

Trail Log 2010-2011

Holmes Rolston, III

Summary

- 2010 Colby College, and Maine woods, April. Virginia and Shenandoah Mountains, Rockbridge Baths, VA, April. Yellowstone National Park, Wildlife Watching and Wolf Ecology and Management Seminars, wolves, May. Indian Peaks Wilderness, Colorado, Arapaho and Caribou Pass, backpacking, August. Madagascar, lemurs, sifakas, chameleons, spiny forest, October.
2011. March, Yellowstone wolves, American Church, Paris, March-April. Texas Panhandle, Lubbock, TX, April. Nijmegen, Netherlands, International Society for Environmental Ethics, June. Newcastle, UK: Sixth International conference on Environmental Futures, July. Symposium, Helsingør, Denmark, August.
- Singapore and South Asia, September. National University of Singapore. Billyoh Wetland Reserve, Singapore. Indonesia and Komodo dragons. Cambodia. Viet Nam.

Trail Log 2010

January 16, 2010. Rocky Mountain National Park. Drove up alone and prowled, nursing a sore knee. Walked the Cub Lake trail, snow-covered, over the flats and until it got steep and slick. Lunched in Moraine Park overlook with 85 elk in the scope at my car window. Hiked the Deer Ridge Trail for half a mile in, mostly snow covered, but not bad. Drove to Many Parks Curve. Nice bull elk at the upper end of Horseshoe Park, and another 80 or so elk there.

There has been snow cover on the landscape since early December, longer than I remember. The street in front of the house was never plowed and the snow has packed into ice and is quite slick.

March 2. Crocus in bloom.

March 19-22. Billy Bryant died, trip to Richmond. Lovely day for his graveside service at Bybees Road Baptist Church, rural, Troy, Va.
Spring weeds seen in Ann's yard and in cemetery.

Hairy Bittercress, *Caradmine hirsuta*
Henbit, *Lamium amplexicaule*
Chickweed, *Stellaria media*
Gill over the ground, Ground Ivy, *Glechoma hederaceae*
Veronica arvensis Speedwell.

March 25-26. Red fox sleeping in backyard much of the time. Slept for five hours on March 25 all afternoon, getting up now and again to stretch and yawn.

March 26. *Veronica arvensis* Speedwell. in bloom near the Forestry Building on campus, lots of it.

April 9, 2010. Colby College, Maine. Got a walk in wet woods, the college forested area (they call it an arboretum) adjacent to the campus. Raining moderate to hard most of the time. My guide was Tim Christensen. Before the walk, I went to his seminar on local food. He is in

charge of biology labs, but technically not faculty, though in fact he teaches some. He is organic farmer.

Various pines, oaks, maples, nothing really out, but some signs of spring. He knew them more or less by common names, but seldom the scientific names. A lot of this area was once cleared for pasture or farming and has since reverted to forests, more or less 80-100 years ago. Hemlocks here show no sign of the hemlock disease, and some nice hemlocks seen. No wildflowers in bloom, though Trilliums were up and in flower bud. A lot of *Erythronium*, presumably *americanum*, Dogstooth violet, with variegated leaf, though none in flower. (= Yellow Adder's Tongue ; he called it Glacier lily, as we do the alpine version in the West) A bush honeysuckle is badly invasive in these woods, though nobody knew the name of it. No Japanese honeysuckle (vine) seen.

April 14-16, 2010. Purdue University. No chance to get out. Lots of redbud in great flower on the drive from Indianapolis to West Lafayette, about an hour and fifteen minutes. Something white out in the woods, but didn't look like dogwood. A little dogwood in good bloom on campus.

April 21-26, 2010. Trip to Hampden-Sydney and then to Rockbridge Baths and Staunton.

April 21, Wednesday. Flew to Richmond, via Detroit. Then car rental and drove through southside Richmond on Route 360, generally ugly, whether degenerating urban or strip development along Hull Street further out. Endless stoplights.

Halfway to Amelia there was rural landscape, often quite pretty in spring colors, and good road. Reached Hampden-Sydney about 6.30 p.m. Dogwood, some quite good, some almost gone. Often evident in the forests was *Paulownia tomentosa*, Royal Paulownia, introduced from Asia and escaped. Large blue flowers.

April 22, Thursday. Spoke in class, then interviews with students, lecture at 4.00 on "Future of Environmental Ethics." Lecture that evening by Mark Sagoff.

April 23, Friday. Drove to Lexington, pretty drive. Checked into motel and drove out to Rockbridge Baths, wanting photos of Jump Mountain and Hogback, and leery about rainy forecasts for Saturday. Joined by Mary Jack and Ernest, Jim Thompson and wife, Julie, and infant son Jonathan..

April 24, Saturday. Day around Rockbridge Baths and in Goshen Pass. Did a little walking on trail at riverside north of the river at the swinging bridge, west end of the pass.

Drove to Staunton to stay in the basement at 320 N. New Street, now Montclair, a bed and breakfast. Lots of memories. Mark and Sheri Bang. Their daughter-in-law was there for breakfast, Jennifer Bang, who home-schools her daughter, Abigail, who is a big NASA fan and also asking about biology and religion. I later sent her the AAAS book on the schoolgirl and evolution and a DVD of Apollo 8 astronauts reading Genesis 1 from space, *The Good Earth*.

April 25, Sunday. Drove out to Hebron, with Mary Jack and Ernest, then alone headed home. Stopped on the Skyline Drive and hiked a bit at Humpback Rocks, down to the Appalachian Trail a half mile or so downhill. Dogwood and at this elevation some redbud still in flower. I did this walk a couple years back when I spoke in Charlottesville. Then drove to Richmond, arriving about 4.00 p.m. at Ann's, where Jane was already there.

April 26, Monday. Flew home, through Chicago, good flight.

Blue violet, *Viola sororia*

Yellow violet, *Viola pensylvanica*

Veratrum viride False hellebore. With huge pleated leaves.

Small flowered crowfoot. *Ranunculus abortivus*

Paulownia tomentosa Princess Tree

Garlic mustard. *Alliaria officinalis* = *A. petiolata*. Frequent in the woods, but an invasive.

Bluets. *Houstonia caerulea*

Witch hazel, *Hamamelis virginiana* - asymmetric leaf base

White Baneberry, *Actaea pachypoda*, not in flower

Early Meadow-Rue, *Thalictrum dioicum*

Mayapple, *Podophyllum peltatum*

White Trillium, *Trillium grandiflorum*

Strawberries, *Fragaria virginiana*

Pussy toes, *Antennaria*

Geranium, *Geranium* sp

Moosewood, Striped Maple. *Acer pensylvanicum*

James H. Miller and Karl V. Miller, *Forest Plants of the Southeast and their Wildlife Uses*. Revised ed., 2005. University of Georgia Press.

April 29, Led Pasqueflower walk at Lory State Park for the hiker's group. Took some good photos of pasqueflowers in the snow.

May 7, 2010. Owls at CSU Oval. Leaving the student center after a departmental seminar there and returning to Johnson Hall, there was a great horned owl sitting prominently at the top of the spruce tree at the north edge of the administration building parking lot. Also another owl in the branches, presumably the female. Another bystander said he had seen three young owls. There was much fussing and alarm, and there was a hawk annoying them, also calling. Perhaps the hawk was threatening the young. I had hear owls calling several times as I left Johnson Hall, but had not seen them so far this year.





Yellowstone. May 23-30, 2010. Wildlife Watching and Wolf Ecology and Management Seminars.

May 23, Sunday. Left 6.10 a.m. Wyoming was green and clear, cool.

Counted 173 antelope between Casper and Shoshoni, mostly in twos, threes, maybe half a dozen. A couple groups of twenty five or so.

Lunched in Wind River Canyon.

Reached Cody about 3.45 p.m.

On Chief Joseph Highway, 6 mule deer.

Reached Dead Indian Campground about 4.45. The campground host and I were the only ones there. Bud covers falling off the cottonwoods were sticky and something of a nuisance.

Good evening, but it was cold in the night. I should have taken the winter pajamas.

A good rain shower thirty minutes or so after I went to bed..

May 24, Monday. Up at 7.00 a.m. Somewhat cold, and after breakfast a light rain, low clouds, made packing up troublesome.

Continuing on Chief Joseph highway

2 turkeys, hens crossing the highway, well seen. Turkeys are here but are really not found in Yellowstone.

3 mule deer.

Bought gas in Cooke City, to be sure to have enough in the park.

Entered Yellowstone about 11.00 a.m.

Hundreds of bison, much in evidence throughout the week.

Immature bald eagle, by the river.

Went to Slough creek and supposedly saw a mother wolf and pups at a distance, but at this time and in some rain I couldn't really make out what I was seeing. See later, when I did see them much better.

Returning, a grizzly was seen, first leaving Slough Creek Road right at the junction, and then higher up on the main road. This was seen for only twenty seconds or so at both places, passing through the sage brush, but in binoculars I could see the hump and color reasonably well. This turned out to be the best grizzly sighting of the week.

Checked in at Lamar Ranch. Cabin 10. Room mates were Joe Bradshaw and Roger Wilson,

but they were in the other class and I hardly saw them.

Volunteer host from previous years is John Scarlett, who was the driver on the Wolf Ecology and Management Seminar

Shower and back out.

4 antelope, and nothing much else but the bison.

May 25, Tuesday. Up at 5.30 and out at 6.00 a.m.. Snowing lightly and not too encouraging.

Down to Slough Creek.

Eventually saw a grizzly in the distance, moving on the slope well below the wolf den.

I got the bear den located in the scope, nicely framed by two white aspen which meant that, once you knew where it was, you could come back to it.

A black bear headed toward the den site, and was chased off by the wolves, the mother, who was gray, and a black male wolf. I could see this reasonably well

The gray wolf chased the bear, got right up on it, bit at its rear and the bear climbed a tree. Then the mother wolf would go back toward the den, the bear would climb down, and soon the wolf was chasing it again, and the bear climbed another tree, in a group of pines off to the left. This happened five times. Perhaps the best sighting of the week.

Returned for breakfast.

Start class. Instructor is George Bumann. (pronounced with a long u)

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<http://www.georgebumann.com/>

He is from the east, went to school in New York, did some work, a Master's Degree in wildlife biology, at VPI, and came west. He does wildlife art--sculpture.

He proved to be as good as anyone I have ever been with identifying bird calls.

Rick McIntyre, who was at Slough Creek this morning, has seen more wolves and wolf behavior than anybody else in human history.

Crows bounce when they land. Ravens do not.

David Mech estimates that wolves can hear a howl up to ten miles.

coyote barf - a kind of howl they give when alarmed, as when recognizing a wolf.

An hour or so in classroom, and then out into the field.

Wolves were at a high of 174 in the park a couple years ago. But now they are down, to 86, though that does not count this year's pups.

150 buffalo with calves.

The horn of a female bison at the base is the size of its eyeball. The horn of males is bigger.

Went into the Tower area to see if we could find a bighorn ewe with newborn lamb.

Audubon's warbler

peregrine falcon on nest across on the cliffside.

Osprey, seen below on our side, nice in scope.

Lunch on the bus.

Walked out the Calcite Springs boardwalk. There are visible vents at the bottom of the gorge at the side of the river, putting out much steam. You can smell it from above.

osprey

buffalo with newborn calf, with the umbilical cord, 3 feet long, still hanging out the mon's rear end.

Brucellosis is otherwise known as undulate fever, also as Bangs disease. Humans can get it drinking unsterilized milk. David Bruce was a British military physician in Malta in the 1800's and recognized the disease. Bernhard Bang, Danish, isolated the bacterium.

Wild bison and elk in the Greater Yellowstone Area are the last remaining reservoir of *Brucella abortus* in the U.S. The recent transmission of brucellosis from cattle to elk in Idaho and Wyoming illustrates how brucellosis in domestic cattle around the GYA may negatively affect wildlife.

Black bear seen not far from the road.

Coyote seen at roadside, female with teats. Well seen.

Coyote numbers have returned, though they do not run in large packs, but in packs of 3-6 coyotes.

6 bighorn sheep

4 antelope, one quite pregnant.

Supper 4.30-5.30.

After supper, at Island Lake:

brown rot, white rot, can be spotted in rotting trees.

sandhill crane, on nest
pied bill grebe
bufflehead
redwing blackbird
spotted sandpiper
coot
ruddy duck.

5 male deer, with button antlers (new ones starting to grow)

trees on the south sides in open areas are often paired with boulders. The boulders seem to give them enough protection, maybe runoff water, to get them started.

Slough Creek on return, no activity.

Full moon, almost, rising behind us, just as the sun set before us, watching the wolves's den at Slough Creek.

May 26, Wednesday.

Up 4.15 a.m., off at 5.00 p.m.

Stopped at Dorothy's (the first overlook) for listening.

Then to Slough Creek.

I saw the gray mother wolf, mostly glimpses.

A grizzly came near the den.

The pups were seen better by others than by me. I saw black spots under mom, said to be nursing.

I did see a pup wagging its tail.

But this was a bit too far off to see well in my scope. Taking a look through some of the bigger and better scopes I could see it better, but without long eye relief, only a limited field of view. Also I am fighting eyesight, I need the image right in the center of my lens for sharp vision.

Later, the black males were said on the radio to be returning to regurgitate food. But we never saw them.

Back to the ranch at 9.30.

mountain bluebird

Out again, and this time drove east.

sandhill cranes

We looked, rather indifferently, for mountain goats at a cliff location where they have been seen, above Soda Butte – Norris Mountain.

Back for lunch.

After lunch I finally got the wet tent put away. I had tied it to the log corral fence earlier in the day.

Shower.

nap.

supper.

We hiked the Lost Lake Trail, after looking at the Petrified Tree.

On the turn in to take the road to the Petrified Tree there was a group of about two dozen Pasqueflowers, all rather close together.

snipe calling and snipe wingbeat

ruffed grouse calling, sounds like a lawnmower starting up.

black bear in a meadow.

Drove to Tower, and found a bighorn ewe with a newborn lamb, in the Calcite Springs area. Nicely seen in scopes, but just a pile of fur at the back of mom.

Returning, the same back bear, now with a cub of the year.

Nicely seen.

There are three adult wolves and the pups at the den in Sough Creek, but otherwise I have seen really no wolf activity in Lamar Valley, unlike previous years.

Although there is little wolf activity on the valley floor, there is a den site in view with pups, even if far off.

May 27. Thursday

Out at 6.00 a.m.

Drove back to the bighorn ewe with the lamb, now the lamb frolicking around and even standing on top of mom, who was lying down.

Impressive activity now for a recently newborn, and we wondered if it would mis-step and fall off the cliff.

Return, elk with newborn calf.

2 bald eagles, one on a nest, in Lamar Valley

Drove toward Cooke City and spotted one goat, high on cliffs with a lot of snow. The goat looked like a spot of snow until it moved. I would not have recognized it as a goat, otherwise.

Cougar diet in the park is 80% elk.

We kept looking for moose, said to be as well seen outside the park before Cooke City, but we never found one.

Lucius Lamar (1825-1893) was U.S. Supreme Court Justice, and Secretary of Interior. He came out of Mississippi and was in the Civil War. There is a Wikipedia article on him.

Lunch in Cooke City, and that pretty much wound up the seminar.

Behind the Scenes: Wolf Ecology and Wolf Management

Second seminar started at 5.00 p.m.

Jon Trapp, lives in Red Lodge.

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He was earlier and principally a wolf biologist, worked in Arizona with the Mexican wolf, worked with the Nez Perce, was a wolf management specialist for the state of Montana, but lately has become a paramedic firefighter, because being a wolf biologist separated him from his young family too much. One of his areas was teaching ranchers to live with wolves, what to do to protect their calves and lambs. He experimented with various things.

Also with us throughout the seminar was a friend of his, also from Red Lodge, Ron Blanchard. He is river guide and school teacher.

He slept in my cabin, Cabin 10, one night.

Antelope evolved to run fast, because there was once a North American cheetah.

Wolves can go all day at 10 mph.

The first bounty on wolves was in the Plymouth Colony in 1630.

The Yellowstone re-introduction was in 1995 and 1996.

Inside the park there has been complex pack structure and several generations.

Outside the park, there is typically a simple pack structure, a mom and pups.

Douglas Smith, Gary Ferguson, *Decade of the Wolf*. Guilford, CT. Lyons Press, 2005.

Friday, May 26. Up at 6.00 and out.

Slough Creek.

Talk at Slough Creek by Rick McIntyre.

The female at the den is called the 06 female, and is four years old. She has taken up with two black males and bred with them both. She has four pups, one black, three lighter.

This den was used earlier in 2005.

It seems that this is now going to be called the Lamar Canyon Pack.

Up the Lamar Valley, eastward a couple miles, is the Silver Pack. The Alpha female is silver gray.

The Druid Pack, long in the valley had bad luck. They caught mange. The Alpha female was killed, and the Alpha male left the pack.

In effect, the Druid Pack no longer exists.

Although the wolf numbers in the park are down, wolf numbers in Montana and Idaho are still rising.

Back to the ranch.,

The wolf is a coursing predator. It can chase prey a long ways.

The cougar is a surprise predator. It has to catch prey by surprise.

Mange was a disease deliberately placed on coyotes to kill coyotes and to spread mange to wolves in the early 1900's.

compensatory predation The prey would have died anyway, or starvation or disease.
vs

additive predation. The prey would otherwise remain alive.

Bears actually do better with wolves present, because they get a year round source of protein, from wolf carcasses.

Previously bears ate winter kill and elk calves in early spring, and after that had only a vegetarian diet for the rest of the summer.

One wolf kills two elk per month in winter, averaged out for the packs. The kills are relatively easy to spot from airplanes.

The summer kill rate is poorly known

A healthy elk that stands its ground cannot be taken by wolves.

But if it breaks and starts to run the wolves will probably get it.

But you would think, if so, that over millions of years, all the elk would learn to stand their ground. Others would be extinct.

Fish and Wildlife site:

<http://www.fws.gov/mountain-prairie/species/mammals/wolf/>

Montana Fish, Wildlife, Parks site:

<http://fwp.mt.gov/wildthings/wolf/default.html>

If you count grizzly predation of elk calves, then the bear is a bigger predator of elk than wolves.

We moved up the hill some. I eventually saw the mother nursing pups, reasonably well, right at the den site. She was standing and nursing them for about a minute. The mother was pretty clear in my scope, you could see her legs and head distinctly, but the pups were more of a blur beneath her. But with a glimpse or two through other's better scopes, I could see it.

She walked off and the pups were more or less with her, but now I saw the pups indistinctly

A grizzly came into the vicinity, but did not go that close to the den site.

Back to the Ranch

Hike to the Rose Creek Pen, which I had done before.

We had to skirt around a buffalo standing right on the trail and not moving, both going into the pen and coming out.

Hiked back downhill in light rain.

Shower and hasty supper, eating at 5.30, anticipating an hour's talk and then getting out.

But increasingly hard rain and colder temperatures were discouraging, so we did not go out.

Watched film, first half on wolf ecology and second half on ranchers in wolf country, ranchers in both the Rockies and in Wisconsin.

May 29, Saturday.

Out at 5.30, to Slough Creek.

I saw the female at the den well.

She had earlier moved one pup to a different den site, also in view, Others had seen her do this before we got there.

She went to the new den site and others thought they saw her carrying a pup.

I eventually saw her and two black spots, pups, at the new site.

I saw her there several times. She had three pups there and a fourth pup back at the original den.

Once here we saw an elk chasing a wolf away that got too close to it.

Back for breakfast.

At breakfast Ron Blanchard brought in word that the Silver Pack had killed an elk calf up the road and the silver alpha female could be seen feeding on it.

I hustled out in my car alone, and could see the wolf, seemingly right at the carcass, but I could not see the carcass in the brush. There were ravens nearby on both sides and every now and then the wolf would lunge toward the ravens to drive them off.

Returned to the Ranch.

Jon has never been threatened by wolves, and he has gone into a wolf den with pups with adults nearby.

Discussion of how to get ranchers to live with wolves.

Some traps have transmitters that send a signal when the trap goes off.

Numbers of wolves have been killed legally in Montana and Idaho hunts.

Montana 2009

Quota 75, killed by hunters 72

The price of a wolf tag for residents is \$ 19, for non-residents \$ 350.

Lots of hunters buy the tags. They are not wolf hunting and they never expect to see a wolf. But they buy the tag just in case. So Montana makes a lot of money selling wolf tags. A hunter has to call in before going on a hunt to see whether the quota has been filled.

Montana 2010

They are debating quotas of 153, 9% of their population
186, 13% of their population
216, 20% of their population.

Idaho 2009

Quota 220, hunters killed 134.

The resident tag is \$ 11.50. The nonresident tag is \$ 186

The cottonwood hunt on the edge of the park drew a lot of criticism.

From Los Angeles Times: Oct 26, 2009

Wolf hunting in southern Montana is closing just after sunset today, only a day after the general season opened Sunday, after the 12-wolf quota for the region was quickly exceeded by one.

The Montana Department of Fish, Wildlife & Parks had suspended an early back-county hunt in a small, remote part of the region north of Yellowstone National Park after nine wolves were shot -- before the general wolf hunting season, Montana's first in modern times, even opened on Sunday. That hunt raised controversy because four wolves from Yellowstone's Cottonwood pack who had ventured outside the park, including the pack's alpha male and female, were killed.

The brief opening saw an additional four wolves in the southern Montana region quickly shot, prompting Montana officials to close down all of Wolf Management Unit 3. Hunting remains open through Nov. 29 in northern and western Montana, where an additional 10 wolves out of the state's overall quota of 75 have been shot so far. Wildlife officials have held out the option of extending the hunt through Dec. 31 if the quota isn't met in November. State officials said two of the four wolves shot in WMU-3 on Sunday were in Gallatin County, again not far from the border of Yellowstone National Park. The other two were shot in Sweetgrass County.

