

## Trail Log 2014 - Summary

Rolston accounts, 2014, wolves in Yellowstone, March 3-9, local hikes

Mongolia July 3-19, Ulaanbaatar, Buddhist monasteries, drive across steppe, ger camp Hoyor Zagal, Elsen Tasarkhai Scenic Area, sheep, goats, horses, birds, sand dunes, Munkh Genger ger camp, Orkon Valley, Naadam Festival, wrestling, horse racing, golden eagles, Khushuu Tsaidan Museum, Gokturk inscriptions, Lake Ögiy Nuur.

Hustain Nuruu - Hustai National Park and Przewalski's horses (takhi), the only wild horse, once extinct and reintroduced to the wild.

Genghis Khan Memorial, Gun-Guluut Nature Reserve, Steppe Nomads Camp, birds, wildflowers, yak and horse milking, argali sheep (Marco Polo sheep), Terelj area, Gorkhi-Terelj National Park, Khan Khentil Strictly Protected Area, Tuul River, flight to Gobi desert, drive across desert, Gobi Tour Camp at Bayan Zag, camel farm, camel riding, saksaul forest, dinosaur excavations.

Montana, September 10-15, Michael Mansfield Conference celebrating 50th anniversary of the Wilderness Act, "Why Wilderness," hiking in Bitterroot Mountains, Blodgett Overlook, Lee Metcalf National Wildlife Reserve; local hikes, West Virginia, North Carolina, Alabama, Perry Lakes Park, Cahaba River Preserve.

## Trail Log 2014

January 3, 2014. Patching the backyard fence, I found one periwinkle in bloom, a nice blossom.

January 13-16, Monday-Thursday. Salt Lake City. John (Vander Vliet) and I left mid-morning. Route 287 to Laramie too windy to use, so we went to Cheyenne and got I-80. Very high wind gusts, to 75 mph until Rock Springs. We saw 5 tractor-trailers blown off the road. No problem after Rock Springs to Evanston, where we spent the night.

Tuesday, into Salt Lake City and spent that day and the next two cleaning up Giles' trailer, which was filthy. Got his truck inspected and licensed, also his trailer. He was in the hospital and we saw him twice.

Thursday, January 16, left quite early, and reached Wyoming line before daylight. But an excellent day driving. Less wind than I ever recall in a winter drive on I-80. Home about 3.00 p.m. John did all the driving.

February 2, 2014. Lots of snow and cold, near zero. A flurry of Ice crystals in the air under blue skies – what they used to call “blue snow” or maybe bluesky snow in the Southern Appalachians. Seems also to be called “diamond dust.” Diamond dust is a ground-level cloud composed of tiny ice crystals. This meteorological phenomenon is also referred to simply as ice crystals and is reported in the METAR code as IC (codes used in reporting weather, IC = ice crystals. Diamond dust generally forms under otherwise clear or nearly clear skies, so it is sometimes referred to as clear-sky precipitation.

February 17-23. Salt Lake City to get Giles back in his trailer after seven weeks in hospital and nursing home.

February 17, Monday, left early, had to wait 45 minutes practically at a standstill on I-80 a little west of Laramie, because a tractor trailer had jackknifed in the road. After that black ice and some snow on road for another hour. Dicey driving. Rest of the day no problem. I did see another semi in the median strip turned sideways.

Tuesday - Saturday, mostly decent weather, and Giles was able to do a lot of the work repairing leaks in his water system, which he had let freeze. Installed some foot warmer pads to prevent this in the future. Frequently good views of the Wasatch mountains east of town.

February 23, Sunday. Up and out 6.00 a.m. before daybreak. No problem until Rock Springs, though windy. After that blowing snow and often slushy roads (though under clear sky) which made for driving with tight knuckles for a couple hours. Wind gusts to

50 mph, and saw one truck, one car which had slid off the road. Route 287 from Laramie was no problem. Home at 3.15.

## **March 3-9, 2014. Wolf Week -- Yellowstone**

March 3, Monday. Left 6.15 a.m., about daybreak.

Decent driving, dry road I-25 north, after snow on Saturday and Flurries on Sunday.

Later, wind gusts 25-30 mph, and a little blowing snow.

Gas in Cody about 10.00 a.m., and road north even better.

Blue skies and/or party cloudy.

Lunch in Sheridan at the information center, rest area.

On I-90 some wet spots, maybe icy.

Reached Hardin, 3.15 p.m.

pizza and milkshake.

March 4, Tuesday.

Up at 5.00 a.m., and took two hours to get off. Lots of ice on windshield.

