, though there were tornadoes in northern Florida and we flew over 30 minutes of fairly serious turbulence. A year ago I flew to Tampa with a similarly rough flight to find a major tornado disaster area, which later that year I saw on my visit to Stetson University, Deland.

Guyaquil. pronounced why yah keel or kwa yah keep.

The plane to Guyaquil was 2 ½ hours late, so we arrived at midnight. But we were well met and taken to a hotel, at 1.00 a.m.

March 8, Saturday.

Up at 5.20 for early take off. Good breakfast in hotel. Slept surprisingly well. Off at 7.15 a.m. for a 8.30 flight to San Cristobal.

Group:

Rick Passon. Sheila Passon. He does business discount cards. At times he was marginally able to make the walks. They have a son and daughter-in-law who have degrees in psychology from CSU. The daughter-in-law teaches at the University of Seattle. The son is in semi-practice in counseling.

Gina (Regina) Sarmini, Houston Texas. She does hospital marketing in a Methodist hospital. She and Sheila were sisters in law.

Sheila Simpson. Sheila had a plane canceled in Cleveland, Ohio, and joined us two days late. Ran a group concerned with pet animal welfare, and was getting read for a charity auction to raise money for it.

Julie Breke, with glasses down on her nose

Eve Kirschner, with short, very black hair.

Henry Angle. glasses, 1/3 bald at front.

Carolyn Angle.

He sails. He has a son doing a Ph.D. in psychology and does "extreme running" in the Cascades.

Allen and Suzanne Covin. Allen ran a flower shop in Maryland, specialized in orchids. He was quite philosophical and asked many questions.

Jim McCoy, full beard. He did space work in Texas.

Leslie Murphy, with him.

Will Vacendak, pilot, flew corporate jets, from Alaska.

Minnie, or Goldie, his wife.

Reeve, son

Kaden, son

Gretchen Vacendak, grandmother, his mother.

The six that were all related or old friends.

Robert Wishner and Eileen. She is older, grey hair, glasses. He has short hair, beaked nose. They live outside of Chicago.

Stuart and Roberta Kaplan. Jewish. He had beard, glasses. She is a travel agent.

Dennis Jacobson and Susan Sachaiskhy. Jewish, at least he is. He is large, has trouble getting around. A sort of syncretist interest in Jewish, Christian and other religious ideas.

David and Maureen Herr. St, Louis, Missouri. She is short-haired blond. She went to Colorado College. Son at Davidson College, graduated 2000, and married a Davidson girl. Son and daughter-in-law live in Charlotte.

The plane to the Galapagos was a surprisingly big plane, a Boeing 737, though Will called it an older model.

Aerolineas Galapagos, or AeroGal.

We are on the M. V. Evolution, one of the smallest of the tour ships in the Galapagos. Most have about 90 passengers, the upper limit permitted. Ours has 26.

Ecuador exports more bananas and more cacao (chocolate) than any other nation, and is second (to Columbia) in coffee.

The weather was overcast in Guayaquil. On the plane, there were nice clouds. Later clear with the Pacific beneath.

Tour guide is Bolivar Sanchez. called "Boli"

Second guide is Whitman Cox, who was born and lives on San Cristobal.

Overcast on landing.

Smallish airport and slow customs agency, which we had to go through even though we are still in Ecuador.

We drove into town. There is only one traffic light on the island, in the center of town.

Got into a panga (small inflated boat, holds about 13) and were transferred to the ship, M. V. Evolution.

There were sea lions in port, which they constantly have to chase off the wharf, and they also climb on board boats and ships to sun themselves.

The Galapagos now have 130,000 to 160,000 tourists a year.

Sebastian Guijarro, is the "hotel manager," manager of the ship as a hotel. Very cordial. There are four decks. Captain is Luis There is a doctor on board, a young woman, who did not speak English well, but nearly always went ashore and went back with those who turned back when the walking was too demanding.

The rooms have no keys. But there is a safe in each cabin and you can set your own code, which I did for passport and money.

They make fresh water from sea water on board and it is in the taps and shower. It is really safe to drink, but they said nevertheless don't take any chances and don't drink it. I filled a plastic bottle from the big drinking fountain bottle in the dining hall, which I had to do about twice daily. Do not put toilet paper in the toilet bowl, but put it in the trash can right beside the toilet.

There are 11 on staff.

The ship was built in Japan 33 years ago, as a fishing ship. Later it was renovated as a tourist ship, with a new engine. There is one engine. The current is 110 volts, though there is also 220 volts on board.

There is a safety drill coming up.

panga = dingy, like a pontoon raft, with an outboard at the back.

We are 625 miles from Ecuador.

The islands are 97% park, 3% private land, on only 4 of the islands.

"most disgusting, clumsy lizards" Darwin, Larson, p. 89.

Kicker Rock, a volcanic tuff

Darwin's arrival and mine were in the same waters. Larsen, p. 69.

6 feet of tide here.

Frigate birds on top of the rock.

Male frigate bird is black. Females have lots of white. There are two species: great frigate bird and magnificent bird, but they are hard to tell apart in flight or at any distance. Frigate birds are pirates, they steal food from other birds by making them vomit.

Landed at Cerro Brujo, after waiting for a shower to pass.

sea lion nursing (pix)
aa lava and tuff.

The white sand is from coral.

Blue footed booby. The genus Sula is the same genus as gannet, and they plunge dive like gannets. Seen diving nicely several times.

Shearwaters over the water beside the ship. Petrels.

lava gull. This is endemic to the Galapagos, a threatened species. Seen 6 feet away at surf's edge. All dark. A tideline scavenger. There are fewer than 400 pairs.

Galapagos is affected by cold currents from the south and affected by current from the north as well. Underwater from the west and upwellings.

Galapagos is a World Heritage site.

4 types of mocking birds
land iguana
marine iguana, feed on algae.

There are albatross, but only in the cold season. We did not see any.

We will navigate 520 miles over the time we are here.

March 9, Sunday.

We made a trip to Espanola (= Hood) Island, the oldest and southernmost island. It is relatively isolated with many endemics.

We landed at Punta Suarez. Hiked about 2 miles on sometimes rough trail.

Dry landing at a bit of concrete pier, occupied by sea lions we had to chase off to land. Various sea lions.

Galapagos hawk, a Buteo

Masked boobies dive further out at sea and you don't see them, unlike the blue-footed boobies that dive in waters closer to shore.

There were monitor lizards digging nests, areas where they will lay their eggs.

Galapagos dove
large ground finch

sea lions
booby with chick
wandering tattler

yellow crowned night heron
swallow tailed gull, seen well
masked booby - they call it, although the book uses Nazca booby.

saltbush Cryptocarpus pyriformis straggling shrub Nyctaginaceae

scorpion weed. Heliotropum curassavicum

salt sage Atriplex peruviano Chenopodiaceae

horse conch

back to the ship and lunch

We went snorkeling, though I kept getting water in my mouth and couldn't see any detail in the water.

back on board.

Bahia Darnier Bay beach. A wet landing on a long beach with 200 sea lions, laid out doing nothing (pix)

There was one lost baby wandering up and down the beach looking for its mother.

mocking birds (pix)

back on board.

2008 - 1835. Darwin was here 173 years ago.

tortoises can reportedly live for two centuries, Larson, p. 6. Captain Cook gave one to the Queen of Tonga in the 1770's, and it died in 1977, 196 years old, but how old was it in the 1770's when Cook captured it? Larson, p. 248

March 10, Monday.

Galapagos in Spanish refers to a saddle, from the saddle shape of the front of the shell in some of the tortoises here.

There is little fresh water on the islands.

This is a wet year and there is more vegetation than usual, or at least it is greener.

Sailors would get water from the cactus.

Hawaii, also remote, had people but Galapagos had no people prior to its discovery by Europeans -- despite some legends.

After the discovery of the Galapagos, nobody came back for 150 years.

A tortoise can go for a year without food or water.

Tortoises here are huge because they have no competition with mammals.

sperm whales

Norway black rats were introduced, accidentally
goats

In 1832 Ecuador claimed the islands.

Darwin went to four islands. See the back of the big map.

Galapagos was declared a national park on the 100th anniversary of the publication of the Origin of Species in 1859.

Espanola had only 14 tortoises, 12 females, 2 males

4,000 tortoises bred for release

James Island. lots of goats and pigs

There are 90 tourist boats on the islands at the moment.

In 1986 also there was added the marine reserve.

Sea cucumbers are important in the marine ecology and were removed for the Asian market.

Most of the illegal fishing was from Costa Rica.

The marine reserve is the 2nd largest in the world, after Australia.

Santa Cruz is the 2nd biggest island, with the largest human population.

We went to Academy Bay.

Santa Cruz has finches, and we will walk to see tortoises in the wild, also a cloud forest.

Giant tortoises Geochelone elephantopus There were 14 races or subspecies, now only 10.

There are no certain records for tortoises living more than 100 years. So in Jackson, though the Captain Cook case seems reasonably firm.

Tortoises eat a lot of food, mostly plants, and don't digest it very well.

Maybe get the Darwin quotation about tortoises in a pond. Jackson, p. 116.

Maybe get the Darwin quotation about marine iguanas, Jackson, p. 121.

Marine iguana is the only sea-going lizard in the world.

Amblyrhynchus cristatis

Usually only the males feed offshore by doing a dive for 5-10 minutes, going down 1.5 to 7.5 meters. Eats algae.

Head bobbing is a territorial display.

visit to Academy Bay and Darwin Research station
Tortoises are reared here to be restored to the wild.
medium ground finch. On a phone wire.

Tortoises lay 1-14 eggs.

Whether the egg hatches male or female depends on the temperature of the surrounding soil.

yellow warbler taking a bath

The hatched young stay underground, in the dark, for a month ???

Microchips are inserted in the infant tortoises to keep track of them.

85% of the releases survive.

It costs about \$ 1,000 to hatch and release a tortoise. They are kept at the breeding station 4-5 years.

Galapagos mockingbird, a different one from that seen on Espanola.

passion apples

Scalesia helleri, seen at Darwin station

Lonesome George. The last tortoise from Pinta Island, a male and no matching female has been found. Not seen at first and later seen from a distance.

Moyuyo. Cordea lutea, a yellow borage. Boraginaceae. Shrub or small tree with showy yellow flowers.

coconuts, introduced

There was formerly an Ecuadorian currency, but they gave it up and just use dollars.

Drove thru Bellavista

Costa Rica is now number 1 in bananas.

On bus ride, getting higher, and bigger trees.

Santa Rosa
cattle
thick undergrowth

reached 1,400 feet and then descended to 1,100 feet.
smooth billed ani - introduced bird

reached Primicias Farm. This is a private farm, but adjacent to the National Park and the tortoises come and go on farm and park land nearby.
coffee tree, with beans. This was a coffee farm.
guava fruit, tortoises love them.

Walked 200 yards and found a huge tortoise, well over 100 years old, one of the largest the guide remembered seeing. (pix, including slide pix) (Later, slides failed, alas.) A dome tortoise.

We walked further and found two males (pix), the second in the sun with its head out.

We found one female.

On return, there was one female in pond with a white pintail chick (pix)

Small tree finch (pix), males black on head, at the lunch pavilion.

turtle scat - cucumber shaped and sized, and full of hay.

Galapagos mistletoe. Phoradendron henslovii. Visaceae

elephant grass. A bad invasive.

Lunch at the pavilion.

lava tunnel. walked in 200 yards in dark.

We saw passion fruit in flower.

There was a roadside fence, with the "living fence posts."

By now it was raining hard.

We walked in to see two sink holes, huge collapsed areas, in the pouring rain.

We did a walk in woods in the cloud forest, in the rain.

I saw a woodpecker finch, not particularly well, but I did see it.

warbler finch.

Peperomia sp. Piperaceae. a small plant, seem as an epiphyte, with small rosette of leaves, growing on trees.

Lycopodium, seen well.

Bracken ferns, though not the one in Colorado, Europe.

lots of lichens

The cloud forest is dominated by Scalesia. Asteraceae. Tree daisy.

orchids. Not seen in flower.

bromeliad. Tillandsia insularis, nicely seen

We got back on bus and more hard rain.

Cat's claw, Zanthoxylum fagara sharp hooked spines. Rutaceae

We stopped in a small town for a sweet bun.

On the streets, a ground finch.

In the harbor coming back, from the panga returning to ship, we saw spectacular dives by 7 blue footed boobys, all at once. Seen twice.

March 11, Tuesday.

Santiago (= James) Island.

Oyster catchers.

wet landing at Puerto Egas.

Galapagos mockingbird.

lava lizards

Lantana. Lantana pedicularis Verbenaceae. Shrub, endemic.

Beach morning glory. Ipomoea pes-caprae. One of the most common and widely distributed salt tolerant plants. One of the best known examples of oceanic dispersal. The seeds float and are unaffected by salt water. It is one of the first plants to colonize dunes. Pretty pink flower on trailing vines across the sand, 25 to 30 feet long.

spiders.

Thorn shrub. Scutia. Espina spicata. var pauciflora. very thorny shrub. = Scotia pauciflora

Galapagos flycatcher

oyster catcher and crab (pix)

yellow-crowned night heron (pix)

Darwin's toilets - area where the surf splashes up through two holes in the lava, coming in through a lava tunnel.

fur seals, more fur on head, big eyes. They wanted to call them fur sea lions.

Fur seals. Fur sea lions (pix) seen well down in sea cave waters swimming and a couple sunning themselves 10-12 feet up a steep wall.

On Santiago, Darwin famously complained about the number of land iguana burrows. Couldn't find any place to pitch his tent, for the iguanas.

green sea turtle, seen several times, more briefly.

returning,

sea lion and monitor iguana?? lizard (pix)

Petunia

lava heron (pix) endemic, small dark heron

duikker crabs (not found in guide)

sea lion walking

crab shell. The crab has two penises, seen even in the shed shell.

Ulra algae ??

A son in law of Peter Grant, did an article "In Darwin's Footsteps."

yellow-crowned night heron (pix)

arch with sea lions (pix)

wandering tattler. yellow legs, long bill, white over eye. size of a dove. Seen well. These are migrants, and will breed in North America.

Lunch on board, with leaning tower, Pinnacle Rock prominently visible.

We moved to Bartolome. Pronounced: Bar to (long o) lo (long o) ma (long a)

snorkeling, but I stayed on the panga.
frigate bird

blue footed booby

3 penguins, surfacing in the water

10-12 penguins in and out of the water at water's edge (lots of pix)

back on board, and then I did a hill climb with Whitman Cox.

Lava cactus. endemic.
ground finch.

The climb was a long boardwalk and steps.

lava tubes seen on hillside, nicely.

Tiquilea nesiotica - a blue-green plant colonizing the new lava on the hillside.

From the top, I filmed two pans from the moonscape to the leaning tower. The second one is better, ends on the ship.

We waited for the sunset on top, and then walked back down the steps.

back on board.

The islands get younger going west. From the eastern ones about 4 million years old, to the middle ones, about two million years old, the most recent, one million years old. They are younger than Hawaii.

So they were once lifeless oceanic volcanic islands, and the life now here is only what can arrive (and then evolve) here.

The tectonic plates move about as fast as a fingernail grows.

Nazca Plate, separating from the Pacific plate.

Galapagos volcanos are shield volcanos, with flat tops. They are not the conical volcanos, which are usually pictured.

We are crossing the equator to reach Genovesa Island.

Prince Philip steps. Prince Philip made a small donation for the steps.

red-footed boobies. They have huge prehensile feet.

Lots of sally light-foot crabs. They get their name from skipping across a short stretch of water.

clear night and spectacular stars.
saw the Southern Cross

milky way quite visible. Big Dipper. Orion.

gular pouch. The extended sac of frigate bird.

March 12. Wednesday. Genovesa.

The only island north of the equator that tourists are permitted to visit.

landing at Prince Philip's steps. sunny day, calm seas.

red-footed booby (pix)

masked booby

frigate bird with gular pouch extended (pix)

Birds that mate for life have a penis.

These are nearly all great frigate birds on this island.

mockingbird.

Incense tree. Palo santo (holy stick, from its burning as incense in churches). Bursera graveolens. Burseraceae. strong, pleasant odor. Used as a mosquito repellent.

red footed booby on nest (pix)

large ground finch, all black.

male large ground finch in tree (pix)

There are no land reptiles on this island.

storm petrels flying, thousands of them (pix)
tropic bird.

We looked, without success, for a short-eared owl. Galapagos short-eared owl. They feed on the storm petrels.

back on board.

I skipped the snorkeling.

After these hikes, my T-short and shorts are soaking wet from perspiration.

I am fighting some kind of itch. I suspect the traveller's Tide soap packet.

Darwin's Bay Beach.

The swallow-tail gull is only nocturnal gull.

bottle-nose dolphins, porpoises

About six variously seen from panga, sometimes with good straight up jumps (pix, though shaky).

klepto parasites. frigate birds.

no iguanas, no lava lizards here.

mangrove trees with lots of nesting red-footed boobys.

Will swam back to the ship, maybe 400 yards.

We will navigate 124 miles, all night.

Finches are in three genera.

1. Geospiza, ground finches.
2. Camarhynchus. Vegetarian finches, tree finches, woodpecker and mangrove finch.
3. Certhidea. warbler finch.

But the finches divide by plumage into three groups.

1. ground finch and cactus finch. Adult males entirely black.
2. Vegetarian and tree finches. Adult males with black heads and olive or brown-streaked bodies.
3. Woodpecker, mangrove, and warbler finches. Males and females alike, mainly brown or grey.

Darwin's finches are on the back of the map.

I saw:

1. large ground finch. March 9, Espalona
March 12, Genovesa in tree (pix)
2. Medium ground finch. March 10, Monday. Santa Cruz highlands
ground finch. March 11, Tuesday, hill climb
March 10, at sweet bun shop

3. small tree finch.

March 10, Monday, at lunch at the pavilion in Santa Cruz highlands

March 13, Thursday, hike on Isabela. 4-5 of them and saw a nest in cactus.

4. warbler finch.

March 10, Monday. Walk in highland cloud forest in rain.

5. woodpecker finch. March 10, Monday. walk in cloud forest in rain

March 13, Thursday. Fernandia.
pan of San Isabela (pix)
then pan of Fernandia (pix)

Yes, natural selection but how. Darwin couldn't trace his finches to separate islands, so he turned to the mockingbirds, which do divide into island specific types. Larson, p. 161.

The two islands are named for Ferdinand and Isabela.

Fernandia is the youngest island. Landing at steps in mangrove trees.

marine iguanas by the hundreds (pix, including slides)

yellow warbler, seen twice.

iguanas (pix)

flightless cormorant, with functionless ("tatty") wings.

Fernandinez snake - endemic species. small, very long for its diameter. black. Seen reasonably well for half a minute and then crawled down into the cinders and disappeared.

a few turtles in a tidal pool areas.

rained and got pretty wet.

return tricky over slick and rough volcanic rocks and several on the trip were quite pushed to do it without falling. In fact, it was about all I wanted.

Lunch, with the piggy head (pix)

Tagus Cove on Isabela Island. Hike up a mountain, past Darwin Lake.
Afternoon, raining hard and discouraging for a hike.

Darwin hiked this area, though probably didn't see Darwin Lake.

small tree finch.

small tree finches. Seen 4-5 times, with one briefly caught on video.

small tree finch nest in cactus (pix)

Darwin's Lake and pan to sea and ship.

This is the largest of the Galapagos Islands, with five volcanoes.

Darwin's route is pictured on the back of the map.

We crossed the equator four times.

equatorial front, water currents counterclockwise in northern hemisphere
clockwise in the southern hemisphere
and sweeping past each other at the equator.

Panama Current
Cromwell Current
Humboldt Current
South Equatorial Current

All these are upset by El Niño.
Kelvin wave.

There was a King Neptune comedy at supper, crossing the equator.

calamary for supper

March 14 Friday
North Seymour Island
130 miles of navigating during the night, all night.

North Seymour Island (pan) and Baltra and Santa Cruz behind it.

dry landing.
magnificent frigate birds here. an endemic subspecies of the great frigate bird?

land iguana (pix)
common noddy, brown nodding tern

Quite muddy walk, with enough room to make it passable.

Various land iguanas

magnificent frigate birds
female and chick.

We got through the muddy parts and out to the shore, where magnificent frigate birds were harassing a booby to get a fish.

There were magnificent frigate birds with inflated gular sac.

back on board. cleaned up very muddy shoes.

better pan of North Seymour but at the end it is ruined by a jet plane.
4th pan without the jet plane.

We got on the pangas and went into a lagoon area, a red mangrove swamp
mating sea turtles sees in the water at the surface.

The female mates with many males, and she carries a gallon of sperm from different males
for a year.

baby black tipped shark, seen in water;
small or medium ground finch.

I saw a big turtle seen well underwater, 6 feet away.
yellow warbler.

We watched mating turtles again. Smaller male clinging to a larger female. He holds on
with his flippers, while she swims.

The sex is determined by the sand temperature when the eggs hatch.

Females may lay up to 80 eggs the size of a ping pong ball. They sometimes lay only once
in a lifetime.

The turtles stay mostly around the Galapagos but are known to travel to the mainland and
sometimes back again.

back on board.

The meals are served with a lot of exotic fruit juices, mostly rather sweet and foamy, and not
that good.

Farewell dinner, with lobster tails.

March 15. Saturday.

Up at 5.45. Breakfast.
Left the M. V. Evolution.

The plane is here and on time, but the Quayaquil airport is closed for two hours. So we
have a delayed take off.

So we got a bus tour to San Cristobal Highlands. Took us to a place called, rather ironically,
El Progreso. This was a turn of century effort at settlement, now a ruin with a lofty view.
And a bit of third world village nearby.

castor bean
trumpet vine

an introduced hibiscus.

visited a huge tree with a tree house in it. sabo tree.
Over 200 years old, which would have been here when Darwin was here.

Back in town, the port, with a little time to spare.

Darwin statue in the naval yard (pix).
Darwin landed here.
San Cristobal monument, erected in 1935 to commemorate the 100th anniversary of Darwin's visit to the Galapagos. Larson, p. 227.

"Hence, both in space and time," Darwin wrote in his journal, "we seem to be brought somewhat nearer to that great fact--that mystery of mysteries--the first appearance of new beings on this earth." Charles Darwin, *Voyage of the Beagle* (Mineola, NY: Dover Publications, 2002, p. 382. Originally published in 1845 under a different title.

Over a century later, but only standing on Darwin's shoulders, Edward O. Wilson exclaimed that the islands "shout the truth of evolution." Larson, p. 198.

Got on the plane and flew back to Guayaquil.

We flew over a major flooded area, a huge flood plain. They do raise rice here in paddies, but much adjacent agricultural land was flooded that is normally above water. The city is at the mouth of the Guayas River, Rio Guayas. This is an El Nino year, they were saying.

Farewell dinner, at Hilton Hotel.

March 16. Sunday.

Up at 5.15, for early breakfast, a good one.
to airport.

flew over Cuba.

Miami and then home. We were late leaving Miami and I barely made the limo in Denver, with a minute to spare. Home about 11.30 p.m.

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end Galapagos

March 19-22, 2008. Pacific APA, Pasadena

March 27-30, 2008. Goshen College, Goshen, Indiana.

April 2-7, 2008. Zion National Park, following lecture at Utah Valley State College, Orem.
April 2, Wednesday, flew to Salt Lake. Stayed in Crystal Inn. Giles took me out to dinner at Golden Corral!

April 3, Thursday, drove down to Orem, 30 miles south, and gave talk at 2.30, "Future of Environmental Ethics," then discussion group on my Genes, Genesis and God. at 4.00 p.m. David Keller, principal host. Dinner back in Salt Lake with several from University of Utah, Dept. Philosophy.

April 4, Friday. Drove south, four and a half hours to Zion National Park, staying at Rockville at a home that belongs to David Keller's father, Richard (Dick) Keller, who was at my lecture. Home has a fine overlook of Eagle Crags, jagged peaks. Dave's wife, Anina Merrill, was along; she is M.D. at a rehab hospital in Salt Lake.
Drove into Kolob Canyon part of Zion, high country and a separate area.

Saturday, April 5, went into Zion National Park and spent the day in the main canyon, Zion Canyon, on and off a shuttle. Hiked into the Narrows area, then up to Weeping Rock, then looked around the Great White Throne viewpoint, then walked up an overlook of the Court of the Patriarchs.

Manzanita

Gambel's Oak, Quercus gambelii

Heron'sbill, filaree, Erodium cicutarium

Shrub live-oak, Quercus turbinella. With a dry evergreen leaf, looks something like a holly leaf.

Three-leaved sumac, Rhus trilobata

Big-tooth maple, Acer grandidentatum

Hackberry, Celtis reticulata

Velvet ash, Fraxinus velutina

a number of squirrels.

Saltbrush, Atriplex

gray-breasted jay

raven

canyon wild grape, Vitis arizonica

Oregon grape, Mahonia repens

prickly pear

boxelder, lots of it in canyon

Shooting star, Dodecatheon pulchellum

Mormon tea, Ephedra

ouzel

Douglas fir, at the end of the Narrows walk

Zion is carved by the Virgin River in sandstone, no evidence of glaciation here.

Later in the day, drove through the Zion-Mt. Carmel Tunnel and up higher. Checkerboard mesa, nicely lighted checkerboard surface toward evening.

Ponderosa pine

April 6, Sunday. Up early and drove north to get to Salt Lake airport by noon, take off 2.00 p.m. On the way back Mt. Nebo especially impressive.

Apr 9, 2008. Fox crossing road at irrigation ditch above Heatheridge, driving to school.

April 11-15, 2008, Gainesville, GA.

Hiked trails in Elachee Nature Center, April 12, with Peter Gordon, Andrea Timpone, Director of the Center, Janice Jones. Peter quite good with birds. Decent naturalist. Janice decent with flowers.

Bird calling device, audio player from cards, is Identifier

Golden-seal, Hydrastis canadensis, a Ranunculaceae, is in here, and rare, on endangered species list. Not seen.

Rue anemone, Anemonella thalictroides
Pink azalea, Rhododendron calendulaceum
Dogwood. Lots in great bloom, but they say it has been much hurt by the fungus.
Loblolly pine
Sweet shrub, Calycanthus floridus
Mountain laurel, Kalmia latifolia
Galax, Galax rotundifolia
Sassafras
Polytrichum
Great chickweed, Stellaria pubera
Wild ginger, Asarum, in bloom. Locals call the flowers "piggies."
Foamflower, Tiarella cordifolia, lots of it
Daisy, Erigeron
Maple-leaved viburnum Viburnum acerfolium
Toadshade, Trillium cuneatum. Spectacular numbers. Dark flowers, sessile, with reticulated leaves
Nodding trillium. Trillium cernuum
Yellow Violet. Halberd-leaved violet ???
Doghobble, Leucothoe
Mayapple, Podophyllum peltatum. By the thousands, typically in patches of 100-200.
Rattlesnake plantain, Goodyera pubescens.
Spicebush, Lindera benzoin
Silverbell Halesia carolina
Horse chestnut, Aesculus
Yellowroot, Xanthorhiza simplicissima
Bedstraw, Galium

Birds:

Carolina wren
Brown thrasher
Blue jay
Red-bellied woodpecker
downy woodpecker
black and white warbler
red-eyed vireo
blue-gray gnatcatcher
ruby-crowned kinglet
cardinal
"warbler neck" - sore neck from looking high up in trees with binoculars

ovenbird, calling
iris, Iris cristata
snake strawberry, barren strawberry, Walsteinia fragarioides
bloodroot, Sanguinaria canadensis, still in bloom
sweetgum, Liquidambar
toothwort, Dentaria lacinata
deer
resurrection fern, Polypodium polypodioides
Heart's-a-bustin. Euonymus americanus

Geranium
Pennywort ??
bellwort, Uvularia perfoliata
redbud, in bloom
blue violets
river cane
maidenhair fern, Adiantum
ironwood, Ostrya
phlox
Bird's foot violet, Viola pedata
Violet wood-sorrel, Oxalis, Oxalis violacea

April 18-22, 2008. Charlottesville, Virginia, speaking at Westminster Presbyterian Church.
April 18, Friday. Flew to Richmond, stayed with Ann and Bill Bryant. Jane was already there.

April 19, Saturday. Drove to Skyline Drive and spent the day there. Dogwood in good bloom on the way up, but redbud ever more spectacular.