Conservationists have sued to stop the removal of Northern Rockies wolves from the Endangered Species list, arguing that wolf numbers could drop precipitously, especially since there are no assurances that wolves in discrete regions of Yellowstone, northwestern Montana and Idaho will be able to connect and share genes.

But Montana wildlife management officials have calculated that wolf numbers are likely to increase, despite the hunt. While there are about 500 wolves in Montana now, even if 75 are hunted this year, there are expected to be 590 wolves in established packs across the state, and 655 wolves overall (counting wolves that go out on their own) next year.

The wolf is delisted in Idaho and Montana, and was in Wyoming. But Wyoming hunters instantly shot all the wolves that moved a quarter mile or so off Yellowstone land. A judge

issued an injunction against the delisting.

Wyoming doesn't have any acceptable recovery plan.

So Fish and Wildlife have said that the wolf is de-listed in Montana and Idaho, with acceptable plans, but not in Wyoming, which has no acceptable plan.

[Added later:]

On August 5, 2010 federal judge Donald Molley reinstated full Endangered Species Act protection for the wolf in Montana and Idaho, as well as Wyoming, ruling that Fish and Wildlife had to de-list everywhere or nowhere. So wolf management is back in the hands of the U.S. Fish and Wildlife Service for the foreseeable future.

The ruling made all the states mad, since Montana and Idaho were doing well, and gaining income from the wolf hunt. Wyoming seems quite unlikely to come up with an acceptable plan. There the state legislature tried to take wolf management into its own hands and passed a law that basically allowed any wolf outside a national park to be shot on sight.

In 2009, 256 wolves were killed in hunts and another 270 killed by government predator control officers.

Item in Wilderness, Nov.-Dec. 2010, p. 20]

fladry - flags on strings, the flapping scares the wolves. But this only works for about six weeks. This may get the rancher through calving or lambing season however.

Range riders. Perhaps who stay out there to alert the rancher when wolves come near. They have telemetry and stay near the sheep or cattle.

rubber bullets

cracker shells

USDA APHIS Wildlife Services, Animals and Plant Health Inspection Service, the old Animal Damage Control, is a bad agency.

Great Lakes Wolves:

4,000 wolves in Minnesota, Wisconsin, Michigan.

Red Wolf

There are 100-120 wolves in 20 packs in North Carolina. Mostly in the Alligator National Wildlife Refuge.

There are troubles with coyote hybrids. They have buffer zones from which they to exclude all coyotes, to keep the wolves pure.

After lunch:

Hike to wolf den, used last 1997-1998 by the Crystal Creek Pack.

The walk starts a couple turnouts west of the Lamar River bridge, and east of Slough Creek.

There was a sizeable hole dug in a sloping hillside in a forested area, just after treeline started after sage flats.

While there John recounted his graduate work (M.S.) which dealt with the characteristics of wolf den sites. He studied 32 wolf dens.

We had some graupel hail while there, though no problem.

Elk hair is hollow and fragile. You can't bend it without breaking it.

end of class.

supper.

I drove out a big after supper in freezing rain.

I had been a little confused whether I had made some arrangements to stay there over Sunday, but no, I was to return home Sunday.

May 30, Sunday.

Off at 6.20 a.m. driving toward Cooke City.

2 mule deer

3 elk

4 elk

Cooke City had an inch of snow, a little more in the higher country on the road above Cooke City. Stopped in Crazy Creek Campground made a toilet stop. The campground was practically empty and this is Memorial Day weekend.

Drove home all day, reached home in time for supper, about 6.00 p.m.

.end Yellowstone.

June 4, 2010. Friday. Soapstone Prairie with Fred Johnson. Off at 7.30 and drove there.

9 antelope on way in

A group of archaeology graduate students, field seminar, led by Jason LaBelle, CSU archaeologist (anthropology faculty), were going down into the Lindenmeier site with an instrument to hunt for buried firepits. In a fire, carbon is burned, but there are some iron molecules in the wood and as the ash settles they are oriented in one direction, like a magnet. This slightly distorts the Earth's magnetic field and the instrument can pick that up, indicating a buried firepit, up to several feet below. Jason.LaBelle@ColoState.Edu

Lesquerella montana, Mountain bladderpod (Mustard)

Erysimum asperum, Western Wallflower (Mustard)

Oxytropis sericea, white locoweed, white, and common (Legume)

Oxytropis lambertii, Colorado locoweed, purple (Legume)

Lepidium densiflorum, Pepperweed. (Mustard)

Lithospermum incisum, Narrow-leaved Puccoon (Borage)

Lappula redowskii, Stickseed, Beggar's Ticks (Borage)

Hymenoxys (= *Tetrandeum*) *acaulis*, Hymenoxys, Butte Marigold (Composite) common

Astragalus sp.?

Alium textile, onion

Ipomopsis spicata, Scarlet Gilia (Phlox)

Zygadenus venenosus (= *Toxicoscordion venenosum*), Death Camas, (Weber: False Hellebore Family, others Lily family). Common. Throughout the day, as much as I have ever seen.

Scutellaria brittonii, Skullcap. (Mint). Lots of it.

Viola nuttallii, Yellow violet

Cynoglossum officinale, Hounds tongue. (Borage)

Senecio canus. Weber: *Packera cana*. Woolly groundsel.

Rhus trilobata. Skunkbrush, Squawbush. Three-leaf Sumac. (Sumac)

Cerocarpus montanus, Mountain Mahogany (Rose)

Linum lewisii, Blue Flax (Flax)

Penstemon secundiflorus, One-sided Penstemon (Scroph)

Phacelia hastata, Phacelia. (Hydrophyllaceae)

Senecio integerrimus, Lamb's Tongue Groundsel (Composite)

Cryptantha virgata, Miner's Candle (Borage)

Harbouria trachypleura, Whiskbroom parsley (Umbel)

Musineon divaricatum, Musineon, (Umbel)

Delphinium nuttallianum (*nelsonii*), Larkspur (Ranunculaceae)

Alyssum sp., Alyssum (Mustard)

Descurania sophia, Tansy mustard (Mustard)

Penstemon angustifolius, Narrow-leaved penstemon (Scroph)

Echinocereus viridiflorus, Hen-and-chickens. (Cactus)

Mertensia ciliata, Chiming Bells (Borage)

Draba aurea, Golden Draba (Mustard), though Ells shows montane to alpine, so this might be wrong.

Euphorbia brachyceras (Tithymalus) ??

Lomatium concinnum, *orientale* ?? Salt and Pepper. Whiskbroom Parsley (Umbel)

Collomia linearis. Phlox. Tiny Trumpet (Phlox)

Geranium caespitosum, Geranium (Geranium)

Tragopogon dubius, Salsify, Tragopogon (Composite)

Lithospermum multiflorum. Many-flowered Puccoon (Borage)

Potentilla fissa, Cinquefoil (Rose)

Erigeron umbellatus, Sulfur flower (Buckwheat)

Leucocrinum montanum, Sand Lily (Lily)

Antennaria, sp.

Arenaria fendleri (*Eremogone*) , Sandwort (Caryophyllaceae)

Thermopsis divaricarpa (= *rhombifolia*) , Golden Banner. Legume

Erigeron, sp.

Potentilla efussa, Blue-leaf Cinquefoil. (Rose)

Gaura coccinea, Scarlet Gaura (Evening primrose)

On the way out, talked at some length with the ranger, Suzy Riding.

June 8-11, 2010. International Society for Environmental Ethics at Allenspark.

June 8, Tuesday. Drove up and tried to find the "secret room" in the rocks, but was puzzled about it. Hard rain that evening. A half dozen Pasqueflowers still in bloom, dozens gone to seed.

June 9, Wednesday. Led hike/stroll around the nature trail. About ten participants. We did find one Fairy Slipper orchid, *Calypso bulbosa*, at the end of the trail near the water sluice.

June 10, Thursday. Led hike up Bierstedt Mountain, as in previous years, but failed to find the obscure trail into the lake. Intermittent rain. Trails are both well-marked and still somewhat confusing.

June 11, Friday. After the conference, Kathy Griffie took me up to the "hidden room" rocks and showed me where it is. Squeezed through the big crack in the boulders, but did not scramble down into the "hidden room." Then scrambled up top to get a view of it from above. Then walked around to the "exit" which is another six-foot scramble down. A little rougher than I wanted to do. Intermittent rain.

June 25, Friday. Pawnee Grasslands with Bill Miller and Audubon. Looking for burrowing owls and mountain plover.

Left 6.00 a.m. from the Harmony Transportation Center, none of us. I drove with two women. Out some back roads, thru Severance, Eaton, and then up to Colo. 14. Further north on dirt to see a ferruginous hawk on a nest with three chicks. I could see the mom well in scope, but only an occasional wing flapping up out of the nest.

Saw borrowing owls at various locations. Some along were good at spotting them. This was often in areas once known to be prairie dog tows, but from which the prairie dogs had been gone for several years, and were now more or less grassy. Also this is a wet year, so the owls had to be spotted amidst the grass, but they do sit up on mounds, or in a bush. Saw perhaps a half dozen of them in several locations.

They live in prairie dog holes, and these would still be present for several years after the prairie dogs left. They do not eat prairie dogs but. small mammals such as moles and mice during late spring and early summer. Later they switch to insects, especially grasshoppers and beetles. Also known to eat birds, amphibians and reptiles

In a wet area, a mallard, apparently on a nest.
avocet in same area

meadowlarks constantly
shrike, reasonably well seen
red tail hawk on a post beside the road
antelope off an on, perhaps a dozen of them]
one sighting was a pair of does, and three very young, but the three staying close to one mom and ignoring the other. Speculation, did she have triplets, which would be rare.

horned toad, nicely seen right on the road
lark bunting

golden eagle, two immatures.

never found any mountain plover.

eventually reached Crow Valley.

Would have birded there some, but one of the women (Kathy Hartman) was getting phone calls about troubles with a son she had left behind. so we headed back to Fort Collins. Home about

1.00 p.m. Some were excited about a brown thrasher at Crow Valley, but I didn't see it.

July 10-11, 2010. Rocky Mountain National Park with Anthony O'Hear.

July 11, Saturday. Anthony O'Hear, Director Royal Institute of Philosophy, London, and for whom I spoke in London last October, arrived Friday late.

Up and out 7.00 a.m., and hiked the Mills Lake trail. Good weather (following several days of all day rain). Nice hike, uneventful. Showers on return.

July 12, Sunday. Up at out 7.00 a.m. Intended to do the Specimen Mountain trail as far as the Crater, to see sheep, but that trail proved to be closed, to protect the sheep in lambing.

Two bighorn ewes in Poudre Canyon on the way up. Perhaps 200 elk in various groups on Trail Ridge Road, some quite near the road.

Hiked the Lulu City Trail, as far as Shipler Cabins, ruins of two cabins. Nice hike in good woods.

On return to Milner Pass, saw a mountain goat, nicely in the scape and magnificently framed on the skyline. This is the first mountain goat that I have seen in the Park. The Park has misgivings about whether they are to be welcomed or feared.

Hiked up to the Toll Memorial on the return trip, rather cold and windy.

Late July. Three immature sharpshin hawks frequent about the backyard, often fussing with each other.

August 9-11. 2010. Arapaho and Caribou Pass, with Phil Cafaro, backpack.

Monday, August 9. Left home 7.00 a.m, to pick up Phil, 7.15 a.m., and drove to Boulder and then to Nederland. Up the road to Eldora, then to the Hesse turnoff and on the Fourth of July Campground. Good dirt, o.k. for sedans. This is also called Buchanan Campground and the trailhead area is City of Boulder, Mountain Parks. Two dozen cars in the trailhead. Some camping spots here.

Set out on foot, maybe 10.00 a.m., and steady climb on good trail, parts of it seemed an old road but much did not. Lunched with a good view, with light rain starting just as we finished. Then another forty minutes and we were there, at campsite area about a quarter mile below the Fourth of July mine. Pitched the tent in threatening rain and some rain followed. Not that far, 2 miles, but steady climb.

Walked up to the Fourth of July mine. Several shafts filled in. Some old machinery, a steam burner supply seemed to supply power to crank a headframe hoist.

In September 1872, the *Rocky Mountain News* reported that C. C. Alvord had discovered a silver lode on July 4 of that year, and was opening a mine, named Fourth of July mine. Alvord sank a shaft 200 feet deep, with a log shafthouse around it. There was a bunkhouse. A horse turned a shaft to crank the mine's hoist. They mined silver and some gold. The mine ran about five years, much troubled with water from the creek that got into the mine. Shut down about 1880.

The mine was inactive for twenty years. But the ore had contained an appreciable amount of copper. New promoters mined for copper, about the turn of the century (1900), blasting new tunnels underground, mostly in vain.

Ben Fogelberg and Steve Grinstead, *Walking into Colorado's Past: 50 Front Range History Hikes* (Englewood, CO: Westcliffe Publishers, 2006. pp. 72-75..

Phil climbed the Arapaho Glacier/Peak trail to where it tops out, a trail I have never done.

Clouds and fog draping the pass area, but also some sun, and quite aesthetically pleasing.

Napped, supper in the dry, but getting windy and colder. No rain.

Lots of wind in the night.

Tuesday, August 10. Up, still in good wind, but a clear day. Cold front moved through. Breakfast and out about 10.00 a.m., to climb Arapaho Pass.. Steady climb in clear weather and windy, with worries about how windy it would be at the Pass. Sometimes this is trail, sometimes it is old wagon road carved into the mountainside. Maybe two dozen day hikers on the trail.

Reached the Pass, strong winds, but manageable. Splendid view of the well-formed cirque below to the west, with Caribou Lake in the bottom. 1 mile from where we camped.

Continued on the Caribou Pass trail, past Lake Dorothy, a high lake with no external drainage, therefore a kettle. There is climb to Lake Dorothy, then descent to Caribou Pass. Decent trail, often blasted out and hung in a cliffside. A few dicey spots where the trail had fallen out, with repairs enough to make it passable. The latter part of this trail is an old wagon road.. Windy, but winds slowing down some.

Lunched at Caribou Pass.

Returned. Ptarmigan not far from the trail. We watched it several minutes, relatively tame. .Nice sight..

Reached Arapaho Pass, and I returned to camp alone, while Phil stayed up top. Back about 3.30. Warm and pleasant, no wind.

August 11, Wednesday. Hiked out. Off about 10.30, lunched on the trail, but not that far from the trailhead. Out about 1.00 p.m. Passed two or three dozen day hikers, only 3-4 backpackers.

Explored the road up the creek, which is posted private property. I think this is the way I once went to Diamond Lake.

I did pretty well, though slow. Nursing a right knee that can't take too much pounding, and might buckle with a mis-step. Also my left heel has been a little sore, and I had been on some Ibuprofen. But I hardly noticed the sore heel on the hike.

Familiar alpine flowers, but I did not keep a list.

I hiked to Arapaho Pass from the West, from Monarch Lake, July 7-11, 1980, thirty years ago.

mild, even hot September.

October 1, 2010 Received the first copies of the finished *Three Big Bangs*.

October 2. Jane leaves for her trip to Italy.

Madagascar - October 5-21, 2010

A newspaper article on this trip is: "Madagascar Offers Rare Experience," *Fort Collins Coloradoan*, November 28, 2010, Xplore section, pp. 14-15. Online at: <http://lamar.colostate.edu/~hrolston/Madagascar-Colo.pdf>

October 5, 2010. Tuesday. Left home 7.00 a.m., Denver to Minneapolis.

We were late arriving because of a wait for Joe Bidens, Vice-President of U.S., to take off.

Minneapolis to Paris. Decent overnight flight. Aisle seat, beside a Dayton University Women's Basketball coach, going to Paris to recruit a player.

October 6, Wednesday. Arrive Paris 6.45 a.m., early with tail winds.

Long walk and somewhat confused in Paris airport to get my bag (which I could not check through, Delta doesn't check with Madagascar Air) and then to find Terminal 2A for Air Madagascar. Half-mile walk.

I spent all day in Paris, lots of it reading Lonely Planet Guide to Madagascar in a quiet section of a MacDonalds restaurant. Check in did not start until two hours before the flight, but then the line did move. Not a fun day.

Met the group I was to be with there, including Dave Olson, the leader.

The group:

David Olson. a conservation biologist, trained as entomologist. Had spent time in Madagascar, and knew it well. Now lives in Costa Rica. His father was in the military.

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tall, lawyer

David & Jackie Glick
Hamagid 6
Jerusalem, Israel 93114

Roberta Greller
Andrew Greller

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botanist, taught botany for years

Kenneth Harstad
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worked in computer technology, doing things for JPL
my room mate

Frieda & Dick Holley holleyf@mscd.edu
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both taught math, he at CU Boulder, she at Metro State, also administration
both much interest in birds

Keelung Hong
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originally from Taiwan
a chemist

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He is a physician.

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taught marketing
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I had to unpack my carry-on luggage going through security and they found some tweezers I didn't know I had in there amidst the pens and pencils and I had to throw them away

October 7, Wednesday. Arrive Nosy Be, 6.45 a.m. I spent the second night in the air back to back.

Have I done this before? 5,000 mile flight, 11 hours. Flew east of Italy and over Egypt, all in the dark.

Not bad. Fitful sleep but I did get in a good deal of it.

Nosy Be - hot 23 degrees Centigrade, and definitely a third world airport.

We are now south of the equator, and this is the austral spring.

"Nosy Be" means "big island."

Slow customs and confusion.

We were stuck here longer than we wanted to be. Madagascar Air doesn't have many flights and we can't fly until this afternoon. Got a bus into Hell-ville, town 15-20 km. away. Town name sounds terrible, but it was named after some Frenchman.

I am now in the Southern hemisphere.

Madagascar is about the size of California and something of the shape. It is not a small island. Bear 1,000 miles from north to south.

Madagascar currency is the ariary (abbreviated Ari). This is from an old Malagasy word meaning "exchange." They introduced (or re-introduced) this in 2004, when the currency had long been the Malagasy franc. About 1800 to a dollar.

Passed orchards of ylang-ylang (*Cananga odorata*), coppiced trees in bloom, low and gnarled to make for easier harvesting, from which they crush the flower petals and distill an oily ingredient widely used in perfumes. Also therapeutic uses. Custard-apple family, Annonaceae Introduced, native to the Philippines.

Went to a market in Hell-ville. Lots of fruits and vegetables in the market. Live chickens. Live lobsters. There is plenty here to buy, and there seemed to be lots of customers.

There are eleven volcanic crater lakes on the island.

The island is known for having the world's smallest frog (*Stumpffia pygmaea*) and chameleon (*Brookesia minima*). We didn't see either one of them.

Later in the afternoon, flew to Antanarivo (Tana). The name of the capital city is commonly shortened to Tana.

pronounced *an tanah arr' ve uh* *arr' ve* with a long e

Madagascar has six provinces, each with a university, but the main one is in Tana.

There are 20 million people, 3-4 million in Tana.

Met the local guide, Herilada Jonah.

49% of the Malagasy cannot read or write, 65% could not ten years ago.

We passed extensive rice paddies on the way in.

There was jammed traffic and it took a while to get in, maybe 15 km.

Hotel Tana Plaza, a decent hotel, but the air conditioners in the rooms often would not work and the group got dissatisfied with it, and eventually we used another one.

My roommate is Ken Harstad

Good supper in the hotel restaurant. Fish. a "chocolate soup."

Called Shonny on the Global Mobal phone. Worked fine.

October 8, Friday.

Paul (Breslin) was walking in the nearby market before breakfast and somebody slit his backpack with a knife trying to steal what was in it. The thief didn't get anything and Paul did not even know it had happened in the push and shove of the market.

Trip by bus an hour away to the Queen's Summer Palace (not the one on the hill in town)

Madagascar has a turbulent and often bloody history

It was long a colony of the French.

Madagascar became independent in 1960 (although they declared independence in 1958).

Subsequently there is a history of unstable governments and overthrows. There was a socialist period, "The Third Republic," following Russian ideology (1975-1991)

The most recent coup was in 2009. The army forced the president out of power. The president fled to South Africa, where he is in exile. Power was handed over to the senior military officer, who handed the power over to the mayor of Tana, an opposition leader. Supposedly now there is a provisional government.

The African Union suspended Madagascar. France condemned the coup. So did the U.S. The U.S. suspended diplomatic relations. We passed the U.S. embassy en route several times, but there is no ambassador--we withdrew him.

There is an upcoming election in November, voting on a new constitution.

Herilada says whether they vote the new constitution in or reject it will make little difference to the politics.

The ousted president (Mark Ravalomanana), working with international conservation organizations and local groups, had set aside 10 percent of the country as parks and nurtured a thriving ecotourism business. He mandated that half of the fees paid to Madagascar's park system remain with local communities. The new regime is not that much concerned with conservation.

47% are Christian, largely Roman Catholic
5% Muslim
18 ethnic groups

17 March 2009, a coup

passed some big burial grounds. Most of them had crosses on the tombs.

toured the summer palace, Ambohimanga (pix)

shrub planted on the grounds. Crown of Thorns (*Euphorbia splendens*). Native to Madagascar, but taken around the Middle East anciently. Legend that the crown of thorns placed on Christ's head was made of this plant.

at lunch, a Norfolk Island Pine

Behemia - in white flower, an ornamental.

After lunch, a three-four hour drive to rainforests on the eastern coast, Perinet and Mantadia National Park.

great egret seen at ponds, rice paddies not far out of Tana.
dimorphic egret
cattle egret

Madagascar has old and fragile soils that cannot survive the traditional forms of agriculture, especially with the fires they set to improve grazing..

high plateau - a wasteland covered with an invasive, sun-loving grass
covers 80% of the landscape of the nation

a lot of red soil. Astronauts orbiting the Earth once remarked that the red color of Madagascar's rivers suggested the country was bleeding to death as its denuded mountainsides hemorrhaged topsoil into its waterways.

We climbed to a high point, rather like a pass, and then descended, entering a forest, a rainforest.

Rice variously grown along the way (pix).

We passed through a town with lots of rickshaws.

Traveller's palm. = *Ravenala madagascariensis*

The leaves are arranged in a striking, fan like head.

The common name is derived from the fact that travelers would quench their thirst on the rainwater collected in the enlarged sheaths at the base of the leaves. But this wouldn't be very good water because it has a bad taste from the palm, and is full of various impurities.

Endemic to Madagascar, but transplanted in many parts of the world.

We reached and spent the night at Vakona Lodge. Dark when we got there. This is operated and owned by the mining company. My cabin was some distance up the hill, and confusing to find it in the dark

A cyclone is a hurricane going backwards, in the Southern Hemisphere.
Lots of what we drove through was said to be good cyclone forest. A cyclone forest is clipped off with no high trees.

Madagascar is much diversified into microclimate areas.

Lemur taxonomy is much debated. Here is one classification:

Order Primates

- Suborder Strepsirrhini: non-tarsier prosimians
 - **Infraorder Chiromyiformes:** Aye-aye
 - **Infraorder Lemuriformes**
 - Superfamily Cheirogaleoidea
 - Family Cheirogaleidae: dwarf and mouse lemurs
 - Superfamily Lemuroidea
 - Family Archaeolemuridae: monkey or baboon lemurs
 - Family Indriidae: woolly lemurs, sifakas, and allies
 - Family Lemuridae: brown lemurs and allies
 - Family Lepilemuridae: sportive lemurs
 - Family Megaladapidae: koala lemurs
 - Family Palaeopropithecidae: sloth lemurs

female dominance

little sexual dimorphism

They can go into a torpor

Compared with monkeys and other primates, there is small group size.

Lemurs are wide-eyed, often with eyeshine, and unique in primate evolution.

There are 87 species listed in Garbutt, *Mammals of Madagascar*. Lots of these were considered subspecies before 1990, and in the 1990's many were split out into full species. Also some new ones were discovered.

Early classification schemes broke the Primate order into the suborders Prosimii (prosimians) and Anthropoidea (simians - monkeys and apes). However, the prosimian tarsiers have been shown to be more closely related to the simians, and so it has been joined with the simians.

Prosimii are now renamed Strepsirrhini, and Anthropoidea are now renamed Haplorrhini. Strepsirrhini means something like "curly nose." Haplorrhini means something like "dry nosed."

four families of lemurs, (the Lemuridae, the Cheirogaleidae, the Indriidae, and the Daubentoniidae), the bush babies,

lorises and pottos (family Lorisidae) Lorises in India, Sri Lanka, Southeast Asia. Pottos in Africa.

and the tarsiers (family Tarsiidae). Southeast Asia. Though these may be called simians.

Compared to monkeys, lemurs have:

big olfactory lobes
comb teeth dental comb
more bone around eye-sockets

In primate evolution, there was a progressive reduction in nose size and in the olfactory areas of the brain. Lemurs are much like the early primates 50-60 million years ago. Most monkeys and apes have evolved relatively small noses, as have humans, while lemurs have long snouts similar to foxes and raccoons. Lemurs have a comparatively good sense of smell. The snout usually ends in a moist nose.

So lemurs have foxy faces and are often highly variegated in color patterns.

As the primate nose progressively shrank in size over millions of years, there was a corresponding increase in visual capabilities. As much as 50% of the cerebral cortex in some species of monkeys is involved in visual processing. Many primates have color vision comparable to our own.

Lemurs have a tapetum lucidum behind the retina, which reflects and makes for eyeshine. Prosimian eyes are large and are adapted for night vision, with a tapetal layer in the retina of the eye that reflects, reuses, and amplifies light.

Lemurs do not have particularly good stereoscopic vision, compared to monkeys.

Prosimians have inflexible faces compared to those of monkeys and apes.

The lower front teeth of prosimians lie horizontally and protrude, forming a grooming structure called a dental comb. The dental comb is used to comb fur and scrape gum to eat from trees, after which it is cleaned with a hard structure located beneath the tongue.



Prosimians spend much less time in infancy than simians do, perhaps only about 15% of their lifespan as opposed to 25-30% for monkeys and apes.

Lemurs have claws, not nails. A claw grows out of the tip of a digit. Claws are used to catch and hold prey in carnivorous mammals such as cats and dogs, also for digging, climbing trees.

Nails, as in humans, are flat, grow on the top of the digit, and do not come to a sharp point. Many primates have nails, though some of these have become claw-like.

There are no predator lemurs, though they will eat insects and lizards.

There are leeches in these woods, becoming more active now that the rainy season is starting.

Thunbergia, vine in snapdragon family, like trumpet vine, Native to Madagascar, but also elsewhere. Often planted as an ornamental. Seen on the Vakona Lodge grounds.

crested drongo

October 9, Saturday.

Outside the cabin, at daybreak, Madagascar coucal heard in the woods, with a loud deep voice

Going to breakfast, going down the rock stairs with rock wall, there was a comet moth. Spectacular on the rock wall. *Argema mittrei*. One of the largest silk moths, native to Madagascar

Madagascar wagtail, seen nicely wagging its tail.

Lycopodium, seen alongside steps.

Africa has few palms. Madagascar is full of palms and ferns.

The forest surrounding the lodge is Eucalyptus forest, about 40 years old, and other invasives. It was mis-guided to plant it here, but nevertheless it is here.

On the vans, and driving to the park. We drove by dry land rice

“tavy” - their version of slash and burn agriculture. They burn it, plant bananas on the edge of a piece of ground, farm it for 2-3 years with the flush of nutrients from the burn, and then let it revert to secondary forest.

Entered Mantadia National Park. Or Mantadia-Andasibe National Park.

The village with the big railway station that we went through is Andasibe.

Driving in, we left Eucalyptus forest and entered native forest.

Madagascar has 100 species of frogs.

A list of the mammals of Madagascar is at:

http://en.wikipedia.org/wiki/List_of_mammals_of_Madagascar

Madagascar bee-eater

nose-horned chamaeleon

smallest of this group, about the size of a finger.

Callumma nasuta

saw it on a small limb and guides got it onto a stick.

spectacular ferns on roadside

Birds's nest fern, *Asplenium nidus*. Several of them.

The driver drove in quite slowly, often crawling.

We stopped roadside in the forest, and heard rail booming. Presumably white-throated rail.

We reached a parking area and took our first walk in the woods

Brown lemurs, 3-4 of them right at the start of the trail. Maybe the guides had been feeding them bananas.

blue coua

Paradise flycatcher

We heard indri heard howling well before we saw them Hiked in maybe forty minutes. At the start decent trails, but sometimes they got worse.

Eventually, we took off on more faint trails, and found indri. At first, I could see them only halfway well, in the trees above, 2-3 of them.

Watched them twenty minutes or so, and later we saw them leaping nicely.

The indri is the largest surviving lemur.

More hiking and then we turned to "take a short cut." This too us on a hard steep climb, maybe twenty minutes, ending in bushwhacking to see

a diademed sifaka and one young. Seen reasonably well in the trees.

The guide said we were lucky. The diademed lemur is hard to find. This is the only time we saw them.

I was picking up and picking off leeches out of the bushes.

I reached back to scratch and came forward with a bloody hand. I pulled a leech off my left ear, with and squeezing my blood out of it. This left a wound on my ear for 2-3 days, though not really troublesome.

Leech: probably *Haematopota*

Unlike leeches in other parts of the world, rainforest leeches live in leaf litter and vegetation. They are not aquatic. They find their prey, warm-blooded animals, by odor and sound vibrations. In leech-rich areas, if you stand still for a few minutes, you'll see leeches dropping from vegetation and moving toward you like inchworms

Returned and at the car park, they released a juvenile tenrec, they had caught in a hat.

Being juvenile, this one was small, only maybe five inches long. This is an insectivore

It had coarse grey to reddish-grey fur and long, sharp spines along its body

Presumably the tailless tenrec (*Tenrec ecaudatus*)

Maybe the Greater Hedgehog Tenrec or Large Madagascar Hedgehog (*Setifer setosus*), a mammal in the Tenrecidae family. It is endemic to Madagascar, found in many different habitats there. It hunts at night with small very sensitive whiskers. There is no relationship to the English hedgehog

There are other species in Africa.

There was a long ride again, back for lunch at 2.30.. On the road returning we saw a brown lemur.

Others saw from the other side of the bus a bamboo lemur, maybe two of them, but I did not.

We returned to the area again for a night walk along the road. We walked on tarmac, various trucks passing. Generally it was dark, with flashlights and a couple good spot lights.

tree frog

Looked at a chameleon. Genus: *Furcifer*

Chameleons have bulging eyes that move independently of one another, feet fixed in a grasping position, and often horns or crests on the heads. They may have prehensile tails used for grasping objects when climbing and moving. Often they have long extensile tongues for catching insects or small vertebrates at a distance sometimes greater than the length of the chameleon.

Chameleons of Madagascar, online:

<http://www.wildmadagascar.org/wildlife/chameleons.html>

Two-thirds of all the species of chameleons in the world are in Madagascar. After the lemurs, chameleons are often what tourists in Madagascar most want to see, because they are usual.

Looked at a gecko *Uroplatus*

Some of these are perfectly camouflaged to look like the bark on tree limbs.

Leaf-tailed or *Uroplatus* geckos -- moderate- to large-sized geckos rely on cryptic coloration as they sleep with their heads downward, flattened against tree trunks and adjusting their body coloration to their surroundings. Inactive during the day, *Uroplatus* geckos move only when disturbed. They respond to prodding with an impressive display of a brightly colored gaping mouth and an erect tail. At night they hunt insects

Madagascar gekos online:

<http://www.wildmadagascar.org/wildlife/uroplatus.html>

The guide found an

Eastern wooly lemur. *Avahi laniger*.

All I really saw was something dark and lemur-shaped that moved high in a tree.

The guide saw a mouse lemur, Goodman's mouse lemur, and pointed into the roadside bushes. I was right up there, but I did not see it, maybe a little moving in the leaves and grass.

Few, if any, of the group did.

Greater dwarf lemur. Gray in the trees. *Cheirogaleus major*. I saw this fairly well.

There were fireflies seen off and on, not a whole lot but dozens of them.

October 10. Sunday.

We drove out again. This takes us past a mining road cut. There is a graphite mine here, but we didn't really see any mining.

We drove through a village with a public water tap, and women loading big plastic water jugs, maybe jerry cans.

We drove back into the forest, now in the Perinet Reserve. The village nearby is Analamazaotra.

Perinet is the old French name for Analamazaotra, also known as the Indri Special Reserve and part of Mantadia-Andasibe National Park

The indri are here thought to be more habituated and easy to see. This is the most visited reserve in Madagascar.

First we visited an Orchid garden - Ten minute walk into an area planted with native orchids, but transplanted here. We walked around a lake there.

Perinet claims a world record for number of frog species among rainforests of comparable size.

We found a giraffe-necked weevil (*Trachelophorus giraffa*). Only the males are so long necked. Bizarre long neck, bent halfway up.

photo at:

<http://photos.wildmadagascar.org/images/Piotr/DSCF3862.shtml>

paradise flycatcher

short horned chameleon

There were 6 brown lemurs in the trees, including some jumping.

We split into two groups. One group went for the indris. After an hour's walk we found 3 indri (pix), mostly backlighted in a tree, and turned so that it was hard to see their faces, but we did watch them twenty minutes or so.

We had been hearing the indri howling constantly, and seemed to be walking around them.

Indri are relatively rare and hard to see, but people can find them here.

Elephant ear plant Genus ??

We returned for lunch at the lodge,

Lemur Island. They have some lemurs on an island, where they are wild, also fed some, and they will not swim to get off the island.

Got in a small canoe to cross over, just 50 feet or so.

black and white ruffed lemur. *Varegia variegata*. 12-15 of them and looking for bananas. Lots of pix.

We made the long drive back to Tana.

The van is crowded and not very comfortable. There is worthless air conditioning The driver doesn't want to turn it on because it takes power from the engine and the driver can't go up hills



and pass like he wants too. There is no safety exit on the van.

Lots of charcoal for sale in bags along the roadside. It was being sold to people returning to Tana, often the truck drivers stopped and bought some. The production of charcoal is a considerable threat to the forests.

Towards Tana, we passed a market and at one end there was a crowd of people watching a cockfight--at least so we were told.

October 11, Monday.

The elevator broke in the hotel, and the air conditioning wasn't working in most of the rooms. So the group is getting dissatisfied with this hotel.

Very early rise, 3.45 a.m., and early breakfast to get to the airport. Confusion there.

Flight to Nosy Be airport. I was cramped on the plane.

We took an old bus to the beach hotel, Royal Beach Hotel, a lavish beach hotel, after driving through lots of poverty just before the hotel.

We had lunch there, which turned out to be a very slow lunch, took over two hours. We gave up on desert. Mostly this was a wasted day. I walked down on the beach area late in the afternoon, but it was not extensive, less than half a mile. Shops but nothing of interest.

I spent the afternoon reading into Goodman, Steven M., and Jonathan P. Benstead. *The Natural History of Madagascar*. Huge volume. Dave Olson had lugged along a copy.

Madagascar separated from Africa 165 million years ago (late Jurassic) and from India 73 million years ago (end of Cretaceous).

pioneer mammals

treetop acrobatics

evolving in isolation.

Some recent seismic testing for oil offshore resulted in some beached whales.

Lemurs have clasping rear feet. Also, tarsirs have clasping rear feet

orangutans have clasping rear feet.

October 12, Tuesday.

We got in a motor boat and there was about a 40 minute trip to a boat landing.

This was a wet landing at a village called Ampangorina. Nosy Komba is a volcanic island.

Often these Malagasy names are tongue-twisting--at least for English speakers.

We walked through the village, which was full of women's handiwork on sale.

Then into the woods. There was a fairly short walk - 5-10 minutes to see black lemurs, which the local guides had been feeding some bananas. (lots of pix)

The female is brown. (pix with young).

Then we walked to an area with captive boa.

Nearby were several radiated tortoises in a stone pen. These were captive but this is a native species.

Another tortoise there was the flat-backed spider tortoise (*Pyrus planicauda*).

skink - seen wild in the tortoise area.

skink. A skink is a lizard that looks and moves somewhat like a short husky snake. They have long, stout bodies, small conical heads and no pronounced neck. Their tails taper gradually and they have rudimentary legs, though they can zig zag rapidly from one spot to another. If caught, the skink's tail breaks off and twitches, surprising the predator. The skink may escape while the predator gets the thrashing tail. The skink can grow another tail, usually shorter. This defense strategy is called autotomy; shedding a body part to escape.

We walked back through the village and took the powerboat to Nosy Tanikely, 10 km. ride. This is a smaller island, a protected marine reserve.

wet boarding, landing

nice beach.

Half a dozen of us climbed to the lighthouse with Herilada, while others were snorkeling.

From the lighthouse, we walked down some to see Madagascar fruit bats, "flying foxes." *Pteropus rufus*

First heard the sound, then saw 8 in a tree, hanging down with their feet clutched to the branches.

This one of the world's largest bat species. Wingspan 3-4 feet. Fruit-eating.

A pronounced muzzle makes them look like foxes.

They have excellent vision and do not navigate by echolocation. They feed at night, by vision and smell. They may fly 20-30 km. to find food.

white-tailed tropic bird - seen flying in the sky. Got a fair look through binoculars.

skink

Madagascar is separated from Africa by the Mozambique channel.

sunbird

Then an elaborate lunch on the beach. Large fish, a barracuda, two of them served the whole group, a couple dozen people. Catered by some group that brought it in. And maybe made as much money selling drinks as providing the food.

Return by boat to Hell-ville and then to hotel.

October 13. Wednesday.

Lokobe Reserve. Réserve Naturelle Intégrale de Lokobe. We got on outrigger canoes, called piroque. There were two locals in each and two or three of us tourists in each, some 6-8 boats.

We paddled. Hour's trip across the water. But this was not to an island. The reserve is on the mainland of Nosy Be, we just paddled there around the coast.

Wet boarding and landing.

We started hiking in the woods, but that took us first through a more or less domesticated area where there was a vanilla orchard, and then into the deeper forest. Had a local guide with a sort of machete.

Madagascar coucal

Madagascar cuckoo heard calling

Mantella frogs only found here. Tiny golden mantella (*Mantella aurantiaca*) is the best known and exploited in the pet trade.

Saw a spider *Nephila*. Probably Golden Orb-Web Spider (*Nephila madagascariensis*).

cassava = manioc. This is planted almost everywhere in Madagascar and is maybe the second most important source of food. Introduced by the Portuguese.

jackfruit (pix) (*Artocarpus integrifolia*). Saw a fruit on a tree, low down 3-4 feet off the ground.

This is a kind of tree in the mulberry family, Moraceae, grown here, but not native here. The fruit is the largest tree-borne fruit in the world, about 25 cm in diameter. Some fruits can reach 80 lbs in weight. What is eaten is the sweet yellow flesh around the seeds is about, with a taste similar to pineapple.

walked through a vanilla orchard. vanilla in pod (pix)

Madagascar grows half of the world's supply of vanilla.

vanilla in flower (pix) Vanilla is an orchid vine. Native to Mexico.

boa = boa constrictor. Maybe six feet long. In a tree at about eye level on a horizontal limb, and well camouflaged on the limb, until it moved.

Boas are found in Madagascar and South America, not Africa. An old kind of snake.

Presumably they once were there and went extinct in Africa.

Continuing, past the domesticated area, we walked a short distance and there were lots of black lemurs, especially brown females, looking for bananas. (lots of pix)

Continuing, further, we walked for forty minutes in the forest with guide and found a Gray-backed sportive lemur. *Lepilemur dorsalis* Also called: Gray-backed weasel lemur

This is a nocturnal lemur. It was sitting in a hole in a big tree trunk and looking out, something like an owl. Sportive lemurs - sit at the entrance to their daytime sleeping quarters in a hollow tree.

The name "sportive" came about owing to this species' habit of adopting a boxer-like stance when threatened.

It was too dark to get any decent camera shots.

Saw a rosewood tree. This is a very desirable tree to cut to make furniture. Often used to make guitars.

Forty-seven of Madagascar's 48 species of rosewood (*Dalbergia*) are found nowhere else in the world. Madagascar's recent military-backed change in government and a lucrative rosewood market based largely in China have created a dangerous situation for the endangered trees and

the habitat that surrounds them. They are slow-growing trees and found more or less in isolation from each other in forests. Rosewoods are on the CITES endangered species list.

We returned from the hike to a nice lunch in an open covered area.

The villagers here said they see Americans maybe once a year, and we were the first that year.

We took the piroques back. The tide had shifted and we had to walk some distance to get to the piroques and in the water some to get into them. I gave up on the flip-flops, which wouldn't stay on my feet.

We paddled maybe fifty minutes..

I had a tough time disembarking and had to walk 100 yards in nearly knee deep water with the bottom sometimes muddy, sometimes firmer sand.

I should have been better prepared and brought my Texas, and I think we could have been better warned by Betchart.

Lecture that evening before supper.

There are striking differences between wet and dry parts of Madagascar.

Lemurs are female dominated

microendemics. Endemic in a quite small area, five or ten square miles. Little dinky places can be very important.

Madagascar has the most pronounced microendemicity in the world.

Lemur species are often divided by rivers and in ring areas around the country.

Only 10% of the natural habitat is left.

October 14, Thursday

Leisurely get up, for 10.00 a.m. plane to Tana

Long wait at the airport.

Flights are sparse and tend to go to and from the capital.

100% Third World airport. Poor service, no seat assignments, no security. Passengers jammed into each other to get through a narrow door and out onto the tarmac.

tepid Coke on the plane, dirty seats.

arrive Tana, and long wait for bags

Now we used the Orchid Hotel, a nice hotel, after the complaints about the other one.

This is owned by Chinese interested in the oil and minerals here.

We rode into the market with a couple hundred stalls and a few tourists desperate to sell you something.

Some nice crafts and much junk.

Decent meal in the evening at the hotel.

October 15, Friday.

Outrageous wake up call at 2.15 a.m, for 3.00 bags out.

Got some breakfast at the hotel.

On a bus at 3.15 a.m., with aisles no narrow you had to turn sideways to get through them.

Plane flew first to Morondeva, where we had to deplane for transit.

Arrived Tulear = Tuliare

This is on the ocean, some mudflats seen, also some good surf.

zebu with straight horns, from India

zebu with curved horns, from Indonesia

cassava

colorful rickshaws in Tulear were introduced by the missionaries. Saw thousands of them in town.

sweet potatoes

The landscape looks something like the Desert Southwest in the U.S.

We wasted an hour and a half at a café breakfast stop.

Off on a bumpy drive. Again, we had to turn off the air conditioner so the driver could drive faster.

herds of zebu and goats on the road

The villages are full of huts of sticks, perhaps a hundred such huts in a village.

Chickens running around all over the village.

In the otherwise desert landscape, we passed many raised grave rectangles, maybe 25 feet square.

In places, the tombs are one of the more prominent built features of the landscape.

There is a ceremony called “dancing with the bones of their ancestors.”

Saw lots of mango trees Round topped and somewhat globular. They look like they are out in the middle of nowhere, but the locals probably know who owns them or has the right to get the fruit.

Reached Vinata

Did a pit stop in the middle of nowhere with no bushes.

Yellow-billed kite

Passed a sizeable town with a river and irrigation and rice paddies, in the middle of the desert. River flows out of some mountains to the north.

baobab trees *Adansonia* (pix) Michel Adanson was a French naturalist.

We stopped to take pictures and rather quickly gathered a dozen children wanting something from a busload of people wealthy beyond their fondest dreams.

hundreds of baobab trees

Some huge, and said to be 1, 200 years old.

Madagascar has 6 of the 8 species in the world. There is one species in Africa and one in Australia.

The baobab trees we saw will eventually die, because they can't pollinate and reproduce unless in the thorn scrub.

Eventually the driver did turn the air-conditioning on.