In the park, hiked in to old Sawmill Run shelter, now gone, but found the location, down a somewhat overgrown trail. Lunched there. Prowled here and there. Then south on Blue Ridge Parkway a bit, hiked some in Humpback Rocks area.

penny cress, Thlaspi arvense
strawberry, Fragaria
henbit, Lamium amplexicaule
blue violet, Viola, presumably sororia Lots of them.
white violet, Viola pallens. Lots of them.
chickweed, Stellaria media
Corydalis ?
towhee
turkey, one hen seen nicely roadside
cut-leaved toothwort. Dentaria laciniata. Perhaps the most prominent flower in the woods, in full flower, in otherwise rather sparse blooming in the precocious underflora.
great chickweed, Cerastium arvense
meadow rue, Thalictrum
serviceberry, Amelanchier, in good bloom
bloodroot, Sanguinaria canadensis. A few in bloom in the woods, and several spots roadside in spectacular clumps.

Drove back to Charlottesville on Route 250, and driving "down the mountain" from Rockfish Gap, redbud was spectacular.

Sunday, Monday, April 20-21, lectures. Tour of Monticello in some rain on Monday morning. Drove back to Richmond after evening lecture, in the rain.

Tuesday, April 22. Up at 4.00 a.m. to catch a 7.00 a.m. flight, and drove to airport in pouring down rain. Back in Ft. Collins to teach that night.

May 11, 2008. Mothers' Day. Fox running across Prospect just east of College, in Sunday morning traffic.

May 22, 2008. Tornado midday at Windsor, with much destruction. I was in the barber's chair and had good hail outside. CSU was evacuated, more or less.

May 24, 2008. Walked in to Horsetooth Falls, and looped back. Came up en route on a wildflower hike accidentally, and stayed with the group into Horsetooth Falls. On the loop back you join the Soderberg trail at a 4 way junction at a stone culvert over Spring Creek with little water in it. One of the four ways starts up to Culver Falls, .2 miles, but there is really no trail. Deer at Drake and Taft Hill Road, behind one of the houses on the s.w. corner.

Spiderwort, Tradescantia occidentalis

Goat's Beard, Yellow Salsify, Tragopogon dubius

Mountain mahogany, Cercocarpus montanus

Jim Hill Mustard, Tumble mustard, Sisymbrium altissimum a tumbleweed.

Wallflower, Erysimum asperum. Lots of it, as good a flower as any all day long.

Mouse-ear Chickweed, Cerastium fontanum, lots of it

Early Larkspur, Delphinium nuttallianum, probably

Senecio sp.

Serviceberry, Amelanchier

Astragalus, a purple one

Choke cherry, Prunus virginiana

Antelope bitter brush, Purshia tridentata

Boulder raspberry, Rubus delioiosus

Bedstraw, Galium spurium

Geranium, presumably Geranium viscosissimum

Pussytoes, Antennaria sp.

Death Camus, Zygdenus veneuosus

Blue Mustard, Chorispora tenella Flower lobes that are pinched in at the base is a diagnostic trait.

Arnica, Arnica fulgens

Sugar bowl, Clematis hirsutissima

Nuttall's Buttercup, Ranunculus ranunculinus

Skullcap, Scutellaria brittonii

Cutleaf daisy, Erigeron compositus, or something like it.

Field Alyssum, Alyssum parviflorum weedy, trailside, gone to seed

Hawthorn, Crataegus, in some flower

Salt and Pepper, Lomatium concinnum

Blue Flax, Linum lewisii

Easter Daisy, Townsendia hookeri

Chiming Bells, Mertensia lanceolata

Whiskbroom parsley, Harbouria trachypleura

Stemless evening primrose, Oenothera caespitosa

Shooting star, Doccecatheon pulchellum

Scorpion weed, Phacelia heterophylla

I was here April 18, 1981, ten days before the April 28, 1981 vote to purchase Horsetooth Mountain as a Larimer County Park. At this time this was called Spring Canyon Falls. I was here March 10, 1984. I was here again April 18, 1993.

May 15, 2008. Retirement dinner.

May 27-30, 2008. International Society for Environmental Ethics at Highlands Camp, Allenspark.

Very foggy on arrival. Led a stroll around the nature trail on Wednesday. They had a surprise recognition event for me on Wednesday evening, with a congratulations cake, and drank a toast later in one of the bedrooms, with some talk. Led a hike up Bierstadt Moraine, Thursday, May 29. Some remnant snow in the woods on top. Worked out well. Wayne Ouderkirk led a hike into Loch Vale and they walked on snow past the junction to Mill's Lake. Two quite nice bull elk with good racks in the velvet on return near Moraine Park. Took Kathy Robinson out to see the Pasqueflowers just as she was leaving the last morning and there was the bear right at the Pasqueflowers. Yearling or maybe two years old. Brown. Saw it well. John Vander Vliet had surgery for his kidney stone while I was gone.

June 9, 2008. Lone Pine Creek trail with Fred Johnson. Met him at the parking lot to Watson Lake and we went in his SUV. Nice day. Hiked up the hill slowly looking at the wildflowers, and down to the creek. Four State pickups in there testing some irrigation ditches for some wild plum trees they had just planted to enrich wildlife habitat. Walked up across one good bridge but the second (which I walked over before) had now washed out, still visible 50 yards below. Lunched there. Too much high water to cross. Walked out, missing the uphill return--I thought it was right, but Fred not, so we walked down the main road a half mile to where it fords the river, and knew we were wrong. Retraced our steps and hiked out over the top. Out about 3.00 p.m.. somewhat anxious to get back to pack up for trip to Portugal the next day.

Lappula redowski, Stickseed
Tansy mustard, Descurania sp.
Copper mallow, Sphaeralcea coccinea
Onion, Alium textile
Wallflower, Erysimum asperum
Daisy, Erigeron sp.
Miner's candle, Cryptantha virgata
Senecio fendleri, Fendler's groundsel
Leafy (or Sticky) Cinquefoil, Potentilla fissa
White loco, Oxytropis sericea
Colorado loco, purple, Oxytropis lambertii
Penstemon gracilis tho Weber calls it virens ??
Cactus. Hen and chickens, Echinocereus viridiflorus
Euphorbia escula, spurge
Salsify, Tragopogon dubius
Astragalus drummondii, locoweed
Harbouria trachypleura, Whiskbroom parsley
Selaginella
Zygadenus venuosus, Death camas
Delphinium nutallii
Viola nutallii, yellow violet
Galium spurium, Cleavers, Goosegrass. Not in earlier Weber, but in later.
Rubus deliciosus, Boulder raspberry
Gilia, Sticky, Ipomopsis spicata
Mouseear, Cerastium fontanum
Senecio crassulus, but this should be at higher elevations.

Thlaspi arvense, Penny cress
Thermopsis
Alyssum alyssoides, weedy
Sedum
Lesquerella montana
Blue mustard, Choriospora tenella
Antelope bitter brush, Purshia tridentata
Rhus trilobata
Evening primrose, Oeoethera nuttallii
Geranium
Phlox andicola, not in earlier Weber, but in later.
Stemless evening primrose, Onoethera caespitosa
Tradescantia
Helianthus pumulis
Potentilla efusa, Blue-leaf cinquefoil
Storksbill, Erodium cicutarium
Antennaria parviflora
Sisyrinchium montanum, Blue-eyed grass
Canada violet, Viola canadensis
Red-osier Dogwood, Cornus, where we lunched
Winter cress, Barbarea orthoceros
Cynoglossum officinale, Hound's tongue.

June 10-15, 2008. Trip to Porto, Portugal, to speak at Serralves Conference.

June 10, Tuesday. Left home 6.30 a.m., for Denver, with Jane. Delayed takeoff, and then delayed landing in Newark, due to weather. Boarded TAP Portugal an hour late, and sat on tarmac to wait out a thunderstorm for another hour and a half. Otherwise uneventful flight, with a full four seat row to sleep in.

June 11, Wednesday. Arrived about noon, over three hours late. Met by Rui Cardoso, organizer of seminars, and a professor in medical school, University of Porto, teaches medical psychology, which mostly seem to mean doctors' relationship with patients. Also teaches psychiatry in another medical school. Nap in afternoon and dinner with him and with Marina Lencastre, who teaches environmental education, also some work in social medicine. Her husband is an economist with English roots.

June 12, Thursday. Lecture at 9.30 p.m. Tour of adjacent park just before a buffet dinner, and a great chestnut in full bloom. Also magnolia in bloom, apparently Southern Magnolia.

June 13, Friday. Trip with Marina Lencastre and Rui Leal (and Jane) to old city of Guimarães, some 50 km away. Rui Leal, supposedly an environmental engineer, is doing Ph.D. in environmental spirituality. Left about noon and there about 1.00 p.m. Nice lunch in outdoor courtyard. This is said to be the home city of Portugal, as the person they judge to be their first king lived here. This was Dom Alfonso Henriques. Central points in the city are a castle on a hill, built of a dark granite on top of the same bedrock granite, with overview of the city, and an ancient monastery, which the castle was to protect against the Moors and the Normans. At the entrance to the castle is a large statue of King Alfonso Henriques and nearby in an old stone Chapel of San Miguel, they show you a large stone font where he was baptized, in year 1,106. The floor of the chapel is paved with the tombstones of the early warriors who helped him found the nation. Also walked by the Palace of the Dukes of Bragança. We were shown various small interior open gardens, with patterns in boxwoods and grasses, some cedars of Lebanon. There were discussions about what in such gardens is "natural." The street between the two is the Rua de Santa Maria, a narrow street we walked up, visiting first the castle and then, on return, the monastery, seeing mostly a huge ancient cathedral-like church. There were Roman settlements here, pre-Christian, and some archaeological excavations of settlements in north Portugal go back 3,500 years, with some pictographs, but no writing.

Back in the car, we drove up a steep hill a couple kilometers to Pousada de Santa Marinha de Costa (Monastery of Costa) a large building with gardens behind, now a hotel. Had cokes in a pleasant outdoor courtyard here, and walked through some of the halls. Forest on hillside behind (Penha mountain) is mostly an introduced pine and Eucalyptus, which they want for paper pulp. Some efforts to plant native trees were largely resisted by industry that wanted cellulose. Eucalyptus does not seem to be a pest here.

Returned to Porto about 8.30 p.m., and had dinner in an Italian restaurant in the hotel.

June 14, Saturday. Trip to port wine country with Rui Cardoso, physician, see above. Drove about an hour to Pinhão on River Douro. Spectacular terraced vineyards on steep hillsides, mixed with olive trees and with large white farmhouses and farm buildings, often now manor homes. Lunched at a fancy restaurant which is also a place where ships dock -- this part of the river is dammed up and there are big tourist boats on it. Restaurant is D.O.C., which are initials put on port wine to indicate its origins. After lunch drove to the village of Pinha0 (a with tilde) proper, with artwork tiles depicting the vineyards and laborers in the train station.

Then drove up a steep hill for an overview at Cafal dos Loivos, a village on top with overview. Cardozo's grandfather was from here. I kept puzzling, again, over the mixture of culture and nature in so heavily a transformed landscape.

Returned and back in hotel about 7.30 p.m., to be surprised at supper in restaurant by a good-by visit from Marina Lencastre and Rui Leal.

June 15, Sunday. Flight home. Delayed in Newark three hours and more and had to catch the late shuttle back, arriving home 2.30 a.m., 26 hours en route. Avoid Newark airport.

end Portugal

June 28-July 13, 2008, Russia/Oxford

June 28, 2008. Saturday. Left home 5.15 a.m., for 9.10 a.m. flight to Minneapolis, o.k., then about three hour wait and flight to Amsterdam on Northwest, co-listed as KLM. Decent flight, aisle seat in last row of the plane.

June 29, 2008. Sunday. Arrive Amsterdam, 6.10 a.m., and another three hour wait. Flight to Moscow, 9.30 a.m., arriving Moscow 2.50 p.m. Met and taken by driver to Ismailovo Hotel, specifically building Alpha. Long drive, hour and fifteen minutes, mostly in creep and crawl traffic on a motorway with some high speed sections. Passed some huge power plant cooling towers, also some considerable wooded areas. Hotel is huge, but room was spartan, if functional. Small bed, too short. Crashed in bed, and made do with some sandwiches I had brought that evening.

Contacted by Johan Halting, South Africa, my co-teacher and by Ruben Oppression, my Russian host.

June 30, Monday. Spent the day in Moscow. Huge breakfast room with lots of offerings, in considerable contrast to the Spartan room. We had to pay 450 rubles for this, \$ 19.00 for this, buffet breakfast. This seems to be an economy hotel with one lavish feature. Pianist on grand piano at breakfast.

Rode the subway downtown. Johan had been there a couple days and Ruben taught him how to do it. Now accompanied also by Nadja Tollemache, New Zealand. She is lawyer, originally from England, married a New Zealander. Both are on a UNESCO COMEST Commission to prepare a report on global warming, and they are meeting simultaneously with the summer school.

From Izmaylovskaya Station to Ploshchad Revolyutsii Station. Stations are grandiose in some respects but quite poorly named when you want to know where to get off. At my request, the wife of Ruben Oppression met us at the subway stop, and took us to Red Square and to GUM shops, now a large shopping center, where I looked for amber necklace in two shops. Bought two, one for Jane, one for Shonny. Then she left us.

Looked around a bit and decided to take a boat ride up the Moscow River. Took some figuring out how to do it, but we eventually did. Decent even, you pass by the Kremlin Walls and generally get an impression of the city. Got off the boat at Kiev Railroad station, had a long lunch in a decent restaurant, and then caught subway home. Evening meal with Johan and Nadja in the hotel, again a buffet.

July 1, Tuesday - July 5, Saturday. Summer School Program, sponsored by UNESCO, Institute of Philosophy, Russian Academy of Sciences, and others. UNESCO seems to have paid for the expenses and honorarium for the two outside speakers (myself and Johan), and Open Society Institute (George Soros Foundation) for the rest, including tuition and expenses for the participants. Co-host Marina Martynova, Vice-rector Mordovia State University, Saransk, an eleven hour train ride away.

Picked up in van and drove about an hour and a half to Nakhabino Education Center, Nakhabino, Krasnogorsk District, Moscow Region. Second Summer School, this one entitled Environmental Ethics in Teaching Social Sciences and Humanities. Crowded traffic all the way, but the center was somewhat off from the heavily built up areas and pleasant.

Moscow people have summer homes (their daschas) in the area. Room had space in it and was functional but otherwise quite Spartan again. Small, short bed. Food was starchy and simple, some boiled potatoes, flavored a bit, with two meatballs on top, more cereal than meat. Next meal would be rice with a bit of chicken on top. Or pasta and some poor meat. Did have halfway decent borsch for lunch, and salads were edible. Never saw a dessert all week, and only tea or coffee to drink. Didn't even serve water with the meals, and you couldn't get it, apart from the hot water (and it was hot) used to make tea or instant coffee.) At breaks in the lecture sessions, they did have some plain bread cookies. Fortunately I had brought along a few candy bars.

Gave five lectures, with some apprehension about getting a room suitable for two of them with movies. They were working on air-conditioning a top floor room that was halfway decently darkened with a curtain. Participants were from all over Russia and also Belarus and Ukraine, now separate nations. About twenty-five or thirty, surprising number were women in thirties. About twenty of them were teaching a class or part of a class involving environmental ethics. Half knew enough English to carry on simple conversations; half could not. Sequential translation, sometimes by professional translators, sometimes by others they had brought along on their support staff. Generally cordial and they warmed up more and more as the week went on.

Took a couple walks around the premises. There was a spruce forest at back, with some good pines in it. Ground cover all round mostly weedy, though a few things looked native. Also walked, with Johan and Ruben, out in the semi-developed countryside a bit. Various white birches. Developers in Russia's new entrepreneur class want to develop the area as second homes, or retirement homes. Saw some of this. Also saw a few antique homes, log cabins that went back to 1800's. Rather trashy all round. Generally good weather, not hot, with rain showers almost every day at some point, often clearing thereafter.

July 6, Sunday. Flew to London via Amsterdam. Picked up 6.00 a.m. Lots of huge, endless apartment complexes en route to airport. Drove through some areas of tall spindly white birch.

Some confusion and much waiting in the airport, some English but mostly in Russian. Wait for flight to be posted for checkin, then wait in line to check in, then wait for passport control, then wait at the gate. Plane was o.k., Aeroflot, but seat recline was broken, tray was broken, overhead light didn't work.

Wait in Amsterdam, but I did get a milkshake at McDonalds, hungry for something cold and sweet, after the week in Russia. Delay arriving in Heathrow due to rain, and confusion at Heathrow about catching the Hotel Hoppa to Ibis, but eventually reached it. Took the whole day to make this transfer. Called Jane on the global phone. Turned on the TV to see the end of the Wimbledon Tennis match, Raphael Nadal of Spain, once two sets down, upset Roger Federer, billed in the papers next day as greatest comeback ever. First Spaniard to win Wimbledon since the 1960's.

July 7, Monday. In London. Got the buffet breakfast at Ibis, and spent some time figuring out Heathrow connections, especially where the Hotel Hoppa stops. Caught underground downtown, to Lambeth North, and went to the Imperial War Museum. Shortly before reaching the Museum passed a house with a sign: William Bligh, 1754-1817, Commander of the "Bounty," lived here. Tanks, canons, warplanes, some marine armaments, small

submarines, from World War I and II, including captured German and Japanese tanks and planes. Interesting and dismaying to think of all the destruction. Upper floors on the Holocaust, mostly pictures, equally dismaying. Various German leaders in film urging getting rid of the Jews, their enemies.

Then caught underground to Westminster. Houses of Parliament, Big Ben, Westminster Abbey, passed going to the Cabinet War Rooms and Churchill Museum (and also part of the Imperial War Museum). This is the underground war command center from World War II. Dozens of rooms, some with original furnishings, some reconstructed. The cabinet and high brass hid here with facilities for tracking the war, much commandeered by Churchill. War maps still on the walls. Again, almost incredible to think of modern Europeans fighting each other so savagely. When Churchill started off, in some fighting and newspaper reporting from South Africa, the main military movements were cavalry charges; before he finished he dealt with nuclear weapons.

Rain off and on during the day, but it didn't bother me that much.

Underground back to Heathrow, and to Ibis about 6.30 p.m. Supper at McDonalds up the street.

July 8, Tuesday. To Oxford. Pretty day, pretty bus ride, first busy and later somewhat pastoral landscape here and there. Taxi to St. Anne's College and got in room, a dormitory room but quite decent, good space. Catching some summer cold. Walked downtown and bought Jane the Oxford shirt she wanted. Dinner at a nearby pub, lots of ambience, and decent shepherd's pie.

July 9, Wednesday. Rained all day and I was in and out of bed nursing a summer cold. Tried a bit of walking after lunch and got too wet. Caught up on e-mail and went over talk.

July 10, 11, 12, Thursday - Saturday. Conference on natural theology and design at St Anne's, with about 100 participants. I spoke Friday late morning, "Three Big Bangs," and went well, I thought. More in conference files. By this time I seemed to shake off the cold.

Thursday morning, clear and I did walk around town, down to Christ Church and spotted some of the places I had been before. All the Oxford atmosphere, and hospitality. Hundreds, thousands of tourists, half of them speaking foreign languages, lots of them Asian, often Japanese youth.

Saturday, mid afternoon, back to Heathrow Ibis, for early take off to Detroit and Denver. Ready to get home and anticipating Montana.

July 13, Sunday, flew home with too long a wait in Detroit and near crushing trouble with Shamrock, bus canceled and 2nd bus canceled and three vans sent down finally got me home. Bad case of jet lag, with some developing cough.

Bob Marshall Wilderness, South Wall

July 2008. Bob Marshall Wilderness, South Wall.

July 18, Friday. Flew up to Great Falls from Denver, and Christopher Preston picked me up at airport. Reached 7 Lazy P in time for supper.

July 19, Saturday. Off on horseback.

Crew: Casey Hamilton
Jarob Hatch

Sharlee Goss (rhymes Charley). Jarob and Sharlee are sweethearts.
Dave Hovde, leader

Riders: Addresses & e-mail in files.

Del and Linda Coolidge. He is physician, she a medical technician, Whitefish, Montana, near Glacier National Park. Quite a fisherman.

Bob and Jacquinet Weisenbach. Seattle, Washington. He is architect, and designs hospitals, clinics, and designed the clinic for Del Coolidge. Pronounced "jack kwin o"

Gene Collins. Armand E. Collins. Illinois. He is Jacquinet Weisenbach's brother. Flew corporate planes and is alfalfa farmer on their once home place.

Bob (Robert) Baker. Was school superintendent in small district in Indiana. Keeps horses.

Ed Crumrin, farmer and good friend of Bob Baker

Holmes Rolston, Fort Collins, CO

Christopher Preston, Missoula, MT

My horse is Blackhawk.

Good ride over Route Creek Pass, quite scenic. Lunched before the pass. O.K. on ride down but it got too dusty. Horse does fine.

Rode through 1988 burn several miles. Good regeneration. 3 deer. Camped at Wrong Creek, their hunting camp, where I have been several times before. This is named Wrong Creek because they misjudged which one went to the divide.

Elegant Mariposa Lilies, Calochortus elegans
lots of Twinflower, Linnaea borealis

Cypripedium montanum, Mountain Lady-Slipper, glimpsed from horse a couple times.

Ride today 12.5 miles.

July 20, Sunday.

Decent night, despite my lingering cough from cold caught in Russia/UK.
Cold in the morning. Frost in the field and adjacent burn area.

Cornus canadensis

Ride over sometimes green grasslands, prairie, Biggs Flats, and rather scenic. Meadows full of a yellow Penstemon, Penstemon confertus ?. Hundreds of thousands of them.

Lunched by the river, N. Fork Sun River

The afternoon ride was all I wanted. Lots of burn 1988 and some of it burned again in 2000.

Camped at Sulphur Creek by the river, in a tent site overlooking the river.

Took a spit bath in the river.

Here we take water out of Grouse Creek.

Ride 12.5 miles.

Too much coughing in the night, but it is not bad when I am standing up.

Another group nearby was from Triple J Wilderness Ranch, Augusta, Montana.

triplejranch.com

Good webpage. Seems to be a principal outfitter in the area.

July 21, Monday. Layover day. Casual breakfast at 8.30 or so. Sunny.

In the afternoon I hiked up to Sulphur Lick with Dave Hovde and Christopher Preston. Just a dry mudhole but the animals have created it licking for salt.

Went up and watched a beaver in the river. Watched it 20 minutes.

Took a bath in the river. Cold but I got clean, all the way under.

Strange scat in camp variously interpreted as wolf or bear. Large and full of fur.

July 22, Tuesday. Ride to Pretty Prairie.

Overcast and warmer to get up, 6.00 a.m., for 7.00 a.m. breakfast.

Slept well.

Packed up dry, but it soon started raining, only a little at first.

Rained much of the day and I rode in a slicker.

Ate lunch in a little rain.

But this keeps the dust down.

Saw deer 4-5 times.

Big fields of lupines in great bloom.

Rode into the Ahorn burn, burned last year, and sometimes spotty but later blitzed the forest. Lots of *Spiraea*, *Spiraea betulifolia*, in the burn in grand bloom.

Camped at Pretty Prairie. Spaghetti for supper. Campsite overlooking the river. N. Fork Sun. Rained as I went to bed. Others saw a coyote, I did not.

July 23, Wednesday.

Some blue sky, mostly overcast, but clearing. Rather damp pickup.

Later, clear morning.

We had to detour on account of construction of the trail and forded the S. Fork of the Sun river twice.

Mixed burn.

Crossed a good pack bridge over the West Fork Sun River, which we rode up, later becoming Burnt Creek, one of the tributaries. Now riding a part of the Continental Divide Trail.

Uneventful ride and relatively short.

Camped at West Fork Sun, just west of Reef Creek.

Pork loins for supper, quite good.

The campground is full of Hedwigia ciliata.

Pitched camp in threatening rain and sprinkle, but then it cleared. Then hard rain after I went to bed to avoid it. Deer in camp.

Clear in the night.

July 24, Thursday. Clear morning. Ride up Prairie Reef.

A somewhat steep ride and sometimes the horses were breathing heavy. At one point we could see camp far below.

Reached the Lookout Tower about noon, walking the last half mile or so, tying the horses up to the last of the trees. Prairie Reef is a steep cliff on the east and rounded but steep on the west side.

360 degree panorama. Tower is occupied by a woman who is here all summer.

I could see the South Chinese Wall from Larch Hill Pass (which I once rode over with Smoke Elser) south to White River Pass. Sphinx Peak prominent. Two of the Three Sister prominent. Further off Silvertip Mountain. In the distance Swan Range.

To the north the claim was that you could see mountains in Glacier National Park, but that required some imagination.

The summit area was a mat of White Mountain Avens, Dryas octopetala. Some Shooting Star, Dodecatheon. Some Pygmy Bitterroot on top, Lewisia pygmaea.

Ruins of a plane crash below the tower.

We walked down a long ways, perhaps three miles, more than I wanted.
Good weather all day.

July 25, Friday. Up at 6.15 a.m. for ride to the Wall. Clear morning and cool ride.

good Twinflower
ride thru burn, then ride in good rich woods
lots of Mensiesia ferruginea, False-Azalea

At one stop high up and getting into the alpine, we paused at a nice wet area with interesting stuff:

Clintonia uniflora, Corn-lily

Claytonia lanceolata, Spring beauty

Caltha leptosepala, Marsh-Marigold

Erythronium grandiflorum, Avalanche Lily, Glacier Lily

Bog orchid, green, small. Habenaria obtusata? Lone Pine Guide puts these in Platanthera

Yellow violet, Viola orbiculata
Bistort, Polygonum bistortoides
Onion
Snow buttercup, Ranunculus adoneus
Mitella pentandra, Mitrewort

Reached the wall. Excellent grizzly track on the trail (pix).
Goat seen silhouetted on top of the Wall. Saw it off and on for forty minutes.

40 elk in Moose Creek valley.

Nice campsite with a view of part of the Wall, but, alas, not enough grass for the horses for us to stay two days here.

ride about 12 miles.

Disappointing that we have to ride out tomorrow via Moose Creek, losing the best ride of the trip, up the South Wall (my best ride years ago with Smoke Elser).

The claim is that there are too many blowdowns on the Rock Creek Trail

July 26, Saturday.

Up early and out with cold breakfast (sausage and egg sandwich) overlooking the wall, in a fine location. Deer at breakfast with good rack.

Eight bighorn rams seen halfway up the Wall, two groups of four, all were rams about half curl.

Ride down Moose Creek, a long one, pretty much a slog.

Bear, seen off and on in timber for perhaps 30 seconds. Black bear, though quite grizzly colored.

Lots of windthrown lodge poles, lots of skinny small lodgepoles.

After lunch, a hot dry ride.

In places, good Cornus canadensis, and Twinflower.

The Moose Creek trail comes out right at the confluence with the N. Fork Sun River.

Saw half a dozen ant hills that look like termite mounds.

Camp back at Sulphur Creek. We are spending too many nights here, four of the nine.

Bath in the river.

ride 16 miles.

July 27, Sunday. Lazy layover day at Sulphur Creek, to rest horses as much as the riders. Really a wasted day. Especially disappointing since this is the day in exchange for the missed South Wall ride.



Breakfast, 9.00 a.m. Sunny.
Tried to see the beaver again and failed.

Lunch.

Walked the trail a couple miles and saw a grouse drinking in Grouse Creek!

Supper. The wranglers entertained us snapping whips that snap like rifle shots.

Dave did good a fine steak supper, only redeeming part of the day.

July 28, Monday. Ride out over Headquarters Pass.

Frost in the meadow, cool but sunny.

Good regeneration from 1988 fires lower down, but almost none higher up. Long rode through burn, then got to the spectacular area below the pass.
Goat at lunch, 100 yards away, later at the head of a snowfield below a steep cliff. Dramatic sight.

Ride over the pass, steep and narrow, spectacular ride.

Over the top and down the east side. Still spectacular. Eleven goats, including three kids on the east side, nicely seen in spectacular cliff location.

Ride out through good woods.

Total ride about 120 miles, according to Dave Hovde, including the ride up Prairie Reef.

Out about 5.00 p.m., and stayed at upper ranch with Bob Baker and Ed Crumrin.
Christopher drove back that evening to Missoula.

Supper at 7 Lazy P.

July 29. Flew home. Bob Baker and Ed Crumrin took me to the airport, where I had a two and a half hour wait for an afternoon flight. They were driving back to Indiana.
Grey fox on the way out from the ranch, crossing road and in the bush.
Got home to find my shaver stolen from my luggage.

end of Bob Marshalls, 2008.



August 2, 2008. Went to Bill Weber's 90th birthday celebration, University of Colorado Museum. Weber was long curator of the herbarium at there.

August 3, Sunday. Baptized Ellie Jane Vander Vliet at Poudre Canyon Chapel, down at the river. Lovely day and fine event. Took water out of the river with Shooting stars, Dodecatheon pulchellum, right at the pitcher. Dinner at the Stanley Case house.