We reached Sakaraha, where they were selling gems from the mines.

aloes - a monocot, somewhat like a yucca.

We passed a forested area, Park National Zombitse Vohibasia Later, on the return trip, we would stop and take a walk along the road on the way back. A couple people saw some lemurs as we drove past, but I did not.

We must have passed ten thousand termite mounds in what otherwise seems barren desert.

Passed some sizeable grassland areas, burned.

Reached a town, Jvanaka, where they were selling sapphires, with mines nearby. Apparently they are just found in the sands, with some operators using pick and shovel, and some using tractors.

Dwarf palm, *Bismarkia nobelis*. With a whitish look.

Many of them as we got toward the park.

I'd call this landscape semi-arid, but David Olson and Andy Greller said it should be called "dry subhumid woodland."

This is plateau highlands.

Flock of pied-crows.

Reached the lodge, Hotel Relais de la Reine. Quite nice and scenic lodge, owned by a French woman, whom we saw a couple times.

We went to watch a sunset at weird rocks, with a stone window (pix)
Left for an evening/night drive/walk.

Madagascar kestrel, *Falco newtoni* Commonest raptor in Madagascar, and may benefit from human disturbances of land.

Pied crow. *Corvus albus*

This is a very old landscape.

Elephant foot. *Pachypodium* Yellow flowers, a plant seen at a distance on the cliff.

Electricity in the lodge is only on 6-10 a.m, and 4-12 p.m.

October 16, Saturday.

A hot night, under mosquito nets.

Up at 5.45. breakfast at 6.45, off at 7.30 a.m.

We drove though the country side, generally park land on one side of the road and private land on the other. Then we came into a town with park headquarters, Isalo National Park. Picked up a local guide there.

The park opened in 1992 with 82 visitors. Now they get about 18,000 a year. It is one of the most popular parks in Madagascar, with lots of French and other European visitors.

10,000 people live in the area surrounding the park.

Blacktop for some miles, then turned for long slow ride on a broken dirt road.

We reached a parking area, near a village.

Then on foot, walking across rice paddies.

We passed zebu driven to tramp on the rice fields prior to planting.

Wealth is often measured in number of zebu you own.

More kestrels.

Hot walk across flats and into the canyon.

We reached forest and in mouth of Canyon des Makes (of the Monkeys) found ringtail lemurs, the icon of Madagascar, rather like the bald eagle for Americans. They put on a good performance, in trees below a high cliff.

There were some tombs on the cliff, and we were reminded that it is tabu, disrespectful to the dead, to point at them with outstretched finger.

Ringtail lemurs, *Lemur catta*.

Saw them in trees and sometimes on the ground. There were three or four and one juvenile.

Ringtailed lemur is the flagship species, the icon of the nation (like the American bald eagle), and only found in southern Madagascar. It spends more time on the ground than any other lemurs.

Continuing on foot, we crossed around on a transfer trail to the second canyon Canyon des Rats (of the Rats). There we hiked in far enough to find Verreaux's sifakas, a black and white lemur. Three of them looked back at us, from a high perch on a horizontal limb, again, one with a baby clutched to its back.

Verreaux's sifaka, *Propithecus verreauxi*. Watched them maybe twenty minutes.

Verreaux's sifakas can eat chemically protected plants that would make other lemurs sick.

By now I was tired and hungry, and we returned a bit to a pleasant spot by the creek through the canyon. I was looking forward to a lunch the guides said would be packed in for us. A young girl appeared carrying rather gracefully balanced on her head a big cardboard box filled with a couple dozen lunches on her head.

I thought to myself: I found it tough hiking in here, and she comes in gracefully with that load. Her face was painted with the tan-colored ointment we often saw on women, a salve they get in the forest somewhere.



The lunch was good, but with a sad note. There was too much for us to eat in the picnic lunches, so we gave the food and scraps to the two local guides and the young woman. She picked up the scraps and put them in the cardboard box. Talking to her (the guides translating), she said she was fifteen years old, had a baby, but no husband. They paid her something to carry the box in, but I also think she as much wanted the left-over food, to take back home. I recalled that three-quarters are of the Malagasy are undernourished, below the minimum international standards for caloric intake

Later, Herilada said she would have a hard time finding another husband.

We walked back to the Monkey Canyon.

There we took a short, but scrambling hike further in.

There were steps cut in rocks, but with tricky footing. I went over several of this up and down, and eventually stopped with some at an attractive waterfall and pool, while others when a little further.

Hot, and rather tiring hike out.

Two or three little boys followed us all the way and tried to sell us a few carved animals.

We got back on the bus, and en route back there was a rain shower with some hail!!

Also some thunder and lightning. Maybe the rainy season is coming.

We stopped at an interpretive nature center of the park on the way back. Nicely done.

Madagascar periwinkle, *Catharanthus rosei*, seen planted in the interpretive center yard.

Later, we were to see lots of it along the roadside, on the road to Berenti.

Vinblastine and vincristine extracted from it are used in the treatment of leukemia.

October 17. Sunday.

Off at 7.30 to drive back to Tulear.

Madagascar was the first country in which there took place a debt swap.

From UN Development figures:

Madagascar: 18 million population in 2004

45% are younger than 15 years old

3% population growth rate per year

only 50% of school age children in school

56% are illiterate overall nationally
in urban areas 30% are illiterate

For half the population life expectancy is below 40 years of age.

Three-quarters have no access to clean water
Three-quarters are undernourished, that is, below the minimum international standards for caloric intake

76% of the rural population is poor

52% of the urban population is poor

77 of 1000 infants die.

Madagascar had a population of a little over 5 million when it became independent in 1960. Today the population is over 20 million.

The growth rate is 3% per year, which, if unchecked, will double the population to 40 million in a little over 20 years.

Historically, before the French, Madagascar seems to have had a quite low population density. But even then they despoiled the land by burning.

Morning was spent on the return drive to Tulear

We drove back through Jvanaka, the sapphire town, and others similar.

tapia trees *Uapaca bojeri* The only evergreen tree found outside of the rainforests. They are resistant to the burning of the grasslands. This is the most common tree of the Isalo National Park area.

Again lots of burned lands, and several fires seen in progress.

Until the arrival of humans, Madagascar is thought to have been largely forested, though some of it may have been the spiny desert type we would hardly call forests. There are scraps of all such original forests remaining, but most of the landscape has been degraded by slash and burn agriculture, with soil loss by continued burning and erosion.

Highland Madagascar is mostly grasslands, rice paddies, dryland cropfields, and pine or eucalyptus woodlots.

Also there are tapia woodlands, or wooded savannas, typically thought to be remnants of previously grander and more diverse forests, degraded into their current shape by frequent burning. Tapia woodlands do have some benefits. Tapia is the main food of the wild, endemic, Malagasy silkworm (*Borocera Madagascarensis*). The silkworm cocoons have been harvested for centuries to weave expensive burial shrouds. They also provide fruit, fuelwood, mushrooms, edible insects, and herbal medicines. By some accounts, villagers shape and maintain the woodlands.

On the return trip we stopped in Zombitze-Vohibasa Park, and walked maybe three-quarters of a mile along the road with dryland forest on each side.

Lesser Vasa Parrot. A dark parrot, not colorful. Five or six seen nicely in a tree.

3 Verreau's sifakas, and later, further down the road, 6 Verreau's sifakas, seen in a tree (pix).

We passed a town and some dressed-up locals were coming out of a Jehovah's Witness church.

Sisal, often seen planted or escaped roadside.

The driver did turn on the air conditioning and that made it more comfortable.

We stopped at a baobab tree, for some more pictures. This one is *Adansonia za*. And soon again we collected a crowd outside the bus trying to sell us something.

The boys outside the bus also had chameleons, on the end of sticks, which they were showing us, maybe trying to sell them or to get a tip for showing us something interesting.

We passed lots of prickly pear, which is introduced, which they plant as fencerows. Also they can take the spines off and feed them to their cattle in times of drought.

We passed oncoming vans often with gear and other stuff piled so high on the roof that the van plus gear was half again as high as the van itself.

Another baobab, also here is *Adansonia fony*, found on calcareous substrate, which is endemic here.

We saw *Didiera*, first at a distance. This is a flat topped tree. First there were only a few, then hundreds of them. (I may have the name confused.)

Saw Madagascar hoopoe, low on a tree, at a distance. Later saw this quite well at Berenty, with pix there.

Reached Tulear.

We had a shrimp and lobster lunch, an excellent lunch served outside, at a French restaurant, Etoile de Mer, (Star of the Sea)

And, again, there were people, some boys and girls, some adults, trying to sell us something hanging over the fence near the outside tables.

We visited a well arranged arboretum, 12 km. away. Arboretum d'Antsokay. This was founded around 1980 by Swiss amateur botanist, Hermann Petignat. The land was reclaimed from an old limestone quarry and brick-making area, and we had to pass through some brick-making and rather depauperate land to get there. There are plants here that have largely disappeared from the wild.

Madagascar bulbul (*Hypsipetes madagascariensis*), a bird

We saw, loose when walking in the arboretum a hog-nosed snake, *Leatherodan(?)*

We saw a Madagascar magpie robin

Saw *Cyphostemma montagnosci*, a grape (!) with a huge basal water storage enlargement.

Cyphostemma is a plant genus in the Vitaceae family. There are several species that are native to Madagascar, Namibia and South Africa. Tree grapes. They generally have very thick trunks.

The name for this is caudiciform plants. They can store water in their stem bases, stems and/or roots, an adaptation for dry climates.

Iguana, *Oplurus*, seen on the bark of a tree

Pachypodium, Elephant tree. Succulent, spine-bearing tree.

There were a couple dozen tortoises in a pen. Radiated tortoises, *Geochelone radiata*. These are on the CITES Endangered Species list.

We then went to the airport, for the flight back to Tana. Confusion in the airport.

Reached Tana, and buffet in Orchid Hotel.

Here Ken and I could not get the air-conditioning to work in the room. The remote was in Chinese, and, although there was a sort of a translation into French, we couldn't figure it out.

October 18, Monday.

Up at 5.25. Breakfast.

Drive to airport. One bus wouldn't work and we used the hotel shuttle for half the group.

Flight to Fort Dauphin

Flying in, nearing Fort Dauphin, you could see white titanium sands.

There is a black mineral in the sands, ilmenite, which contains titanium.

Titanium is a strong, light metal. Among other uses, people want it for those super light bicycles. Also used in paint, instead of lead, and in toothpaste.

Mining giant Rio Tinto, has been given permission to open up an enormous mine here that will involve digging up some of this unique forest. The \$775 million titanium dioxide mining project will be carried out by QIT Madagascar Minerals, a subsidiary of Rio Tinto, with 20 per cent owned by

the government and support from the World Bank. Up to 1,000 hectares of land and coastal rainforest bordering the Indian Ocean will be dug up to extract ilmenite, the mineral which can be used to produce white titanium dioxide. There is high demand in China, because other ilmenite mines in Australia and South Africa are being exhausted.

There are rare endemics that grow only on titanium soil.

We picked up a local guide.

Saw various people fishing.

This area was developed by the French Eastern Trading Company. Also there were Lutheran missionaries active here

Whales can often be seen in the ocean here..

Lunch: we had spiny lobster in a fine restaurant.

There is a steep environmental gradient. On the drive west, the rainforest dries out quickly.

Lots of palms seen.

On the bus, after lunch, we went to see a pitcher plant, *Nepenthes madagascariensis*. This is structurally similar to the pitcher plant in the United States, but no relation. Convergent evolution.

The drip tip is modified. This plant is on the IUCN Red List of Endangered Species.

Madagascar turtle dove

The local guide on the bus joked that the main product of people in Madagascar is more people.

Eucalyptus trees

yellow-billed kite

elephant ears - plant resembling banana plant, in wetter areas

rice fields

We endured a long, bruising drive over a very rough road. The road had not been seriously repaired since the French left in 1960 and, though once blacktop, was so broken up that the driver often preferred the edges of the road that were not paved but had been worn down by vehicles.

sweet potatoes

cassava

Madagascar periwinkle roadside, lots of it.

African euphorbia tree is somewhat like a Joshua tree in U.S.

We passed people beating out the roots of manioc in the villages.

We passed sisal plantations, no longer functioning.

Leucaena leucocephala, a bad invasive. Ringtailed lemurs eat it and it affects the adversely, particularly their nursing of infants.

Madagascar triangle palm. *Neodipsys decaryi* - one of the grandest palms in the world and most endangered. The leaves are organized in three ranks and this makes it easily recognizable. Hence the "triangle" name. Also a striking blue-gray color. There are only about 1,000 individuals left in the wild in about ten square miles in southern Madagascar. It is threatened both by fire and the harvesting of its seeds for export. Some are cultivated abroad. It is on the IUCN Red List of Threatened Species.

Aloe vera, seen wild on a hillside at a rest stop. Best known of the medicinal aloes. Native to Madagascar and also to Africa and Arabia. Some discussion of whether humans have moved it around.

In the U.S. you can buy it in a bottle.

There were lots of horned zebu skulls outside of the tombs to symbolize the wealth they hope for in the next life.

We stopped to look around in a spiny forest.

Alluaudia, in Didieraceae. With vertical leaves in between the spines. lots of it. It is a dominant in the spiny forest.

Species here: *Alluadia dumosa* (a synonym is *Didiera dumosa*)
Alluaudia procera (a synonym is *Didiera procera*)

The tree is a big succulent stem, with rows of single thorns.

This plant family, Didieraceae, is endemic to Madagascar, and the species found only here in this driest, desert-like southwestern zone. The leaves are without petioles and are produced in curious vertical ribs down the stems. Their unusual orientation may be an adaptation to maximize exposure to sunlight, consistent with the thorns protecting them from being eaten. This is often thought to be the most interesting of Madagascar's endemic plant families.

A catalog of Madagascar plants is online at:

http://www.efloras.org/florataxon.aspx?flora_id=12&taxon_id=242443859

The group is too big and this makes for slow stops and a lot of lost time, and we lost some of the scheduled events.

We stopped at baobab trees, and people had crafts to sell, carvings and other things, which were made by the local people.

We passed trucks loaded with chickens.

Commiphoro. *Commiphora simplicifolia*. (Burseraceae),
A wood they use for carving.

a tough people

We reached huge sisal fields, now fully functioning sisal farms.

Reached the Berenty Reserve, and got into a cottage at Berenty Inn.

Night walk. The guide had a good spotlight and combed the trees quite well.

Verreau's lemur, three in a tree well seen.

white-footed sportive lemur. Three of them well seen

mouse lemur. Gray mouse lemur. Nicely seen moving along a branch in the spotlights, and watched it 4-5 minutes.

Madagascar Scops owl. First we heard it, and then we found it. Well seen. Then it flew and we pushed through the bushes in the dark to find it again.

Saw some insect larvae climbing a bush in the dark. These are Red Flatid Leaf Bug, Flattidae

Back to the Lodge and supper in a restaurant, which was 200 yards from where the cottages were.

October 19, Tuesday.

Walk in the forest, before breakfast

brown lemurs, in trees. These are not native to this area but were brought here.

6-8 more brown lemurs in the forest

Helmeted-guinea fowl, seen out on dried up river flats. These are not native here but were brought from Africa.

white-browed owl. seen well, just sitting there in the daytime.

huge, branched tamarind trees.

tamarind - a legume with a pod. The seeds are eaten. Native to Madagascar and East Africa. Still grows wild here and in Sudan, Oman, and widely planted in India, South America. Pinnate leaves. Often a shade or ornamental in South Florida. Inside the pod are many hard-coated seeds covered with a brown soft pulp, which is the edible part

giant coua. chicken-like, on the ground. Blue head. Splendidly seen.

6-8 ringtail lemurs (pix)

There a light rain falling, hardly more than thick mist

paradise flycatcher

Madagascar Cuckoo hawk (*Aviceda madagascariensis*), seen eating something. At least that is what the guide called it.

Verreau's sifaka. 2-3 of them all bunched up together

piebald crow

parrots. Lessa Vasa parrots.

Went, still on foot, to a place where we could see fruit bats, flying foxes. There were a couple trees full of them.

A couple of them were seen flying, mostly when they fuss over where they will hang and some take off for a new hanging perch. A few egrets also in the same trees.

bats (pix)

Back to get breakfast, which we had to eat rather quickly.

Walked around in an open area, where Verreau's sifakas were in the trees, and then they came down and were "dancing" on the ground. This is the way they walk, a sideways dance. Nicely seen, a dozen times, and not too far away. (pix)

We saw perhaps 100 Verreau's sifakas.

Perhaps 100 ringtails.

Lessa Vasa parrots, 3-4 of them

Then we took the bus to the spiny forest for a walk in the spiny forest. 10-15 minute drive away.

The guard had a long spear.





Walk in the forest.

Madagascar night jar, seen well, on the ground, just sitting there probably thinking we weren't seeing it. It is quite well camouflaged.

Madagascar hoopee - quite nicely seen on the ground eating. (pix)

The guide found a gray mouse lemur, seen deep inside an *Alluaudia dumosa*.

Dave Olson was calling it "the cutest animal on earth and the smallest primate on Earth." And it was cute. Now and again we could see its little head buried down in the dark of the tree.

"smallest primate on Earth" *Garbutt Guide* of which somebody else had a copy.

2 giant couas

white-browed owl

10-12 brown lemurs

Visit to museum

saw Elephant bird egg

16 inches long, three times the size of an ostrich egg. The egg volume was 160 times that of a chicken egg. This bird, the heaviest bird ever, and taller than an ostrich, went extinct about a thousand years ago, probably because it and its eggs were killed and eaten by Malagasy hunters (like the dodo)

This is Androy region. Androy means "land of thorns"

Tandroy people.

"The people are thirsty, hungry, strong, and proud." Sign in the museum.

The rainfall here is 300-400. Inland 600 mm, the same as Paris, but there are long dry periods. Plants may not get any rain at all for up to 18 months. Rainfall is erratic.
return to Ft. Dauphin, a long, hard, bumpy bruising ride

Nearing Ft. Dauphin, there was more rain.

Spent the night in Ft. Dauphin. Decent hotel, where we had had lunch the day before. There was a pretty good walk up several flights of stairs to our room.

Our room was a suite. Mosquito nets, and I started out not using mine, but heard a couple buzzing around after I lay down, so I got up and unfolded it.

There was hard rain, loud on the roof right after we went to bed.



Gray Mouse Lemur deep inside an *Alluaudia dumosa*

The wind came up in the night and was banging the door loudly.

October 20, Wednesday.

A rooster crowing outside the hotel woke me up.

Ken fell on the steps here and had fallen several times before. But he didn't seem to hurt himself.

We ate breakfast in an open-roofed area. A little on the skimpy side. French "continental breakfast"?

Ruth Lupus is sick with diarrhea, and I gave her some of my Capra. There are three physicians in our group. She got a local physician also who brought the equipment to give her an IV to re-hydrate her.

There is an airport strike in Paris, or at least protestors about raising the retirement age from 60-62 are trying to shut down the fuel supplies to the airports.

I bought a bracelet at the bus side. Olson said it was classical Malagasy peasant style, not fancy, but real silver, which they probably got from melting down coins. Paid about \$ 10 for it. Olson had the ariary and I paid him in dollars.

Went to the airport

The logo on the tail of Air Madagascar is the Travellers Palm.

Total. A French oil company here. Pronounced: "tow tall". The "tall" rhymes with "shall"

Flight Fort Dauphin to Tana

Arrived Tana, 10.30 a.m. and transfer to hotel day rooms in Relais des Plateaus.

Lavish lunch at a restaurant there.

Then we went back to the long rows of craft shops, where Dave ran the gauntlet for me to get insects in amber he had seen the week before.

Word got around about what I wanted, and we were soon being pressed by a dozen sellers, who had insects in amber, often the same ones showing up six or eight shops down the row.

But Dave and I were looking for a spider which he had seen and admired a week ago.

I bought one piece with ants in it and something bigger, for \$ 80 (haggling started at \$ 250) and then we found the spider, which I also bought for \$ 50 (haggling started at \$ 250 again). After we walked away, they came down to \$ 50.

These ants are a couple million years old. Also in here are some Scolytinae beetles. Bark bug beetles. Bark boring beetles.

Later: Boris Kondratief (CSU entomologist) says the larger piece has:
Diptera, Phoridae, Scuttle flies

Hymenoptera, two kinds of ants:

Formicidae family, *Camponotus* sp. Large. Carpenter ants. With one-segmented petiole

Myrmicinae subfamily. Smaller. Ants like leaf-cutter ants, or fire ants. With two nodes in the petiole.

The large insect in here is a Blattoidea nymph. Cockroach. Blattoidea superfamily.

There is also Hemiptera (order), Homoptera (suborder), Psyllidae (family), jumping plant louse

There is also Curculionidae (family, snout beetles), Scolytinae (sub-family), bark beetles. Probably genus *Ambrosia*. They live in nutritional symbiosis with ambrosia fungi and probably with bacteria.

The spider in the other amber block is probably a crab spider (Thomisidae)

This amber is from north Madagascar.

We do not know if we will get into or out of Paris, or even if we will be permitted to take off from Tana.

Also, they had first planned to take one group into the city to see the palace on the hill and other areas, but were advised against it. There might be protests and traffic jams.

Also, in the world news the British are in fierce debates over government spending cuts, and eliminating many government jobs.

Called Shonny on her birthday. Phone worked well. But these calls are expensive. Paid about \$ 45 for four calls from Madagascar.

We did fly, but left 45 minutes late, held on the tarmac, waiting for some passengers to arrive on an incoming plane from Tulear, arriving late.

October 21, Thursday.

Overnight on the plane.

Somewhat anxious about how late we would arrive in Paris, or whether there would be flights canceled due to the protests and strikes.

Slept reasonably well. Aisle seat.

Landed in Marseille, 9. 45 a.m. Half the plane got off, and no new passengers got on. Reasonably quick turnaround here.

Reached Paris only ten minutes late.