August 4-6, 2008, Monday to Wednesday. Backpack to Mirror Lake with Phil Cafaro and Win Staples. Left at 7.30 and drove to Corral Park trailhead in Win's truck. On the trail about 10.00. O.k. down, lunched at the junction for Desolation and Flatiron campsites, then steady climb. Make it o.k. but had to push hard. Reached Mummy Pass Creek campsite about 3.00 p.m.

Set up camp in a bit of rain. Then went with Phil toward Mummy Pass a mile or so, and he went on to the pass. I came back and napped. Deer in camp in evening.

Tuesday, went up to Mirror Lake with Win and Phil. He climbed Comanche Peak, though turned back some short of the summit on account of big thunderstorm. Win and I spent time at the lake; pleasant, clouds shifting and throwing light changes on the lake and cliffs

behind. He caught a big brook trout. Ate lunch with a storm brewing, and then came down in big thunderstorm, hail and hard rain, taking shelter from the hail and rain under trees at times.

Clearing by the time we got to Koenig Cabin site and Win fished. Caught fifteen brook trout, released them all. Phil appeared coming down the Comanche Peak trail and went up to the lake. Return to camp and napped. Calm evening.

Wednesday. Up and hiked out, descent o.k., and then the climb from Poudre River up to Corral Park. Out about 2.30. Feet and toenails did o.k. Moose on Long Draw road on way down.

Hard rain in Fort Collins as we returned about 5.00 p.m. Not that much different seen on the trip from previous trips.

I was here Sept. 4-6, 1972, when I got the car stuck on Long Draw, stayed at Koenig Cabin site, caught fish for meals, climbed Comanche Peak, and got snowed on. Cabin was then still standing. I was here July 28-30, 1989 with bad hands and a rainy trip. I was here September 24-26, 1994, and hiked up Comanche Peak again. I was here September 30, 1995 with Will Aiken. We had intended to backpack, but owing to snow, hiked in to Mirror Lake and out all in one day. July 7-9, 1998 I backpacking alone to Hagues Creek, Desolation Campsite. September 8, 2001 I aborted a backpacking trip to Mirror Lake owing to snow and managed only to do a day hike into the Little Yellowstone area. July 19-21, 2004, I camped at Desolation camp and day hiked up to Mirror Lake, also then hiked up the Poudre River trail to Chapin Creek and up Chapin Creek a bit.

August 14-15-16, Thursday, Friday, Saturday. Thursday, fox in street in front of house, nicely seen. Rained hard Thursday, Friday, and into Saturday midday, day and night. Cold. Coldest day time high on Friday since 1931.

Taiwan 2008

September 28-November 15, 2008. Taiwan

September 29, 2008. Monday. Flew to Taiwan.

Left Fort Collins, 7.30 a.m. Flight on Frontier to Los Angeles, LAX, 12.20 p.m., and flight to Taipei, 5.30 p.m., from LAX. Some walk between buildings to the international flight on huge Boeing 737, EVA, a Taiwanese airline.

13 hours, but I had aisle seat. Slept fair, nursing a cough caught 10 days ago, presumably from Ellie Jane.

September 30, 2008. Tuesday. I only lived an hour and a half of this day. Crossed the international dateline, when late p.m. Sept. 29 became late p.m. Sept 30, 24 hours skipped.

So I arrived Taipei 10.30 p.m. late Sept 30, Tuesday, and lived it for one and a half hours.

Picked up by Tsu-Mei Chen and her husband in a friend's taxi.

October 1, Wednesday.

Checked in YMCA hotel about 1.00 a.m.

Rode south to Tainan on High Speed Rail.

Slept fair. Cloudy bright. They have had three typhoons recently, unusual for fall. Typhoons are mostly in their summer. Decent Western breakfast in YMCA hotel, restaurant adjoining.

Rode south on new High Speed train to Tainan, a city on the coast in the south. Rode through much developed country, with frequent rice fields in between. Train speed often 298 km/hr = 188 mph. Smooth ride, excellent train, good seats and space.

Taxi some distance from the high speed train station into the city, half an hour drive.

Hotel Tainan, a fine hotel. Lunch in hotel in Japanese restaurant there. Upscale and decent food.

Met by Yang, Gheh-chi, assistant to Dr. Lin. She was five years in the UK with her husband. She has an M.A. in international relations.

Took nap.

Walked to National Cheng Kung University, a large campus. Fig tree garden. Banyan figs, large trees.

Went to his office and met Lin, Tzao-chen, Chinese literature, who is my principal host here, much interested in environmental ethics. Various posters of me and a book of my work translated into Chinese, which he has put together.

October 2, Thursday. Met with President of National Cheng Kung University, and then drove to Shan-Ping Nature Reserve.

Cordially received by President Michael M. C. Lai in a big office, with some deans and others accompanying. He did viral research at UC Santa Barbara for 35 years and has only been back in Taiwan and president here for a year and a half. Also an engineering dean here, Wen-Teng Wu.

Drove to the Shan-Ping Nature Reserve, about two hour drive inland, which amounts to going about half way across Taiwan west to east.

Part of the landscape was called the Moonscape, highly eroded area sometimes barren of vegetation, though mostly somewhat vegetated.

coconut palms
betel nut palms

Some of the villages are looking somewhat third world.

Toward the end a long road climbing a mountain, sometimes fractured and sagging.

Very decent dormitory and good room, third floor with a view out and into the canopies and upper levels of the trees.

Lunch, with Chinese food, difficult to eat.

This is the Liu-Kuei Research Center. The name means 6 turtles, taken from the supposed shapes of the mountains.

Two and a half hour walk, led by Nai-Hung Cheng, the director. Cordial. Mixed level walks and some good climbing stretches, sometimes wet and a bit slippery.

slash pine, Pinus elliottii
Arum, with large leaves

Cinnamomom camphora, a large tree, source of camphor.

Impatiens, touch me not. Introduced but common, in good red flower.

Selaginella erata

Wild "ginger," as they call it, with large white flower.

Cyathea podophylla, a tree fern

Alsophila spinulosa, a tree fern

Sphaeropteris leipfera, a tree fern

Urtica, with poison hairs

I saw in a drainage ditch a mountain crab eating a worm. Various other crabs also seen.

Begonia

rattan, originates in China, a vine, palm, Daemonorops margeritae.

rattan - vine with rear pointing barbs. Rattan will shred clothing and skin. Family Arecaceae.

Araucaria cunninghamii, "Hook pine," striking tree seen coming up the road, related to the Norfolk Island Pine, Araucaria heterophylla, often seen planted in the cities. Introduced but established.

Lycopodium

October 3, Friday. At Shan-Ping Nature Reserve.

Watched Blue Magpie video, Urocissa caerulea.

Also oriole video. Colorful oriole here is Oriolus traillii.

Drove back to Tainan, 1-3.00 p.m.

Met Lin, Yen-Ru, and his wife Liang, Wei-jen. Both are doing Ph.D. at Drew University in the U.S., New Jersey. He is doing thesis on theology and philosophy. She on missions in China.

nap, troubled by a cough.

Good supper in the hotel, Western style buffet restaurant.

October 4, Saturday. Decent sleep. The vice-presidential debate in the U.S. was last night, Palin vs. Bidens.

I worked in the morning sorting out texts for the translators. There were 3-4 weddings in the hotel, and fireworks below my window at the entrance to the hotel were sometimes annoying.

There are hundreds, thousands of motor scooters in the streets, parked on the sidewalks and in scooter parking zones. Mostly they seem of one brand, a Toyota, assembled in Taiwan of Japanese parts.

There are hundreds of mountains over 3,000 meters in Taiwan.

October 5, Sunday. Attended church, did not preach, at Tai-Ping Ching Presbyterian Church, Tainan. Means "Place of Great Peace." Founded in 1865 by James Maxwell, M.D., missionary from Presbyterian Church of England. I think he was Canadian but Canadians had no missions to Taiwan, so he got the Presbyterians in England to sponsor him.

Service was a mostly musical service, lots of youth choirs, lots of youth playing recorders of various sizes, a number of violins and other stringed instruments. Enthusiastic music/choir director.

Aunt of Liang, Wei-jen was there, a teacher of mathematics. Afterward they took me to lunch in upscale Japanese Restaurant. Also there was her daughter, Su, Chuan-Li, who teaches nutritional biology at a Presbyterian University, half an hour away. She studied proteins and how certain proteins benefit macrophages in your immune system at Cornell University.

At next table was the choir director, who had attended the Manhattan Musical School in New York. She is an accomplished pianist. Also there, the organist.

Met the pastor. He was once in prison for hiding a friend who was a democratic revolutionary in their struggles for democracy.

October 6, Monday. Supposedly a free day, but got filled up.

9.00 a.m., went to meet Hsin Chu, Chair, Dept. of Environmental Engineering. Excellent English, formerly at Northwestern University, Chicago. He set me up in an office in his building.

We went to the auditorium to be used for the talk tomorrow, a disaster. A huge auditorium at the Medical School/Hospital with very poor PowerPoint, a projector way in the back of the huge auditorium, projecting an image 50 yards, too dim to see. They will get a portable projector closer up.

Went to the post office, which is here also a bank, to set up an account in which the university can deposit my salary.

Lunch in hotel.

5.30 back out to test a projector in the Community College, adjacent to a junior high school, which did work better. Had to meet the staff there and say something pleasant to them.

October 7, Tuesday. First lecture (of six) at National Cheng Kung University.

Stock market has fallen below 10,000 in financial crisis.

They picked me up at 12.30 and we got the projector going in the huge auditorium well enough for the audience to read the PowerPoint.

I sat through the first part, Tsu Mei's lecture, and then gave mine, 3.00 p.m. to 5.00 p.m. Rather empty auditorium, maybe 150 people in an auditorium that would seat 500-600.

Some fanfare. Flags with my photo on it and a banner over the entrance way to the hospital, the same as the entrance to the auditorium. I was introduced by the University Vice-President, Hwung-Hweng Hwung, a professor of hydraulics and ocean engineering.

Lecture # 1. "Philosophy Gone Wild." Really just my "Types of Natural Value" and "Duties to Nature." Some questions and answers, went o.k.

High speed train back to Taipei, from 6.17 p.m. to 8.00 p.m. Impressive train.

Wang, Shun-Mei (see below) was fussing about my cough and bought me a herbal brew to mix up and she mixed it up in my hotel room.

October 8, Wednesday. Spoke at National Taiwan Normal University.
Decent breakfast in YMCA hotel restaurant adjacent.

Taxi to National Taiwan Normal University. Statue of Chang Kai Shek in the entrance gardens, maybe the only one left in the city, where once were a thousand, one in every school. But there is still a huge Chiang Kai Shek museum here.

Juniperus chinensis, attractive juniper tree in the entrance gardens.

Gave talk to 300+ audience in a classic auditorium, with tolerable PowerPoint that had to be rigged up with a projector down front instead of a huge and dim one at the rear. Translated by Wang, Shun-Mei, faculty member here who had come down to hear me yesterday and rode back north with me last night on the high speed train. She is chair of the Graduate Institute of Environmental Education. Also with her a Ph.D. student Jen, Mong-Yuan, also rode back on the train. We had shortened the talk on the train the night before.

Introduced by a woman professor in art, Jo Chiange-Hua Chen, pleasant with a continuous smile. Lecture: "Nature's Revolt. Pushing Nature's Limits."

Lunch in a Japanese restaurant.

Afterward taken to a marvelous bird photo exhibit by photographer K. K. Kuo, who sells Olympus camera and optics, wealthy, and got interested in doing the bird photography himself. Gave me a huge book of his bird photos (which I later sent to CU Boulder).

Back to the YMCA hotel, and nap.

More disaster in the world markets.

October 9, Thursday. Went to Yang-Ming Shan National Park, with King, Hen-Bau, (former) director of Forestry Institute, who had my Environmental Ethics translated into Chinese, the Taiwan translation. Had met him before.

Wet day and misty/foggy on top, getting thicker as we drove up. This is a former volcano. There is no logging allowed now in Taiwan and has not been for about ten years. 60% of Taiwan is forested, and 20% of that is plantations. But plantations are not now being cut as it is not economic. They import hardwoods from Malaysia and pulp from Canada.

Once charcoal was the major cooking fuel, later coal, imported, and now natural gas, imported.

There is very little wildfire in Taiwan. Human-started fire is very local, partly because of wet forests, partly because of steep slopes and fire does not spread over drainages.

We visited the Park Headquarters and Visitor Center, museum. Nicely done interpretive video, in English.

We drove up to a summit in thick mist/fog. Walked to where you could hear and smell a volcanic vent. Saw a small fumarole bubbling with very hot water, but could not see the main vent.

This mountain was known as the Grass Mountain. I saw acres of Silvergrass (Miscanthus floridulus), a grass. This can grow in acidic soil. Silver, white, or sometimes red tassels, now in good bloom.

There is an Isoetes (quillwort) here, known only from here in Taiwan, and quite rare. Taiwan isoetes.

Returned for lunch in a very upscale hotel, Howard Plaza Hotel.

Park has 20 million visitors a year.

Park is named for a philosopher, Weng Yang-Ming (1472-1529).

Rainfall is 4000 mm. per year = 160 inches/year.

October 10, Friday. To Guandu National Park, watching birds, with Lin, Mao-Sing, Wang, Shin-Jen, and Tsu-Mei. Lin, Mao Sing is elderly and the founder of the leading wild bird club in Taiwan. Also directs a Presbyterian Church choir. I met him in 2004. He was chair of the two day conference at the Forestry Institute at the start of my 2004 trip. English fair, but he brought

along Wang, Shin-Jen to interpret who spoke quite good English. Lin, Mao Sing was not only good with sight, but excellent with bird calls. He picked up several by sound alone.

Rode the subway metro about forty minutes to the end of the line, Guandu, latter half of the ride above ground. Taiwan is surrounded by mountains on three sides. Then we were picked up by car and driven a few miles to the park. I was here before. Again, a somewhat derelict wetland on a river, with the city on all sides, but the low areas around the river "preserved," more restored than preserved. Land purchased and owned by Taipei City Government, but operated by Taipei Wild Bird Society.

Shin-Jen had a binocular, Leica 10x25. BCA which I used. Not bad. Lightweight.

Birds seen:

Chinese bulbul, Picnonotus sinuensis, well seen several times, and generally more or less constantly heard.

Nutmeg mannikin

Rufous turtle dove

Japanese white eye. Zosterops japonica, greenish bird, well seen reached the visitor center. They had huge 20x80 binoculars mounted on stands on the second floor with extensive overlook of ponds and wetlands.

Black winged stilt. Himantopus himantopus

Sacred ibis. Threskiornis aethiopicus. The African Sacred Ibis introduced here. Perhaps two dozen seen.

Spot-billed duck. Anas poecilorhynchon

Gray heron. Ardea cinera. Quite a number of them seen. Their version of the great blue heron.

Great egret. Egreta alba

Little egret. Egreta garzetta

Magpie. Pica pica.

Common kingfisher. Alcedo atthis

Green-winged teal. Anas creca

Walked on boardwalk and walkways down to some blinds.

Grass warbler, heard call only.

Little grebe. Podiceps ruficollis

Moorhen. Gallinula chloropus

Pacific golden plover. Pluvialis fulva (and not P. dominica)

Migrants, here a few days only, then fly south to the Philippines and Australia. In summer they come back through and fly north to Siberia.

Cattle egret. Bubulcus ibis

Yellow wagtail. Motacilla flava, wagging its tail. Migrating.

Avocet. Recurvirostra avosetta. Migrating through here.

Brown shrike. Lanius cristatus Migrant. Well seen

Back in the visitor center, there was "Amazing Grace" on the soundtrack in the visitor center.

Department of Information, Taipei City Government, Birdwatchers Guide to the Taipei Region, 2004. In English, good. ISBN 957-01-7797-7

Wild Bird Society of Taipei, Birdwatching in Taiwan, 2005. ISBN 957-98751-9-7
In English. good.

Lunched in lunchroom there.

Metro back to hotel.

4.00 p.m. Met with Lin, Ren-Yu and wife, Liang, Wei-Jen, and they brought along their two young sons, about lecture next Tuesday.

U.S. stock market continues to crash, also world stock markets.
In the last week, the Dow Jones has fallen further than in any previous week in its history.

October 11, 2008. Saturday. To Wulai area on fern trip with Ke, Dein-yu, Wilderness Society leader that I met before, and Wang Tsai-Gwei, nature interpreter and venture capitalist, and his wife. He studied computing at Rensselaer Tech in Rochester, NY, and worked a couple years in the U.S. for IBM, making computers user friendly. Also Tsu-Mei. Nice car.

Buddhists have an emphasis to buy and release captive animals/birds, often quite inappropriately, and this can cause a lot of problems. But they think it is compassionate and feel good about it. Not all Buddhist schools do this.

Going to meet Wang, Tsai-Gwei and wife, we were early. So we went into a Chinese opera. There were 6-7 elderly men in a basement room playing curious instruments, just entertaining themselves. One instrument was a 2-string guitar, another a moon guitar, various brass percussion instruments, drums, and a plate and sticks that kept clicking and kept the rhythm. Went on for half an hour and we eventually just left, whereupon they stopped.

We drove to the area of the Atyai tribe, an aboriginal people, originally of Polynesian origin, now much intermarried with Chinese and others.

Passed a spectacular cable car at a spectacular waterfall, the Wulai waterfall. This is the northern part of the Fu Shan area.

Book: In Chinese. Ferns of Taiwan, 2001. Excellent photos and Latin names but otherwise all in Chinese. ISBN 957-32-4520-5

Taiwan has over 600 species of ferns, one of the highest densities of fern species in the world.

Walked for about two hours along a flat old road, with river on one side and steep cliffs on another, the cliffs typically fern laden. Generally easy walk, with some rough, wet, and sometimes big muddy places. This is the Sinusian Trail, the river is the Nanshih River, and the blacktop road we used to get in along the river is the Sinfu Road.

He carried a laser pointer, and used it quite effectively, surprisingly good at pointing out things some distance away.

The omnipresent roadside composite is Bidens pilosa var. radiata, originally from Okinawa. Bidens is a genus name in composites, beggar's ticks, I cite one in my "Duties to Endangered Species.) According to one account the Japanese bee-keepers introduced it, for their bees.

Another weed: Polygonum longisetum, looks just like a knotweed at home.

Touch-me-not, Impatiens, common along the walk.

Angiopteris lygoiifolia, Turnip fern. Buddha seat fern, from some fancy about the collapsed leaves at base of the trunk resembling Buddha seated on a lotus throne. A very large fern, you might think it a tree fern, but it doesn't seem to grow a high trunk.

Cyathea lepifera, tree fern

Hedychium coronarium, which they call "ginger." Big plant with large white flowers.

bananas. Often seen as solitary plants in the dense jungle. There are native wild bananas in Taiwan, but he doesn't know whether these are wild or escapes.

Nephrolepis biserrata, kidney fern, giant sword fern

Nephrolepis auriculata, another kidney fern

Begonia formosana, Begonia, seen in flower

Lemmaphyllum microphyllum, fern with unusual form, small round leaves and lanceolate fruting leaves, rather vine like.

Selaginella possibly mollendorffii

Asplenium nidus, Bird's nest fern

Pryosia spp? small fern on rocks, simple leaves.

Goniophlebium formosanum, fern endemic to Taiwan. A big colony on a cliff.

Aglaomorpha coronans, an epiphytic fern, like a Bird's nest fern, but with a distinctive basal part of the leaf.

liverwort of some kind.

Reached a bridge back across the river, and Ke, Dein-yu went and got his car. So it was a one way hike and I was glad not to have to go back through the muddy spots.

Lunched in a crowded town at an indigenous restaurant.

Diplazium esculentum, edible fern and I ate it.

Bird's nest fern, edible and I ate it.

Big plate of small shrimp. I ate them, whole thing, head, antennae, eyes, tail.

Plate of some small fish. a dozen of them. Again, I ate the whole thing, head to tail. Half a dozen of them.

Much larger fish, a trout, which we divided up. All these things seem to be farmed.

Various rices, flavored different ways, wrapped in leaves, the ginger leaves, I think.

After lunch.

Datura, big white flower like Datura at home.

Drove up a long, narrow, winding road, decent blacktop, degrading much right toward the end, to see:

Dipteris conjugata, unusual fern with a radial double leaf. Fronds are fan shaped and cut into two halves. In family Dipteridaceae.

Lots of it on a cliffside, and some had fallen down which we could see up close.

Other ferns here:

Dicranopteris tetraphylla

Asplenium willfordii

Cibotium taiwanense

Blechnum orientale

Lycopodiella cernua, a Lycopodium rather like those at home

Cyprus. tree

They saw monkeys driving up. I did not, only some tree branches moving.

Drove back to the edge of the city, where Wang Tsai-Gwei and his wife had a condominium they use as a retreat. Used the toilet and rested a bit there.

Then drove down to a river/creek below their condominium to see more ferns, a bit of a rough walk.

very loud locust or cicada going down.

Crepidomonies minutem, very small fern

Antrophyum parvulum, with obolanceolate leaf

Phymatopteris hastatus

Adiantum capillus-veneris, a maidenhair fern

There is no tipping in Taiwan. Maybe for a large group in a restaurant.

Shrub, Kwai, in flower. This is the flower, river name in the movie, Bridge over the River Kwai.

Returned, and they brought down out of his apartment to see me:
Shu Ren-Shiu, who they said was the original founder of the Wilderness Society. Spoke good English and had traveled a good deal in U.S. Western parks. A photographer, now seemed to be mostly retired.

Returned to the YMCA hotel, now dark, long day, returned 6.30 p.m.

October 12, Sunday. Preached at Jinan Presbyterian Church, and lunch afterward in Japanese restaurant.

Took me to Jinan Presbyterian Church, a Gothic church built in 1912, congregation goes back to 1880's. Church formerly much frequented by students and faculty from nearby Taiwan University Hospital and College of Medicine. Church roof now under repair so we met for the service in nearby university auditorium, decently sized for the congregation of about 200 persons. Translated by Liang, Wei-jen. Two pastors, both women in black clerical suits and clerical collars, but the senior pastor only gave announcements at the end of the service.

Otherwise the service was led by my host James Wood, who has an industry that makes the lining seals for car windshields and door seals, and who drove me back to the hotel in a huge Mercedes Benz.

Lunch afterward in another upscale Japanese restaurant in the same building. Present Jame Wood, Rev. Stanley H. K. Weng, former pastor of the church who now does Bible translation, Bible Society in Taiwan. The main Taiwanese Bible is 100 years old; they brought out a new translation of the New Testament this year. Also they translate for the aboriginal peoples, such translations are in a romanized script that catches the aboriginal sounds. These peoples themselves had no written languages.

Also present a woman who did translations of Christian literature from English into Taiwanese.

Also present an elderly woman (my age!!) who had been a pianist, studied in Toronto.

Returned to YMCA hotel about 1.00 p.m.

Nap.

In the evening, dinner with Taiwan Ecological Stewardship Association Advisory Board in restaurant at YMCA hotel, 18 persons. Many of them had been to U.S. as students or in business. Decent event, but with the two meals I am a bit tired of the somewhat strained conversations across language barriers. Most of them speak English but still the conversations are often strained. I have to speak slowly and carefully. Nothing colloquial about these conversations. Also, every time I get introduced to a group, I am expected to make a few remarks. One is a waste water treatment engineer, but has a hobby of raising Formosa lilies to plant, share, sell. Lilium formosanum.

October 13, 2008. Monday. Spoke at National Taiwan Normal University, Gong Guan campus and High Speed Rail back to Tainan.

Pick up at 8.15 a.m., checked out of hotel, and off to National Taiwan Normal University, a different campus, now Gong Guan Campus. Spoke 9-11 a.m., in a much better PowerPoint setup. Two classes, Graduate Institute of Environmental Education, and a geography class, maybe 75 graduate students. Lecture: "Values in Nature." Translated by Yen, Mong-Yuan, the Ph.D. graduate student of Wang, Shun-Mei (she translated last Wednesday). Woman who introduced me was Tsai, Huei-Miu, keen on island ecology and culture. Taiwan has some 120 small islands, maybe 20 inhabited.

There is an American here teaching from Wisconsin, married a Taiwanese woman, Steven Simpson. He also came at the end of my stay to the Taiwan National University talk. Teaches outdoor recreation.

Wang, Shen, environmental education, spoke good English.

After the talk a great deal of picture taking. The students wanted photos of my posing with them.

Lunch, elaborately, in another Japanese restaurant. Decent food.

Also present at the lunch, Yang, Kuan-Jen, the retired senior professor I met last week.

Also present Chiung-Fen Yen, my future host from Catholic Providence University, on Friday of this week. She worked ten years in the U.S.

Then taken to visit Tsu-Mei Chen's office in the Presbyterian Church headquarters building.

Then taken to visit two NGO's.

Citizen Congress Watch, a sort of watchdog on legislators.

Ho, Tsung-Hsun, who gave me a lettered graphics, Environmental Ethics, with my name on it. National Association for the Promotion of Community Universities.

Then high speed rail back to Tainan, 3.30-5.00 p.m., and taxi forty minutes into town.

A bit weary again of being shown off and having to say something interesting.

October 14, 2008.

Stock market gains, highest one day gain since 1932, year I was born. DOW gains over 900 points.

Worked in hotel room in morning, on Walter Bruggemann paper.

Picked up at 2.00 p.m., for 3.00 p.m. lecture, and sat in a VIP waiting room an hour. Eventually lectured from about 3.20 to 4.45 and took questions until about 5.15. Seemed to go pretty well, but only a 150 people in a massive auditorium.

Lecture # 2: "Science and Religion Face the Environmental Crisis."

Gave me a huge set of flowers and a food basket.

Posters, flags with my picture on it, and banner over the hospital/auditorium entrance door.

Again, rather too much picture taking, wanting a photo together with the "famous professor."

Taken to dinner in an excellent restaurant, said to be Japanese, Western style. Very tasty food.

Colorado Public Radio and e-mail is working well here now. Too slow last week. So I sit in my hotel room in Taiwan and listen to Denver Public Radio.

October 15, Wednesday. Free day with "Welcome Feast" in the evening.

Worked on a paper, "Creation and Resurrection" for Walter Bruggemann in the morning in hotel room.

Got in a good jog in the middle of the day in the hotel gym.

In the evening on the second floor of this hotel, a "Welcome Feast," hosted by the president of National Cheng Kung University, Michael M. C. Lai, and about fifteen of his deans and department chairs. I wouldn't get this kind of treatment at my own university. Virtually all of them had been in graduate school in the United States.

October 16, Thursday. To Providence University.

Wall Street drop, 2nd largest ever.

9.00 a.m. here in Taiwan = 9.00 p.m. EST, I watched the last U.S. presidential debate, Obama vs. McCain.

11.00 a.m. met by Lin, Yih-Ren, Providence University, and former student of Sam Berry in London. Lunch in Japanese restaurant in the hotel.

High Speed Train, in reserved seat !, to Taichung in the middle of Taiwan, and nice university van to Providence University, at Shalu.

Rice in the fields, they grow two crops a year and feed Taiwan on rice grown in small, intensively cultivated plots. Further south, some can even get three crops a year.

sugar cane, introduced by the Japanese

They do not raise wheat, or potatoes.

But McDonalds fast food is very popular, and a lot of Taiwanese youth want hamburgers and French Fries.

Aboriginals raise some millet.

Blue nets, covering some vegetables.

This amounts to intensive truck farming, with industry and apartments often mixed right in with the farming plots.

bananas

Met at the train station and taken to a fine visiting professor's office with bedroom. With wireless internet.

Lots of photos coming in with students who all want a picture with the "famous professor."

Providence University is a Roman Catholic School. Chinese name: Jing-Yi, named after a founder.

Universities typically have a guard at the entrance gate that you have to pass.

The school originated with nuns educating women.

An early missionary was Saint Mother Theodore Gueiro, 1798-1856, canonized in 2006.

Tour of the ecology building. Impressive including lab space and fancy microscopes.

Pot luck supper with about 25 graduate students. Went well. Ate a fruit like a grapefruit that you peel by hand and eat.

A main host here went to CSU and has Ph.D. from CSU in stream ecology, particularly freshwater invertebrates as indicators of water ecology. Studied under James Ward?

Another host is Yen, Chiang-Fen, who studied at Kansas State, Ames, and speaks excellent English. Worked in U.S. ten years.

An aboriginal student gave me a book he had written and published, a novel about his aboriginal people and their culture. His name is Neco, but they didn't seem to know his whole name.

Chen, Lin-Huei, woman, nurse, and wife of a doctor, gave me a steam inhaler machine to help cure my cough. Also three bottles of some folk medicine to help my stomach.

October 17, Friday. St. Francis lecture.

Breakfast brought to the room.

Tour of the Library. Impressive. Fine building.

"If you have a garden and a library, you have all you need." Cicero. Sign at the entrance.

Saint Mother Theodore Gueiro (1798-1856) founded a girls' school in mainland China. That school and lots of others fled China with Chang Kai Shek, and moved to Taiwan. That later became Providence University. She was canonized in 2006.

Gave the St. Francis of Assisi lecture, the inaugural lecture. Half hour or more of ceremonies unveiling a plaque about the lecture. President of the University was there, and a couple of Roman Catholic dignitaries. Father Ramon Santacana, originally from Spain. Monsignor Paul Russell, originally from Boston. A couple of nuns, sisters. Huge amount of photographing of it all, including fifty or sixty students coming down on stage for photos.

Lecture: "Caring for the Earth: Promised Land and Planet of Promise." (Same as I gave in Morelia, Mexico, last January)

Decent audience at start of my talk, but after ten minutes or so large numbers further piled in and eventually packed the place, maybe 400 there.

I was translated by Lin, Yi-Ren, who had made up a book of my PowerPoint slides and a couple of my articles, including some Chinese added to my PowerPoint, especially the Bible quotations.

Went well, but too long, and I had to cut some slides, somewhat clumsily.

Then a break, then commentary by Her, Zing-Ming, a philosopher, who seems also to be a conservative Christian and to lead a Bible study group. Congenial with discussion of whether there is accident in nature. Went on for another hour and a half. Then lots of photographing, students wanted photo with me. Some thirty or forty of them had been reading my books for three or four months, and they were primed with questions.

Rather fancy catered supper afterward in one of the conference rooms. President of the University was there, and some Catholic dignitaries.

October 18, Saturday. Birdwatching, Global Warming talk at Tunghai University, and return to Tainan.

Up for 7.00 a.m. departure to birdwatching. Drove with 8-10 students to Tunghai University, fifteen minutes away, and were met by other students.

One student was quite an ornithologist, and we spotted birds on campus for a hour and a half.

Chinese bulbul = Light-vented bulbul

Spotted dove

Japanese white eye

Pacific swallow

Gray Treepie - heard only, they couldn't find it

Tiger Bittern, Gorsakius melanolophus, quite nicely seen in a drainage ditch.

plant in the ditch with huge leaves, Alocasia macrorhiza, a native.

black drongo

brown shrike, the grey-headed subspecies. Quite nicely seen.

white wagtail, seen in flight

Tunghai University is a Christian school and they have a somewhat dramatic chapel building on campus.

Got some breakfast in a restaurant with maybe fifteen students, plying me with questions.

One attractive girl was the daughter of a pastor, maybe an aboriginal. Said her father was trying to preserve aboriginal languages. Seemed quite bright and had a high priced camera.

Returned to Providence University and to my room to get suitcases, then returned to Tunghai University for a speech on ethical issues in global warming at some all-day conference they were having there with seemingly important people from Taiwan. I spoke for half an hour with sequential translation. They said I was badly translated, but that nearly all the audience knew English well anyway.

Lunch in a Chinese restaurant with 10-12 students popping me with questions, and recording it on their voice recorders. They all have cameras, laptops, voice recorders and lots of electronics.

But the language barrier makes conversation a bit strained and simplistic.

Then I was driven back to Tainan in the college van, now with two students on each side, women who were writing a thesis using my work. One Li, Ichan, was a schoolteacher of grade school children, complaining that her principal was not interested in environmental education of the children.

The other, somewhat older, was Cheng, Liron, who had taught in some private school that took a Goethe (German Romantic) approach to education. She stopped to do a degree in human ecology at Providence University, and was basing it on my work. Then she will go back to teaching in the school. Questions all the way back, two hours.

They were pleasant, overly cordial, but I was glad to get back into the Tainan hotel room.

October 19, Sunday. Northgate Presbyterian Church and visit to Tainan Theological College and Seminary.

Picked up at 9.00 a.m. by Yang, Shen-Chung, who is professor at Tainan Theological College and Seminary. He studied at Pacific School of Religion and also had some time in Chicago at one of the theological colleges there. He is my translator this coming Tuesday at the University lecture.

Taken to Northgate Presbyterian Church. Cars here have a beeper when backing up and also some of them have an alarm if another car or scooter is too close while driving, either in the rear or at the side of the car.

Scooters, scooters, scooters. The women ride them as much as the men, typically in sandals, but you see them dressed up in high heels scooting along.

Sanctuary on the third floor of the building. About 400 present, lots of enthusiastic singing at the start, with the now omnipresent LCD projected image, although they also used hymnbooks. Group of children singing the Beatitudes with lots of hand and body motions. Also recited/chanted the Prologue to the Gospel of John and the kenosis passage from Phillipians.

One of the two pastors preached a sermon on growing up into Christianity, from babes on milk to solid food. Enthusiastic, and I got a running translation in my ear. Language barriers maybe, but the sermon did not seem all that insightful.

Afterward, tea and cookies. You can't refuse their offer, they bring it to you anyway and seem offended if you don't take it. Generally true, you say no, I've had enough, but you get it dished up and placed in front of you anyway.

They dress up their preschool little girls quite carefully in fine little dresses. The boys mostly had on some church T-shirt.

Yang, Shen-Chung took me on a driving tour to the older part of the city, Anbei, now a touristy area, with various castles, some legacies of the Dutch. The Dutch brought some Reformed Churches, but the Dutch were thrown out by a hero "pirate," and those churches vanished.

We rode to the ocean, here the Taiwan Strait. Lots of ponds, often being aerated, seemingly to keep fish in them, fish farming, but also he said all the water was polluted. Drove back through industrial parks with huge industrial buildings.

Lunch in a Taiwanese Japanese style restaurant. Rather decent seafood spaghetti.

Visited the Tainan Theological College and Seminary. Sort of a garden campus, lots of trees and shrubs, many residence houses, dormitories, and the faculty also live on the campus. Buildings however are typically old and seem in need of some repair, in contrast to Providence University, where I just was. There are only about 250 students here, in programs in theology, but also in social services and in music. Met with the president, a woman who studied at Princeton Theological Seminary and also at Episcopal Theological Seminary, maybe about forty, and the first woman president.

Chinese banyan, Ficus microcarpa, var. microcarpa. Sizeable one in one of the yards. Australian beefwood, the Australian pine, Casuarina equisetifolia.

Back to the hotel about 3.30 p.m.

October 20, Monday. Free day. Lunch with environmental engineers.

Worked in hotel on Bruggemann paper, and upcoming PPT presentations.

Lunch with environmental engineers at a good restaurant, Japanese western style.

This is Shonny's birthday. I called her late at night here, early morning there and got her answering machine.

October 21, Tuesday. 3rd lecture at National Chen Kung University.

Shonny called back at 4.00 a.m. here, early afternoon on the 20th her time. But we did have a good birthday conversation.

Worked in the room in the morning.

Third lecture at National Cheng Kung University at 3.00 p.m., much better PowerPoint setup.

Lecture # 3. Duties to Nature: Can We Follow Nature? Ought We to Follow Nature?"

Voted somewhat hastily in the U.S. election on a mail-in ballot that Jane had sent me thru Tzu-Mei. Voted for Barak Obama, and then had Chi (one of the assistants) take it and post it back to the court house in Ft. Collins, supposedly by means that will deliver it in a week. (election on Nov. 4)

Introduced by Chang, Juu-En, Professor, Dept. of Environmental Engineering, translated by Yang, Shen-Chung, decent audience. Couldn't get my computer hooked into their system, but fortunately I had it on a flash disk and used theirs.

Half a dozen students from Providence University had come down for the talk.

Taken to high speed rail, and train to Tunghai University, Taichung, where I was on Saturday of last week, birdwatching and talk on global warming. Met by Tzy-Ning Chang, and his wife

Tseng, Hui Hwa, both Presbyterian clergy. He is chaplain at Tunghai University, she does programs in social welfare there. Both studied at Asbury Theological Seminary in Kentucky, also a year at University of Illinois. Taken to Tunghai University Alumni Hall, with some hotel rooms.

October 22, Wednesday. Talk for "Second Earth Day" in Luce Chapel at Tunghai University. "Caring for Nature: From Respect to Reverence"

Breakfast with several, especially Peter Chen and his wife. Met the President of the University, also having breakfast there. He graduated once from here in physics, taught materials science in some Indiana University several decades, then came back here as president.

Peter Chen taught ecology here, retired somewhat recently. He is a sort of promoter and is pushing his "Second Earth Day" or Golden Autumn Earth Day, which he hopes one day thousands, millions will support. He makes it religious. Stop for a moment and pray for the Earth.

Service was in their Luce Chapel, which is a somewhat dramatic chapel, designed by some prominent architect. It was donated by someone in the missionary Luce family, missionaries to China, also in the Luces who founded Time magazine in the U.S. Henry Luce (1898-1976) was a co-founder and editor of Time, born in China, son of a Presbyterian missionary, longtime on the board and a prominent benefactor of Princeton Theological Seminary. Daddy once knew him slightly when he was serving on the editorial board of Theology Today, a Princeton Theological Seminary journal.

Senior chaplain: Jack C. Lee.

Met an American from Nebraska who had taught physics here 35 years. Came here as a missionary.

Seemed as though there would be a slim audience at first, but students piled in from classes that let out at 10.00 and by the time we started, 10.20 or so, the place was packed, 400 students or more. Some TV reporters, I had to do an Earth Prayer over for one of them. Took a big photograph of everybody outside the chapel when it was over.

Then a big lunch in a Japanese restaurant, very decent food. The university seems to be decidedly evangelical in focus, though non-denominational. Sometimes it seems that almost everybody who is anybody in academics here studied in the U.S. and also worked there. Maybe that is just the group who filter through to talk to me.

Then high speed rail to Taipei, and more activity than I wanted. Taken to a church, Da Ann Presbyterian Church, to do some planning for a November 2 sermon, which will be televised. Met the pastor, Lo, Lien-Shen, discussed the event, and was taken around to a TV studio, NETV, New Eyes Television, which is a Christian TV station on cable. Had to talk to their director, an engineer, and visit and studio. Also I will address pastors in a Presbytery meeting the next day.

Then too long a taxi ride way to the north side of Taipei, actually in a different city, Tamsui, for TamKang University, which the driver could not find. But once we got there there was considerable campus, and confusion finding the right building. This is the second largest

university in Taiwan, after National Taiwan University. Eventually got a cordial welcome and put up in some faculty guest room, decent, nothing great. They brought take-in food for my supper (at my request).

Some of the traffic lights have a countdown of numbers beside it so you will know how long before red will turn green, or green turn red -- something like the countdown for wait/walk for pedestrians in the U.S.

October 23, Thursday. Lecture at Tamkang University, English Department

Breakfast at 7.30 a.m. with the department chair, Hwang, Yi-ming in his office, and impressive office, lots of curious wood, stone, pottery collected. His field is ecocriticism and the department has for ten years featured ecocriticism in the graduate program, including a Ph.D.

Surprisingly they offer courses in literature of the environment, in ecofeminist literature, in Buddhism and ecology, even in Native Americans and the environment, which is not even offered at Colorado State. He uses the Zimmerman anthology in his class, and showed me my article in it, well highlighted and underscored.

Young woman who is his assistant, Yuan, Chin-Hsuan, wearing a cross, said her mother is a Christian, her father is not. She wanted to know where she could learn more about Christian culture.

Taken on a tour of the campus and down to the seaside by Dean Brink, an American from Seattle who teaches here, his "dream job," he called it. He is somewhat disenchanted with the U.S., an "ex pat." He says the academic standards here are as high as they are in the United States. Taiwanese call themselves a nation of hustlers. We took a taxi into the older part of town and walked along the seafront, no beach, just shops right up to the boat docks, with fishing boats. He said he eats the fish caught in the river, but most other said they would not eat them, too polluted.

It was pleasantly quiet in the early morning, but he says in the afternoon it will be all "hustle and bustle," crowded with people coming and going, which is what Taiwanese like, lots of activity.

He says Taiwanese take veneration of their ancestors quite seriously, and have some little service about it every day in their homes. If someone goes on vacation and forgets to do the homage to their ancestors and something bad happens in the family, they get blamed for the misfortune, neglecting the ancestors.

A lot of his opinions about democracy being as good in Taiwan as it is in the U.S. were challenged by Taiwanese faculty at the evening dinner.

Quite a number of the women students carry parasols and put them up when the sun is shining. So you may see one get off a motor scooter in jean shorts and high heels, grab her backpack, put up a parasol and go off to class.

All their hair is jet black, the women with long hair and little or no curl. Men cut it to different lengths, and older men may have whitish hair. They seldom are bald.

There are 7-11 stores all over the place, one on every corner. Some said 7-11 here is largely a Japanese operation.

Lunch in a restaurant with Dean Brink and a graduate student, whom, they say, is the best Ph.D. student they have. She is writing a Ph.D. dissertation comparing three novels on women and the environment, two Western and one Taiwanese. She is the mother of a two year old daughter, kept in the southern part of Taiwan by her mother. She and her husband live here (he is a publisher) and they go to see their baby daughter twice a month.

The Taiwanese are small, often seem quite small, especially the young women, who don't come more than an inch or two above my elbows.

Lecture 3.00-5.00 p.m. to their faculty and graduate students, about half a dozen faculty and maybe 20-25 graduate students rather crowded into their conference room. Lecture: "Environmental Ethics in the Age of Globalization and Technology." No translation, they all knew English. But even with those who know English quite well, when they ask questions I may not understand their occasional mispronunciations, mixed in with some ideas with which I am unfamiliar.

Dinner afterward in a Japanese restaurant, o.k., but not as upscale as others I have been in. But they were insistent about taking your shoes off before you went into the little room in which we ate.

Tamkung University has 27,000 students, professors, 700 full time, 750 part time.

October 24, Friday. 10.00 a.m. talk to English Dept., and trip to southern tip of Taiwan.

Juniperus chinensis Dragon juniper, attractive trees outside the hotel.

Podocarpus macrophyllus, Buddhist pine. Family Podocarpaceae. Doesn't look like a pine at all. Small tree.

Variegated carp. Huge and multicolored, and too many in a pond at the entrance to the hotel.

Camelia japonica. Camelia. Family: Theaceae

Talk, 10-12 a.m., "Science and Religion: Why the Dialogue Matters."

Lunch at a Japanese restaurant, same one I ate in yesterday.

They have had four international conferences on ecocriticism. Baird Callicott was at the first.

Hsu, Tsui-Ming. a philosopher, Ph.D. in philosophy, teaches environmental ethics here as a course in the core curriculum. He was at lunch. He is quite short. Fair English.

Taxi to train station, MRT to the downtown station, met Tsu Mei's husband there, and took High Speed Rail to Zuoying = Kaohsiung. Highest speed 294 km/hour. Then took their new MRT to a train station and across the street a dingy bus station. I said I didn't want a coke, but he bought me one anyway.

Kaohsiung is Taiwan's second largest city, a big port, and also their most polluted city.

Bus ride 2 ½ hours to Kenting (ken ting). Fair bus, first an express highway, then delay at construction, and then a lot of local stopping. Dark and I was tired of it. Pretty third world. Looking out the window, endless shops, little restaurants, selling something to eat, or junkie kinds of clothing, shoes, repairs for scooters, or whatever.

Now night, but I was riding along the coast, Taiwan Strait, or South China Sea. Lots of shrimp farms/fish farms.

Eventually reached a hotel, fair, somewhat on the dingy side. They took a long time finding some fast food to bring to my hotel room. I'd had enough.

October 25, Saturday. My "nature" tour. Marine Biodiversity, Lighthouse, and the "National Park"

Front of hotel, breakfast room did have a nice view out over the ocean. With nuclear power station and some wind power turbines at one end.

Taiwan has three nuclear plants, two near Taipei and one in the south. A fourth one is under construction. Tsu-Mei's husband is in charge of research about how much the warm water discharged from the plant affects the coral and fish in the ocean bay where it is discharged.

Touristy area, lots of Taiwanese here for the weekend. Beach across from some shops, with a notable huge rock out in the water. Some snorkeling. Along one road, perhaps a dozen Go-Kart sort of tracks. Generally obnoxious flashing neon lights.

Lots of bicyclists here, some with various ID signs and gear on. There is a fad to do the perimeter of Taiwan on a bicycle.

Visited Graduate Institute of Marine Biodiversity and Evolutionary Biology, also the Graduate Institute of Marine Biodiversity, seem to be two groups more or less joined. I was shown around by Fan, Tung-Tuan, who does coral research. They have perhaps a hundred tanks, maybe half of them growing coral used in research in a lab they call the "husbandry center." Good English and quite knowledgeable. Also a tank full of rescued sea turtles, caught in fishermen's nets, that they bring here. They keep them until they are back in good shape and then release them.

Then visited the nearby National Museum of Marine Biodiversity and Aquarium. Kind of a Florida style entertainment aquarium. Large open area with plastic porpoises and whales that the kids can wade out to and pet. But they there is a legitimately impressive aquarium, with thousands of fish, corals, and marine fauna and flora in display tanks. Fabricated settings, fabricated walls, cliffs, underwater areas, sometimes huge fish swimming over your head in "underwater tunnels." Considerable displays of marine biodiversity living on sunken ships. Couple thousand people there, with busloads of school children.

Of particular interest: Mudskipper. *Periopthalmus cantonensis*. A fish that can skip on the mud out of water, amphibious fish. Intertidal habitats, quite active out of water. They breathe through their skin, mouth lining, and throat. Must stay wet. Species in Asia, East Africa, Japan,

northern Australia. Japan. They can stay out of water a long time, even prefer to be out of water.

Garden eel. Heteroconger hassi. 8-10 inches long poking their heads up out of a burrow in the sandy bottom and looking around, then quickly disappearing back into the sand. They feed without ever leaving their burrow. Large eyes.

Drove to the nuclear plant area, particularly the output of warmed water into the ocean bay. Scuba divers. Also a sign at a nearby school: Assembly Point for Evacuation -- in case the power plant had some emergency, presumably helicopters would come in and evacuate people.

Drove south, lunch, down the Hengchun Peninsula to the southernmost tip of Taiwan, and reached the Eluanbi Lighthouse, a park area. Walked up to the lighthouse. First built in 1881, and surrounded with moat and fortified walls with holes for canons. They had to fortify it against the aboriginals. Said to be the only armed lighthouse in the world. Variously damaged and rebuilt by the Japanese and others in wars.

Then drove to what had been promised as a national park with good forest, Kenting National Forest Recreation Area, Hengchun Forestry Research Forest, but it turned out to be a more or less fancy mix of city park and botanical gardens, walkways and trails, but rather manicured and full of people doing Sunday strolls. Fern gardens with stone picnic tables, etc. I think if we had had time we might have gotten into some more remote parts.

Drove back, returned the rental car, and took bus back to Kaohsiung. Rather nice bus and almost nobody on it, but, alas free and compulsory television!!!. Eventually managed to get the set over my head turned off.

Reached Kaohsiung and took a rather slow train back to Tainan, but it did go to the train station near my hotel, so I was in hotel room by 7.00 p.m. I'm glad I did it, I suppose, but I wouldn't do it again.

October 26, Sunday. Church failed. Wetland visit.

I thought I was to be taken to a church but that failed, leaving me a confused morning.

Hou, Ping-Chen ("Lucy") picked me up for a trip to a wetland at 2.30. She teaches biology at the university, now mostly ecology. Studied at University of Massachusetts, Amherst. Good English. Then picked up two friends, one a music education teacher, another an English teacher, all with good English. The "wetland" trip turned out to be a family/friends outing. We were joined at the "wetland" (at a area that used to be a theme park) by two families with kids, one a faculty member, chair of a department, also another faculty member, Albert Chang, who teaches optics. Another was a M.D., internal medicine and arthritis. All of them had studied in the U.S., and several of the children were born there. Most of them were in a Baptist Church together, and nearly all were in some "Teachers' Fellowship," which seems to be some Bible study group for teachers, including college faculty.

Wetland area is named Shi-Tsao. Got on a dingy tourist boat with a fisherman at the helm and another who talked incessantly on a cheap microphone. Visited some oyster beds and they showed us how they raise oysters, dangling down a cord with clumps of oysters. The young

larvae will fix to an old shell on the cord. Held up by an improvised bamboo barge. May have five thousand oysters on one of these, and I saw maybe fifteen of them.

We did then go on to a mangrove swamp area, saw a few birds. Black-billed magpie. Great egrets, a number of them. Most interesting was seeing alive in the "wild" the mudskippers I had found interesting in the Marine Biodiversity Museum yesterday. Saw half a dozen of them moving around some, right at the edge of the water in the mud, decently seen with my binoculars getting me close up.

They threw in a fishing net, caught a few fish, small ones which the kids enjoyed. Raised one bigger net also with a few fish. Crabs and other oddities.

Returned. Went to see the "tree that ate a house." This is a huge banyan fig that has engulfed an old warehouse, so the drop down roots are all over it indoors and out. Really is a huge sprawling tree. Getting dark and I had to watch my footing.

Went to a restaurant, said to be 100 years old in the same family. Family style and there were some 15 of us around a big rotating table. All seafood, all from the various fish, shrimp, oyster farms. Food o.k., and I did enjoy getting in on and seeing them enjoy the occasion. All stood up, held hands, and I had to say grace over the meal. They do eat a lot of different kinds of food. I ate shrimp, oysters, various kinds of fish, eels, sea cucumbers, and other unknown items. They bring about fifteen different dishes, each with enough for each person at the table to have one serving. But the kids don't eat all theirs, and they pass around the leftovers.

October 27, Monday. Meeting with academic VP, mostly free day.

Academic Vice-President, Tang, Ming-Tser, wanted to meet with me and Chi took me there. Met with him about half an hour with more or less cordial chatter. He was M.D., then taught medicine, then the new president, also in medicine, leaned on him to be his academic VP. Says well over half his faculty were trained in the U.S., as was he. Although he says fewer Taiwanese intellectuals think they need to go to U.S. or U.K., he still encourages the graduate students to do so, less they get "tunnel vision" in Taiwan.

Met with Weijen Liang and Yenru Lin at 11.00, mostly about some events they are pushing me to add on to the last days in Taipei, some college student group they want me to give the "Genes Genesis and God" lecture to.

I've been nursing an upset stomach a couple of days, on Lomotil, and I decided to go on Penicillin to help kill the thing. Ate no breakfast except coffee and juice for a couple days, and no lunch. Seems to have worked.

At least I was able to get in a good jog in the afternoon. And ate a good supper.

October 28, Tuesday. Talk to pastors at Northgate Presbyterian Church and lecture no. 4 at National Cheng Kung University.

Picked up at 9.30 by Shun-Chung Yang and taken to the church, very close by. I attended service there earlier.

I had the usual PowerPoint problems, but we got something going using a remote mouse. Spoke to about 120 persons, said to be maybe 80-90 pastors, Presbyterian pastors in the Tainan area, and their wives. Lecture: "Bible and ecology." Seemed to go well, some decent questions, mostly by those who had studied in the U.S., one under Rosemary Reuther. At the end one senior who was a retired Old Testament professor, Joseph Kuo, got up and made a five minute talk in which he said that I had given a very good talk, especially recalling Job and Psalms, and how the Bible also recognized wildlife and predators, and they should listen to me.

They had lunch, 2nd floor of Hotel Tainan, where I am staying, so of course I had to join them for lunch, a rather nicely served one, and I was put up front as guest of honor, as usual with a lot of food set before me whether I wanted it or not.

Got some e-mail off, including critique of parts of a graduate thesis back at CSU.

Lecture no. 4 at Cheng Kung University, same room as last week, and I was prepared with my PowerPoint on a flash drive. This time, again, I thought the audience would be skimpy. But a group of boys from the Tainan Boys High School came in, about 40 of them, all in rather drab uniforms. They say this is the top high school in the region, the top 1% of students are selected to go there. These were all college bound seniors.

Lecture # 4. A Managed Earth and the End of Nature. Nature and Culture in Environmental Ethics." I started lecturing and, as before, a lot of students came in fifteen minutes after I started, presumably from classes that had let out, and at length the room was full. Good questions at end, including some excellent ones from the boys in excellent English. Considerable joking about my remark that "Nature bats last," (the U.S. World Series is in progress) when Weijen, then doing the translating, couldn't translate it because she didn't understand baseball.

Shiuh-huah Chou, English name Serena, had come up from Kaohsiung, National Sun Yat-sen University, Department of Foreign Language and Literature, to hear me. She recently finished some environmental thesis in California, maybe San Jose. I had to sign her copy of Environmental Ethics.

Hsiu-li Juan, English name Rose, had come down from National ChungHsing University in Taichung, also to hear me, said she had read my books and I had to do some signing for her. Department of Foreign Languages and Literature.

A lot of the environmental ethics interest is in departments of Foreign Language and Literature (which often means U.S. and UK) or in departments of English (eco-criticism is a trendy word here), or cultural studies (which might be their equivalent of something like American studies), where they often do contemporary issues. I've met a few, but not that many self-identified philosophers, and many of these universities do not have separate Departments of Philosophy. They put philosophy in cultural studies or in what they call liberal studies, though they usually do have faculty that are identified as doing environmental education.

The earlier plan was to go straight back to Taipei on the high speed rail, but some faculty were insisting that I stay for a dinner. They said that at the Presidents "Welcome Feast" they had to sit at the second table and didn't get to talk to me. So I was taken, I first thought to a restaurant, to discover that they were showing off a park that is restored nature, really a sort of city park but they have planted native trees and have some bushes that attract lightning bugs (not present

now). Getting dark and walking was rough.

Then we did go to a restaurant, high up in some hotel, called "Taste the World." Quite an upscale restaurant, buffet style, with, I think, more different dishes than I have ever seen before, over a hundred of them. You could get it yourself, though (as in the Tainan hotel) if you wanted something more special, they cooked it for you and brought it to the table. Decent conversation with a mix of engineers and faculty from their college of arts (=liberal arts). But I was getting a little weary of being shown off and having to seem to say something interesting or important.

Eventually we got to the high speed rail and we barely made a train a little after 8.00, and slept much of the way back up. In the YMCA hotel by 10.30 p.m.

October 29, Wednesday. Cilan Forest Conservation area in ancient cypress forest, best day of the trip so far.

Pickup was half an hour late and I managed to get Lisa Sideris letter of recommendation off downstairs on the computer in the YMCA lobby.

Green oranges in the hotel, and they are quite good. You think first it is some sort of lime. Most of the oranges in the stands are green. In a pile of a hundred maybe 3-4 are orange.

Stock market is up 800 points on the DOW. We get New York market late here, after the Asian markets have opened and closed. The commentators say the Asian market signals what Wall street will do that day.

Picked up by a Forestry Division driver in a hefty 4 WD SUV, and off to the mountains. Dr. King, chief (Director General) of Forestry, who had my book translated, is setting up a sort of VIP trip for me. We stopped by Tsu-Mei's office to leave some luggage and computer there. Also coming along is Tsu-Mei's friend, the former president of the Homemakers' Association, which she has more or less converted into an NGO for environmental conservation, getting women to be more green and to pressure their husbands in their businesses to be more green. She is middle-aged but keen to get into the out-of-doors, and she has a chance here to do what she would otherwise find it difficult to do. Tsu-Mei describes her as a "devout Buddhist."

The big 4 WD has two buttons, one marked Power, the other Winter at the gearbox. The driver said he never used these, didn't seem to know what they were for--for winter driving in Europe, he supposed. May have been to turn on something like positraction for snow and ice on roads. It does snow in the mountains where we are headed, about every other year.

You can see a family of four on a motorscooter. Dad is driving, some 3 year old is standing between dad and the handlebars. Mom is at back with baby in a backpack baby carrier. All this weaving in and out of traffic. Maybe the 3 year old has on a little helmet.

Also I several times saw a motor scooter, maybe a three-wheeler, with a fold up wheel chair attached. I suppose you ride along, get off, and go into your house rolling yourself in in the wheel chair.

Shops, shops, shops, always on the ground floor, maybe also on the second floor, and they live in apartments in floors above that.

They live on cell phones. The ringers are all turned up loud, annoyingly so and with weird rings.

Even at the dinner meal last night, their phones ring loud and they get up and go aside a bit and talk, interrupting the conversation. This seems almost rude. They should turn the things off.

Yang Tong-Jin, who studied with me a year and a half at CSU on a Fulbright, was coming to the international conference. They bought a ticket for him. But he can't get a visa. Some talk about some vacation days and it isn't a good time to come, but they think it is bureaucratic blocking of intellectual exchange of ideas between Taiwan and mainland China.

In the public toilets, the washbasins are outside, used by both men and women. Inside the general public one are mostly the Asian squat toilets, though in the hotels and better restaurants they are the Western toilets, or both. In the ordinary restaurants there are toilets for men and for women, which I can usually figure out, but often there is just a thin curtain rather than a door, less privacy than you would expect in the U.S.