Not bad transferring. Air Madagascar would not check bags thru and, as before, I had to go out and get my bag at the baggage claim and recheck it. I rode the shuttle, which was easy. Good signs on board, changing about what stop was coming up next.

But confusion at the Delta loading.

Again, flew over an ocean I never saw. And the night before I had flown over a continent (Africa) that I never saw.

Reached Atlanta in a stretched out day, transfer to Denver flight.

Home about 7.30. p.m.

Lemur species seen:

brown lemur - *Eulemur fulvus* - Mantala National Park and elsewhere, including Berenty Reserve, introduced

I think some were common brown lemur and some red-fronted brown (*Lemur rufus*)

indri - *Indri indri* - Mantala National Park Perinet Refuge.

diademed sifaka - *Propithecus diadema* - Mantala National Park

eastern woolly lemur - *Avahi laniger* - Eastern avahi - night walk - Mantala National Park

greater dwarf lemur - *Cheirogaleus major* - night walk - Mantala National Park

Goodman's mouse lemur - *Microcebus lehilahytsara* The guide and a couple others on the night walk, Mantala National Park

Most did not see it, including me. I'm not sure anybody saw it well enough to know the species. If it is this species, it is found in a quite small area, only here.

bamboo lemur - Eastern gray bamboo lemur - *Hapalemur griseus* - though I didn't see this one - from bus leaving Mantala National Park

Black and white ruffed lemur - *Varecia variegata* - on Lemur Island black and white Vestia lemur?

Black lemurs - *Eulemur macaco* - Nosy Komba forest. Females brown

Gray-backed sportive lemur. *Lepilemur dorsalis* Lokosha Reserve Nocturnal, sitting in a hole in a big tree trunk and looking out, something like an owl.

Ringtail lemurs, *Lemur catta*. Isola National Park, Canyon of the Monkeys

Verreaux's sifaka, *Propithecus verreauxi*. Canyon of the Rats, and later Zombitze-Vohibasa Park, and again Berenty Reserve, "dancing"

Gray mouse lemur - *Microcebus murinus* - Berenty Reserve

White-footed sportive lemur - *Lepilemur leucopus* - Berenty Reserve

Birds - Kurt Steinwascher's list. I saw many, but not all of these.

Black swift
Black-crowned Night heron
Blue Coua
Broadbilled Roller
Bush lark.
Cattle Egret
Common Mynah
Common Newtonia
Coucail
Crested Coua
Crested Drongo
Dimorphic Egret
Forest Rock-Thrush
Frances Sparrow Hawk
Giant Coua
Gray-headed Love bird
Greater Egret
Green-backed heron
Hook-billed Vanga
Lesser Crested Tern
Lesser Vasa parrot
Madagascar Bee-eater
Madagascar Brush Warbler
Madagascar Bulbul
Madagascar Cuckoo Roller
Madagascar Cuckoo Shrike
Madagascar Fody
Madagascar Goshawk
Madagascar Green Sunbird
Madagascar Hoopoe
Madagascar Kestrel
Madagascar Magpie Robin
Madagascar Manikin
Madagascar Paradise Flycatcher
Madagascar Petrel
Madagascar Stone Chat
Madagascar Turtle Dove
Madagascar Wagtail
Madagascar White-eye
Mascarene Martin
Namaqua Dove
Palm Swift

Pied Crow
Reed Comorant
Sakalara Weaver Bird
Scop's Owl
Souimanga Sunbird (male and female)
Ward's Flycatcher
Whimbrel
White Throated Rail
White-browed Owl
White-headed Vanga
White-tailed Tropicbird
Yellow-billed Kite

54 species

He doesn't seem to have the Madagascar Cuckoo hawk (*Aviceda madagascariensis*).

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end of Madagascar

Nov. 15, 2010. Red fox in yard next door when coming home after dark.

end 2010

Trail Log 2011

March 8, 2011. A few crocus.

March 11, 2011. Huge earthquake and tsunami in Japan. An 8.9 magnitude earthquake off the coast of Northeast Japan and spawned a ferocious tsunami that caused massive destruction, flattening whole cities, starting raging fires, and killing hundreds. Deaths over 10,000.

March 13-19, 2011. **Yellowstone Wolf Week,**

March 13, Monday. Left 6.30 a.m, after daylight time change. Slushy around Cheyenne and after Wheatland dry and sunny for the rest of the day.

12 antelope
8 antelope
5 antelope

Reached Hardin, Montana, 3.45. Super 8 and pizza.

I am finishing up the Prednisone dose for Plantar fasciitis.

March 14, Tuesday. Up and off 7.00 am. Still dark. Rain showers off and on, on a snowpatched landscape. Reached the Park 11.45 a.m.

15 bison
5 elk

Lunched in car at Visitor Center at Mammoth. Snowing, flurries during lunch.

The NPS has wolf photos in public domain: at

www.nps.gov/yell

Click on Photos and Multimedia (on the left)

On the right side of page: click on Online Slide File. Then Mammals. Then Wolves.

Website listing blogs about Yellowstone NP

<http://en.wordpress.com/tag/yellowstone-national-park/>

<http://wolves.wordpress.com/category/yellowstone/>

Drove to Lamar Valley and Ranch. I got out of the car to see scopes set up in the parking lot and in thirty seconds say seven wolves. Talk about luck.

Rick McIntyre had his scope set up.. The wolves were lying down, humps on a ridge, but now and again a couple would get up and walk around. These were the yearling pups, still playful. Nicely profiled against the snow. That's why you come in March. The winter makes it tough, but the wolves are easy to spot.

7 of the 8 in the Agate Creek Pack.

They said wolves were to be seen back down the road, and I drove there. Others had seen four but snow and fog were obscuring seeing them and I couldn't make any out. Ten minutes later it cleared and a black spot got up and walked around.

My cabin mates are Ed Grant, father, and son David Grant.

I checked in and then went back and watched the wolves, which now were up and moving around. They came downhill, spectacularly, well profiled against the snow. Down a quite steep hillside, breaking through sometimes into the snow, and seemed almost to be falling down parts of the hill.

Supper, catered.

Evening orientation program.

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BradBulin@yahoo.com

Shauna Baron
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sbaron@yellowstoneassociation.org

The ranch hosts, also drivers of the vans:

Fran Magelssen famagelsse@windstream.net 281-265-2244

Scott Magelssen scottywddd@windstream.net 281-265-2244

The group:

Natalie Kindrick nkindrick@gmail.com 434-409-4927

Ed Grant saranacsfh@roadrunner.com 518-891-0446
He had run the fish hatchery for the Adirondacks for years, recently retired.

David Grant davidscottgrant@gmail.com 518-524-8722
his son, recent college graduate, now an engineer with a Connecticut firm making submarines.

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young mother and wolf activist. She advocates restoring wolves to Colorado.
She has a blog site: howlcolorado.org

Leo Kelly LGK48@aol.com
Connecticut, friend of the Grants

Talk after supper.

This is the world's best location for watching wolves.

The Agate Creek Pack is:
715F short tail
641 M big
586 M - 10 years old, not seen
471 F
4 pups
775 M - one of the pups, only one has a collar.

Lamar Pack

Blacktail Pack

Pups weigh 90 or 100 pounds

Collared wolves are given a number, the number of the collar.
775 M one pup has a collar.

spitting pellet snow, going to bed.

March 15, Tuesday.

Up at 5.15 a.m. Stars in the sky. No wind. Catered breakfast 6. 15 a.m.
Out at 7.15, just getting light.

Watched first at the Ranch parking lot, where we saw them yesterday, but nothing.

Driving west about a mile, I saw two running on a hillside. Others saw only one, but I was in

back of the bus and looking out the rear window clearly saw two. They claimed these were from the Blacktail Pack, which we otherwise did not see the rest of the week.

Looked at Slough creek. Saw nothing.

Red fox in the distance, but I never saw it. You can tell a fox at a distance because the tail is as big as the body.

We drove further west, past Tower Junction, a couple miles, and saw 7 wolves at great distance. This was identified as the Agate Creek Pack, seen yesterday, but now having moved some five miles west. Coyotes howling. The wolves were toward a ridge top a long way off, only specks in the scope moving around.

Shauna claimed that juniper seed does not sprout unless it passes through the intestinal tract of a bird. Birds do eat and spread the seeds, as do other animals. They do not have much food value for the birds and animals that eat them. Digestion apparently does not harm the seed, and I found a couple references that suggested that it may enhance germination.

Back at Slough Creek. Now there were five wolves on a carcass, dragging it, nicely profiled in the snow. The Lamar Pack.

Rick McIntyre and others had seen the kill.

The Alpha Female, 06 is famous for killing elk all by herself. She is the one I saw, the mother of the pups seen at the den at Slough Creek last summer.

The pack had actually killed two elk, which is unusual, possibly because the elk are weak from winter and not much able to defend themselves.

12-15 ravens at the carcass, when only one wolf pup was left there.

Then a golden eagle, and an adult bald eagle came to the carcass.

Lunch on the bus.

Headed back to the ranch, we passed two coyotes, so for most of the group it was a three canid day. But not for me.

The wolves had killed a bighorn some days ago. We snowshoed in to the carcass, now a couple piles of bones.

The snow we walked over was 4-5 feet deep. Three bighorns on the cliff above.

Sixteen years ago today, March 15, 1995, the Crystal Pack was released from their pen.

Back at Ranch, 3.30 p.m.
nap, shower

Evening. Lecture by Doug Smith.

This is the worst winter ever for plane flying to check the wolves. Smith has darted maybe 300 wolves.

Molly Pack. The Molly name comes from the Secretary of Interior when the wolves were released.

This is the worst winter for elk and bison for a couple decades. 1996 was a bad year for winterkill.

March 16. Wednesday.

We drove west to Soda Butte area and found a big grizzly on a bison carcass, nicely seen, again profiled against the snow. Horns of bison visible.

The bison is presumed to have died of starvation, and been found, but not killed by the grizzly.

The bear was eating, tearing away at the carcass, then lay down on the carcass, more or less as though sleeping. A coyote was waiting for a chance to come in, 25 yards away.

This grizzly was out two weeks earlier than Brad Bolin, trip leader, ever remembers seeing any out before.

Also saw two mountain goats, in great distance, no more than moving dots on the skyline.

two coyotes from the road driving back

pit stop at Ranch

Plans are uncertain because it was snowing enough to reduce visibility.

We drove west to Tower Junction, then further west some ways, and walked in on snowshoes to see a bull elk carcass, again, presumably died of starvation. The carcass was not all that far from the road, but to get parked you had to go further west on the road and walk back, maybe a quarter of a mile.

The carcass was well eaten by scavengers, but there were still good antlers there on its head. The antlers had been marked up, whittled at by knives, by park rangers, so that nobody would be tempted to steal the skull and antlers.

A carcass that dies of starvation is usually more intact than one killed by predation. The predators tear it up and scatter it more.

We looked at willows eaten by elk.

We returned to slough Creek, ate a late lunch.

The wolves were at the carcasses as yesterday, but today mostly sleeping.

Spitting snow off and on all day.

We drove east up the river to try to see otters and failed. There were regular reports of seeing them.

saw one ouzel.

saw a bighorn ram nicely profiled on the skyline.

Back to Lamar Ranch about 3.30. The day didn't amount to that much, except for the nice sighting of the grizzly.

Dinner. I had dishwashing duty.

Jim Halfpenny talk. Mostly on teeth and skulls.

There is a difference between death as malnutrition and by starvation - technically. If the animal had food in its rumen, it did not starve. They just got too little nourishment from the food.

If they had no food in the rumen, they starved.

But this is nitpicking. Basically either way, they starved, in any common parlance.

I am being visibly reminded of the harsh life in Yellowstone winter - elk and bison on edge of starvation.

Cats go for the back of the neck at the base of the skull, more than under the neck for the jugular vein. They can penetrate the back of the neck with their canines and cut off the head-body connection.

Snowing when I went to bed.

March 17, Thursday.

St. Patrick's Day.

5-6 inches of snow in the night. I had to sweep off the cabin steps to go down them safely.

Breakfast. Good breakfasts, with lots of bacon and sausages, link and patties.

Went to Slough Creek. Saw nothing.

We drove back up toward Ranch looking, and then Rick McIntyre came by and said a couple of wolves from the Lamar Back were down toward the narrow part of the canyon.

We found the 06 Alpha female about 100 yards off and seen nicely in the scope, mostly sleeping, but often up and scratching. She has mange on the underside of a front shoulder.

Nevertheless even with mange she seems to be doing well, still killing elk on her own.

It was cold enough to use 60x and she was comfortably filling one-third or so of the scope field.

When she stands she is visibly pregnant

The 06 Female is the fourth generation down from the introduced wolves sixteen years ago.,

9F 10M

21M

42F

06 F

Also a black one sleeping near her. but not so well seen. A sleeping hump with ears perking up now and again.

I messed up trying to get pictures with the 400 mm. Sigma on Shonny's Rebel XT. Forgot to set it at Av and to get the manual focus right.

But Humerus Isth. the Dutchman, had a big long lens, and got the best shots I saw anyone getting. He put them online and I downloaded them.

After an hour or so of this, we went to the old wolf den area. The others snowshoed in to see it but I did not go. I was there last summer, and it was now quite bright and sunny. I didn't want the sun exposure, nor to risk a fall through the snow. Some of the others did fall through sometimes three or four feet. It is hard to tell when you are walking over covered up sagebrush and stuff.

Drove East. mergansers, male and female
Barrow's goldeneye

6 bison, near and on road

The grizzly was on the carcass, and I saw it, but the parking area was jammed and we did not stop.

Further east, in the Soda Butte area, 5 mountain goats well seen though at some distance. Nicely and scenically poised on a ridge on a mountain.

David Grant was getting good shots with a

Canon Power shot
SX20IS



Alpha 06 Female Wolf - March 17, 2011

Photo courtesy of Hubertus Irth



Rolston at scope



20 optical power, Image stabilizer. It also shoots short videos.

Downloaded several photos from Warren Berthold, of with Alpha 06 female and of the bear.

Supper. Corned beef and hash for St. Patrick's Day.

Evening - We role-played a game killing an elk, and then laying out an elk shape, covering it with bones and meat like puzzle pieces. Then dividing the group into wolves, coyotes, eagles, ravens, and seeing how much meat you could get on in competition with others, when the leaders gave calls to come in..

After a wolf kill, there is not that much of a feeding hierarchy at the carcass. . Four wolves may kill a wolf and after a while they are all eating happily together at various parts of the carcass. A lot of what was thought to be known about wolves was about the behavior of wolves in captivity, and proved to be wrong in the wild.

March 18, Friday.

I arose to a full moon setting, quite bright. This is a "superman," the moon is at present closer to the Earth than usual.

We heard coyote howl several times, but no wolves heard howling on this trip..

Breakfast and packed.

Left the Ranch, 8.45. Bison in the road.

Down the road, rather stupidly, I mistook two coyotes for wolves. They were coming down from the hill where we had seen two wolves a couple days before. They came down and crossed the road in good sight.

Continued to Mammoth and looked around at the Hot Springs area a bit. Not much else beyond some steaming here.

Called Jane.

4 mule deer

4 mule deer

Lunched in Livingston. at McDonalds, where I found Catelyn Larsen and her father, who helped her drive out and stayed in Gardiner while she was at the wolf week class. She is finishing at the University of Wisconsin, La Crosse, in political science and doing a project on the endangered species act.

Drove east on I-90. The landscape is now snow free, though there were lots of snow patches when I drove in on Monday.

Reached Hardin. Read e-mail

March 19, Saturday.

Off at 5.50 a.m. Drove 1 ½ hours in the dark..

Nice day, nice drive. Nonstop except for gas in Cody and lunch stop. Home about 3.00 p.m.
end Yellowstone wolf trip.

Paris - March 29-April 8, 2011. **American Church in Paris.**

March 29, Tuesday. Take off Denver 1.10 p.m., to Dallas/Fort Worth. Overnight Dallas/Fort Worth to Paris, 4.05 p.m. arrive, Wed. March 30, 9.40 a.m. Flight was early arriving.

March 30, Wednesday.

Met by Scott Herr and taxi to American Church, Paris, on Seine River. Stayed in an apartment in the church building. Scott also lives there, as do others. There are five apartments.

Afternoon napped, then walked around to a sort of open air market street. Dinner with Bedford and Carol Transon. They were from Johnson City, Tennessee, and knew Roan Mountain and Doe River Gore.

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March 31. Thursday. Bus downtown (Bus 63) and went to Notre Dame Cathedral. Lunch in a café nearby.

April 1, Friday. Visited the Louvre. Winged Victory. Venus de Milo. Lunched there.

In the afternoon Rodin Museum, Musée Rodin. Saw "The Thinker," "The Kiss."

April 2, Saturday. Went to a big outdoor market with Carol, Bedford and her friend, Danielle. Went in the afternoon to Luxemburg Gardens, very crowded. Some flowers out, not many. Talent Show, that night.

April 3, Sunday. Interviewed during two church services by Scott. Evening, dinner with Scott Herr and family.

April 4. Monday.

April 5, Tuesday. Evening Lecture on Three Big Bangs, Matter-Energy, Chapter 1.

April 6, Wednesday. Went to Musee D'Orsay. Whistler, *Whistler's Mother*, Millet, *The Angelis*, *The Gleaners*,

Evening Lecture on Three Big Bangs, Life. Chapter 2.

April 7, Thursday. Went downtown to lunch in a fancy and famous café, *Les Trois Maggots* (*The Three Monkeys*), hosted by Scott. Various French intellectuals and celebrities are associated with the café.

Evening Lecture/Discussion on Three Big Bangs, Chapter 3. Panel Participants: George Hobson, Anglican Church in Paris. Jean Stain, founder of the Interdisciplinary University of Paris and a member of the Templeton Foundation. English o.k., but not always understandable. Moderated by Ginger Strickland, American Cathedral.

Also an active participant, and translator, was Peter Bannister, a composer of music, and degrees in theology.

April 8. Friday. Flew home. again through Dallas/Fort Worth. Paris flight delayed several hours, and we got home several hours later than planned.

end Paris

Lubbock, Texas

April 13, 2011. Wednesday, flew to Lubbock, nonstop from Denver. Flew over great white expanses, which I didn't understand. Turned out to be caliche.

Caliche is a sedimentary rock, a hardened deposit of calcium carbonate. This calcium carbonate cements together other materials, including gravel, sand, clay, and silt. Caliche occurs worldwide, generally in arid or semiarid regions, including in central and western Australia, in the Kalahari Desert, in the U. S. High Plains and in the Sonoran Desert. Caliche is also known as hardpan,. The term caliche is Spanish and is originally from the Latin calx, meaning lime.

Caliche is generally light colored but can range from white to light pink to reddish-brown, depending on the impurities present. It is generally found on or near the surface, but it can be found in deeper subsoil deposits as well. The layers can vary from a few inches to feet thick, and multiple layers can exist in a single location. The calcium carbonate that is deposited accumulates, first forming grains, then small clumps, then a discernible layer, and finally a thicker, solid bed. As the caliche layer forms, the layer gradually becomes deeper, eventually moving into the parent material, which lies under the upper soil horizons.

Later, flew over great center pivot irrigation areas, mostly brown, unplanted, but some quite green. Turned out to be cotton fields, not yet planted, and wheat. This is largest cotton growing area in U.S. Cotton is a short fiber cotton, used in jeans. Cotton from east, if any is grown there, and imported cotton is longer fiber cotton. This area has weather cold enough to kill most of the boll weevils, which is not a pest here.

Reached Lubbock. Met by Stacy Patty, my principal host at Lubbock Christian University.

lots of playa lakes

The Spanish word *playa* literally means "beach". Dry lakes are known by this name in some parts of Mexico and the western United States. A playa is a catchment basin that holds water but has no external drainage. This term is also used on the Llano Estacado and other parts of the Southern High Plains. Related, to dry lakes, alkali flats, mud flats. If the surface is primarily salt then they are called salt pans, pans, hardpan or salt flats.

A playa lake is formed when rain fills a round depression in the landscape, creating a small lake. 25,000-30,000 of them in high plains in the region. The water is generally freshwater. When all of the water evaporates, a playa is formed, generally encrusted with precipitated salts. These evaporate minerals are a concentration of weathering products that have been left behind. Some examples of evaporite minerals are sodium carbonate, borax, and other salts.

Llano Estacado (pronounced "yahno esta kahdo," meaning Palisaded Plains), commonly known as the Staked Plains, is a region in the Southwestern United States that encompasses parts of eastern New Mexico and northwestern Texas, including the South Plains and parts of the Texas Panhandle. One of the largest mesas or tablelands on the North American continent, the elevation rises from 3,000 feet in the southeast to over 5,000 feet in the northwest, sloping almost uniformly at about 10 feet per mile. The Llano Estacado is one of the largest cotton-producing regions of the United States. There is a farmable layer of soil from 2-4 feet, compared with 10-20 feet in Iowa.

Water used today in agriculture on the Llano today is brought to the surface by electric pumps. Before electricity, large ranches grazed cattle, but that soon destroyed the fragile grasses. The scanty rainfall simply evaporates or disappears into the porous soil and cannot refill the aquifer at the rate it is being depleted. There are no nearby sources of abundant water. The Pecos runs nearly dry from irrigation diversions.

Art Leatherwood, "Llano Estacado," *Handbook of Texas Online* (<http://www.tshaonline.org/handbook/online/articles/ryl02>). Published by the Texas State Historical Association.

Playa centers may be devoid of vegetation, but they are commonly ringed by shadscale, saltbrush and other salt-tolerant plants that provide critical winter fodder for livestock and other herbivores. Threats to dry lakes include pollution from concentrated animal feeding operations such as cattle feedlots and dairies, erosion, fertilizer, pesticide and sediment runoff from farms, and overgrazing.