We drove into the mountains to the south. Drove through two tunnels, one 4 km, and shortly followed by one 12 km. long (7.5 miles), the longest such tunnel in Asia, two two-lane tunnels. This is the one that when I was here in 2004 had been stopped by breaking through to enormous flows of fresh water that they could not control. This is under the Snow Mountain Range, and called the Snow Mountain tunnel, which in effect takes you under the summit mountain range from West Taiwan to East Taiwan, particularly the Northeast Coast scenic area. At times in the tunnel there are loudspeakers warning drivers to keep their distance apart.

Some tea plantations on the hillsides, not many. The claim is it is a high quality tea, environmentalists and foresters also complain it causes a lot of erosion.

We reached Yilan, city of some size, where we picked up Wang, Chiao-Ping, our expert guide, a woman forester. There are houses and rice fields, all mixed in, and we picked her up at an apartment building, with wet rice fields all around. Also vegetables, bananas, some fruit trees mixed in. She did Ph.D. in Germany in soil science. She learned to ski in Austria, likes it, and has been to Canada to ski. Her research here with Taiwan Forestry Research Institute is to monitor the carbon storage in the forests, especially the higher mountains.
cpwang@tfri.gov.tw

It turns out she has a six-year old daughter who has been home from school with a cough and runny nose, and she has to take her along. Not an exciting thought to pile her into the SUV too, since I came to Taiwan with a cough caught from Ellie.

Then can only raise one crop of rice a year here. They keep the fields flooded all winter (their mild winter), to avoid the fields growing up with weeds, especially wheat, which is also grown here. But she says the water does bring mosquitoes. Lots of egrets seen in the fields in town.

She also does some teaching in courses the forestry staff have to take to keep up, and does some environmental ethics there. She has been reading my book in environmental ethics.

We had to stop in the shops to get food; they will cook where we stay in the mountains. Open air shops, with everything. Mushrooms, onions, which they call scallions, greens and lettuces of various kinds, fruits, many of which I cannot recognize, peppers, melons. Said to be mostly local, but I saw grapes labeled from California and apples from Washington State. There is a huge thing they call a persimmon, and it does look like a U.S. wild persimmon, but it doesn't taste like one. The name is Diospyros khaki, Japanese or Asian persimmon. I ate one with the lunch, also one called a Buddha fruit, the fruit is supposed to resembled a plump statue of

Buddha.

Lunched in a place I would never voluntarily go into, one of the shops, with cooking out front, more or less in the open air and on the street. Ate rice, pork, bamboo shoots, ferns. There was a good carbonated apple juice, more or less like the Appletizers in South Africa. It was a quite noisy place, with some men, drinking too much, playing some games, including the old rock, scissors, paper game.

Orchards of the wax apple fruit, shaped like a bell, no relation to apples.

Drove up a river into the mountains. The river bed is often half a mile across, with, at the moment very little water in a few strands here and there. Rest is bare rock, no vegetation. Not particularly scenic. The whole floodplain floods with heavy rains and typhoons. There was some mining of the stones and gravel pits, rock crushers. This did not seem all that much to me but Chiao-Ping kept claiming it was environmentally bad.

Further up, now climbing into the mountains, but with floodplain below, there were big washouts in the road, road destroyed by a recent typhoon, with make-shift roads going back to the floodplain and climbing. Segments of road maybe 100 meters long had just collapsed and fallen below. She claimed this was due to the gravel pits.

Lots of winding road, ever climbing. Got more narrow and rough, but above they were repaving it so it got better. Now dense forest. This is two-lane, narrow but two-lane and the trees may entirely cover the road as a canopy.

Eventually reached a guarded gate to the Chi-lan, or Cilan Forest Conservation area, and after that a one-lane gravel with turnouts. Lots of mirrors so you could see around the hairpin turns. Cilan refers to "perching orchids," orchids growing on trees trunks, though I did not see this.

This is a public area, but you have to get a permit to come here to limit use. They limit use to 700 persons per day, but I don't think that is the number that can come where we are now, but to all the surrounding forest recreation area as well. I did see a couple of tour vans, and a couple sets of hikers, no more.

12 km on this road, in dense forests, sometimes good tree ferns, and steadily climbing. Some times quite old trees in here, but much of the area, steep though it is, was logged, and replanted by the Japanese with Cryptomeria japonica, Japanese cedar, nice looking evergreen, which she says was a mistake. This is impressive in Japan, where it is native and endemic, can be a couple thousand years old, Family Taxodiaceae, redwood family, related to Sequoia. It is a good timber tree in Japan, but does not make good timber here as it gets a rot in the phloem.

This is cloud rainforest. It is typically sunny in the morning, and updrafts make it foggy by noon or soon after, often with mist or rain in the afternoon. Variously quite foggy on the drive up, vehicle lights on and short visibility, and more bright times.

Reached a sort of visitor center with the main old growth trees, the "Divine Trees Park." This is about 1,400 meters, about 5,200 feet, more or less the elevation of the high Great Smoky Mountains, but it is not far from the sea.

The two trees of most interest are:

Chamaecyparis obtusa. Taiwan Cypress. Family Cupressaceae. blunt tips on the minute appressed leaves. More pointed crowns. 8-10 scales, platelets in the cone. Cone a ball shape. Newspaper article called it Taiwan Yellow Cypress.

Chamaecyparis formosensis. Taiwan Red Cypress. sharper tips on the minute appressed leaves. Rounded crowns. 10-13 scales, platelets in the cone. Cone an oval shape.

These are relicts, relic species of the Tertiary Period and endemic to Taiwan.

Print the China Times article, website on Internet favorites.

Walked the divine trees route. Decent pathway over steep hillside, often with built steps and sometimes rough. It had been foggy but was now cloudy bright. They have named fifty of the oldest trees after Chinese sages and emperors who were born about the time that tree sprouted. They have done trunk coring to determine ages.

Impressive trees, never super tall, but considerable size in circumference, heavy limbs and generally looked liked they had been there for centuries. Also some dead, and the huge stumps well grown over, often now with sizeable trees thereon.

Lush ferns on the forest floor.

Oldest tree was the Confucius tree, said to have sprouted in 551 B.C., Taiwan Red Cypress, and therefore some 2,500 years old. 7 meters in circumference and 44 meters tall (about half a football field). This was not the largest. Dates given for life of Confucius are 551 B.C. - 479 B.C.

So I stood there thinking how much had happened since Confucius, also wondering if anything Confucius had to say was relevant to environmental ethics, global issues today, and much doubting it. Also with some fear what Earth might be like 2,500 years hence.

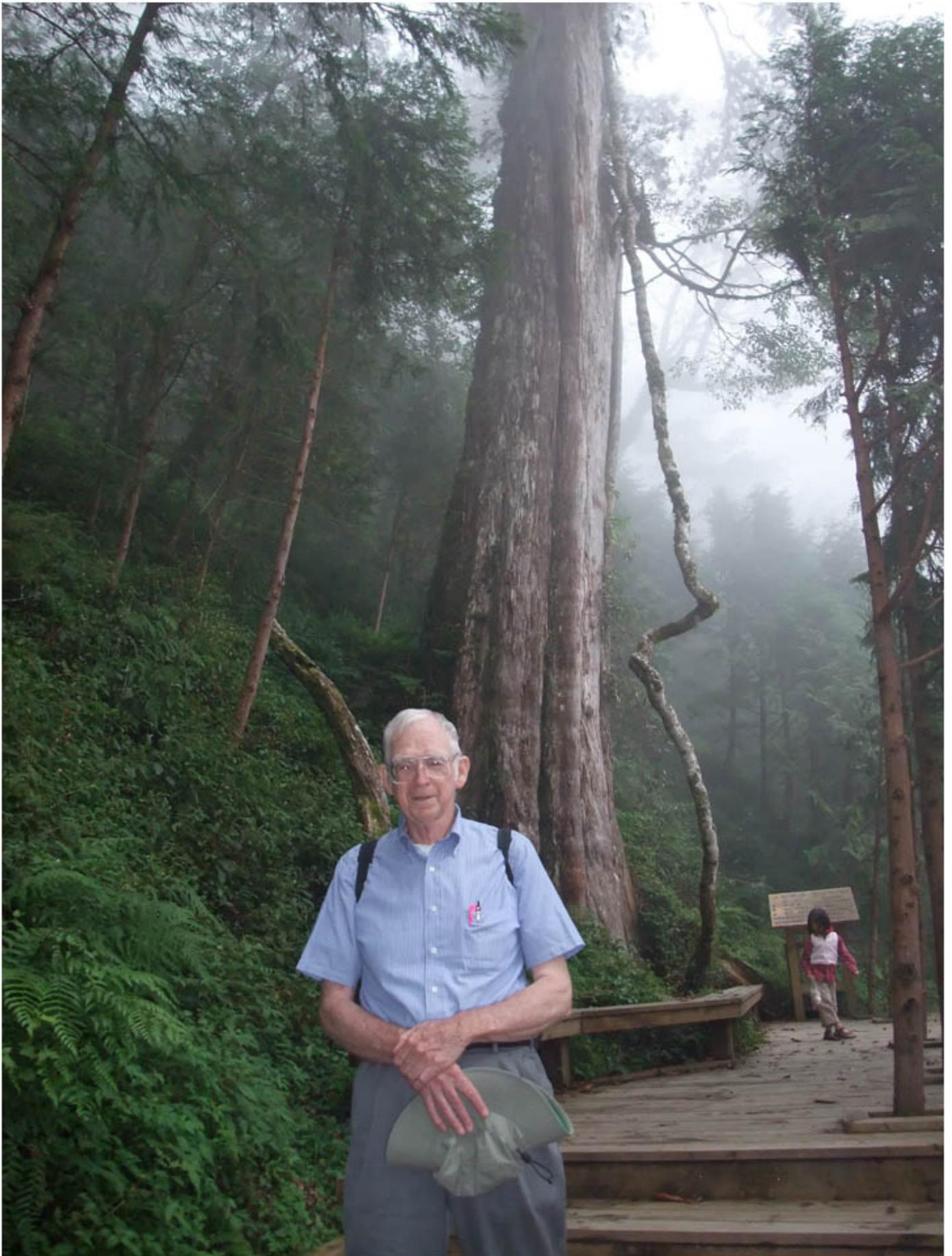
Typical dates varied, from maybe 500 years, often in the 1500 year range, and some 2000, only the Confucius tree that old.

One was named for Genghis Khan, sprouting in 1155 A.D.

Continued, maybe 2 ½ hours or so on this trail, much up and down, and eventually a good climb out.

At the latter part we flushed twice a large bird which we really never saw. They didn't know what it was. Chiao-Ping was surprisingly ignorant about birds; we had seen several small ones and heard others. Later, others said it had to be the Mikado pheasant, which is pictured on their \$ 1,000 bill. Uncommon and rather secretive bird, largely black with some interesting coloring in male, of the mountain forests.

Toward the end there was a small temple in the woods, down a trail. I asked why and they said the loggers had constructed it to get the local goddess to protect them from getting hurt when they cut the trees, also to make her less angry that they were cutting the trees. The temple has since been kept up, renovated some, by the park staff (I don't think that means the researchers).



Rolston at the Confucius Tree



Rolston at the Confucius Tree



Tsu-Mei's friend, when we entered the temple said a short prayer. They said they have some festivals or "parties" there. When I asked her whether she thought this goddess might also have been or be worshiped in mainland China, they had quite a discussion and decided they did not know. She said they just work it out locally who they will worship. !!!

Another long drive (half an hour on dirt road), again through a locked gate, for which they had the key, to the Forestry Research Center. This turned out to be two buildings one used by the Academia Sinica, the Taiwan Academy (of science, also of social science) and the other by the Division of Forestry. The latter was once constructed as a kind of hikers' hostel, when there were more hikers, and has now been taken over for forestry research.

While they were cooking supper, I went next door and was talking with some of them. The bunch of 6-8 there were collecting Taiwan endemic plant species for a plant inventory. They did seem quite knowledgeable. Eventually I mentioned the moss book I had bought when I was here in 2004, and said that Bill Weber (Curator of the Herbarium, University of Colorado Boulder, had said they were the best moss photos he had ever seen. The botanist, Hsu, Tsai-Wen, said: "I took those photos." Small world. He gave me a micro chip with that book and one on liverworts on it. He showed me a liverwort they had collected that day which was of special interest because it was an insectivorous liverwort.

Also in our building was a group who were surveying the trails. They seem to be paid some small amount to hike out the old trails and see what condition they were in, with the (at least stated) purpose of needing to know in case they were needed for rescue efforts, especially in the case of some typhoon or earthquake. They said some of these trails had not been checked since the 1999 earthquake. So I guess there are parts of Taiwan seldom visited.

They had a vehicle with a rather clever tailgate kitchen, pullout stove, dish storage. Also some pretty hefty packs. I had to sign some flags they had, with photos.

Rough but decent, they made considerable effort to sweep it up and clean the tables. Group toilets, no hot water in the basins, but hot water in showers, combined with the Asian squat toilets, a little tricky to wash your face in those circumstances.

They had gotten me a nice down sleeping bag from somewhere, also a down vest.

October 30, Thursday. Soil survey site, and drive out, to National Tsing Hua University, Hsinchu.

Surprisingly good sleep, from about 9.00 p.m. to 5.00 without awakening at all.

Driver had made boiled bread for breakfast. I ate some obligingly, but it is terrible stuff, I hated it in China. Like some worthless failed dumpling, with a little leaven that barely raises the dough.

More photos when the hikers' took off. They claimed they expected to check out about 20 kms. (12.5 miles) of trails that day many of them steep. They wanted to know about hiking in the Rockies and where I had been in the West.

No logging now in Taiwan. Chao-Ping's father used to import logs from elsewhere in Asia. He often found that several were filled with snakes which would get loose in his warehouse. He first killed them, but found that people in local markets wanted to eat them, so he would get them to come and catch them and they would sell them to eat. Logs are no longer allowed to

be imported as they had problems with various imported pests like that. Now all timber imported has to be sawn timber.

I asked about the poison snakes in the woods and she said they are no trouble. But she does have to teach her daughter to watch out for poison snakes in the rice ponds near her home. Also snakes will get in her air conditioning unit and ruin it.

She says there is a centipede with a very bad bite, although no poison. She sees them in her soil samples all the time, but says they are no trouble.

We went to an overview site and then to her research site. This was a rough walk, maybe a quarter mile down a steep path, rough stones, in very dark woods. Bright sun overhead, but so dark it was difficult to see your footing, and the rocks and logs were often wet and slippery. Some steps and a little iron grid for footing over some wet spots. But I made it.

A lab, monitoring site in these deep woods. Tower to the tops of the trees with tubes that did air intake at several levels in the forest to see what the carbon dioxide levels were. Various collectors of water to test for pollutants. Various monitors in the soil to check what was there. This area is a natural regeneration area. The cypress was cut some hundred years ago, some fifty years ago, and mother trees were left, and have regenerated from seed. Now trees more or less 12-15 inches in diameter.

Part of their interest is what pollutants are in the upslope air coming up daily from factories below in the upslope currents that produce the cloud forest and they monitor that. Most of the monitoring is automatic and the data is sent out by transmitter. But she and others have to come in about every two weeks.

In nearby sites their interest is in what the planted Japanese tree is doing to the soils.

We left her to walk back to the lab, where she (and daughter) will be for a couple days.

Driver took us out. Glimpse of a monkey at edge of the road. I wouldn't have known what it was, but the driver said that is what it was.

Stopped at the guard station to turn in our permit and check out. Had to go in to find them and found them watching the U.S. World Series live, with the Phillies winning (12 hour difference in time of course). Contradictions. From the deep woods, Confucius tree, to Phillies and the World Series live.

Returned to Taipei. Franklin Graham is having a crusade here next couple of days. Speaking to some 20,000 to 30,000 persons the next three nights.

Driver changed to a sedan and we drove to National Tsing Hua University, Hsinchu, about an hour and a half south of Taipei, good freeway.

This university is supposed to be strong in science, especially physics, but I am suspecting that is mostly applied physics. They claim to be the MIT of Taiwan. They do have an atomic particle accelerator, the first in Asia, from the 1960's still in use. They also have a nuclear reactor, used for experiments. They also said several of their physics faculty had gotten health problems from overexposure to radiation in their laboratories.

According to some faculty the nuclear science department, though strong, so fell out of popular favor with dislike of nuclear power, they changed their name to "systems science." But now they have changed back again. Various of them say their specialty is "materials science."

Lee, Yuan-Tze is a Nobel prize winner in chemistry, 1986. He was born here, graduated from here with a Master's, taught here some, but did his Ph.D. work and work for which he was awarded the Nobel in the United States at Berkeley. Dealt with the kinetics of large molecules. Afterward he came back to Taiwan and was president of the Academia Sinica.

Tsu Mei Chen graduated from here in physics, and this year was named outstanding alumnus. That gave her an entrée into setting up this conference here.

Nice guest hotel on campus with as good a room as I have had.

October 31, Friday. Spoke at their "International Conference." Mostly this meant several from Hong Kong.

Nice room, but a poor breakfast. All the Chinese stuff, pickled and dried bits of this and that, boiled egg, boiled bread. No knife, fork, and spoon anywhere in sight, so I had to go back to the room to get one. About half the time the restaurants don't have them, only chopsticks, and I have to supply my own. But lots of locals carry their own chopsticks, which fold up in to a decorative box.

Main road from one side of campus to the other is blocked by construction which makes for an awkward long drive around to get from the guest house to the conference site, in their liberal arts building. We thus drove through their Science Park, industrial area, which they say is the Silicon Valley of Taiwan. Mostly semiconductor manufacturing.

Not far from the conference site is a huge building, College of Technology Management, which some of these industries donated. Those at the conference complained they pay little or no attention to ethics in their training here.

Spoke from 9.30-10.45 to about a hundred persons. Lecture: "Science and Religion in the Face of the Environmental Crisis." This conference is sponsored by their Science, Technology, and Society Institute. Director, Wu, Chyan-Yuan was quite cordial. Keen on STS and ethics. Sponsored by their departments of history, especially sociology, also philosophy and anthropology. He studied 6 years at University of Pennsylvania, has been to VPI and U Va, Charlottesville several times.

They have 8-10 student assistants, graduate students, always buzzing around doing something, trying to be helpful and frequently distracting. Overly helpful about setting up your computer and when it doesn't connect up to the system right, they go into a tizzy trying to push buttons on a lot of equipment, also taking photos, setting up various miniature recorders, bringing you a cup of tea, adjusting the room lights or curtains. They seem to think they have to crouch down and run when they do this and that. I had to speak with a big orchid stuck in my shirt pocket, which I would just as soon not have had.

Taiwan has 20% of its land area protected. 7 National Parks, 21 coastal protected areas, 19 nature reserves, 17 wildlife refuges, 31 major wildlife habitats, and 6 forest reserves, according to one speaker. But others said this is less impressive than appears because 20% of the land of Taiwan is too steep for development or agriculture.

Taiwan is of some interest because the Tropic of Cancer runs right through it, and at that latitude elsewhere in the world is usually desert or semi-arid, never rainforest.

Heard three other speakers with some running translation in my ear from one of the faculty. VIP Lunch, o.k., nothing much, though quite cordial.

Back to the hotel, and most of the afternoon there.

Dinner in the conference building, a restaurant there. Decent food. They got lost coming back, and wasted forty minutes driving.

November 1, 2008. Saturday. Conference concluded, and back to Taipei.

Only fifteen more days here.

Movie, rather well done of Taiwan birds, with the photographer there. Taiwan has 85 endemic species and subspecies of birds.

I spoke 10-11.15. Lecture: "Science and Religion: Why the Dialogue Matters"

Another speaker was on toxics in Taiwan and highly critical of the semiconductor industry on worker safety and environmental pollution, as being hypocritical, saying something politically correct and then in fact doing little or nothing. He used a number of the maxims from my Environmental Ethics, chapter on business.

Lunch, and back to hotel.

After the closing ceremonies, with perfunctory remarks by the University Vice-President, back to Taipei. New moon and Venus quite near it in the sky, surprisingly clear, given the pollution and mist of the city. Drive back on a freeway but so crowded it was stop and go half the time.

Reached Tai-An Church, met by pastor, Lo, Lien-Shen, and wife, taken upstairs to the guest bedroom in the church, which turned out to be a sort of garret under the church balcony, rather sparse. Toilet was down the hall, with a bath arrangement in a wooden tub that looked like an oversized beer keg (said to be "Japanese style"). An on-demand electric water heater on the wall, which, it turned out didn't work, so I had to make do with room temperature tap water.

November 2, Sunday. Preached at Tai-An Church, National Palace Museum, and 101 Building.

Morning service was recorded by a television crew, to be edited into something to be broadcast on NETV, New Eye Television. I preached, Weijen translated, seemed to go well, and then the service went on forever, baptisms, communion, various groups introduced. About 250 people present. This pastor has been here 33 years. This church has sent mission teams to Malawi in Africa every year for the last ten years. The last few years about forty or fifty people from the church have gone on this mission to Malawi.

Lunch with some of their elders, successful business men, a couple faculty, and a woman who runs the blood bank and transfusion program for the nation. Broken English made conversation difficult, except for the woman who spoke good English and helped out.

Taken to National Palace Museum, with impressive collections brought over from the mainland

China when Chang Kai Shek came, since expanded. All the way from jade going back to 5,000 B.C. (from archaeology sites) to 17th-18th-19th centuries, mostly things that were in the collections of their emperors. Lots of calligraphy, vases, urns, carvings, and more.

Then to the Grand Hotel, an enormous hotel Japanese style, with ornate lobby. Lots of policemen already here. Tomorrow an envoy from mainland China arrives here for talks with the present government, which leans toward stronger relations with China, and big protest demonstrations are expected.

Then taken to Taipei 101 Building. This is the tallest building in the world, 508 meters (that's five football fields more or less), or at least it was until the one in Dubai, which is or will be taller. The one in Dubai is not finished yet, so they say. Huge shopping complexes in the bottom floors and adjoining. 101 occupied floors, hence the name. Then we rode the fastest elevator in the world, 1,010 meters per minute, to the 89th floor, which is an observatory. The elevator has to be pressurized to avoid damage to your ears. By now it was night, but this is, they say, the best time to come, city lights all around and there is interpretation of what you see. Restaurants, jewelry stores, some very nice ones, tourist trap. Walked to 91st floor where you can go outside. Huge passive wind damper, a sort of massive pendulum, that keeps the building from swaying in the winds. particularly the typhoons. Also the building is said to be built to withstand the strongest earthquakes known in the last 2,500 years. Nevertheless I wouldn't want to be up there in an earthquake. There is a multi-million dollar fireworks display here each new year's day.

Taiwanese like to say that while the U.S. took 300 years to develop to its present advanced state, the Taiwanese have done it in 30 years.

Current Taiwanese President is Ma Ying-jeou. He is a Roman Catholic. The ruling party is the Kuomintang. The opposition party is the DPP, Democratic Progress Party, opposed to the current meeting with the Chinese mainland envoy.

Taiwan has some 160 universities, and most think this is too many. There are a large number of private ones of mixed caliber, often encouraged by a government concerned to have a highly educated citizenry also for technology. There are too few students entering to keep all these universities viable.

Most of the church translations are into Taiwanese, not Mandarin Chinese. But the academic language is Mandarin Chinese. Taiwanese is still not an academic language.

Supper in a restaurant below, and back to my garret room, with the hot water that doesn't work.

November 3, Monday. Seven Stars Synod in Taipei, High Speed Rail to Tainan Spoke to the Seven Stars Synod of the Presbyterian Church in Taiwan, 79 churches in the Taipei area. Pastors, elders and some others filled the main part of the church, not balcony. Maybe 150-175. Good choir. Good grand piano.

I spoke, Bible and Ecology, and Weijen translated. Went well.

They were having lunch, but we needed to get to the train, so they packed some lunch.

High Speed Rail to Tainan, there about 4.00 and got in a jog.

November 4, Tuesday. Election Day in U.S. presidential race, though given the 11 hour (standard time) difference, it is still November 3rd there. Early morning there, polls opening, will be late evening here.

\$ 30 worth of wash done in the hotel, no time to do it myself and I had to get the fast service.

Lecture # 5, Future of Environmental Ethics in the afternoon. Held in a library plush conference hall, where the audience has big soft seats and each one their own desk and microphone. Room was full, but probably only 125 or so. It seems they turned away some groups who wanted to come (especially the high school boys who came last week) on grounds there was no space. A pity.

High Speed Rail back to Taipei. I am by now tired of taking it, even though it is quite a good, comfortable, smooth ride. Train station is a long ways out of town.

November 5, Wednesday. Train to Hualien and lecture at National Dong Hwa University.

Voting places not yet closed in U.S. so no election results yet, though the presidential outcome is hardly in doubt.

Left 7.30 for 8.00 train, with pickup breakfast. Train north and around top of Taiwan, then south down the coast, a train that I took when here in 2004. 500 school kids, graduating from 6th grade, in train station, taking their 3-day graduation trip, with a separate train just for them. Well-behaved.

Train leaving the station goes 15 km. underground before you ever see the light of day. High rise apartment after high rise apartment, and smaller apartment buildings in between when you do.

Lots of betel nut palms.

When you get around on the east coast, there is at times good scenery, with dramatic steep mountains on the west and Pacific ocean right at you on the east. Good sun, good clouds today, with the high mountains (many over 3,000 meters, 10,000 ft) draped in and out of clouds. View is often marred by huge power lines, which the power company strings in the mountains disregarding aesthetics entirely.

Rice paddies right in the villages. I suppose this landscape has my urban, rural, and wild all right there in the same horizon.

Reached Hualien about 10.30 and taken by car to Shou-Feng. Host Hsie, Yue-Joe, landscape ecology and hydrology. Good English, studied in U.S.

Relatively rapid uplift of the mountains and their steep slopes, relatively rapid cutting, plus some earthquakes makes for natural landslides, often small ones, but significant in the hydrology.

Bread trees, Artocarpus communis, raised by aboriginals, from which they make bread. But those in the car say they don't like it.

Reached National Dong Hua University. A bit curious. University is fifteen years old, a recent one, designed by an architect from Pennsylvania !, and is, supposedly a general university,

though on later inquiry they do not have a full suite of the usual university departments. About seven years ago College of Indigenous Studies was placed here, built a big building, and generally they seem to be trying to figure out what its place is. The College of Indigenous Studies has maybe 1000 students, only half actually indigenous themselves, less than a third of the faculty are themselves indigenous. And this is only a rather small percentage of the total student body.

Lunch in a Japanese restaurant with the landscape ecologist and 4-5 faculty from the College of Aboriginal Studies, which he did not otherwise know. One, Jolan Hsieh, studied Native Americans at Arizona State, then worked in U.S. prison system, especially with Native American women in prison, often from selling drugs. She is also a graduate of Tainan Theological College, in Tainan. These aboriginal people are often Presbyterians, missionaries worked with them a lot.

Spoke to a full house of students, good many faculty, in the College of Indigenous Studies, but they said the audience was only about one third from that college, two-thirds from all over the university. Lecture: Science and Religion face the Environmental Crisis, reworked some for these circumstances. No questions at first, but then, really after I thought the session was over, some questions started up, and continued another half an hour.

Perfunctory visit with the Dean of the College of Indigenous Studies. Good English, did Political Science at Ohio State.

Driven back to Hua-lien by Mei-hui Chen Lai, ordained Presbyterian minister, woman who works at the Yu-Shan Theological College near here. She drove us by it. I stayed there in 2004 with all the frogs croaking out of the window. She studied in the U.S. in Seattle, seminary there somewhere. Saw a recreational lake which is actually a natural lake, caused by a landslide in remote past, though now you would never know it. She tried to get me to speak at the seminary, but her president and others didn't seem to want me. So that released the time I now have to go to Hong Kong.

Train back to Taipei in the dark. Election results have been coming in all day, though I didn't hear them. Obama the next president.

November 6, Thursday. Hong Kong.

Flight over, a little over an hour. Flight distance is 500 miles.

Not many Western faces, even in the airport, or at least in the terminal I was in. There was a tour group from mainland China, speaking some language that Tsu-Mei could not understand, so different was the dialect from Mandarin Chinese.

Didn't have to take out my computer, nor take off my shoes.

Drug trafficking in Taiwan is punishable by death.

Picked up at airport. Here the driving is on left hand side of road, British style.

Huge bridge from the island with the airport over to the main islands. Rather scenic drive in. Huge and tall hi-rise apartments. People packed in. They say common people are packed in

with beds at three levels, on top of each other. Common toilets down the hall, not in your apartment.

Main host: Kang Phee Seng, Head and professor, Department of Religion and Philosophy, Hong Kong Baptist University. He was raised in Singapore, of Chinese parents who had moved there, as was his wife. He studied with James Torrance, at University of Aberdeen. He is a member of the International Society for Science and Religion, and had met me at the meeting in Cambridge University a couple years back.

There was fruit in the hotel room, with apples from the state of Washington, excellent grapes, probably also from U.S. They had bought some sandwiches and a coke for me to take to the room.

Hong Kong Baptist University has 8,000 students, 400 faculty.

Lecture, "Caring for Nature, from Respect to Reverence," in conference room. (Same lecture I gave in Maryville, Tennessee, in September.) Audience all seated in plush chairs with microphones and separate screens on which they viewed the PowerPoint. Maybe 125 persons present, academics from Hong Kong Baptist University and other universities in town. Apparently attendance by invitation only.

John Polkinghorne spoke here in 2006.

Lots of ceremony and photographing, with the president of the university, Ng Ching Fai, a chemist and once dean of science, and others. The President, they said, is not a Christian.

Dinner in a fancy restaurant. Main host at dinner vice president for research, Taoi An Chung.

Jonathan Chan, young philosopher, who had cut his eye, walking into a glass door. Does Chinese philosophy, thought of himself as an analytic philosopher. Doing something in environmental virtue ethics.

Ellen Zhang, comparative religion, middle-aged, somewhat stout. Long at Temple University, and had read lots of my work.

Lauren F. Pfister, American, long in Hong Kong, gave me an article he wrote with a rather dismal view of what Chinese scholars of their classics had done addressing the environmental crisis.

Stephen H. Palmquist, American, called himself a Kant scholar, gave me a copy of an introduction to philosophy he had written for use in Hong Kong. From California and owns ten acres of redwoods in California.

November 7, Friday.

Hong Kong Baptist University has exchange programs with quite a number of U.S. schools, especially schools in the U.S. South. Also support, scholarships, etc., from a number of churches in the U.S. South.

The newspaper reports protests in Taiwan over the visit of the mainland China envoy's trip

there. 10,000 protestors, some 100 of whom were arrested.

Visit to China Graduate School of Theology. Walked there, past some small garden. Mormon temple also in the area. Elementary schools in Hong Kong may have their playgrounds on the roof. Real estate is quite expensive.

Lots of graduation photographing going on as we walked, with huge bouquets of flowers. Actually they finished back in the summer, but the graduation is not until now.

This is essentially both seminary and graduate school in theology, in U. S. terms. There are about 200 full time students, 500 including part time students. It is interdenominational. Nearly all the students are from Hong Kong. There are no dorms. Quite nice facilities. Visit with the president: Carver Tat Sum Yi. Spoke English quite well, and knew U.S. and European theology quite well. Considered himself a friend of Tom Torrance. Had some connections with Princeton Theological Seminary.

There is lots of subsidized housing, free education, and almost free medical care for many of the poorer persons in Hong Kong.

There are double street names, one very English, Devon, Cornwall, or whatever, and a Chinese street name, which has no relationship at all to the Chinese name.

Lion Mountain on the skyline, which looks like the profile of a lion. Often rather obscured by tall buildings.

Cars regularly have left and right side air conditioning settings, for driver and passenger different temperatures.

Ate in a quite fancy restaurant, named the Panoramas, with a panoramic view over the harbor, done with flair and style. The waiters unfold the napkins and put it in your lap for you. Food served with great aesthetic setting, although there was not a lot of food actually to eat. This was on upper floors of a hotel, with fancy shopping in the lower floors, even a couple floors underground.

Flight back to Taipei.

Picked up by Wang, Chung-Ho, research fellow in Institute of Earth Sciences, Academia Sinica. He does research using radioactive isotopes of hydrogen, oxygen, carbon, to monitor hydrology in rivers and sea. Studied at University of Hawaii. Operates a mass spectrometer. He and his wife are active Christians. He became a Christian in adult life.

Drove to his apartment home, really about 40 km., outside of downtown Taipei, but not far from his work. Apartment, which they own, condominium, about the size of what we lived in at Yale University when I was there. His wife is Yi-Min Fang. She works for a shipping firm. They have a daughter in twenties in school in the U.S., doing computer imaging, design.

There are 23 million people in Taiwan and 14 million motor scooters.

Supper in his home.

They have a small tap for drinking water that filters their tap water. He says it takes out heavy

metal ions and anions, chlorine. It would take out microbes, but he doesn't think there are any in the Taipei water.

Taiwan has high mountains from the junction of two continental plates. But what is pushed up is sedimentary rocks, sandstone, shale, not much igneous, maybe only 20% of the country rock.

November 8, Saturday.

Breakfast and then off to speak at his group, named something like Faith, Hope, and Love for Professional Persons, at main public library in Taiwan, their International Conference Center. Nice facility on maybe 10th floor. Spoke to maybe sixty, Ethics of Global Warming. They were meeting all day and had three or four speakers, but they called me their keynote speaker. They are a primarily Christian group.

Recycling has cut the need for incineration in Taipei in half.

Raining very hard. There is a typhoon somewhere in the South China Sea, not here, but does it making rain here, expected to continue several days. Afterward, toward noon, taken by Tim Pan and wife, Cing Cing Han (much younger sister) to tour city, but in the very hard rain went to Royal Hotel for lunch where we spent most of the time at an elaborate lunch, with buckets of rain coming down just outside our corner table with big windows in two directions.

He does software for banks, which helps them estimate risks. Studied computer engineering, electrical engineering, at Washington University. His father was an Anglican priest who fled China with Chang Kai She. Excellent English. He seems to be quite active in an Anglican Church here, sometimes preaching there.

His wife is a translator and interviewer for a government radio station that beams short wave broadcasts into mainland China. She studied social welfare, Ph.D. at University of North Carolina, Chapel Hill, also worked in social welfare in California. Excellent English.

Turning Award is the main award in computer science, similar to the Nobel Prize. Half of those who have won it are academics, half in industry, over thirty years.

Back to the apartment about 3.30, giving up on going to an art museum because of the torrential rains.

Walked, in pouring down rain, with big umbrella, 10 minutes, to supper in a small restaurant, Chinese, with some seeds you had to grind up making a sauce for your pork.

Wang, Chung-Ho's father was a general in Chang Kai She's army. Wang, Chung-Ho served in the military, compulsory, for two years as a teenager, and once in a review Chang Kai She walked right by him only a few feet away.

Yi-Min Fang's mother then about twenty years of age was more or less forced to marry a military officer twenty years older than she was, to be able to escape from the Communists to Taiwan. He had had a previous family. Yi-Min has a brother who was left in China that she has hardly seen. Her mother was married to this officer about ten years, and Yi-Min was born in Taiwan. Her mother then divorced and re-married, and had four more children, one of whom was Cing Cing Han, younger sister yesterday. About two million persons fled China, about half were

military persons, half civilians.

November 9, 2008. Sunday.

Breakfast, raining hard all night. Left from a parking garage in the apartment basement. He bought the parking space here, paid \$ US 38,000 for it fifteen years ago, and owns it.

Preached at Shin-Tien Presbyterian Church. Hsien Tien City (= Hsinten = Shin-Tien). I preached here April 4, 2004. Church founded in 1874 by a Scottish missionary.

They are forever pushing a cup of hot tea in front of you whether you ask for it or not.

I met Tsu-Mei's parents here, elderly, both father and more. They were accompanied by a domestic servant, whom they have hired from Indonesia to care for them.

Vigorous choir, practicing quite a while before the service. Nice grand piano, well played. Also flute and violin. Song service half an hour at the start. Familiar tunes, hymns, several chosen on account of my theme: This is my Father's World. We Plow the Fields and Scatter. Bringing in the Sheaves. Hymns projected onto a PowerPoint screen, as in all the churches I have been in here.

Man in wheel chair up front much cared for by several persons, presumably his family, but he was doubtfully able to take in anything that was going on.

Awards, recognition given to about twenty persons who had taken the training and served as counselors to any who came forward in the recent Franklin Graham crusade.

After the service, we were driven to the train station by the elder who presided at the service (as is usual, an elder presides, the preacher only preaches and gives announcements). Fine Mercedes Benz car. He is an international distributor for bicycle and motor scooter parts made in Taiwan and made in China for him.

Raining hard.

High speed rail to Tainan, and in hotel about 3.30 p.m.

Got in a good jog.

November 10, Monday.

Worked on upcoming talks. Rained most of the night, but now it has stopped.

Spent an hour and a half with Chi getting money sorted out, particularly my pay in Taiwan Dollars, also adding in various honoraria received other places. Ended up having to take 22 US\$ 500 American Express checks, \$ 11,000. They have yet to get the airfare reimbursement worked out.

November 11, Tuesday. Last of six lectures at National Cheng Kung University. Birthday party.

Morning in the hotel room, sorting out the Taipei talks later this week.

Left at 12.30 on bus with others for 50 minute drive to Tainan Science Park, maybe 20 km. outside the city. Eventually reached a big Science Park, by which they mean an industrial park with science technology in it. Drove by several huge CHIMEI buildings, and reached a large auditorium, conference center, much bigger than needed for my lecture.

CHIMEI makes LCD panels, as used in thin TV sets and also in LCD projectors, seems to be one of the top two or three in the world (optoelectronics). The founder is Shu, Weh-Ling, now in his eighties, who had a vision of great corporate social responsibility for his business. He himself seems to be an artist, collects art, plays the violin, and goes fishing in the mountains.

A part of the Science Park is designated as the Tree Valley, and is to be "green." They plan to plant 100,000 trees, and have already planted 35,000, using various community groups, including school children, community groups, as well as CHIMEI employees. The park will have lakes, an ecology area, hopefully wildlife, walking and riding paths, surrounding industry. Some 30,000 people are eventually supposed to work in the TV, Tree Valley Park.

Introduction to the Tree Valley vision by a woman, whose sister was showing me around. Then the first speaker speaking to a handful in a big auditorium. But a couple busloads arrived from the university, and eventually I spoke to maybe 125 persons. Lecture # 6. Environmental Ethics and Business. They presented to me a seedling tree (actually 3 small seedlings) which they will plant with a sign on it that these trees are dedicated to me. Tree is a native, Melia azedarach, which the woman herself raised from seed.

On departure, the moon was nearly new and nicely seen. By the time I get home it will be slightly past full.

Bus back into the city and to a restaurant for my birthday party. About 35 persons present, 8-10 faculty, some of whom I had never seen before, and others students who had attended my lectures and especially those who seem to have been "volunteers" to do something arranging for or promoting my visit.

Started off with some dyed eggs, wrapped up, like Easter eggs, which they seem to connect with birthdays, new life, more life. Meal with various ceremonies and thanks, then a huge birthday cake (as much like a pudding as a cake), but with candle on top. Various gifts to me, and some to others. Owner of the restaurant gave me some Taiwan tea he seems to make.

November 12, 2008.

High speed rail back to Taipei, with Dr. Lin and his secretary along, also Tsu Mei.

YMCA hotel and got ready for the afternoon.

To National Taiwan University, which, they are quick to tell you, is the best in Taiwan. 34,200 students. Met a dean, Chen, Bao-Ji, and others. Lecture, "Environmental Ethics and Sustainability," to a packed room and enthusiastic audience. Lots of faculty from various parts of the university and well as students. Students seated on all the steps and down front, standing in the back. Lectured in English, they did not want translation. Some questions afterward.

Dinner in a restaurant in their guest hotel. Half a dozen faculty present, including Chen, Chi-Fang, engineering science and ocean engineering, went to MIT. Excellent English and

concerned about teaching values, environmental ethics, in her classes. Also a soil scientist, distinguished professor, Chen, Zueng-sang, whose English made serious conversation difficult. Others, often as much in what I would call agricultural extension as in research science. They seem to call this "Bio-Industry Communication and Development."

November 13, 2008. National Forestry Research Institute and Student Christian Fellowship.

Spoke 9.00 a.m - 11.00 a.m. at Taiwan Forestry Research Institute, in a conference room setting. Lecture: Environmental Ethics, Global Warming, Forests. Dr. King was present, as was his successor Y. Star Huang. A professor of forestry, Feng, Fong-Long, from National Chung Hsing University in Taichung, brought 6-8 of his graduate students, who had come to hear me both yesterday and today. Enthusiastic about my work, and photos with him and his students.

Questions and answers for forty minutes afterward, often of a personal nature since my talk emphasized some sense of encounter with nature in forests.

Afterward toured the lab of a host there, where they were digitizing their insect collection, especially Taiwan moths. Saw a fancy camera set up for photographing, digital scan of a mounted insect, wings widespread. She took 8-10 different photos on account of the narrow depth of field, at slightly different layers, and the software, combined with her inspection of the photos on her computer, compiled all the photos for the clearest overall image. All this is going on the web:

<http://content.teldap.tw/>

in Chinese, also with English version

Taiwan Digital Archives Expansion Project

Afternoon, packing up and discarding gifts, too many of them, often things I did not need or want. But there was a box full to take him, many posters, some fine gift books, papers, etc. Packed it all up in Tsu-Mei's office.

Evening, spoke to Campus Evangelical Fellowship, students from Taiwan National University. Lecture: Genes, Genesis, and God. In a conference room upstairs in a bookstore they run. Campus Evangelical Fellowship has chapters in about eighty universities in Taiwan. They had maybe 75 to listen to me, room was full. Bright kids, or they wouldn't be in this university, and lots of them understood English as I spoke. Generally a conservative, or "evangelical" group. Lead pastor: Peng, Hui-Ping.

In their effort to be good hosts, the first thing anybody does when you arrive anywhere is poke a little cup of hot tea at you. I'll be glad to get home get out of that practice.

Typically, when you get taken somewhere, they may ask you what you prefer to do, but they are going to end up doing what they had planned to do with you anyway, what they think they ought to show you.

November 14, Friday.

Somewhat perfunctory visit with Lyim, Hong-Tiong, Associate General Secretary of the General Assembly of the Presbyterian Church in Taiwan, on church and environmental concern with some effort to encourage support of the Taiwan Ecological Stewardship Association. Weijen translated but they did not want Tsu-Mei present.

Then off to Yang-Ming Shan National Park, where I was on October 9. Excellent guide, older woman, spoke excellent English and was widely traveled herself, in much of the United States.

Yang-Ming Shan National Park has 12-14 million visitors a year, which is half the population of Taiwan (23 million), though of course many are repeat visitors. There is a free shuttle for senior citizens from Taipei, and many come here often.

You drive through much developed areas, then into the park, something like leaving Gatlinburg to go into the Smokies.

The park has 400 volunteer naturalists.

Feral dogs are a problem, dozens of them, released by people who no longer want them as pets. They also release birds, turtles, fish, any pets they don't want. Some, but only some of this, comes from Buddhist convictions about compassion.

Took a little walk through an area where we were supposed to get a good view of the mountains, but we could only see about half of them. The highest summit is 1,200 meters (3,900 feet), which we could not see, though you could see a steep path going up toward it. This mountain region is generally called the Mt. Tatum area. Some horticulture here and the immediate area was generally quite trashy.

A violet in bloom, [Viola nagasawai](#).

As before, it got more cloudy and misty the higher we went. Ate some rice rolls and they had prepared some soup for us at one of the visitor areas, though I can't say I enjoyed either one.

Reached the area of fumaroles again. This is the Siaoyoukeng area. Misty and at first we could see no more than before, but after twenty minutes of standing in light rain it cleared rather well, enough to see the large fumarole, a hundred yards or so off, with lots of steam. General area of a couple hundred meters has slumped from seepage. Across the valley there was a large fumarole, big hole in a cliff side and lots of steam shot out of it, somewhat horizontally across the valley. A couple others below. Nice sight, and we were lucky for the clearing.

The country rock is andesite here, which with the hot water seepage, weathers to a fragile soil, including a mineral called cristobalite.

There are these fumaroles here in northern Taiwan, and there are others on two islands further north, which are not easy to reach.

Hikers from the Czech Republic.

Silvergrass around as before, no longer blooming. Silvergrass ([Miscanthus floridulus](#)).

Returned to visit Yangminshan National Park adjacent, which was Chang Kai She's summer home. Mansion with gardens. View at one area into a natural forest, with a tree Camilia in bloom. Generalissimo Chang Kai She (1887-1975), once supreme commander of the Allied Forces in the China Region. Retreat to Formosa after the Communist take over in 1949.

Lots of memorabilia, photos with Franklin Roosevelt, Churchill, Sun Yat-Sen, various war photos.

Madam Chang Kai She (1897-2003) was educated mostly in the U.S., graduated from Wellsley

College. She was not his first wife, who was the sister of Mao Tse-tung. Mao Tse-tung (1893-1976) led the Communists to victory against Chang Kai-she. A son by that marriage was Chang Kai-she's successor as the second president of Taiwan. Bitter enemies intimately related. She was raised a Christian, Chang Kai-she converted to Christianity more or less when he married her. She was injured during Japanese bombing of China; the car she was in rolled over, and that injury troubled her for life. She was an artist and various of her artwork here, including large panes of etched glass. Spent her last years in the U.S. and died at 104 years of age. Rather grand reception rooms, bedrooms. She was the second woman ever to address the U.S. Congress, in 1943.

Recall here that Taiwan was under martial law longer than any other country in the world, from 1949 until 1987. Chang Kai-she fled here from the Communists and brought his government. They had no elected members of Parliament for 40 years, but simply carried over members who had fled the mainland. They kept up the myth that they were a government in exile, and would return to the mainland, also the myth of a military emergency.

Feb. 28, 1947 (before Chang Kai-she, but under a deputy of his sent to govern the island), there was a big protest and demand for reform by elite Taiwanese. Some 10,000 to 30,000 were killed, against an inept governor appointed by Chang Kai-she.

Quite mixed attitudes to Chang Kai-she now in Taiwan.

There are secret tunnels in the mansion for hiding and escape.

Blue magpie heard, not seen in the garden trees on the walk out.

Back to hotel.

November 15, 2008. Surprise, another speech, before flight home.

Breakfast, picked up at 9.00 a.m., thinking I was joining Tsu-Mei where she was giving some talk, then to the airport after much. She had arranged a car.

But it turned out we drove to Hsinchu again, an hour's drive, good day, to a meeting of the National Association for the Promotion of Community Universities. When we got there I discovered my name on the podium, and I had to make a speech, which I did, with some emphasis on "community," as needed as industry, economics, engineering.

I would like to have left thereafter, but as usual they have other ideas about what you should do, so we more or less got pushed onto a bus to take a tour. Box lunch served on the bus, awkward to eat. They would have been offended if we had not gone. So we joined three busses on a tour out to the coast, where they have a Hsinchu City Coastline Scenic Area, bragged to be 17 km. of splendid coastline. We did climb a tower and you could see surf, pretty day, but otherwise little natural at least at this location. Scenic coastline for them includes fishing villages, recreational boat wharves, park space, as well as a bird viewing area and something they call a mangrove park. There is a drive up the area with sea viewpoints. Others did get out and walk enough to the sea to touch the water. Some windpower turbines here.

On a lot of this they were bragging about re-claiming old waste dumps and reinventing the coastline.

They seems to need the reassurance that what they are doing is important, and having some celebrity speak to them gives them that reassurance.

Eventually we got back to the hired car, and reached the airport about 3.00 p.m.

Flight home. 11 ½ hours in the air, transPacific, but nearly 30 hours out of bed.
Not too bad a trip back, however, aisle seats.
You live the same day twice coming back.

Los Angeles is threatened by wildfires, destroying a number of homes, and I could see well a fireline from the airplane shortly after taking off for Denver.
Home about 11.00 p.m. on Nov 15, Saturday night and glad to get back.

end Taiwan

November 17, 2008. Fox running across Prospect Road, nicely seen in good light.

November 19-21, 2008. University of Wisconsin, Stevens Point.

November 19, Wednesday, 2008. Flew to Stevens Point. My 76th birthday.

November 20, Thursday. Cold, range of 10 degrees. Snow flurries during the night. Principal Host: Christopher Diehm, who is this semester teaching a course entirely devoted to my writings and my critics. Met with that class 11.00-12.30, then lunched with half of them. Afternoon, visit to Schmeckle Reserve, a nature reserve on the north side of campus that is part of the university. Something of an entrepreneurial attitude toward making money to run it, including a shop for making elaborate wooden signs. Lecture in the evening to 300: "Future of Environmental Ethics."

November 21, Friday. Drove to Hartman Creek State Park, some 30 miles east, and hiked a couple hours with about eight of the students. Cold. Decent trail, oak leaves underfoot. Red

pine, white pine. Red oak, black oak. Black locust is here considered a pest. An Ice Age National Scenic Trail runs through the park and runs for 1,200 miles in Wisconsin, said to follow the lower limit of ice in the Pleistocene. Maintained by National Park Service.

Emerald Ash Borer is a threat to ash here. Green metallic beetle. Larvae eat under the bark. Native to China, brought probably in wood packing materials, found in Michigan in 2002. Responsible for death or decline of 15 million ash trees in 20 county area around Detroit. Hard to detect because the decline is gradual. No firewood may be brought into this county.

Returned, lunched with students, and off to airport for flight home.

Dec. 3, 2008. Surgery, rotator cuff repair. Arm in sling for six weeks.

Dec. 14, 2008. Very cold spell. Minus 15 degrees in town. Minus 4.7 at home.

Trail Log 2009

January 19, 2009. Rocky Mountain National Park, first outing after my shoulder surgery and the day before Barak Obama was inaugurated first black president. I got out of the sling last Wednesday. Pikes Peak visible on way to Loveland.

Good day, sunshine all day. 7 bighorn sheep below Drake, nicely seen and in good setting. Maybe five rams, half curl.

Lunched in Moraine Park watching a few tiny clouds over Long's Peak dissolving and reforming. Then went to Bear Lake, walked the snow to look at the lake. Back to Halowell Park and walked forty minutes there. Napped. Magpies. Rocky Mountain jay.

Toward evening about 12 elk in Upper Beaver Meadows, then over and down into Horshoe Park. Where the Fall River Road comes out, some great bulls nicely seen in the scope and racks against the snow, about seven of them. One was 7 points on both racks. Out in the main open area 30 mostly cows, and then 30 yards from road, 20 cows.

February 3, 2009. One crocus in bloom, if a bit wimpy, at the corner of the front porch nearest the garage, one of the old bunch of crocuses. This must be the earliest ever, nor has the weather been particularly warm.

Finland, March 2009

March 22, 2009, Sunday. Flew from Denver, leaving 6.15, overnight on Lufthanza to Frankfurt.

March 23, Monday. Frankfurt to Helsinki, and taxi to University Guest House, arriving in evening.

I was first in Finland June 17-July 8, 1994, at the Koli conference on forests. See rather good notes on Finland in general there.

March 24, Tuesday. Lecture, "Does Aesthetic Appreciation of Nature Need to be Science-Based," at University of Helsinki, with parallel lecture by Arnold Berleant. Host Arto Haapala. Good setting and good audience, 45 minutes discussion.

Weather: snow on ground, some snow flurries, but not bad.

Dinner that evening, with Arto H., Arnold B., Christopher Stevens, Petteri Kummola, sat to my left, a Ph.D. candidate, urban environmental ethics, and Jonathan Maskit. Maskit is at Dennison University. I interviewed him once for Cafaro's job. Stevens is Ph.D. candidate and interviewed me the next morning. Ate moose. Moose hunting is a popular sport in Finland. This is the moose (Alces alces) in the American sense, which is called an elk in most of Europe. The summer population is about 125,000, reduced to 80,000 in the fall hunt. Also ate a little reindeer.

March 25, Wednesday. Interview at 9.00 a.m., videotaped, on environmental aesthetics, for use with their undergraduates there.

Noon, flight to Joensuu. Much snow on the ground. Met and driven to Valamo Monastery, Heinävesi, about 70 km. Heinävesi is main town in region, but not that close to the monastery and across a big lake. This is Greek Orthodox monastery, originally on an island, Valaam, the largest island in Lake Ladoga, the largest lake in Europe, to the east in Karelia, when the Russians took over that part of Finland in 1940. The Finnish Orthodox Church was once part of the Russian Orthodox Church, but moved to the jurisdiction of Constantinople in 1917. According to my previous notes I was here for a day visit, June 24, Friday, 1994, though I have little or no memories of it.

Somewhat sprawling number of buildings on something of a hill above a lake. Snow everywhere and frozen lake. Rather icy roads and paths that had to be walked with some care, although they did throw down gravel over them to make them less slippery. Generally good weather, often clear, though hazy sky.

The landscape is generally a spindly white birch, small pines, maybe because bigger trees are logged out, but also because trees grow slowly here. Saw a good many piles of cut timber, little of it big enough to make a single 2x4 out of. Presumably pulpwood, but they said it was piled up much more than usual, because they couldn't sell it in the current economic crisis.

Besides pines, the forests are spruce (Picea abies) (only thought to have reached Finland somewhat recently, 3,000 years ago), and various birches. Pubescent birch (Betula pubescens), typically with several main trunks and twisted branches. White birch = B. verrucosa = pendula. Also aspen (Populus tremula). Also, alder (Alnus incana or glutinosa). Lots of Rowan tree, Sorbus, Sorbus aucuparia. Some juniper (Juniperus communis). Lots of willow, Salix.

The monastery is also a conference facility, something of a vacation place, and that seems to be the way they get much of their support. Food was o.k. One night a quite lavish banquet, featuring Karelian and Russian food. Otherwise pretty standard fare. Porridge, boiled eggs, and pickled fish, cheese for breakfast. Yogurt, and their berries, but the berries thinly distilled in a pure sugar sauce, too sweet. They did have some decent berries to put on your porridge.

One participant was Osmo Kontturi, esker expert, from the Koli conference. Then Jane and I had an evening with him and his wife at his cabin, near his home, and then at his home in Joensuu. We then cooked sausages over wood fire.

Conference on Celestial Aesthetics: The Aesthetics of Sky, Space, and Heaven.

There was a performance at the frozen lake by Cherrie Sampson, "Her Blue Sea Fire," enacting creation from the Kalevala, Canto 1, a Finnish collection of folklore. She was rolled up in blue silk on the ice, and with some music, more like guttural chanting by two men, unrolled herself,

danced at some fires, broke a large egg, with some powder in it, and eventually climbed a rough ladder toward the sky. We were freezing and it is hard to see how she did it in the cold. She is at University of Missouri, Columbia.

Another evening was an astronomy lesson on the lake, again cold, but quite clear sky. The twins, Gemini, north star, Cassiopea, Saturn through a small telescope (but the rings were hardly visible due to the current orientation), and some Finnish-named constellations, especially the Reindeer, that once had six legs and a god cut off two and now has four. Orion low in the sky.

Another night we were bussed to an observatory by some amateurs who do research, at Varkaus. Cloudy sky, and we saw nothing. But had a lecture by one of the astronomers. Also cooked sausages over an open fire, and refreshments in a warming hut. At this observatory they have discovered seven supernovae, the last one just the night before we were there. Showed a photograph of it, only a pinpoint of light at much distance, but a pinpoint that wasn't there before.

On return, 11.00 p.m., walking to the dormitory I saw an all white hare of some size, hopping in the snow. Saw it reasonably well in the flashlight. This seems to be Lepus timidus, variously known as the mountain hare, blue hare, the locals seemed to want to call it the forest hare. The arctic hare has been included in this species but is now better put as a separate species: Lepus arcticus. Finland also has the European hare, Lepus europaeus, widespread in Europe and in southern Finland, maybe called a field hare, the latter not in these parts. The American snowshoe hare is Lepus americanus, a different but closely related species. Eats twigs and bark when it cannot get grasses.

A black bird, apparently a crow, was common on the grounds. Saw nothing else.

There are wolves in this part of Finland, and I talked with a local resident, woman at the conference, who had seen one. There are about 200 wolves in Eastern Finland, up from 100 a few years back. This population is contiguous with the Russian wolves, several hundred more in Russian Karelia and 30,000 in Russia overall. Resistance by reindeer herders, wolves disrupt their reindeer populations. Resistance by some hunters, wolves kill 30-50 of their dogs a year. Resistance by some sheep herders. Finnish wildlife authorities would like for the population to spread to other parts of Finland, but often people don't want them, and also the wolves don't seem to want to go, since they are resisted there.

Gave a paper on Friday, on "Celestial Aesthetics: Over our Heads or in our Heads." Went well, they did have good PowerPoint with sound and a good dark room, which I needed.

March 29, Sunday. Returned to Joensuu on bus.

March 30, Monday. At University of Joensuu. Discussion in the morning, tour of the university. Impressive Forest Research Institute, METLA, with building made of wood. Lunch with the rector, who did give us a lot of his time. Good newspaper story on my talk, same story in two different local newspapers, with good photo.

Afternoon, five of us gave mini-lectures, to a small audience.