Ogallala aquifer. The Ogallala Aquifer, also known as the High Plains Aquifer, is a vast yet shallow underground water table aquifer located beneath the Great Plains. One of the world's largest aquifers, it covers an area of approximately 174,000 square miles in portions of the eight

states of South Dakota, Nebraska, Wyoming, Colorado, Kansas, Oklahoma, New Mexico, and Texas. It was named in 1898 by N.H. Darton from its type locality near the town of Ogallala, Nebraska. About 27 percent of the irrigated land in the United States overlies this aquifer system, which yields about 30 percent of the nation's ground water used for irrigation. In addition, the aquifer system provides drinking water to 82 percent of the people who live within the aquifer boundary

The depth of the Ogallala varies with the shape of the ancient surface, being deepest where it fills ancient valleys and channels. The Ogallala Formation consists mostly of coarse sedimentary rocks in its deeper sections, which transition upward into finer-grained material. The water-permeated thickness of the Ogallala Formation ranges from a few feet to more than 1000 feet and is generally greater in the northern plains. The depth of the water below the surface of the land ranges from almost 400 feet in parts of the north to between 100 to 200 feet throughout much of the south. Present-day recharge of the aquifer with fresh water occurs at an exceedingly slow rate suggesting that much of the water in its pore spaces is paleowater, dating back to the last ice age and probably earlier. Withdrawals from the Ogallala are in essence mining ancient water.

The rate at which recharge water enters the aquifer is limited by several factors. Much of the plains region is semi-arid with steady winds that hasten evaporation of surface water and precipitation. In many locations, the aquifer is overlain, in the vadose zone, with a shallow layer of caliche that is practically impermeable; this limits the amount of water able to recharge the aquifer from the land surface. However, the soil of the playa lakes is different and not lined with caliche, making these some of the few areas where the aquifer can recharge. The destruction of playas by farmers and development decreases the available recharge area. The prevalence of the caliche is partly due to the ready evaporation of soil moisture and the semi-arid climate; the aridity increases the amount of evaporation, which in turn increases the amount of caliche in the soil. Both mechanisms reinforce the difficulty that recharge has in reaching the water table.

Recharge in the aquifer ranges from 0.024 inches per year in parts of Texas and New Mexico to up to 6 inches per year in south-central Kansas.

The regions overlying the Ogallala aquifer are some of the most productive regions for ranching livestock, and growing corn, wheat and soybeans in the United States. (They have been called the "breadbasket of America"). The success of large-scale farming in areas that do not have adequate precipitation and do not always have perennial surface water for diversion has depended heavily on pumping groundwater for irrigation.

Early settlers of the semi-arid High Plains were plagued by crop failures due to cycles of drought, culminating in the disastrous Dust Bowl of the 1930s. The aquifer was first tapped for irrigation in 1911. Large-scale use for irrigation began in the 1930s and continued through the 1950s, due to the availability of electric power to rural farming communities and the development of cheap and efficient electric turbine pumps. It was only after World War II that affordable technology became available to substantially extract water. This transformed the High Plains into one of the most agriculturally productive regions in the world. During the early years, this source of water was thought to be inexhaustible, and its hydrology a mystery. But, because the rate of extraction exceeds the rate of recharge, water level elevations are decreasing. At some places, the water table was measured to drop more than five feet per year at the time of maximum extraction. In extreme cases, the deepening of wells was required to reach the steadily falling water table. The water table has been drained (denatured) in some places, such as Northern Texas. Utilizing treated recycled sources of water in agriculture is one approach at safeguarding the

future of the aquifer. Another method to reducing the amount of water use is changing to crops that require less water, such as sunflowers.

Another issue is that several of the rivers in the region, such as the Platte, run below the water level of the aquifer. Because of this, the rivers receive groundwater flow (baseflow), carrying it out of the region, rather than supplying recharge to the aquifer.

Dinner with Stacy Patty and Andy Laughlin. He is animal science, works on DNA stretches that cause diseases and can be located in horse sperm.

April 14 , Thursday.

various things at Lubbock Christian University, especially a lunch to recount my career, and an evening lectures, a version of my Future of Environmental Ethics adapted for them.

April 15, Friday.

Lunch with faculty who had been reading my *Three Big Bangs*.

Afternoon (and Saturday) Gregg Fehr showed me the countryside and landscape. He is historian, earlier did paleontology, philosophy of science, says he now does social history of science. Also teaches Texas history and was quite knowledgeable about this.

Looked at some playa lakes around Lubbock, often made into city parks. Rather weedy and dry on the edges and the playa center often barren in the dry ones. Others had water and some waterfowl. There are large numbers of Canada geese here.

Typically quite windy the days I was here.

Drove east to Slayton, then east 36 miles to Crosbyton on Route 82 east, and to a small park beyond the latter, a town park of Dickens, but essentially a wild area. This is on the edge of the cap rock of the high plateau, and dropped off sharply into an area green with juniper and mesquite, cottonwoods below.

April, 16, Saturday.

Drove north on Interstate 27 to Canyon, a little south of Amarillo, and went to Palo Duro Canyon State Park. This is the second largest canyon in the United States, after the Grand Canyon. 120 miles long and 8-10 miles wide. The river at the bottom is the Prairie Dog Town Fork of the Red River.

2 deer.

Canyon walls descend from the caprock Miocene Pliocene down through Triassic and Permian.

Lots of juniper, one-seeded juniper.

Rim overview and El Coronado Visitor Center and Lodge just below.

Famous peak in the park is Lighthouse Peak, seen in scope at a distance, and a considerable walk to get there.

Drove down to the bottom of the canyon and did a loop road there.
woodpecker

Cedar Elm. Lime Elm. *Ulmus crassifolia*, with a distinctive leaf. Native to south central North America, Texas, eastern Oklahoma, Arkansas and Louisiana, also northeastern Mexico. The tree typically grows well in flat river bottom areas referred to as Cedar Elm Flats.

A Chinaberry campground, but we couldn't figure out what the Chinaberry was. Bushes not well out.

Auodad, or Barbary Sheep. Not a native sheep. The Barbary Sheep (*Ammotragus lervia*) is a species of caprid (goat-antelope) native to rocky mountains in North Africa. Although it is rare in its native North Africa, it has been introduced to North America, and there are a couple thousand in Texas. Some in this park. Mounted specimen in the visitor center.

Lunched in a Texas style restaurant in Canyon. Restaurant says they will give you a 72 ounce steak free if you can eat it all.

Drove back to Lubbock.

Davd A. Haukos and Loren M. Smith. Common Flora of the Playa Lakes. Lubbock: Texas Tech University Press. 1997. They gave me a copy.

Carmine Stahb and Ria McElvaney, *Trees of Texas: An Easy Guide to Leaf Identification*. College Station: Texas A&M Press. 2003. Well done, but large book.

Francis L. Rose and Russell W. Strandtmann, *Wild Flowers of the Llana Estacado*. Dallas, TX: Taylor Publishing Co., 1986.

May 11-12, 2011. Steady rain all night for two nights in a row. Mountain lion seen in town, hid under a trailer, but bolted and ran out of town when wildlife professionals tried to tranquilize it. Story, in *Coloradoan*, May 11.

June 8. Major hailstorm, about 10.30 p.m. in the evening, with fierce rain. We had just set out the tomato plants a few days before. They more or less survived. Hail was really loud on the roof and the kitchen skylight leaked a pint of water.

June 10, 2011. Hike to the Pool, and up Trail Ridge, alone.

Left Ft. Collins at leisure, and on the trail about 10.30. This was *Thermopsis* day, lots of it in fine bloom. Also Mahonia, Hollygrape, (*Mahonia repens*), so lots of yellow on the trail, including more dandelions than I would have liked. Some columbine. *Viburnum edule*. The manuals call it Highbush Cranberry, but that's a bad name for it, since it isn't a cranberry at all. High water in

the Big Thompson. Splendid day.

I was testing out my left foot, after nursing Plantar fasciitis for six months, still sore on the bottom of the heel. But it did o.k. Also my right knee, which doesn't like much twisting.

Lunched at the Pool, with a chipmunk pestering me for food. Good seat on a rock right at the north end of the bridge. Walked out.

Drove up Trail Ridge Road, splendid views, much snow on the mountains and peaks.

50 elk in Moraine Park, later 12 elk, and then about 36 in Horseshoe Park on the way out.

June 13-17, 2011. **International Society for Environmental Ethics, Nijmegen, Netherlands.**

June 13, Monday Left DIA 12.50, left Chicago 6.24, arrive Amsterdam, Tuesday, 9.25 a.m

June 14, Tuesday. Train from Amsterdam airport to Nijmegen and taxi to De Holthurnse Hof, in the village of Berg en Dal. Decent ride over rural Dutch countryside.

Conference quite well attended. Yrjo Sepanmaa, Markku Oksanen, Clare Palmer, Emily Brady, Ron Sandler, Piers Stephens, Allen Thompson, Paul Thompson, Locke Van Wensveen, Steven Vogel, Jennifer Welchman, David Woods (Vanderbilt) Jeremy Bendik-Kramer, Arnold Berleant, Allen Carlson, Geoffrey Frasz, Thomas Heyd, Alan Holland, Marion Hourdequin, Benjamin Howe, Irene Klaver, Nathan Kowalsky, Barbara Muraca.

The Romans got clay from this area and made pots and bricks. There are roman clay pits still visible, now remaining as pits, but filled with trees and vegetation.

One feature was restored hedges, said to contain some wildlife. There were classically hedges, but after World War II, the local farmers could get free barbed wire left over from military uses by the Germans, so they replaced the hedges with barbed wire fences. But that eliminated the wildlife havens in the hedges. Now they have taken out the barbed wire fences and put the hedges back.

The lower part of the Rhine is essentially a delta with many channels and they make some effort to control what water goes where. This is often to keep shipping going on the rivers. Though a floodplain, there are also moraines from Pleistocene glaciers and characterize the landscape, providing some elevation. There are some deer in the area.

June 15, Wednesday. Excursion via bus and on foot to Millingerwaard, Gelderse Poort "New Nature Reserve." On bus half an hour, and reached the nature area. The area was created because they needed catchment area for occasional floods of the Rhine River, which we saw and is adjacent. So they bought farm land in a sort of bend of the river and dredged several lakes there, which were once upon a time in the ancient riverbed. They can use these to control river level. The control of river level is mostly import to keep the ports up and down the river at suitable level.

Nature conservationists stepped in and said, well, let us restore nature there as well. They have been doing this a couple decades. Willows, black poplars, oak, ash, hawthorn, reintroduced beavers, and we saw a huge beaver lodge (currently uninhabited). Birds on the water, notably the rare Black Tern, which others saw but I did not. They are trying to get rid of Canadian poplars.

They keep open areas by grazing konik horses and Galloway cattle. Both the horses and the cattle are considered wild. The Konik (Polish: *konik polski* or *konik bilgorajski*) or Polish primitive horse is a small horse, a kind of semi-feral horse, originating in Poland. *Equus ferus caballus*. This horse is phenotypically very close to the extinct tarpan, the original European wild horse. Tarpan (*Equus ferus ferus*, also known as Eurasian wild horse) is an extinct subspecies of wild horse. The last individual of this subspecies died in captivity in Russia in 1909. One feature is the color: grullo, characterized by tan-gray or mouse-colored hairs on the body, often with shoulder and dorsal stripes and black barring on the lower legs. These horses are not fed (maybe rarely) and have to tough it out in winter, with some local controversy about whether this is humane. The stallions often fight.

The Galloway is one of the world's longest established breeds of beef cattle, named after the Galloway region of Scotland. The Galloway is naturally hornless, and instead of horns has a bone knob at the top of its skull called the poll. This breed's shaggy coat has both a thick, woolly undercoat for warmth and stiffer guard hairs that help shed water, making them well adapted to harsher climates.

June 16, Thursday. Excursion, walk to Holthurnse Hof, Duivelsberg, Landscape Garden of the Dutch Cultural Landscape Society. Walk to the area through some nice woods. The area is a half dozen miniature landscape gardens, like dollhouse gardens, of several of the characteristic rural landscapes of Holland. Interesting and well done, but really had nothing to do with environmental ethics or landscape conservation. The old estate home, Wylerberg House, did try to have native flora on the adjacent grounds, and there was an impressive display of local flora, mostly daisy-like composites. They had not been planted, but came back from seeds in the grounds, germinating after a hundred years or so. One wild orchid had returned and we saw it.

July 7, 2011. Picnic, RMNP, Moraine Park. With Christiana Z. Peppard, husband Michael, and 3-year old daughter, Montana. She just finished Ph.D. at Yale Divinity School on water and conservation. She is good friend of Gretl Van Wieren. He did Ph.D. at YDS, and teaches at Fordham in New Testament and patristics. She also has a position at Fordham. After the picnic, took the shuttle to Bear Lake and walked around the lake. Fine day, lovely weather.

July 8, 2011. Picnic, YMCA at Estes Park. With Jane, Bob Crumby (seminary roommate), his wife Judy, and their daughter, Melissa Crumby Johnson and husband Greg. Also his mother Jody. John, Shonny, Rolston Ellie Jane came up. Caleb Johnson, in college, and teaching rock climbing at YMCA camp came for lunch. Abert's squirrel nicely seen. Also a deer walked by. They have seen two bears on the porch in the two days they have been there. Mountains in fine partial snow cover both days.

fox in backyard several times

July 17-24, 2011. **Sixth International Conference on Environmental Futures, Newcastle, England.**

July 17, Sunday, overnight flight to Heathrow and Newcastle. I had been nursing a summer cold, caught in Nijmegen, or on the plane on return, which went into a persistent bronchial cough and some pneumonia, and it was doubtful whether I could go, but Bender put me on strong antibiotics, and I did o.k.

July 18. Monday. Checked in to Holiday Inn, Jesmond (a district of Newcastle) and went to a reception with quite a display of foods. But, alas, I arrived too late to present my commentary on a paper by Gary Trompf, Australia. Nick Polunin, conference coordinator, read it for me, so nothing was really lost.

July 19-21, Tuesday - Thursday, at the conference, at Newcastle University. Speaker of interest was Elinor Ostrom, woman who won the Nobel Prize in economics, for her work on how communities can co-operate to solve environmental sustainability problems. Met (again) the wife of Paul Shepard (1925-1996), now dead fifteen years. She is now 85 and was there because of her daughter (Shepard's step-daughter), (Mary) Lisi Krall, economics, State University of New York, Cortland and author of *Proving Up: Domesticating Land in U.S. History* (SUNY Press, 2011). Others: Bob Frodeman, University of North Texas. Susan Clark, Yale University, School of Forestry. In the philosophy workshop, Thursday. Philipp Balsiger, Centre for Applied Ethics and Science Communication, University of Erlangen-Nuremberg, wrote habilitation on interdisciplinarity. Friedrich (or Firtz) Wallner, philosophy, Vienna, known for what he calls "constructive realism" in philosophy of science. Much of the conference was on marine ecology and conservation, mixing the social sciences and ecological sciences to get conservation accomplished.

Jane had a Brit Rail pass and went to Edinburgh Wednesday and Thursday.

July 22, Friday. Jane and I went to Durham Cathedral. Made a mistake and got off the train at Chester-Le-Street, thinking this was the name of the Street that the Durham train station was on. Got a taxi there that took us five miles to Durham and right to the Cathedral. Massive cathedral the main part of which is 1,000 years old. Went to a communion service at St. Cuthbert's grave. St. Cuthbert was first buried at Lindesfarne, and later his remains were moved here.

July 23, Saturday. Trip to Lindesfarne (which they more commonly call "Holy Island"). Caught train to Berwick-upon-Tweed, walked into town and found visitor center. Caught bus to Lindesfarne, arrived about 11.30 and spent the day there until 5.00 p.m. Lindesfarne is an island at high tide, but you can reach it by car at low tide over the Lindesfarne causeway. The day we were there you could safely go from about 11.00 a.m. to 8.00 p.m.

Visited the Priory, an impressive relic, somewhat reminiscent of Jedburgh, but not that impressive. Lunched amidst the old stones there. History here dates from 635 A.D., Cuthbert was bishop 685-687, only two years and died. Lindesfarne Castle, a mile away, high on a butte-like rock nicely seen from the Priory ruins. I caught a bus to Lindesfarne Castle and then walked back. Nice walk, good path, along the seashore with good breakers. Pot of tea for two outside with nice view of the castle. This area is also a nature reserve and well known for birding, but I did not see many birds.

Sunday, July 24, flew home. Newcastle, Heathrow- Denver. Fortunately uneventful.

August 5, Friday, 2011. Crown Point with Phil Cafaro. Nice day, drove up a little slowly checking out the side roads. On the trail about 9.30. Reached the Crown Point area, with some confusion about which was the highest point. Actually there are three sort of peaks above the generally high and rounded flat area, and if you look closely at the topo you can see all three. The southernmost peak is the highest, marked 11,463 ft.. We left the trail and worked our way up to the middle one, thinking it the highest, which it isn't. Then we worked our way to the north one thinking maybe it was the highest, which it isn't.

We were looking for the Alpine Colorado columbine, *Aquilegia saximontana*, which Jim Ells had found there, with Fred Johnson, and they said it was in rocks right at the top. But Phil, more agile than I, looked around and found some at the northern summit, so we lucked up.

This columbine has few or no leaves on the stem, in contrast to *Aquilegia coerulea*, the usual one. Also the spurs, or at least some of them, are visibly curved, in contrast to the straight spurs of the usual one. Also it is smaller, the books say to 20 cm. high and some were only that, but some were more like 30 cm. Not many photos of this in the guide books. It is endemic to Colorado.

Lunched there, right at the flowers, a spot a bit tricky for me to get into and out of. Returned to the main trail.

Then walked on thinking to make the Flowers Road, or even Browns Lake, but I was slow. There is a considerable descent, across a valley, and then climb back up. We got that far, and could see down to where the Flowers Road would be, and saw others that had passed it. Still a relict cabin there, they say.

Returned, and in the valley I got a leg cramp, which I had to nurse all the way back out. So I was slow, but I did make it.

August 22-28, **Symposium, Helsingør, Denmark.**

August 24, Tuesday. Flew to Copenhagen, overnight flight. Decent flight and I had an empty seat beside my aisle seat in a two seat row.

August 25, Wednesday. Arrive Copenhagen and transfer to train to Helsingør. No problem and good ride, often through agricultural landscape. Arrive Hotel Marienlyst early afternoon. Long nap.

Hotel is on northern tip of Denmark, and my room with view out to the sea, here a strait with Sweden on the other side, some 2.5 miles across. Sometimes visible often not in the haze. But nice ambience.

August 25, Thursday. Morning, hiked down the beach to Kronborg Castle, the historic scene of Hamlet, Shakespeare's play. Existing castle is much later.

Afternoon, interviewed by Robert Kuhn film-maker prospective to his show, Closer to Truth, which appears (sometimes) on PBS. Extensive and intense interview from about 2.00 to 4.30, including at the end filming out walking along the beach.

Thursday evening, symposium starts, a Templeton funded event led by Niels Henrik Gregersen, on whether God is incarnate in all nature, animals, plants, matter. Couple dozen experts present, mostly theologians, often more keen on patristics than I was, especially Athanasius.

August 26, Friday, symposium all day. Some big thunderstorms with intense lightning, which we could see out over the ocean and hotel from a balcony porch.

August 27, Saturday, big thunderstorm at daybreak. Symposium all day, ending with dinner in the home of Niels Henrik Gregersen, some half hour away by taxi.

August 28, Sunday, Flew home. Confusion about catching the train, with the one I expected to catch canceled. Couldn't read or understand the Danish announcements. Had to catch another train to the first station south and transfer, which mostly proved futile, since we missed that train and had to wait on a later one which started at Helsingør, a hour later than I had expected to leave. But I had time.

Stretched out day, flight to Atlanta and then to Denver. There was a major hurricane in progress, Irene, from North Carolina up into New England, and most of the Americans had their flights canceled and could not fly until Tuesday. My plane had to take an alternative route, since the usual polar route would take us over the hurricane, and we were about a hour late getting into Atlanta.

August 31-September 3, 2022. Presbyterians for Earth Care, conference at Highlands.

Two leaders: Ashley-Anne Masters, woman pastor in Chicago, and Stacy Smith, Memphis, authors of *Bless Her Heart: Life as a Young Clergy Woman* (Chalice Press 2011). Stacy Smith spent time at one and led innovative worship.

Another main leader: Bill Brown, Columbia Theological Seminary, and author: *Seven Pillars of Creation*.

Tevyn East, dancer, lives in Charlottesville, VA, went to Hollins College and majored in dance. Performance artist, and quite innovative in leading worship. Involved in a group called Leaps and Bounds.

My roommates: Paul Henschen, Elendale, ND, pastor, but earlier from North Carolina and went to Davidson.

Dennis Testerman, Concord, NC, long active in this program. Went to VPI.

Lunch out on the porch with David Mundy and his wife, United Church of Canada. He had read the Preston intellectual biography, and wanted to talk. Also there Ann Bond, formerly CSU history department, a historian of museums, and now executive secretary, Denver Presbytery.

Carolyn Raffensberger, the wife of Fred Kirschenmann, North Dakota organic farmer, Leopold

Center for Sustainable Development, and Eddy lecturer CSU. She has law degree, is executive director of the Science and Environmental Health Network, and is keen advocate of the precautionary principle. Quite an advocate of organic farming. Mennonite.

John Ikerd, agricultural economist, University of Missouri, and quite critical of standard economics. Author: *Crisis and Opportunity: Sustainability in American Agriculture (Our Sustainable Future)* University of Nebraska, 2008, *Sustainable Capitalism: A Matter of Common Sense*, Kumarian Press.

Marcia Ishii-Eiteman, California, and critic of industry and agriculture, especially pesticides. Identifies herself as a Buddhist.

Tyrone Hayes, black, originally South Carolina, now Berkeley, works on frogs, keen student of them, but studied what atrazine did to them, to find it disrupts their sexuality. He went on to find that it similarly disrupts human reproduction. Widely used pesticide that contaminates drinking water and produces birth defects and menstrual problems when consumed by humans at concentrations below government standards. Banned in the European Union but still extensively used in the U.S. and elsewhere in the world, especially on corn.