Evening, dinner with Yrjö Sepänmaa and wife, Auti, principal hosts here.

March 31, Tuesday. Slack day waiting for the plane that evening, to Helsinki.
Fair flight home, over an hour late leaving Frankfurt, with some runways closed due to high winds. There was a blizzard in Fort Collins while I was gone, schools and CSU closed early one day.

April 25-28, 2009. Missoula, MT for panel on my intellectual biography, Saving Creation.

April 25, Saturday. Flew to Missoula, arriving about 1.00 p.m. Picked up by Christopher Preston.

Couple hours hike about 4-6 p.m. with Christopher on Main Rattlesnake Trail. Lots of Erythronium grandiflorum, Glacier lily, in an otherwise barren woodland floor, often spectacular. We did find three trilliums, Trillium ovatum, one of them surprisingly in full flower with nothing else out around it.

Larch, Larix

Stayed at Blossom's Bed & Breakfast.

April 26, Sunday. Picked up at 7.15 a.m. by Bill Burnett for wildflower hike up Waterworks Hill, up Cherry Gulch. He runs a home inspection service and is active in the Montana Native Plant Society. billburnett@montana.com

There was once a microwave reflector here on which local activists had painted a peace sign, and most locals remember it.

Balsam-root, Arrow-leaved, Balsamorhiza sagittata, out in full force, several hundred of them. Leafy spurge, Euphorbia esula, a troublesome weed here

3-4 deer, nice white-tails on way up

Woodland star, Small flowered. Lithophragma parviflorum. Star-flower, a Sasifrage. Lots of them out.

Missoula phlox, Phlox missoulensis, a state endemic. Others put it as Phlox kelseyi var. missoulensis. Good deal in good flower.

Lupines, Lupinus, fairly well out, but not full out.

Yellowbells, Fritillaria pudica. Good many out.

Cut-leaf daisy, Erigeron compositus

Basin rye grass- gets head high.

Most spectacular was Shooting Star, Dodecatheon sp., at the top of the windswept hill. I must have seen ten thousand of them. Dodecatheon conjugens?? The behavior here seems quite unlike the Colorado one, Dodecatheon pulchellum, which is in cool, shady, wettish spots.

Mertensia paniculara, Bluebells

Sunday afternoon, I hiked up to the L (letter on the mountain for Lolo High School, a Catholic High School here.

Serviceberry, Amelanchier alnifolia, some well in flower

Gooseberry, Ribes aureum

Lomatium

Pot-luck supper at Dane Scott's home, wife Leslie, a physician.

Dan Spencer, teaches religion and environment
Pat Burke, older, now an M.A. student in environmental ethics, was active as a restoration ecologist. Took me on an afternoon hike on Monday
Robin Saha
Bill Borie, recreation management, originally Australian

April 27, Monday.

Morning, walked into town and around the university.

Afternoon, hike with Pat Burke into Patte Canyon. Not much out, but he knew the woods well.

Sagebrush buttercup, Early buttercup, Ranunculus glaberrimus. A number nicely out.

Carex geyeri, out with inconspicuous flower. He knew the local Carex.

Identified, not in flower

Symphoricarpos, Snowberry

Physiocarpus, Ninebark

Smooth brome, Bromus inermis

There are two larches here:

Western Larch, Larix occidentalis 3-sided needles

Subalpine Larch. Larix lyallii. 4-sided needles. This split off as a species from Western Larch, in the pleistocene, when it was confined to high ground and separated off from Western Larch.

There is a book about this. They will still hybridize.

A good local book is:

Klaus Lackschewitz, Vascular Plants of West Central Montana. May 1991. USDA Forest Service, Intermountain Research Project, General Technical Report INT-277.

Dinner with Dane and Leslie Scott at a restaurant.

Panel in the evening on Preston/Rolston intellectual biography. 60-70 present. Commentary by Al Borgmann, Debbie Slicer, comments by Preston, and myself. Dave Strohmeier was there, who wrote book (that I refereed and endorsed) about fire-fighters. He went to Yale Divinity School, is now a town councilman.

April 28, Tuesday. Flew home.

April 29, 2009. Fox crossing our driveway and headed over the fence into the back yard. Right at me when I opened the garage door to take the Jeep out. A bit nonchalant about it all.

Korea - May 9-17, 2009.

May 9, 2009. Saturday. Left Denver, 11.15 a.m., arrived San Francisco about 1.00 p.m., with little transfer time, but made it o.k. Left San Francisco 2.10 p.m. on Singapore Airlines. Good aisle seat and good flight. About 12 hour flight, stretching out the day and flying into earlier time zones. Crossed the international dateline somewhere, which meant that my maybe 3.00 p.m. Saturday became 3.00 p.m. Sunday. Flew on into Seoul, still stretching the day and getting earlier, arriving 6.45 p.m. Sunday.

May 10, Sunday. Arrived in Seoul (Incheon airport, 50 km away) 6.45 p.m. and was met by Sung-Jin Kim. Time here is advanced 15 hours, from Fort Collins. Flight from San Francisco, 9,756 km. = 6,062 miles. Denver-San Francisco 967 miles, so I flew 7,029 miles.

They tested every body arriving for a high temperature with a thermometer that they placed right behind your ear -- for fears of swine flu, currently in epidemic around the world.

I spent the night at his home, sleeping on a mat on the floor in her piano studio. Wife: Lee, Eun Joo, a classical soprano.

May 11, Monday. Flew from Seoul (Gimpo airport, the domestic airport and once the international airport) to the island of Jeju. (pronounced jay-ju, or jay-zu)

Jeju-Si is the city.

Jeju-Do is the province.

Met by a philosopher there, Yoon, Yong-Tack.

Island is some 70 km. by 30 km., generally an oval, and volcanic.

East side is mountainous, west side is mud flats.

Sung-Jin rented a car. Complicated navigation system in it. Checked into the Chen-ju University Guest House (same word as Jen-ju, different spelling), and took off to climb Halla Mountain (Mount Hallasan).

Lots of cemeteries with well kept stone walls.

Pine trees, often good forests.

Jen-ju has some 13 km. of lava caves. Some of them, although volcanic, nevertheless have stalactite formations, apparently from lime in oceanic deposits at times above the lava.

Lunched in a big trailhead parking lot. Big tangerines, the size of a large orange are grown here. Tasty. Started at Yeongsil trailhead and walked to Witsoreum, 3.7 km., 7.4 km return. Often good steps, but the climb was like walking up stair steps all the way. But considerable areas were rough walking over lava stones.

Considerable climb. Basalt pillars with various folklore about them, frozen soldiers, and the like.

Korea has 54 universities with departments of philosophy and they all teach environmental ethics in some form or other. Korea has some 150 or so colleges. 80% of their high school graduates go on to some form of college.



Mount Hallasan rhododendron - Jeju Island, Korea - May 11, 2009

Cheju National University has 6 philosophers, 10,000 undergraduates, 1,500 graduate students.

Walked through forest, the main ground cover is dwarf bamboo (Genus Sasa). Crossed various dry streams, only one with any water in it. The volcanic rock soaks up water.

Eventually reached a high open area, quite reminiscent of Roan Mountain, Tennessee for its displays of azalea (as they call it), of rhododendron. Two species:

1. Rhododendron yedonse for. pookhanense (on sign in the park) = Rhododendron weyrichii var. psilostylum (in university guide book).
2. Rhododendron mucronulatum var. ciliatum

Quite spectacular.

Walked maybe 1.5 km. on a boardwalk, past a spring, to a visitor center. (with some Gatorade) Trail to the top from here is closed to allow plant restoration, and has been closed ten years. There are other trails to the top. Summit is 1,950 meters.

A fir here is Korean fir, Abies koreana, endemic to Jeju. Only a windswept low shrub as I saw it.

The island is considered subtropical, but they call this area subalpine.

Return.

Crowberry. Empetrum nigrum

This is a World Heritage site.

two roe deer grazing above us, clearly seen. Small deer.

Book:

Jeju Island. Educational Science Research Institute. Cheju National University, 2006. ISBN 89-7077-251-0

Dinner in a restaurant. Jeju native swine, or black swine, is a pig breed here, which I ate several times, cooked on a pot right at the table.

May 12, Tuesday. Stone Culture Museum. A huge museum with various stone artifacts or interesting stones, but it got somewhat boring.

oreum. called "parasitic volcanoes," but what they mean is a subsidiary or secondary volcano off what is presumed to be the main vent. They result is a rather rounded hill, and these are characteristic of much of the landscape. Jeju has 368 parasitic volcanoes.

South Korea is about the size of Portugal, 500 km. north to south, typically 250-300 km. wide. North Korea is similar. Forested mountains cover 70% of the land, typically granite. Korea is not in an earthquake zone. Plains and shallow valleys are dominated by irrigated rice fields, some small orchards, plastic greenhouses. Rural population is shrinking. West coast mudflats supply seafood and fish. Also migrating seabirds there.

Formerly Siberian tigers, leopards, bears, deer, goral antelopes, wolves, foxes, now extinct. 500 bird species, many of them migrants. Some effort to re-introduce bears (Manchurian black

bears).

Korea has 20 national parks, that cover 6.5% of the country. Also provincial and county parks.

Koreans are enthusiastic hikers.

One-third of Korea's electric power is nuclear and a major environmental issue is where to store nuclear waste.

Re-claiming mudflats for farmland is also an environmental issue, especially since mudflats are already a source of seafood and fish. The Saemangeum Project, a large sea wall to reclaim 40,000 hectares of mudflats for agricultural use, raised much controversy, and was for a time stopped by protestors in the courts.

Good description of environmental concerns in Korea in Lonely Planet Guide.

Lots of cherries here, but cherry blossoms are past.

carrion crow, lots of them

People out picking bracken fiddleheads to eat, but most brackens they eat are brought in, farmed in China. The wild ones are considered superior.

Return. Gave talk at the university in the afternoon. The Future of Environmental Ethics. To perhaps 60 students and faculty. Sung-jin Kim translated so I had to shorten the talk considerably.

Dinner afterward with faculty, in a rather elegant setting in a private room in a university cafeteria. All the department of philosophy present.

May 13, Wednesday. Tour of Geomunoreum and seaside Seongsan Ilchubong, tuff crater (= Sunrise Peak).

Guide: Kim, Dong-Jo, a graduate student in sociology and active in the Korea Federation for Environmental Movement of Jeju. Decent English. They had arranged for a taxi for the day.

Drive along a road with a famous planted forest, at least planted for 50 meters or so on each side of road. Japanese cedar. Cryptomeria japonica

We joined a group of 15 or so women, a couple men, from a church.

Walked to the top of Geomunoreum, a considerable climb. UNESCO World Natural Heritage site. From the top you see out over the landscape and see dozens of these cone-shaped oreums, secondary or parasitic volcanoes (pix).

Walked down and now walked into the lava flow valley, a rougher trail over volcanic rocks.

Most spectacular here was massive numbers of huge Jack-in-the-pulpits, Arisaema, perhaps 500 of them. Korea has 13 species. (pix)



Geomunoreum and parasitic volcanoes, Jeju Island, Korea



The local guide here, a volunteer, was rather poor. Gave his formal explanations at the right spots as he had been taught, but kept getting way ahead of his group. He knew what geology he had been taught, but didn't know anything about the flora.

We passed various entrances to lava tubes, typically overgrown with forest. One large "volcanic bomb," boulder sized rock that was said to have been ejected from a volcano.

Birds were constantly calling, but nobody knew what they were. Woodpecker pecking, quite close.

Reached a former Japanese military encampment, where they had dug a tunnel into the lava, or perhaps enlarged a lava cave.

Acer, maple

Sorbus

Cornus a dogwood

Cinnamomum introduced

Styrax japonica, native. Hornbells. Silverbells

Quercus, oak, evergreen

Celtis sinensis, Oriental hackberry

Carpinus laxiflora, hornbeam.

Ligustrum, privet

Went to a village and had good lunch in large restaurant. Ate black pork again. My guide's aunt worked there. The meat is cooked in the middle of the table right before you on a grill, sometimes there were hot coals, sometimes propane burner. The meat is thin strips and cooks rather quickly and they mix various other stuff in with it. The meat, and the noodles, may be cut with scissors.

Koreans prefer metal chopsticks, they don't like wood or plastic ones.

Two old trees:

Zelkova serrata, makino, elm family. Specimen in the village said to be 1,000 years old. Some say if elms die from disease, this would be a good replacement.

Celtis sinensis, Hackberry, said to be 600 years old.

Pheasant crossing the road, well seen. We had constantly been hearing the call.

Lots of tour busses.

Wind turbines

Climb of Sunrise Peak = Seongsan Ilchubong, which means Sunrise Peak. A tuff crater touristy park and a steady climb, essentially up stairs, for about 40 minutes. A million people a year climb it. Hundreds of tour busses, but, again, not a Western face.

Eventually you do reach a good view over a tuff crater, which is well preserved and wild. Created 5,000 years ago. Nearly surrounded by the sea.

Drive along the coast, black rock flats with some sand. Scenic drive, though the development here is mediocre.

Women divers, called jamsu, a famous local phenomenon. In black wetsuits and face masks, getting various foods and shells from the sea floor. But they were not in deep water. They could stand up in most of it, and just flipped down a while looking for whatever, brought some things up and put in a floating bag nearby.

Frequent churches
Lava stone fences.

Visited Manjanqui, a lava tube. Descend down some stairs, really where the top caved it. Rough walking, wet walking, and I had trouble seeing the holes in the dark, so we didn't go the full 1.5 km. open, maybe half of it.

Koreans have mostly full sized cars, about like U.S. cars, and frequent SUV's. They say they are all made in Korea, often from Japanese parts.

supper at a local restaurant.

May 14, Thursday.

Flew to Daegu. Nice airport. Huge group of youth travelling. The young girls have shorts, bare thin legs, and hi high heels. You wonder how they walk, and the joke is that young Korean girls have the strongest ankles in the world.

Tour of Upo Wetland. Met by Prof. Kim, Yung-Dong, a botanist, Dept. of Biology, Hallum University. Drove to Chang-nyeong, nearby city. Good superhighway. Lots of farming, rice, green houses, or plastic coverings. Truck farming. Peppers. Onions. Graves on hillsides.

Reached the wetland, a large lake surrounded by wetland shores. This was recently dedicated, as part of a 10th RAMSAR Convention, September 2008, here, attended by about 2,000 persons. Convention on Wetlands of International Importance, developed at Ramsar, Iran, in 1971, is main worldwide wetland treaty. Korea joined in 1997. Largest natural wetland in Korea. Actually four or five named lakes here.

Salvinia natans, like a duckweed.

Trapa japonica, aquatic

Stellaria

Chenopodium

cuckoo calling

pheasant calling

Ipomoea, morning glory

Scirpus, sedge

Rosa multiflora, Multiflora rose. Native here. The one planted on interstates in the U.S.

Acorus calamus

Ceratophyllum demersum, submerged aquatic

various birds on the lake, which he did not know. Presumably included some egret.

Zozonia latifolia, aquatic grass

A Crested Ibis Restoration Project is going on here. They got four from China.

Cordalis

Drive to Chuncheon, about three and a half hours.

They make eco-bridges over the superhighway, and I saw some. These are for wildlife to pass over the superhighway.

Soybeans are native to North Korea and nearby Russia.

Often quite mountainous, excellent highway. Lots of tunnels.

Wisteria, common roadside vine

Global warming is taking place four times faster in Korea.

Chionanthos, native to Korea. In olive family.

Robina, locust, brought in from U.S. ??

These forests were mostly cut down for fuel during World War II and the Korean War, and this is regrowth since them.

The DMS, De-militarized Zone, has forests, but, contrary to all the reports of regenerated habitat there, they may cut these forest down for visibility.

Reached Chuncheon, and Hallym University. Good hotel on a hillside, Sejong Hotel. Dinner in a good restaurant, with ice cream!

May 15, 2009, Friday, Symposium.

Drove around to see dams and countryside in the morning. With the Japanese scholar at the symposium, Tetsuro Fujitsuka, Low Carbon Project in Japan. Saw one quite high dam, which is drinking water for Seoul, 90 km. away.

Lunch in restaurant, cold noodles, at a table too low for me to be comfortable at.

Seminar from about 3.00 to 6.00 p.m. In good conference room, but rather bland, a number of pro forma speeches in Korean, and I only got a summary of their remarks from Min. Some students, but not all that well attended by faculty or officials. They said much else was going on on campus, including celebrating an anniversary of the university and teachers' day, also some parents visiting. My talk: "Ethical Issues in Global Warming." Commentators on me and the Japanese scholar. Two of the leaders were: Yong, Hwan Byun, Dept. Business Administration, and Yoon, Jong-Soo, Ministry of Environment, Climate and Air Control Management Office.

Half of the faculty live in Seoul and commute here.

Dinner in excellent Italian restaurant.

Two and a half hour drive to Seoul in some rain and good hotel there, but I didn't get into my room until midnight.

May 16, Saturday

Spoke at Soong-Sil University.

Interviewed extensively in the morning by Yi, Gihong, in sociology, who had been one of the commentators yesterday. He is Christian, Presbyterian, does social networking, studied in U.S., and is trying to figure out what he thinks about science and religion.

Lunch in hotel and drive in terrible traffic to the university.

Talk at Soong-Sil University, in rain. This is a Christian university. Seoul has a couple dozen universities. Talk a shortened version of "Three Big Bangs: Matter/Energy, Life, Mind." Not many there but this was a sort of selected audience. My translator was Park, Won-Bin, who teaches general education there. Trained at Princeton Theological Seminary and Ph.D. Boston University. Excellent English and I think the best translator I had, judging from audience reactions. A commentator on my talk was Kim, Yu-shin, from Pusan National University, does philosophy of science there.

May 17, Sunday. Went to Daeshin Methodist Church (since 1951). Excellent choir, and some strong women's voices. Kim's wife, Lee, Eun Joo, sings in a large Presbyterian Church, with six services, and some 50,000 persons attending each Sunday!!

Han, Kyung-Chik won the Templeton Prize in 1992. Founded Seoul's 60,000 member Young Nak Presbyterian Church. Worked fervently for refugees in Korea during the Korean war, and he himself survived the ravages of war and political oppression. His church is the world's largest Presbyterian congregation, and has founded more than 500 churches in Asia, Africa, Europe, and the Americas, including the 5,000 member Young Nak Presbyterian Church in Los Angeles.

The only Western faces I saw (outside the international airport) were one Australian married to a Korean, who teaches at Hallym University, at the symposium, and one elderly missionary woman from Maine, at the Methodist Church.

Depart Incheon 5.50 p.m. Good flight, aisle with empty seat in middle. Crossed international date line, to live the same day twice.
Arrived San Francisco 12.40 p.m., still Sunday, and earlier than I took off!!
Leave San Francisco 3.41 p.m. Arrive Denver 7.09 p.m.

Good view of Trail Ridge Road flying in, not yet opened for the snow. Excellent sunset over Long's Peak waiting for the shuttle, with Long's nicely silhouetted against a pink and gray sky.

end Korea.

May 2009. Foxes seen often in yard, two of them, one darker than the other.

May 24-30 2009. Yellowstone. Jim Halfpenny Tracking Seminar, and Missoula, Preston Wedding

May 24, 2009. Sunday. Left 6.30 a.m., after day before taking Jane to wedding in Boulder, at Sunrise Ampitheater in the foothills. Saw good Abert's squirrel when leaving, quite black and good tufts.

Rain in the night and overcast when I left. Drive to Chenenne very misty. I had to slow down to be safe.

Past Cheyenne it cleared up enough to have good visibility, and became quite scenic under somewhat ominous clouds, cumulostratus with dark bases.

12 antelope
5 antelope
odd single antelope.

Reached Cody at 3.15 and called Jane. Drove over Dead Indian Pass. One elk. Lots of snow on distant mountains, and some good snow drifts roadside.

Camped at Dead Indian Campground. A decent site, right beside Dead Indian Creek, and the only one left. I was lucky to get it on Memorial Day weekend. Next morning I did discover more sites on the other side of the creek, not as good as mine and I didn't know whether they were occupied. Mostly motor homes and hardside campers.

I set up camp in the dry, but then had enough rain to make supper tricky. Ate noodles instead of warming up some cooked chicken and potatoes I had. Quiet night.

May 25, Monday. Memorial Day.

Drove on into Yellowstone. 4 whitetail deer.

The Beartooth Highway has only been open a couple days.

After I crossed into Montana, the forest floor was essentially snow covered, with considerable drifts roadside.

Got a pop in Cooke City, in insulated container, and on into Yellowstone.

4 bison
4 antelope

100 bison

150 bison.

Saw bison in these numbers all week, with many calves.

One black wolf, at a distance in the scope, mostly lying down, but it did sit up a couple times, with good head, ears, and profile.

One black bear, with cub, at a distance, at lower treeline across the river.

One bald eagle on a nest, with evident white head.

12 bison right at roadside, including calves nursing.

Lunch

2 wolves high on the hill to the north, right on the skyline and nicely silhouetted against a bit of white cumulus over the hill, in a blue sky.

Checked into Lamar Ranch

Two wolves trying to come down and cross the road, but there were too many people. The two would come down toward the road a bit and then go back up the hill.

Supper.

Black bear and cub seen again.

Two wolves (others saw three) on the river side of the road.

1 girzzly at great distance, to the west.

15-20 antelope during the day.

couple dozen elk, though there were others at more distance.

My roommate is Bill Heller, Seattle, Washington. Formerly lived in Greeley, and kept bed and breakfast there. His wife is with something like: Justice International, and she is stationed in India, and he is living there. Her group tries to free people who are essentially slaves.

May 26, Tuesday.

Out at 6.00 a.m. Nothing. 6.30 coffee.

7.00 a.m. Five wolves on the skyline in the sagebrush in good light in the scope, and working well on a cold morning. Nicely seen, full bodied and walking.

black bear.

Jim Halfpenny seminar. He has been tracking since 1971.

The wolf killed on Colorado I-70 was not hit by a car as reported, but shot, according to Jim Halfpenny, who looked at the carcass.

Start seminar, 9.00 a.m.

Participants:

Bonnie R. Wartman, from Emigrant (a town between Gardiner and Livingston), earlier in Minneapolis.

Wayne Watson, Nevada City, CA. Lives on land frequented by animals. Amateur astronomer. Knows math.

Charley Kontos, doing a Ph.D. in ecology at Rutgers, on re-colonization of bobcats and fishers in New Jersey

William Heller

Johnny Scarlett, a back-country ranger in Yellowstone.

First session: tracks. Basic track identification

Detail of a footprint. digits. interdigital pad. proximal pad.

Toes are numbered from the inside out.

Stride, from where one foot hits the ground to where that same foot hits the ground again, at the same point on the print. A unit of both size and speed.

Straddle - how far the feet are apart.

Group - a set of all four footprints, a unit of naming or nomenclature.

normal, and variation from normal.

track formula

A wolf track is longer than wide.

A cat track is wider than long, or at least roundish. There are two interdigital lobes. Often you can feel it, when you can't see it. Toe 3 is a bit bigger and you can tell a left from a right foot.

A rabbit has a foot covered with fur. No pads show.
asymmetrical

Pikas do have pads.

raccoon - well developed - walk on their heels, not toes -- plantigrade

weasels. one three one spacing of the toes

V shaped pad, a chevron

big toe on the outside

Little toe often does not show.

rodents - front 4, hind 5

beavers do have 5 toes.

porcupine 4 toes. Here Murie's famous book on tracking is wrong.

cloven hoofs

2 toes, 2 dewclaws

fox - dainty tracks

pad position and proportion

fox to coyote to wolf - increasingly robust

grizzly - not much arch

black bear - more rounded

Cats are not territorial, but they are mutually exclusive

minimum outline, pick it out even in mud, where the size of the track is exaggerated.

lunch

afternoon in field

We crossed three creeks/sections of river, and once I slipped into a deeper hole and half-way fell in.

Got wet to the crotch in this wading.

We made casts of wolf tracks

We saw a wolf while doing this, a brownish black one running across the flats toward the river, so we in all likelihood saw the wolf that had made the tracks we cast.

Return. Supper

May 27, Wednesday.

Up and out at 6.15 a.m.

wolf, seen well, blackish brown, probably the same one.

black bear and cub across the river

grizzly and cub seen way out, west of the ranch.

coyotes howling

class at 8.30 on gaits and track patterns

In a walk, there is direct registry - hind foot comes down directly on top of the front foot track

In an amble, the hind foot hits a bit forward of the front foot. The animal oversteps.

trot - diagonal synchronization, but again direct registry.

hip to shoulder distance

stride is the unit of size when walking





stride is the unit of speed otherwise

suspension -- in the air

gathered suspension

elongated suspension

gallop - tracks in groups, far apart

excellent hare cougar video - from Dieter and Mary Plage, [The Colorado - Secrets of the Source](#)

only the dominants, both male and female, do raised leg urination

lunch

field trip to the same area as yesterday, now to trace out a line of tracks for interpretation of gait. Done with some small flags placed in each footprint.

We tracked a wolf and an antelope.

Again, wet to thighs crossing the creeks and river divisions.

supper

coyote pups, nursing at a den near a big copper colored rock on the hill behind the ranch house.

After supper

limping grizzly. I walked up fifty yards off the road to see it, then saw that it was coming toward the road. Perfect grizzly profile with the hump quite evident.

It came down the hill to the north and crossed the road, in good sun, 35-40 yards away. Splendid sight. The grizzly picked a gap between cars on the road and hustled across, then down toward the river.

Best look at a grizzly that I have had.

Coyote pups again. This time I saw five pups well in the evening sunlight.

May 28. Thursday.

Up and out at 6.15 a.m.

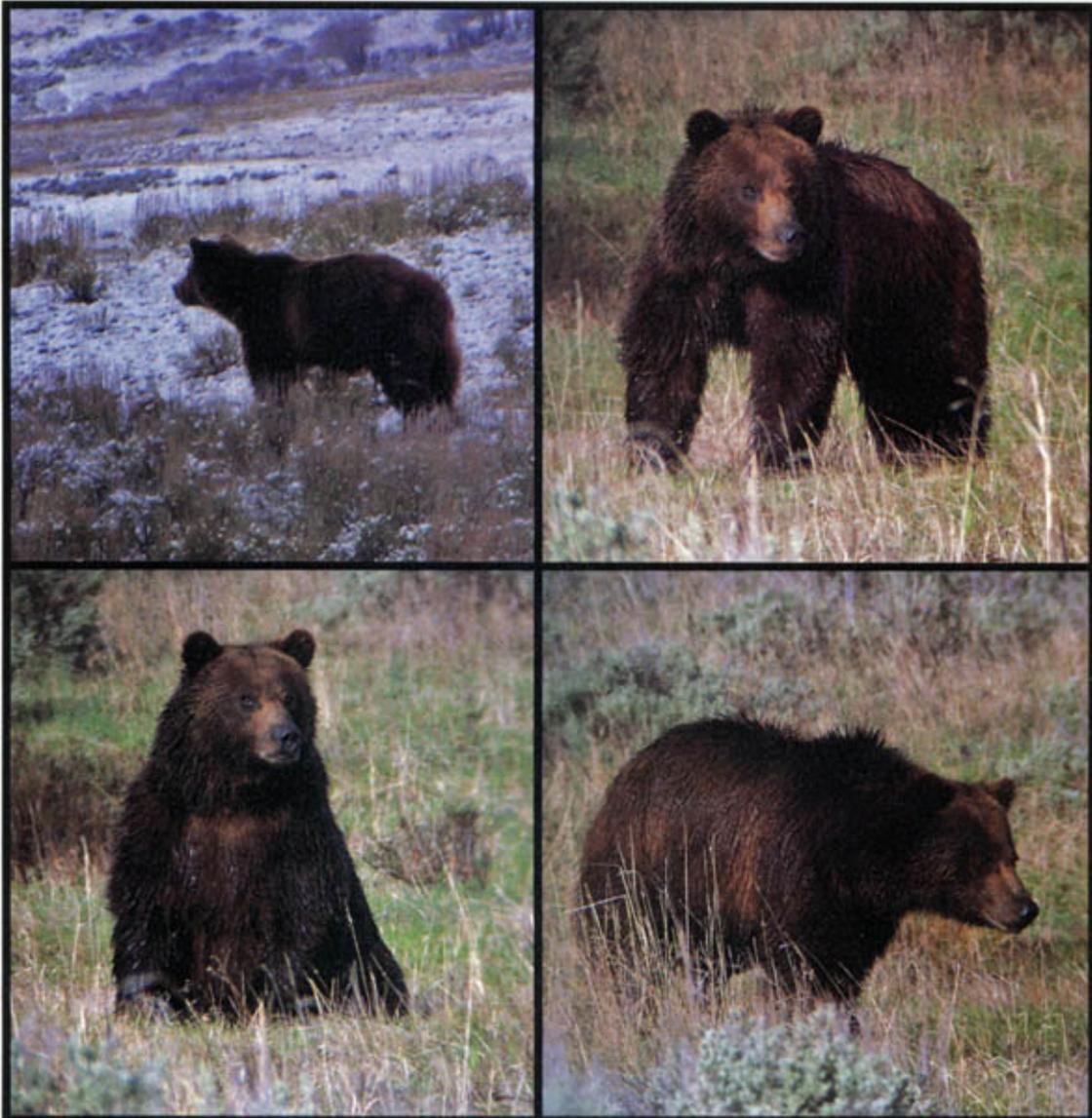
The limping grizzly was across the river and now walking on all fours, but nicely seen at high-power in the scope in the cool morning air.

A second grizzly, with cub, at a great distance high across the river, but I finally saw it well.

Limping Grizzly

Cliff Brown (upper left photo)

Nick Malik (other three photos)



Black wolf seen briefly while eating breakfast.

seminar on scat, cough pellets, mammal hair

C shaped - roto gallup

scat is not too reliable a sign. A group of experts was tested with unknown scat, and got it right only 40% of the time.

long tails - carnivore scat

lots of birds make cough pellets, not just owls

cats do eat some grass

lunch

In the afternoon we made plaster casts of grizzly tracks.

First we went up to the horse trailhead for the Lamar River trail and looked at an elk kill from early May.

rumen contents

aged from the jawbone. 8 year old bull.

We returned again to the same flats of the river. Some in the group had seen the grizzly rubbing itself on some cottonwoods near the river.

We found the tracks there, mostly faint in hard sand, but tracked out 15-20 footprints.

Then we found where it had crossed the river, and forded the river (more than I wanted, but not too bad with some help).

On the other side, we found excellent tracks in the mud, and made plaster casts of the tracks.

Returned, back across the half of the river, and returned late for supper.

After supper, late but I went out.

Videotaped the black wolf from right at the bottom of the ranch driveway. Moving fairly fast along the river.

Further up the road, a bison calf had crossed the river with the herd, and was swept downstream. Lost from its mother.

It managed to get ashore and a coyote had attacked it, and then backed off.

The coyote was waiting nearby, lying down, and I could see the coyote, but not the calf. I did see excellent pictures of the attack taken by a fellow with a big lens, still waiting there.

Getting dark, and I returned to the cabin.

2 mule deer near the cabin.

May 29. Friday.

Up and out at 6.15 a.m. Two wolves together on the north side of the road. Well seen but no sunshine there yet. Then three lower down, east of the ranch. Videotaped them.

breakfast

Seminar. We drove to Mammoth Hot Springs. Trumpeter swan, one on a small lake.

Above Mammoth, in an area Halfpenny called prime black bear habitat, we saw a black bear in the woods, through the trees. Videotaped it.

Looked at bear claw marks on trees.

At the Visitor Center, building nearby, in spruce trees, we looked at great horned owl and owlets.

Then went to Jim Halfpenny's Track Education Center, he built it a couple years ago.

Seminar mostly on teeth, skulls, jaws.

scissors teeth.

Premolar 4 on top hits Molar 1 below

Ungulates have to upper jaw teeth, only a hard palette against which three incisors (six if you could both sides) bite. They tear off the grass.

End of the seminar.

return to Lamar Ranch.

supper

I more or less packed up and showered.

Out in the evening. Three wolves seen again, as seen in the morning, but in poorer light.

They were in and out of a buffalo herd, and disturbing them, but no real chasing of them.

May 30. Saturday. Up at 5.45, packed up and got some breakfast. Off about 6.45.

Black bear video en route to Mammoth, eating grass near a pond. Videotaped it.

Reached Gardiner
Reached Livingston

Reached Bozeman, and found Bozeman Camera Repair. No longer downtown. To reach it get off at the 7th ave exit, and go south a half mile to an IGM (supermarket) center. It is nearby in that center. Bought lots of empty camera cases for \$ 15.00.

Steady drive to Missoula, arriving 2.00 p.m., stayed at Super 8.

3.00-5.15. Wedding reception of Christopher Preston and Lisa Miller, at Blossoms B&B, where I stayed in late April.

May 31. Sunday.

Drive home, steady drive with minimal stops.

bald eagle

The snow capped peaks in Montana were at their prime, in constant sight from the interstate highway.

Saw antelope en route through the day, mostly in groups of 3-4, once 8, often singles.

Casper. Bought gas.

Home about 9.30 p.m.

June 7, 2009. Sunday. Hard hail in afternoon, and five tornadoes in the state. Lots of rain. Fox in backyard after the hail, easily jumped to the top of the backyard fence, stayed there, then came down again.

June 8, Monday, Rabbit Mountain, Lyons area, with Fred Johnson. Left 7.00 a.m. Cool, misty morning, and never really cleared. Mountain was as green as Ireland. Walked the Eagle Wind trail. Good trail, five miles roundtrip.

Verbena bracheata Vervain
Sisymbrium altissimum Tumble mustard. Jim Hill mustard
Erodium cicutarium Storksbill
Yucca glauca Yucca
Convolvulus arvensis Bindweed
Descurania pinnata Tansy mustard
Glandularia bipinnatifida Showy Verbena
Tragopogon dubius Tragopogon
Lepidium sp. virginiana ?? Peppergrass with rounded pods
Tradescantia occidentalis Spiderwort
Psoralidium tenuiflorum Scurf pea
Quincula (Physalis) lobata Chinese lantern
Podospermum (Scorzonera) laciniatum False salsify
Sphaeralcea coccinea Copper mallow
Erigeron colo-mexicanus Whiplash erigeron
Linaria genestifolia Toad flax Lots of it.
Adenolium (Linum) lewisii Blue flax
Physalis heterophylla Ground cherry
Chorispora tenella Blue mustard
Rhus aromatica ssp trilobata Three-leaf sumac
Alyssum parvoflorum Yellow alyssum
Allium textile Onion
Cerastium arvense (= strictum) Mouse-ear chickweed
Gaillardia aristata Gaillardia Indian blanketflower
Heterotheca villosa Golden Aster
Viola nuttallii Yellow violet
Mertensia lanceolata Mertensia
Opuntia macrorhiza/polyacantha Prickly pear
Thlaspi arvense Pennycress
Plantago patagonica (= purshii) Woolly plantain
Prunus americana Wild plum
Podus (Prunus) virginiana Choke cherry
Drymocaulis (Potentilla) fissa Leafy potentilla
Geranium richardsonii Geranium, Henson also lists G. caespitosum
Oxalis dillenii Oxalis
Paronychia jamesii Nailwort
Lappula redowski Common stickseed
Arnica fulgens Orange arnica
Musineon divaricatum Wild parsley
Oenothera howardii Evening primrose
Oxytropis lambertii Lambert's locoweed
Scutellaria brittoni Skullcap
Rosa sayi Say's rose different from Rosa woodsii
Cirsium undulatum Wavyleaf thistle. not in flower
Cercocarpus montanus Mtn mahogany
Eriogonum flavum Sulfur flower
Astragalus drummondii Astragalus
Vicia americana Vetch
Senecio sp.
Calylopus serrulatus Toothed evening primrose
Townsendia grandiflora Easter daisy
Ribes cereum Wax currant
Gaura coccinea Scarlet Gaura
Gaura parviflora Tall Gaura

Tithymallus spathulatus annual spurge = Euphorbia
Phacelia heterophylla Scorpionweed
Penstemon virens Bluemist penstemon
Penstemon secundiflorus Sidebells penstemon One-sided penstemon
Castilleja sessiliflora Plains paintbrush
Toxocodendron rydbergii Poison oak
Lathyrus eucosmus Purple peavine. Like vetch
Arabis fenderli Arabis
Argemone polyanthemus Prickly poppy
Pinus ponderosa Ponderosa pine

Drove around to the eastern side of the park. Then home for a pre-birthday dinner Shonny and John were giving for Jane.

July 13-15, 2009. Drove to Breckenridge with Jane to see Julia Lee and Peter Kalan, at their mountain home. Ernest and Mary Jack there, also Keith and Mary Helen Uffman, and their Molly, Sara, and Kristin came on Tuesday, for her 21st birthday party. Julia Lee's Jennifer and Lauren also there. Not Peter, who was working.

Good drive over, but hard rain around Eisenhower Tunnel and while we ate lunch overlooking the lake at Dillon. Took a walk in some nature path under the ski area that afternoon. Tuesday, all of us drove to Boreas Pass, good dirt road on an old railroad bed. Restored old water tank for trains halfway up, then at the pass some buildings and an old railroad car. Returned a bit to walk down to some old mine ruins, and lunched there. Drove home Wednesday morning.

July 15. Wolverine seen and well photographed in Rocky Mountain National Park in late June. Big article in Coloradoan July 15. First sighting in Colorado in 90 years, and first ever in the park. This one did have a radio transmitter insert and they had tracked it coming south from the Grand Tetons for several weeks.

July 16, 2009. Went to Cleon Kimberling's 79th birthday party at Highlands Camp and got drafted into leading a wildflower hike around their nature trail loop, which I had just done in June for the International Society of Environmental Ethics conference. Saw more Mormon Lilies, Sege lily, than I would have expected.

July 18-21. Phoenix, AZ. Metanexus Conference.

July 27. Hiked alone to Ouzel Falls, in prospect of a backpacking trip to Ouzel Lake and Bluebird lake next week, a sort of shake down to see what it looked like and felt like. Carried some weight. Fine day, and good hike. Good weather in morning. Lunched at the falls with nice view of the falls. Some gathering clouds. Hiked out, and last half mile was light sprinkle but I did not put on raingear. Reached the car and the storm broke. Napped in a nice rain in the car. Good flowers, but I kept moving. Lots of Mormon lily, Sege lily, in portions of the lower part of the trail, which I also saw lots of July 16 at Highlands.

August 3-5, 2009. Backpack to Ouzel Falls, with Phil Cafaro and Win Staples. Monday, left 7.20 a.m. and had to stop in Estes (at Kirk's Flyshop) to get bear cannisters (and buy something to get the use of one free for three days). Win saw bighorn sheep in Big Thompson Canyon, and a couple coyotes past Wind River Pass, but I had to keep my eyes on the road. Then on

the trail, but still 9.45, seems late.

Did fine on the way up, some light rain past Ouzel Falls just enough to keep cool. Win lagging some with a sore foot. Decent campsite, somewhat further back than the one I previously used, which is now prohibited. Trail more or less crowded to Ouzel Falls, after that maybe a dozen people. Quiet evening, no wind at all. 5 miles.

Tuesday, Phil and I went to Bluebird Lake, Win stayed back with lame foot and wanted to fish. He caught (and released) an 18 inch cutthroat trout. Phil and I climbed steadily, not that steeply to the river crossing, at the Upper Ouzel Creek campsite, then a hard climb. There was a snowfield too steep for my comfort, but I made it, and another place crossing a rock face at more angle than I liked. We figured out how to bypass both on the way back. Excellent weather at the lake, gorgeous views, and spent an hour and a half there, including lunch. 5 miles, counting the .5 mile trail off the main trail into Ouzel Lake. Back about 4.30, and I took a nap.

Wednesday, hiked out. Steady walk out and I was placing my feet carefully to avoid beating up my toenails, but did o.k. 2 foot garter ? snake on way out.

Wildflowers in good shape but I did not keep a close list.

Sibbaldia	<u>Sibbaldia procumbens</u>
Sweet Cicely	<u>Osmorhiza obtusa (= depauperata)</u>
Sulphur flower	<u>Eriogonum umbellatum</u>
Wild Onion	<u>Alium geyeri</u>
Lesser Wintergreen	<u>Pyrola minor</u>
Bittercress	<u>Cardamine cordifolia</u>
Brook Saxifrage	<u>Saxifraga arguta</u>
False Solomon's Seal	<u>Smilacina racemosa</u>
Colorado Columbine	<u>Aquilegia caerulea</u>
Northern Coral root	<u>Corallorhiza trifida</u>
White Bog Orchid	<u>Habenaria dilatata</u>
Twinflower	<u>Linnaea borealis</u>
Alpine Sandwort	<u>Arenaxia obtusiloba</u>
Whipple's Penstemon	<u>Penstemon whippleanus</u>
Elephantella	<u>Pedicularis groenlandica</u>
Yellow Pond Lily	<u>Nuphar luteum (polysepalum)</u>
Avalanche Lily, Glacier Lily	<u>Erythronium grandiflorum</u>
Marsh Marigold	<u>Caltha leptosepala</u>

I backpacked here alone July 8-10, 1970, thirty nine years ago.

August 10, 2009. Medicine Bow mountains with Fred Johnson, and return via his cabin on Sand Creek.

Left 7.00 a.m., met him at Watson Lake parking area, and drove north. Drove past Libby Flats area and parked at a curve just below Snowy Range Pass, and hiked more or less cross country climbing toward Sugarloaf Mountain. Identifying plants en route, and found a good deal of interest. Reached a saddle and descended to lunch just as we reached what is now a main trail from Mirror Lake running north (not shown on my old topo). Went further toward the high saddle just prior to the main climb of Medicine Bow, and returned, again making our way cross country.

Back to car about 3.00 p.m. Lovely day, great scenery.

Drove back to Centennial, then down Big Hollow Road, reached the main road from Walden (Woods Landing) up to Laramie, then found the Sand Creek Road, and went to Fred's cabin, in an area that looks like southern Utah, lots of weird rock formations. His cabin is close to a rock known both as Chimney Rock (as it appears from one direction) and Camel Rock (as it appears from another direction). He has a quite small cabin (couple bunks, little else) on 35 acres through which Sand Creek runs in a spectacular pocket canyon, deeply carved in a narrow gorge in the rock. Fred's property is in Colorado, but barely. The north edge of his property is the Wyoming line.

Returned home, via Sportsmen's Lake Road, comes out a mile north of Tie Siding, dirt road, impassable in winter. 18 antelope in one group. 6 white pelicans. Got home later than I wanted, but quite good day.

I think I climbed Medicine Bow Peak once, but can't find any write up of it. I seem to recall two guys carrying skis up there to ski down one of the snowfields.

Plants identified:

Yarrow, Achillea millefolium

Dwarf Mountain Butterweed, Senecio fremontii

Machaeranthera sp. (earlier in Aster) Tansy aster. Yellow center, purple rays, common, but never well identified

Androsace septentrionalis Rock primrose

Arnica Arnica mollis

Bistort Bistorta bistortoides = Polygonum bistortoides

Zygadenus elegans (also spelled Zigadenus) = Anticlea Death camas

Gentianella amarella var. acuta = Gentianella acuta in Weber. Beautiful fringed throat at base of petals.

Pedicularis parryi Parry's lousewort

Trifolium parryi Parry's clover

Noccaea montana = Thlaspi montanum Mountain Candytuft

Erigeron melanocephalus Black-headed daisy, blackish phyllaries, bracts on the head, under the flowers.

Ranunculus alismaefolius Plantainleaf buttercup

Sibbaldia

Pygmy bitterroot Lewisia pygmaea (= Oreobroma). Steadily seen through the day, often dotting an area underfoot. One of the highlights of the day.

Lovage. Ligusticum porteri

Pedicularis bracteosa

Minuartia rubella tiny sandwort

Arenaria

Subalpine Larkspur. Delphinium Delphinium barbeyi

Rumex

Alpine Speedwell Veronica nutans

Taraxacon ceratophyllum = ovinum Horned Dandelion, a large one

Potentilla diversifolia Diverse leaved Cinquefoil

Viola adunca

Mertensia alpina

Artemisia scopulorum Rocky Mountain sage

Arnica latifolia Broad-leaved Arnica

Marsh Marigold Caltha leptosepala

Elephantella Pedicularis groenlandica

Willow herb Epilobium alpinum

Spergularia marina Tiny stuff I brought in. Keys out fine, but seems out of location. 3

stamens, 3 styles. 5 petals. Leaves with colorless papery stipules. Robert Dorn lists it, Vascular Plants of Wyoming. Weber lists it. But both have it on alkali plains, muddy ponds. Introduced from Europe.

Agroseris glauca ssp? False dandelion

Hieracium gracile

Senecio crassulus Thick-bracted Senecio

Kinnikinnik, Bearberry Arctostaphylos ura-ursi

Arabis hirsuta

Adrosace filiformis

Ribes montigenum Red Prickly Currant. A different one, I had never seen.

Kalmia microphylla Mountain Laurel

Gaultheria humifera Alpine Wintergreen. The low mat-forming mystery plant near the Kalmia and beside a pond. Best picture of it is in Joseph F. Duft and Robert K. Moseley, Alpine Wildflowers of the Rocky Mountains (Missoula, MT: Mountain Press, 1989, 1994), p. 151. Barely 3 cm. high. "humifera" means "spreading over the ground." I had previously keyed it from the Wind Rivers in Wyoming. Weber, Rocky Mtn Flora, 1967, lists it as rare.

Antennaria media = alpina Pussytoes

Sedum lanceolatum Yellow stonecrop

Vaccinium scoparium

Vaccinium caespitosum

Geum rossi Alpine avens Also has the interlobed small bracts on the calyx like Potentilla

Castilleja occidentalis Western yellow paintbrush

Silene acaulis Moss campion

Rydbergia Hymenoxys grandiflora

Arctic gentian Gentiana algida

Viviparous Bistort Polygonum Bistorta vivipara

Anemonastrum narcissiflorum subsp. zephyrum (Anemone) Large anemone that can be confused with Trollius

Claytonia lanceolata Yes, spring beauty, even if this is mid-August!!

Arnica parryi Parry's arnica. No ray flowers

Fringed gentian Gentianopsis detonsa var. elegans = G. thermis Four purple lobes and the twist to the flower

Fireweed Epilobium grandiflorum

Prince's Plume Stanleya pinnata roadside on drive down to Fred's cabin. Often on soil with selenium in the soil.

August 13, 2009. Visit to Black Footed Ferret Breeding Facility, north of town in Rawhide Plant area. Guest of Dean Biggins, who works with ferrets at U.S. Geological Survey, which houses much of this research. Manager of the center is Paul Marinari, who knows the ferrets and the facility but is not a Ph.D. scientist or a vet. Also met there Astrid Vargas, now from Spain, originally Spanish from Puerto Rico and an American citizen, does lynx research in Spain, and some colleagues of hers. When she did a Ph.D. at University of Wyoming Laramie, she worked at the ferret center.

Black-footed ferret (Mustela nigripes). This is a weasel (Carnivora: Mustelidae); ermine is Mustella erminea; There are about 200 ferrets here, mostly kept inside in cages, that are a bit like their dens, with holes into which they can retreat. They are fed beef and horse meat. Also hamsters. Some never appeared, but others peeked out of their holes and two or three came entirely out. Many of these have kits, often 6-7 young, born blind and naked, and mature over about 45 days until they can hunt. At this time a mom and her kits are taken out into outdoor

pens, about the size of my backyard, encaged in wire. They call this "conditioning." They are still fed beet and horse meat, but also they may put a prairie dog into the cage, which they will catch and kill. They like to know that a kit has killed a prairie dog before they send it off for release into the wild. Here most of them were in their holes, but quite a few came out, often the kits now 2/3 grown. Very attractive animals. I saw perhaps two dozen here. I had thought they might not want them conditioned to humans, but they did not seem much concerned about this. In nature, ferrets are primarily nocturnal. Often heard them making an alarm call, or chatter.

Ferrets are bred a few other places: Washington National Zoo, Smithsonian, actually in a facility at Front Royal. Cheyenne Mountain Zoo, Colorado Springs. Toronto Zoo. Louisville, KY zoo. But none of these facilities can "condition" them prior to release, so they send their kits here. The facility has bred and released about 1,000 ferrets. It is more attached to the University of Wyoming than to CSU. All the ferrets here are descendents of ferrets captured in Meeteetse, Wyoming, from some twenty years ago, the last known colony in the world. The ferret was feared extinct, but on September 26, 1981, a ferret was found that had been killed by dogs on a ranch there. US Fish and Wildlife estimated 129 individuals there, but they colony crashed the next year, probably because the prairie dogs they were eating crashed with plague. Plague (n both prairie dogs and ferrets) and distemper are major fears and problems, as the ferrets are quite sensitive to both, more so than canids and other animals. The Toronto Zoo animals here are to be released in Canada, which now has no known ferrets, and this will be a newsworthy event in Canada, in September, with the Canadian Minister of Environment present. There is also a domestic ferret, different species, sometimes kept as a pet.

October 11-20, 2009. London and Royal Institute of Philosophy lecture.

October 11, Sunday. Left Denver 11.25 a.m. on Continental to Houston, then London, arrived 7.40 a.m. Suitcase handle broke, inconveniently. Managed to buy a strap in Heathrow.

October 12, Monday. Got Picadilly Line to Russell Square and taxi to hotel nearby (Grange Whitehall Hotel, Montague St). Too early to get in so we went to the British Museum a while, just in the back of the hotel. Small room, inconveniently small.

October 13, Tuesday. Subway to St. Pancras Train station and train to Chesterfield, about 2 hours, good train ride. This is Derbyshire. Taxi to Enterprise Car Rental, and I managed to drive to Pilsey, a small village near Bakewell, maybe 25 miles drive. Got lost getting out of town, but recovered, and in Bakewell, managed to get directions to drive down the very narrow, but paved, road to Pilsey.

B&B at Holly Cottage, really rooms off the Post Office, which the woman also ran. Quaint village, owned by the Chatsworth estate.

Spent some time at the Chatsworth Farm store, then drove to Chatsworth, maybe 5-6 miles away, but by now too late to go in today. Scenic open area, with lots of sheep. Drove to Buxton, which turned out to be a touristy town, with outdoor sporting shops. This is the Peak District, and there is a Peak District National Park nearby. Returned to Pilsey and ate in the Derbyshire Arms Hotel, just down from the B&B. Lots of atmosphere.

October 14, Wednesday. Drove to Lyme Park, about 30 miles away. English Heritage site, big estate, where some of Jane Austen, Pride and Prejudice, was filmed. Only toured the outside grounds, where some of the scenes were filmed, and in a few open courts. Very grand estate.

Returned midday for tea at Chatsworth, then toured the home. This was the classical mansion of the Dukes of Devonshire with vast park, 11,000 acres. Mary, Queen of Scots, was once

captive here. Some of other versions of Pride and Prejudice were filmed inside here, and saw some of these areas and statues in the films.

October 15, Thursday. Drove back to Chesterfield, getting lost as I tried to find where to return the car, but managed to recover. Train back to London, and subway back to hotel.

London is everywhere crowded, and at times it seems that half the people on the streets are not speaking English.

October 16, Friday. Gave the Royal Institute of Philosophy lecture, 5.45 p.m. in the University College London Archaeology Building. This is UCL area and packed with university buildings jammed in all around. Had tea with the main host Anthony O'Hear and Robin Attfield, who had come up from Wales. About 65 persons at the lecture, "The Future of Environmental Ethics." Dinner afterward with O'Hear and his wife, whose field is ballet. She was once a dancer. R. J. "Sam" Berry in the audience. Earlier in the day I was taken to a Wellcome Trust Museum (pharmaceuticals) and shown Darwin's walking stick, made of a whale bone with an ivory knob in the top. Also Lord Nelson's razor right next to it.

October 17, Saturday. Subway to Picadilly Circus and spent the morning walking a round trying to find Twinings Tea store, which we finally found. Oldest tea firm in the world.

On return, tried to get the subway one place to find there was a labor protest that had closed the station, and we had to walk to another one--all this carrying our luggage (we had packed lightly).

Reached Victoria station, and went on train to Crystal Palace, prospective to visiting Darwin's Down House the next day. Stayed in Queens Hotel, not now the best, but once an elaborate and well known hotel. Prince Albert had a showcase "Crystal Palace," first elsewhere and later moved here, now vanished.

October 18, Sunday. Taxi ride, maybe 20 miles, which I had arranged the day before, to Darwin's country estate, Down House, now a National Heritage site. Good day, first walking the grounds, with good commentary on an audio guide. Walked the Sandwalk. Then lunch and tour inside the house. Darwin's study is preserved, with chair and lapboard where he wrote Origin of Species. He was more of an invalid than I had realized, at least in later life, and they had arranged a toilet for him at once side of his study. He married a cousin and there were other close marriages, so some of this may have been inbreeding. Darwin was father of ten children, seven lived to adulthood. Loss of one daughter as a child affected him a great deal. Others wonder whether Darwin got lingering parasites on his trip round the world. Good interpretation of all the memorabilia.

Darwin married into Wedgewood China wealth, and never worked for salary a day in his life. He did lots of experiments in the gardens and environs on his estate.

October 19, Monday. Found the home of Admiral Robert Fitzroy (1805-1865), a couple hundred yards from the hotel. Fitzroy was captain of The Beagle, the ship on which Darwin sailed around the world. He lived at 140 Church Road, and is buried at a church nearby in a somber grave in a somber cemetery. He was first head of the Meteorological Office.

Train back into town and returned to the Grange Whitehall Hotel. Spent some time looking up where Darwin had lived in this area for a few years. Discovered that it was in a house, now gone, on the site of the Darwin Building of UCL. Grant Museum of Zoology is in there. Robert Grant was a zoologist who, then teaching at Edinburgh, was a mentor to the young Charles

Darwin, then a student at Edinburgh. Woman there was good on tidbits of history associated with Darwin's life there.

October 20, Tuesday. Very early taxi to Heathrow. Thought we would taxi to Paddington Station, but the driver, a Pakistani, born in Hong Kong, and left when the Chinese took over, persuaded us for the same money to go straight to Heathrow.

Uneventful stretched day home, through Houston. Back in Denver 3.40 p.m, and home by supper time. Good trip all round. But London is too crowded.

end London

October 25, 2009. Sunday, Hiked with Dave Rolston. Foreboding day but worked out o.k. Coyote roadside. Bighorns seen in Loveland Mtn Park at Hydro plant ruin. Nicely seen in scope, about 12-15 of them, one half curl ram and ewes and kids. Later, three rams seen roadside in upper Big Thompson Canyon. Spitting snow.

Reached the park, with somewhat better weather, and hiked from Bear Lake to Nymph and Dream Lakes, trail snowpacked but not bad. Dave had only some high cut tennis shoes. Some views of the peaks opened up, especially as we reached Dream. 2.2 miles here.

Out and lunched at Sprague Lake Picnic area, outside and not too windy. Then hiked to the Pool, on essentially dry trail, or wet, but no snow. Some snow on the forest floor. 3.4 miles here, and kept up a good pace. Maybe 60 elk near the park entrance, then went over and out Horseshoe Park, with another 20-30 elk, a couple good rams.

December 2-6, 2009. Tucson, AZ.

Dec 2, Wednesday. Flew to Tucson, with Phil Cafaro, joined in Denver by Ron Sandler. Night at a motel in Green Valley, some 20 miles s. of Tucson.

Dec. 3, Thursday. Birding in Madera Canyon, Coronado National Forest, desert area, with forests higher up. "Madera" means "woods." Santa Rita Mountains joined by Lynn Scarlett, who was some sort of deputy secretary of Interior under the Bush administration. I rode with her.

huge jackrabbit
redtail hawk
phainopepla, lots of them, males black, females brown.
Gila woodpecker
cardinal
Arizona sycamore. Platanus wrightii.
Mexican jays, lots of them
hermit thrush
Mexican blue oak. Quercus oblongifolia
verdin
canyon towhee, formerly brown towhee
junco
white breasted nuthatch

reached an area with cabins and some feeders, lots of activity here
turkeys under the feeders
chipping sparrow

bridled titmouse, eventually saw it quite well, my best bird
white tailed towhee
raven
yellow-bellied sapsucker
canyon wren
Western bluebird
walked a while in the Mt. Wrightson Wilderness
siskins
broad-billed hummingbird
loggerhead shrike

Dec 3, late, Westward Look Resort for conference
screech owl, in saguaro cactus outside the conference room

Dec 5. During afternoon break. Sabino Canyon, with Cafaro, Lynn Scarlett, Clare Palner, and Paul Pojman.

Gila woodpecker
phoebe
Gambel's quail, nicely seen, 8-10 of them
mockingbird
blue-grey gnatcatcher
Western bluebird
ladder-backed woodpecker
verdin
desert cottontail

huge, grass like noxious weed here is Arundo donax. Giant cane. Carrizo, Spanish cane, Giant reed. Introduced from Asia to stabilize soils, and escape. Takes a lot of water. Useless for wildlife. Has various uses of its flexible fibers, used to make the reeds of woodwind instruments, oboes, clarinets, saxophones.

December 2009. Big snow while I was in Tucson, and it never left the ground. More snow several times, often a foot or so, and landscape in town was covered all December.