Bill Peters, Flo Peters, members Montevallo Presbyterian Church, Montevallo, near Birmingham. Forbes (Bill Forbes grandfather) gave their church a Steinway piano with a story behind it, and they have a Forbes House which is their church office.

K George Beck, CSU Extension and faculty member, on invasive species. Quite good.

Birds seen on a birdcall. Good leader from Stan Adamson's church. Stellar's jay, Clark's nutcracker, mountain chickadee, white-breasted nuthatch, brown creeper, ruby-crowned kinglet, red crossbill, broad-tailed hummingbird. He was good at spotting them at a distance, often hearing them first, and sighing them up closer.

Talk by former Long's Peak Ranger, Jim Determine. He has climbed the summit some 375 times, many of them by routes up the East Face. Lots of tales about ascents and rescues. Once he was caught in a lightning storm, crouched beneath a rock overhang, and with a strike saw blue balls of fire rolling past him. He was blinded, and his companion talked and placed his feet down to the Broadway. In three or four hours he regained his sight. Good friend of Stan Adamson, Boulder church., and editor, *Paul Nesbit's Longs Peak: Its Story and a Climbing Guide*.

I gave a plenary, *Future of Environmental Ethics*.

September 4, 2011, Sunday. Ellie has just learned to ride her bicycle and demonstrated it to us all with much pride after supper. Bill and Augusta Forbes, and John Vos and Gusta, here for a few days, and enjoying the performance.

Singapore and South Asia, Sept. 9-28, 2011.

September 9, 2011. Friday. Left home 4.30 a.m. Left Denver 8.45 a.m. on crowded Chicago flight.

20 minutes late due to headwind and I had only 45 minutes turnaround - but luckily did not have to change terminals. And the Hong Kong plane was being serviced with some repair to the ground air conditioning, which they never did fix. So I was o.k. Left about 1.10 p.m.

Flying time to Hong Kong 14 hours, 45 mins. 7,779 miles. Flew over Alberta, and north of Alaska and down over eastern Siberia, and interior China - Wuhan.

Sept 10, Saturday. Arrive Hong Kong 6.30 p.m. Left Hong Kong about 8.30 p.m. Same flight number, same plane, but we had to go off and go through security and around to another gate to get back on the exact same plane.

Arrive Singapore at 12.15 a.m., past midnight, so technically Sept 11. Never quite figured out where I lost the day crossing the date line.

Sept 11, Sunday. picked up by Cecilia Lim and her husband John. Easy and in their car to the National University Visitor's Lodge, where they had made arrangements, by 2.00 a.m.

33 hours from bed up in Ft. Collins to bed down in Singapore.

Nice suite in Visitor's Lodge on campus, National University of Singapore.

miles Denver - Chicago
7,779 miles, Chicago - Hong Kong
1,570 miles, Hong Kong- Singapore

Singapore drives on the left hand side of the road, British style.

Walked around and found convenience store in let floor of a university building to get a toothbrush, and found the Staff Club, but the bistro there was closed, so returned to the convenience story to get food for lunch.

Lovely spreading trees, Reentries, with lots of epiphytic ferns, huge bird's nest ferns, *Asplenium nivenis*.

Singapore calls itself a "garden city."

nap in afternoon.

5.00 p.m. Walk along the river front with Cecilia Lim, over bridge. Asian Civilizations Museum, with terra cotta warriors, on display temporarily. But only a few, 12-15 of the 2000 or so unearthed in China after their discovery in 1974. They date from the First Emperor of China, King Zhang (259-210 B.C.E.), later named Huonpdi, first emperor of the Qin Dynasty.

Dinner along the river front, al fresco.

Singapore was once a British colony, and broke away with Malaysia in 1963, but two years later in 1965 became an independent state. They got "kicked out."

Occupied by the Japanese, 1942-1945.

Singapore was once poor but now is one of the world's most prosperous nations. Highest domestic GDP in Asia outside of Japan.

1 degree north of the equator.

Returned, and later that evening watched the 10th anniversary memorials of 9-11 on CNN.

Sept. 12, Monday.

10 hours of time difference between here and home.

2 a.m. here is 12 p.m. previous day in Ft. Collins.

10 p.m. here is 10.00 a.m. in New York, 12 hours difference.

8.15 p.m. here I listened to Barak Obama speaking at 8.15 p.m. yesterday at 9-11 concert.

Cecilia was educated in Singapore in a Methodist mission school. Went to the University of Pittsburgh to do philosophy of science but did Descartes instead. Annette Baier was her advisor.

No spring summer, fall, winter here. But they have wet dry. Wet season starts in October. Lately they have had torrential rains in their wet seasons, which they ascribe to global warming.

4.8 million people, one of the highest population densities in the world.

2 million trees.

Ten most common:

1. Raintree. *Samanea saman*. Umbrella shaped. A legume.

2. Angsana, *Pterocarpus indicus*. legume
3. Yellow flame tree. *Peltophorum pterocarpum*. legume
4. Senegal mahagony. *Khaya senegalensis*.
5. Broad-leaved mahagony. *Swietenia macrophylla*. Meliaceae.
6. Tembusu. *Fagraea fragrans*. Gentianiaceae.
7. Sea Apple. *Syzygium grande*. Myrtaceae.
8. Saga. *Adenanthera pavonina*. legume.
9. Trumpet Tree. *Tabebuia rosea*. Bigoniaceae.
10. Sea Almond. *Terminalia catappa*. Combrataceae.

Google Singapore trees to get the website.
Singapore National Parks has a good website.

Singapore means "lion" "port."

Singapore is an island, more or less oval shaped, and separated from Malaysia by a continuous narrow strait, Johor Strait.

There are two connections. a causeway and a bridge. The strait is 30 miles long and about 3 miles wide, at a few points only a mile wide or so. The causeway blocks ships, but still it is a big shipping lane. There are some 17 short rivers that flow from Singapore into it. There are now a lot of fish farms there. There are dugongs in the strait, and it is much polluted, largely because the causeway blocks flushing pollution out to sea.

Skies cloudy bright and humid. No blue sky so far.

Sept. 13. Tuesday.

Hedges are Bougainvillea, small white flowers, surrounded by 3-6 purple bracts, which are modified leaves.

Picked up 11.00 to test out PowerPoint. Nice auditorium.

Lunch.

Kyle Swan, political philosophy. American, Philadelphia.

Than Nguyen. Australian Asian, taught at Queensland. Continental, Environmental, Chinese philosophy, early modern.

Victor Savage, geography. from Singapore (which they abbreviate here Spore). Chair of the Environmental Cluster. degree from U.C. Berkeley,

Mohamed Muir Talker. They abbreviate Mohamed - Md.
from Bangladesh, has M.A. degrees from Sweden and Utrecht. Often in my later sessions.

There are three universities in Singapore:

1. National University of Singapore
2. technological university
3. business administration

There are no private universities - unlike Hong Kong.

gave Three Big Bangs lecture 3 - 5 p.m., with only a couple dozen present, but at least they seemed interested. Nice podium setup.

September 14. Wednesday.

Rain in the night, lightning, thunder, but partly cloudy in the morning and blue sky.

Went down the hill to the convenience store to get some breakfast and brought it back to the room.

Spent the morning going over the three chapters of my new environmental ethics book, preparatory to discussion in the afternoon.

3-5 p.m. book discussion with only 3!!! there.

Rain off and on during the day.

Evening meal at the bistro. Decent.

September 15, Thursday

morning, did washing.

went over lecture "Future of Environmental Ethics" for afternoon.

Routledge sent an e-mail today announcing the release on Sept. 27 of my new book in environmental ethics

Alan Ziegler, from Kansas on the faculty here. worked in Thailand, geography, works on water. did a conference on the Mekong delta.

Met Daniel Go, sociology, who will take me to nature reserve Saturday.

A dinner at a fancy restaurant in town,

Alan Ziegler

Shamsul Haque, political science

Tim Barnard, works on Komodo dragons

Timothy P. Barnard <histpb@nus.edu.sg>

Barnard sat beside me at the dinner. He is doing a social history of the Komodo Dragon. From Lexington, KY and has done 25 years in SE Asia. History Department. Ph.D. from University of Hawaii, Manoa.

Tar Sor Hoon, philosophy, head of department

Cecilia Lim

woman whose name I never got

In Singapore they drive American-sized cars. No bicycles. Few motorcycles. Bikes discouraged on roads. Use car or public transport.

Walked down Orchard St, a main shopping street. Huge upscale stores.

Singapore came very close to being Communist. In the 1960's, the Communist one night killed 7 of 8 generals.

found in a big bookstore:

Peter K. L. Ng, Richard T. Corlett, Hugh T. W. Tan, *Singapore Biodiversity: An Encyclopedia of the Natural Environment and Sustainable Development*. Singapore: Editions Didier Millet, 2011 ISBN: 978 981-4260-08-4

National University of Singapore faculty are paid well, all make over \$ US 100,000 a year.

But they said it is tough to move from Associate to Full Professor.

September 16, Friday. Interview by Seetharam Kallidaikurichi, Global Asia Institute, might want me to come back for an event in 2012.

tour of city with Victor Savage. He doesn't drive, so his department manager, a woman, Wong, Lai Wa, originally from Malaysia, drove. Good English and good driver.

Victor R Savage, Brenda S A Yeoh (2003), *Toponymics - A Study of Singapore Street Names*, Eastern Universities Press, ISBN 981-210-205-1

Big traffic signs, electronic, say ERP. Electronic road pricing. When you drive past, it interacts with a card reader on the windshield, with a card in it, and deducts a amount, say, \$ 2.50, off your card. Amounts change with time of day. The system is off on weekends.

densely packed in high rise apartments, flats, but 85% own their own flats. The government

does not see land outright, but leases it for 99 years.

visited an animist shrine. Puteri Radin Mas AYU, named for Princess Radin Mas. The shrine is semi-converted to a place Muslims can worship, more accommodating to animism than I would have though Islam permitted.

Sort of a natural area as well, halfway up one of their "mountains." Full of ants.

Drove on to top of Mt. Faber, overview of city, with cable cars some distance to an island.

Singapore has two big casinos, which together do more business in gambling than is in Los Vegas.

There are two big oil refineries, one seen in the distance. The oil is from the Middle East. They build big oil rigs here.

Lunch in Vivo City, huge shopping center. Good lunch.

Went to Indian section of the city. Tamil language and script.

Lots of shop houses. They have a shop on the ground floor and live upstairs.

Visited Hindu Temple, Sri Mariamman Temple. Had to take shoes off to walk around in it. Hindus are a small minority in Singapore. They were getting ready for a fire-walking festival in October. No women or children can firewalk.

Visited a Buddhist temple, a Buddha tooth relic Temple and Museum, supposedly a Buddha's tooth, but nobody believes it, not even the Buddhists. Not an old temple. Buddhist monks in yellow robes paraded in and there was some sort of conference, seminar going on.

Passed St. Andrews Cathedral, Anglican

Visited, or at least walked up too Masjid Sultan mosque. "Mashid" means "mosque."

The King of Malasia is a rotating king and one of the sultans becomes king for five years, a ceremonial king. But the sultans have power and their office is inherited. Some half dozen of them.

Passed a Presbyterian Church.

the Malay language uses a Romanized script. The language was first reduced to writing by missionaries.

Traffic and street signs are dominantly English. but often in four languages, English up top, and below Chinese, Malay (which looks Roman) Japanese, may be also Tamil.

September 17, Saturday. Seeing Billyoh Nature Reserve.

My host: Daniel Go, comparative sociology, environmental sociology, Ph.D., University of

Michigan, and member Nature Society, Singapore.
left 8.00 a.m. in his car. <socgohd@nus.edu.sg>

Reentry is native.
No palms are native.

passed a crocodile farm. Crocodiles are raised for their leather, although this fashion has subsided somewhat. This is the same as the wild crocodile found in the rivers here. Estuaries crocodile, *Crocodylus porosus*

Reached the Nature Reserve after about 40 minutes driving. Joined by several others. Young guide who knew the fauna best was Tan, Huang Chong. <hangchong@gmail.com>
178 Woodlands Street 13, #07-287
S730178, Singapore.

Another young guide, who knew the plants best, and also carried a Swarovski scope, was Gerard Francis. Engineering, sometimes a part time lecturer.

Vinayagan Dharmarajah, Environmental Law, and active in the Nature Society. thoughtful in conversation,

Alan Owyong, middle-aged, bird group chair for Nature Society, joined us a little later.

Mohamed Muir Talker, student from Bangladesh. Muir.

Walked in to Visitor Center on boardwalk, and was on boardwalk all day. Nicely done. Surrounded by forest, and quite tropical looking.

The local birdbook:
Lim King Seng and Dana Gardner, *Birds: An Illustrated Guide to the Birds of Singapore*, 1997. Sun Tree Publishing. ISBN 981-3066-00-8. In English.

Water monitor lizard, about 1.5 meters long. *Varanus salvator* Swimming in the water, and then came onshore, a muddy shore.

Smooth otter, smooth-tailed otter, *Lutrogale perspicillata*, nicely seen, swimming in the water, then two otters rolling in the mud and sand. Out on a bridge over some open water.

common kingfisher. *Alcedo althis*. Seen well in the scope.

Looking down into the water, from the bridge:
banded Archerfish, *Toxotes jaculatrix* A banded small fish that squirts water out of its mouth to shoot down insects in the air above.

Striped-nosed halfbeak, *Zenarchopterus buffonis*

Oriental Pied Hornbill, *Antracoceros albirestris*, two of them flying over, and later seen perched in trees, also in scope.

plantain squirrel, *Calloscirus notatus*, close up, looking for food.

Several fishes were introduced by the Japanese for food and are now feral here. One a Tilapia.

Common redshank, *Tringa erythropus*, a flock of them, a large sandpiper, seen well in scope, feeding along shoreline.

Pacific Golden-plover. *Pluvialis fulva*, feeding in same area.

flock of whimbrels, *Numenius phaeopus*. curved bills.

Returned to visitor center and started the mangrove boardwalk.

Peter K. L. Ng, *A Guide to the Mangroves of Singapore II*. Singapore Science Center. ISBN 981-04-1308-4. Small book they carried.

Ficus microcarpa. A big strangler fig.

a tropical conifer: Sea teak. *Podocarpus polystachus*. With long narrow flat leaves, but not needles.

Singapore has lots of species of mangrove species. There are 54 species in the world, 29 found in Singapore, and 21 in this nature reserve.

Various crabs and snails spotted from the boardwalk.

tree climbing crab

snail: Belongkeng

cicada, seen on a tree trunk, while calling.

copper-throated sunbird. *Nectarina calcostetha*, rarest of the five sunbirds here. Quite well seen, rather tame. Only found in tidal mangroves.

Common nerita, *Nerita lineata*, two of them.

Mudlobster mounds. Sizeable lobster, not seen and seldom seen, but they make large mounds in the forest floor, more or less the size of termite mounds, which become small ecosystems in themselves. Crabs were often climbing up on them.

Red Berry Snail, *Sphaerassiminea miniata*. bright red tiny snails, half a centimeter in size, see on a flat log in the mud.

Rosy fidler crab, *Uca rosea*. With a pink claw.

Stone crab, or Thunder crab, *Myomenippe hardwicki*.

mudskipper. Nicely seen. A fish that can live out of water.

tree: Blind-your-eyes. Buta Buta *Excoecaria agallocha*. Euphorbiaceae. White sap blisters skin and can get in your eyes. Also used as a fish poison.

Lokan, a clam. *Polymesoda expansa*.

Mangrove. *Bruguiera cylindrica*. long thin pod

Apu Api Bulu. tree. *Ancennia rumphiana*

drill. A carnivorous snail. *Thais gradata*. It attaches to shells and can secrete a chemical that dissolves the shell, and then it eats what's inside.

large mudskipper seen nicely

leaf oyster

common sandpiper, *Actitis hypoleucos*, perched on a post sticking up out of the water.

white-bellied fish eagle, *Haliaeetus leucogaster*, two seen in flight. One of the largest Raptores.

osprey, *Pandion haliaetus*

lots of prop roots,

Mangroves can secrete salts on the surface of their leaves.

oil palm. which doesn't belong here. There are plantations to grown it for palm oil, and they can be environmentally troublesome.

mangrove fern, *Acrostichum speciosum*

huge water monitor lizard, 1.5 meters long. seen in water close up.

They bought me a copy of:

Chu E.e. Kam, *Wetlands in a City: The Single Billyoh Wetland Reserve*. Coffee table kind of book. ISBN: 981-4270-24-5

Three of us (myself, Daniel Go, Tan, Hang Chong,, went to an organic farm for lunch. Good lunch and an interesting place.

They both call Singapore a corporate state. State thinks like a corporation.

Also a benevolent authoritarian state. There is an elected parliament, but the same party stays in power, and picks all the leaders, even in the labor unions, in the university, and dislikes any criticism of its drive for prosperity. By and large, people like it, they know they are much better off than in surrounding countries.

Drive back to the Visitor Center, now much of it in the rain.

Sept 18, 2011. **Indonesia and Komodo Dragons**

Flew to Bali, Denpasar

Up and did keyboarding in the a.m.

eating up leftover food.

Checked out of room 12.30 and waited till 2.30 in Visitor Center lounge. Slow getting a cab.

Airport about 3.00 p.m. and managed to get the taxi driver to find the right terminal, Terminal 3.

Nice terminal. Qatar Airlines. Quatar is one of the Arab emirates. Capital: Doha.

Excellent plane,. Boeing 777 and clean. Lots of youngsters aboard, headed for the Bali beaches, I suppose. But no evident Americans.

1,674 km. = 1,046 miles.

Landed in dark, Denpasar, again nice airport, and reasonably easy customs. Contrary to what I had been told, you can get a visa on arrival, and most passengers did.

Currency is rupiah (IDH)

\$ 1.00 = 8,800 rph – so costs look huge

Taxi stand, and prepaid taxi, 60,000 rupiah (IDH)

Acton Grand Kata, nice hotel, cordial reception, and I got a suite - had prepaid for two nights.

Monday, Sept. 19.

Up at 4.30, decent night.

Lobby at 6.00 a.m., for take-away breakfast.

Pickup 6.30, 15 minutes late.

to airport, somewhat confusing.

Departure tax, 60,000 r.h.

Airline AIA Star. Flight Denpasar to Labuan Bajo.

Supposed to take off 8.00 a.m., but troubles begin.

Delayed to 10.00 a.m., and wondering about the boat connections.

9.45, announcement, flight canceled. Chaos. 30 or so people upset.

Eventually, they put me on a van belonging to AIA Star to go back to the Acton Grand Kuma. The driver didn't know where he was going and took me to two other Acton hotels first.

Finally reached the Acton Grand Kuma about 12.00 and had to buy my own room for the night.
\$ US 120 = 1,008,000 r.h.!!!

Spent afternoon in the room doing some keyboarding. I could get online free. Trying to firm up what will happen tomorrow, and apprehensive about having to abort the trip.

Finally, about, 6.00 p.m. news that I am on a 9.50 a.m. flight tomorrow (I hope).

Ate a thick peanut butter sandwich I had made at the Visitor Center, using up the last of my little jar of peanut butter. Also candy bar, and hot chocolate.

Good rain shower in the evening.

Sept 20, Tuesday.

decent night. Up 5.00 a.m., breakfast 6.30, taxi, 7.00.

Definitely Third world, hordes of motorcycles and scooters.
Reached airport. A lot of waiting dealing with semi-functional Third World airlines. I am now to fly on TransNusa, and eventually I found that they did have it worked out.

They refunded my 1,008,000 r.h. in 100,000 Indonesia bills!

Often security check people and other staff did try to be helpful.

The Indonesian language also uses a Romanized script.

Flight on a Fokker 50 plane. Fokker is a Dutch-German firm, once famous for military aircraft.

Flew over seacoast with mud and sand, wetlands, and sometimes there were high mountains on the skyline.

Indonesia comprises some 13,000-15,000 islands, depending on what you count. The population is about 238 million people, the world's fourth most populous nation.

Served a lunch-snack with water container you couldn't successfully open, or even stick the straw into it. I had to puncture it with a ballpoint pen.

Lots of islands, with notable spits, peninsulas, and headlands. The larger ones were inhabited, the smaller ones uninhabited as far as I could tell. They were variously forested and often with spectacular hills dropping right to the sea, with a strip of sandy beach. Good broken clouds and they cast shadows on the ground, in the shapes of the clouds.

Reached Labuan Baja and met by Kornelis, guide. Free lance guide, and said he had had no customers for several weeks and, after me, had none on the horizon. Generally quite satisfactory and solicitous.

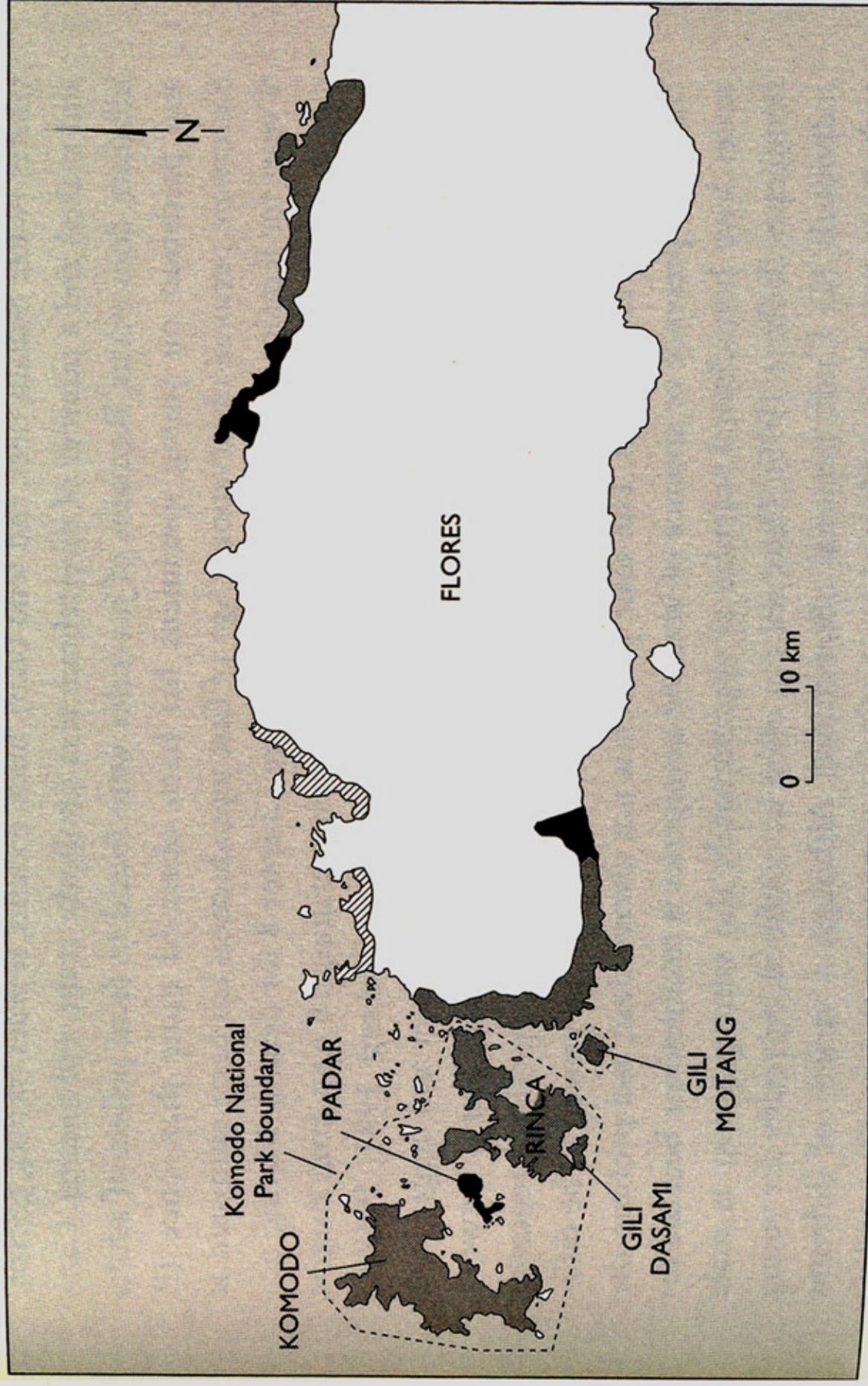


Figure 3.1 The study area in Komodo National Park and on Flores Island. Shaded regions represent the current distribution of the Komodo dragon. Black areas are areas that were identified by Auffenberg (1981) as part of the range, but where dragons were not found in this survey. The presence of dragons in the hatched areas (also mentioned by Auffenberg's survey) was reported by local villagers, but was not assessed with baiting stations during this survey.

the X chromosome in the XY system.

The dragons were not known in the West until 1910.

Dragons on the IUCN Red list. Protected under CITES

They have sharp claws and about sixty curved, serrated teeth.

Saw Timor deer (*Cervus timorensis*).

About two dozen seen, more or less habituated to people. A small deer.

Wild boar, four seen, (*Sus scrofa vittatus*) local name, Babi hutan. More shy and, seen reasonably well, but couldn't get much photo.

Walked up a hill to get a view of the harbor.

Back on the boat, with some trouble getting a small boat to get on the big boat, because of a group of about fifteen Polish tourists that had appeared.

Earlier they had said we would anchor at an island, spend the night, and then start for Rinca early tomorrow. But now they said they wanted to go to Rinca tonight, so we had a four hour ride to Rinca, the first hour in twilight and three hours in the dark.

The earlier part of this trip I could see no light at all on shore or sea, and the boat had no running lights on. Later there were various lights in the sea, land or sea I couldn't tell. The boat never turned running lights on.

I had some worries about safety running in the dark, but they seemed to know what they were doing. The guide says that navigation is dangerous because of coral reefs and shoals.

Eventually we passed a lot of very bright lights, which fishermen use to attract squid.

Reached Rinca, and slept on the deck, where they arranged a decent bed with two mattresses. They were tied up to a dock but also had an anchor at the back end of the boat.

Sept. 21, Wednesday.

There were monkeys on the pier and one managed to get on the boat. Looking for food. Long-tailed macaques (*Macaca fascicularis*)

Went ashore. Loh Buaya = Dragon Bay.

Walked 700 meters to ranger station area. Sea eagle (elang) calling. Which one, unknown.

One Komodo dragon was sunning himself on a stump in dry open area. Long forked tongue sticking out, for smelling.



They are said to be able to smell carrion up to 5 km, = 3 miles away.

crab holes.

doves = tekukur

Dragons mate once a year, July and August. Female lays eggs in September, 15-20 eggs.

Took various dragon pix around the ranger buildings.

Then went on a four hour trek with a guide. About 7-11 a.m.

Saw a dragon's nest, huge hole in the ground, this one not in use.

Saw half a dozen or more of these nests, one with evident tail-drag marks recent going into the den. Dragons do guard their eggs, and the male guards as much as the female.

There seems to be some competition for nest sites with a bird:

Megapode (*Megapodius reinwardti*) Orange-footed scrubfowl.

Saw two of them, chicken sized or larger, scratching and feeding. Well-seen.

crows, heard calling

Saw a two year old dragon, smaller, digging in a nest. Ranger said it was trying to find Megapode eggs.

Passed several water holes, often with little water, used by buffalo.

strangler figs.

Monkeys eating palm nuts. They can bite into them and tear them open. Humans don't eat this palm, but they do make a sort of rum out of the juice. They ferment the palm sap, and make a liquor = arrak. (They also make it out of rice, other grains, sugarcane, and molasses).

We left forest, more or less, and walked into savanna, more or less, and eventually found two buffalo grazing at some distance in an open area with scattered trees.

Went further to a buffalo wallow area, said to be a Komodo hunting ground. There were several buffalo skulls there, which were from buffalo killed by the dragons.

The dragons can eat as little as once a month.

They sometimes eat each other, including their young.

They grab and wound a water buffalo, infecting it with bacteria in their mouth, also with some venom, thought to be relatively weak. The prey dies a few days later and they eat it dying or as carrion.

A group of four Spanish tourist appeared. One of the Spanish woman had dramatic pix of two



dragons fighting which she had taken this morning near the ranger station.

pix of me and dragons here.

Walk back, first part of it rough in a dry river course.

Returned to the ranger station, and back to the boat.

Saw maybe two dozen dragons during the hike and around the ranger station.

Now 4-5 boats with tourists at the dock.

Got on the boat and pulled anchor.

About two hours ride back to Labuan Baja

For lunch, there were plates of Indonesian food, and rather tasty, meat, vegetables, rice, and I kept wondering what the kitchen looked like.

Reached town and went to a hotel, built spasmodically into the side of a hill, and lots of climbing steps to reach my room, but it did have a veranda with a view out over the harbor.

The room was quite hot, but the air conditioner worked and slowly cooled it down to bearable range.

Decent shower and napped and twiddled my thumbs in the afternoon. Took a forty minute walk up and down the street. Lots of diving shops and yet also quite third world.

Confusion about supper and they took me a few doors up the street. There was a restaurant at one level in the hotel but they said it was too expensive.

View and decent Malaysian food and lots of ambience, looking out over the harbor. And I didn't have to pay for it here.

Tricky make-shift steps at the bottom at street level up to the hotel, crossing some big open drain. The step treads were slanted at thirty degrees or so and I had to get help coming back in the dark. Poorly lighted. This is no place to fall.

A muezzin prayer call in the night at 4.00 a.m. Some mosque nearby.

I never saw an American on the trip. They said they see maybe 2-3 a month. Saw 2-3 dozen Europeans.

W. Douglas Burden, *Dragon Lizards of Komodo*. NY, London: G. P. Putman, 1927. In CSU Library.

Walter Auffenberg, *The Behavioral Ecology of the Komodo Monitor*. Gainesville, FL: University Presses of Florida, 1981. In CSU Library.

Kames B. Murphy, Claudio Ciofi, Columba de la Penouse, and Trooper Walsh, eds., *Komodo Dragons: Biology and Conservation*. Washington: Smithsonian Institution Press, 2002. In CSU Library

decent night.

September 22, Thursday.

There is hot water in the shower, but only cold water in the wash basin, so I had to cup out some shower water to wash my face.

More confusion about breakfast, the staff has barely functional English. But eventually I got breakfast, again with ambience, served at my room on the veranda just outside overlooking the bay. Eggs, rice, some coffee. But there were workers laying bricks a few feet away.

The waters are quite calm. Lots of fishing boats, some sail boats, but I never saw a sail up.

I was picked up at noon to see the caves.

Children wear uniforms to school.

Five ethnic groups on Flores.

Reached the caves and I went with a ranger.

On the path in, lots of a thorny, bamboo. thick stems and small thorns. Gurun.

The satellite antennas here are aimed high in the sky, almost straight up.

The caves were "discovered" in 1952 by a Dutch priest. But it is hard for me to believe that the locals didn't know they were here for centuries.

Walked in some distance with stalactites and stalagmites, huge ones, in weird formations, opening up to daylight high above. Reached a dark cave area and I looked in fifty feet or so, but the passageway got narrow and you had to stoop, so that's as far as I went.

Went to the airport, and waited an hour outside the airport, too hot inside. Eventually AIA Star opened up. Some confusion, but the guide got me a boarding pass. I had only a ticket for the previous day, but was told the tour group (Siska) had changed it, which turned out to be so.

I walked through a scanner, but the bags were never scanned. You just put them on a table, walked through the scanner, and then walked round and got your bags where you had put them. Eventually the security agent working the scanner disappeared and people just walked through.

The plane was late, half an hour or more. But it was a small 4-engine jet. BAe 146-200. British Aerospace. Used a lot in Europe. Sometimes called a Whisperjet, from its quiet operation.

The wagons loading the luggage were just hand pushed to and from the plane. There was no air traffic control.

Reached Bali, and now I had to get back to the Acton Grand Kata Hotel to get my big suitcase. I was met, and the drive in was slow, got the bag, and kept that taxi to get back to the airport, trying to get back there by 8.00 p.m, which we did, but I had to pay them the fare back--and more than I had paid twice before.

Qatar Airlines again, and fine plane. Reached Singapore, Terminal 3, 1,15 a.m. or so, got my bag, and was pushing to ride the Sky Train to Terminal 2, before the Sky Trains quit at 2.00 a.m. I had about ten minutes to spare.

Sept 23, Friday

Reasonably quiet rest of the night in a calm area in the airport, waiting more or less 2.15 a.m. until the check in opened about 4.30 a.m. for my Cambodia flight.

Breakfast at McDonalds. Nice one.

Cambodia and Viet Nam

Flew to Kuala Lumpur. Decent flight. only an hour. Kuala Lumpur means “muddy river.”

A woman security officer in dark uniform had a modified hood, head covering, as an Islamic woman, under her cap.

Flew to Phenom Penh. There was nobody in First Class compartment.

Flew over flooded Mekong Delta area on way in the last 20 minutes.

Got visa. Met by Claire and Antoinette Smiley, and went to their apartment in a twelve story building.

Khmer. The people and their language. Khmer is really their word for Cambodia.

Their script is a bastardized version of Sanscrit.

Lots of motorized rickshaws.

Cambodia came under French colonial domination, from the 1860's.

After World War II, the Cambodians increasingly demanded independence, which the French grudgingly granted, in 1953. In the 1970's, there were various communist take-overs, with the communists disagreeing among themselves and with the Vietnamese Communists, who also operated in the country. A brutal civil war culminated in the genocidal rule of the Khmer Rouge (1975–79), the Red Khmer. This was headed by Saloth Sar, who went by the *nom de guerre* Pol Pot.

During their short reign, between one and two and a half million Cambodians perished, some killed outright, others dying from disease, malnutrition, neglect, and tortuous interrogation. They were often suspicious of those who lived in cities and required them to live on the farms. Cruel repression. Phenom Penh was at one time evacuated, everyone (including the sick and elderly)

sent to the country to work as slaves. The Americans did a lot of bombing to try to influence these outcomes. Modern Cambodia dates from about 1993.

There are memories of the Khmer Rouge regime in the Choeung Ek Memorial ("The Killing Fields"), 15 km. s.w. of Phnom Penh, and the Toul Sleng Genocide Museum, which was the S-21 prison and interrogation facility. Book: David Chandler, *Voices of S-21: Terror and History in Pol Pot's Secret Prison* (Berkeley: University Press, 1999).

Also: <http://www.mekong.net/cambodia/toll.htm>

Though the Khmer Rouge were driven from power in 1979, they retreated to the mountains and border areas, persisting until their final defeat and dissolution in 1998-1999. Surviving Khmer Rouge leaders and today facing court trials for their crimes. Pol Pot died in 1998, never having faced trial.

Phnom Penh is at the confluence of three great rivers, known as the "Chaktomuk" (four faces) or four arms of the Mekong, Tonle Sap and Bassac rivers. The Tonle Sap is incoming, a tributary of the Mekong. The Mekong comes in and exits, but divides into two exits to the sea, the Mekong and the Bassac. In flood season some of these currents can reverse.

Smiley went to University of Alabama Law School.

We took a driving tour of the town, latter part of it at night.

pagoda = a Buddhist temple. Lots of them seen.

Diamond Island Bridge. There was a festival there, and in 2010, people panicked and, with the bridge shaking, and were crushed, 300 killed, hundreds injured.

They are big on fortune tellers here.

Phnom Penh means "the hill of Penh," the proper name of a woman who anciently had some vision here involving a Buddha statue that washed down the river.

Sept 24, Saturday.

Chum Ben, Buddhist festival. They think they need to feed ancestors who had small mouths, and use some special rice and foods.

Thailand, unstable government. Cambodian ex pats would sometimes like to go there for some hospital procedures, but are reluctant to do so.

We got on the bus for the trip to Viet Nam. They bought an extra ticket seat for the baggage, because they didn't want to put it down under "in the hole."

tk. tk. - motor vehicle, motor cycle pulling a rickshaw. These would typically be jammed with people- 5-6 of them in two seats, forward and backward facing, that might have been comfortable for two, crowded for four.

"taxi" - crowded vans, jammed with passengers. Like the Maututu in Africa.

Never saw the tailgate of one shut. There were always people sitting back there, also with baggage tied on. Baggage on the roof and often people sitting on top of that.

They had no "taxis" in our Western style sense until a few years ago.

Saw lots of flooding. Crossed the Mekong on a bridge.

There is high infant mortality and mother's mortality.

The early part of the trip was in quite slow traffic, 200% Third World.

Later, the traffic went faster, and went through areas you could call open farmland.

Often flooded farmland area. Many houses on stilts.

cattle - white Brahmin, looked half-starved.

more flooding, more flooding.

They were drying banana leaves for some purpose..

People bathing in the river and flooded waters.

We reached the ferry to find crowds of vehicles, and six hour wait crawling forward at a snail's pace, often half an hour with no movement at all. Some cars coming the other way indicated that a ferry had unloaded. So we spent the afternoon, essentially 12.00 to 6.00 p.m. in a protracted wait. Supposedly these crowds traveling are to join families in the celebration of Chum Ben, the Buddhist festival.

We did get close up looking at myriads of people, beside us traveling, and in the shops roadside.

In fights for revenge, they may throw acid on their enemies. Sulfuric acid, which they can buy. Authorities are trying to stop this sale, with little effect.

Vietnamese uses a script that is romanized with some curious diacritical marks and a couple modified letters.

The bus had a video screen constantly playing stupid violent videos the entire time.

We finally got to the ferry - again crossing the Mekong, about 6.30 p.m.

Another 1 ½ hours to cross the border, first we had to exit Cambodia, get off the bus, and then get back on, drive a bit and enter Viet Nam. Had to drag all the luggage off and take it thru customs and drag it back on again. And all this in areas sometimes poorly lighted.

Viet Nam currency is the dong.

\$ 1 = 21,000 dong.

Got to Ho Chi Ming City (=Saigon) about 12.30 a.m. Taxi to their apartment, picking up some food that Brown had bought and handed into the taxi. In bed 1.30 a.m.

This is the Socialist Republic of Vietnam.

Sept 25, Sunday.

They tolerate religion, more or less, so there is religious freedom. They have Catholic and "no name" = evangelical = Protestant churches. The government is not militantly atheist.

We drove through the city. Huge tall building with a heliport two thirds of the way up.

large number of motorbikes.

Hue - Brown's wife's name. They have two maids.

Brown went to Columbia University, in humanities.

Went to church at a quite large Catholic cathedral, maybe 800 or so people present. Service in English. The cathedral has services all day, otherwise in Vietnamese. Viet Nam was a French colony.

Brunch at one of their favorite restaurants. Brown, Hue, and baby, "Sonny," appeared, with much ado about my meeting him. Later returned to Clare and Antoinette's apartment, with much more ado about the baby.

In late afternoon., there was a visit by Curt Rischar, his business partner. Originally from California, long in Viet Nam, with Viet Nam wife. He ran the Grand Canyon twice, also the Middle Fork of the Salmon. Interested in nature conservation. Also runs a pesticide business.

Sept 26 Monday.

Out into town to check on my flights.

The women wear face covers when riding motorcycles, because they don't want to get dark skin. The lighter your skin, the more they like it. Prejudice for light skin. They use various whitening agents, creams on their skin.

The Vietnamese are much lighter than the Cambodians.

"ao dai," a woman's flowing garment.

We reached the Malaysian Air travel office, where there was much frustration getting the ticket sorted out. Claire and Antoinette had bought me a ticket to Kuala Lumpur, but the agent wouldn't combine that with the return ticket I already had from Phenom Penh via Kuala Lumpur. We could have gotten a cheaper ticket online, but that wouldn't work either. So I ended up having to buy another ticket there, one way from Kuala Lumpur back to Singapore. The agent was polite, tried to be helpful, but was a mid-level functionary without any power or knowledge how to deal with this situation.

Late lunch on top of Rex Hotel, al fresco, with a view.

Visited zoo and botanical gardens.

Visited Independence Palace, with Brown, Hue, Claire, Antoinette.

This was a seat of government when there was a nation of South Viet Nam. The North Vietnamese took it over, with a bomber that dropped two bombs and two tanks that crashed through the gate. Bomb spots now marked, and the two tanks are in the yard. The North Vietnamese have made a propaganda piece out of it.

With the collapse of the South Vietnamese government, the soldiers disappeared and went home to their villages, leaving their uniforms along the road. They did not want to be recognized as South Vietnam soldiers.

In a way, North Viet Nam won the war, but lost the piece. The Communist government was hardline about 10 years, but they stayed poor and little developed. So they opened up to capitalism and the world markets, and their economy today is not really socialist.

Viet Nam now has a free press, more or less. The papers can comment on most anything, but not everything. There is a government owned newspaper, which is widely circulated and not bad. There are also privately owned newspapers, which are sort of loosely censored--unless they get to touchy matters that might threaten the government.

Evening at Browns penthouse. Full of baby stuff, and much doting over the baby.

Brown's e-mail: anhbrown@yahoo.com.

The first part of the e-mail address means "Mr."

Sept. 27, Tuesday.

Up at 6.00 a.m. Taxi at 7.15, with Brown, Hue, Claire, Antoinette, the whole gang escorting me to the airport. Drive through town, hordes of motorcycles, with most of them women dressed up for work. There is one lane for motorbikes and one for four wheel vehicles.

Easy check in.

Reached Kuala Lumpur, 2 hours wait.

Reached Singapore, and supper in McDonalds at the airport.

Taxi to Fragrance Hotel, further than I thought. Good shower and calm evening.

Sept. 28, Wednesday.

Decent night. Up at 4.30 a.m., Taxi 5.30, and easy to airport. Air Japan simply scanned my passport and had three boarding passes, through to Denver, at once.

Breakfast at McDonalds, the third time I had eaten there, and good service.

Flight to Tokyo, aisle seat and nobody beside me. Flew over Manilla, Philippines.

3,414 miles. Boeing 767-300

Reached Tokyo. Tight turnaround time, and they put me on another flight, despite my protests, through San Francisco, and I lost my aisle seat and was in a middle seat straight jacket 7 hours. But the Japanese man beside me was always ready to let me out. The plane was full of Japanese, few Westerners on board.

Sept. 28, Wednesday, - crossed the date line somewhere in the Pacific, and lived the same day twice.

10.30 landed at San Francisco, and made my way to the United flight to Denver. They did get my suitcase transferred. I got an aisle seat for the San Francisco-Denver flight. Even this flight has lots of Asians on it.

Green Ride and home about 7.30 p.m.

end Singapore, Indonesia, Cambodia, Viet Nam

November 24, Thursday, Thanksgiving Day. Shonny and I did the "Turkey Trot" together, a four mile run - jog - or even fast walk. Went up College Avenue a bit, turned west on Mulberry, went past Shields to City Park, and north into the Park, then to Mountain, at the cemetery gates, then back on Mountain to finish where we started. Maybe an hour and fifteen minutes. I did not want to run on pavement with any beating of my feet. Plantar fasciatus is o.k., still there a bit, but I don't really feel it running. But there is soreness in my right knee if I pound it.

November 30. Fox running across Prospect on the way in to CSU, 1.30 p.m. At fast pace to beat the cars. Big white tipped tail. Gray fox does not have white-tipped tail.

December 15-31, 2011. Snow in the ground fairly covering the yard much of time, sometimes gone in the sun, but always in the shadows on the backyard. Some nice days.

Dec. 20-31, 2011. One of those chest coughs I couldn't get healed up, and I turned the new year with a just-purchased high-powered antibiotic, and hopes of a cure.

Turkey Trot - 4 miles - November 24, 2011