I-90 - wet and hard to tell whether wet or black ice, but lots of water thrown onto my windshield by passing trucks.

Later, and lower, got good dry road, at least in my lane.

Sign before Livingston: Due to avalanche threat I-90 closed at St. Regis Pass (west of Missoula)

Reached Gardiner about 11.30 and lunched at Mammoth Hot Springs.

Nice day, some sun and bright on the snow.

Maybe 100 bison in groups of 10-20 from Gardiner to Mammoth.

Returned to Gardiner and saw Jo Arney half an hour.

Drove out to Lamar Ranch. Maybe another 75 buffalo on the way out.

Wolf week leaders:

Sauna Baron, whom I have had before.

Sauna: [sbaron@yellowstoneassociation.org](mailto:sbaron@yellowstoneassociation.org)

Charlie: [cypylejr@aol.com](mailto:cypylejr@aol.com)

Carolyn Harwood

P. O. Box 463. Gardiner, Mt 59030

[charwood@yellowstoneassociation.org](mailto:charwood@yellowstoneassociation.org)

sent her New Env Ethics

Len Carolan

31 Caroline Ave.

Setayket, NY 11733

very helpful volunteer, bus driver

[lrcarolyn@optonline.net](mailto:lrcarolyn@optonline.net)

sent him Green Fire and New Env Ethics.

The other volunteer and driver

Charlie: [cypylejr@aol.com](mailto:cypylejr@aol.com)

Participants:

Kathleen Baker, Seattle WA. Kindergarten teacher

Kas: [kfbaker@earthlink.net](mailto:kfbaker@earthlink.net)

Mike Becker, Napierville, IL. Glasses, white hair

Mike: [mbecker@anl.gov](mailto:mbecker@anl.gov)

Stephen Curtis, Port Angeles, WA

Steve: [secjr112@gmail.com](mailto:secjr112@gmail.com)

three buddies from Virginia, Richmond area:

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Glen Allen, VA 23060  
804-527-6537  
sent him Challenges in EE and new Env Ethics

Phil Nebe, North Chesterfield, VA - went to Duke, and later UVA, engineering  
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Mark Durham, Glen Allen, VA  
Mark: [m.durham@lycos.com](mailto:m.durham@lycos.com)

Megan Heinemann, Roscie, IL, but went to Rocky Mountain College, Billings, and now teaches music there.  
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Gayle T. Heineman, Roscie, IL, her mother, and art teacher  
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Chris Schumacher, Lake Forest Park, WA Dark glasses  
and wife Genevieve Schumaker  
Chris and Genevieve: chrisgev@aol.com

Richard D. Story White beard, cap  
Dick: [dickstorytps@att.net](mailto:dickstorytps@att.net)

Susan Timm, Long Beach, CA  
Sue: suebee180@hotmail.com

March 5, Wednesday

Up 4.45, breakfast at 6.00, out at 7.00.

Went to Slough Creek and walked out to Bob's Knob, between a quarter and a half mile, on packed snow. I took ski pole and carried tripod and scope, o.k., but had to watch my step, not to posthole in the snow.

Saw rather well in scope four wolves, off and on, eventually all rather bedded down in a rendezvous site, on something of a hill. Good light and well seen against the snow. Looking west and over the river.

These were wolves in the Junction Butte pack.

869M (male), gray yearling. Had bad mange

907F (female) a pup, yearling. Mangy tail.

and two uncollared grey.

only collared wolves have a number.

Below was an old kill site, with ravens on it.

A fox came by the old kill site, nicely seen.

Young bald eagle in a tree, overlooking the kill site.

After half an hour, somebody spotted two more wolves behind us (looking east) on a ridge, also of the Junction Butte pack.

These were 890M Alpha male. Black.

870F Alpha female. Formerly in the Mollies Pack

These too rather well seen, and aesthetically positive, with the morning light on them and some clouds over them and over the ridge they were on.



890M was nicknamed "Patch" before he was radio-collared because of the pattern of hair loss due to his mange infection. His fur coat has returned and he seems healed of mange. He became alpha after "Puff," a past pack member, disappeared and one called "New Male" was killed by other wolves.

870F was born in 2008 or 2009. During the 2012/2013 breeding season 870F was injured and lost her position as alpha female of the Junction Butte pack. Later in 2013, she traveled with her neck pointed down, as if she is always smelling the ground. In November 2013 she seemed healed and regained her alpha status within the pack.

Total of six wolves seen here.

Returned, pit stop at the Ranch, and drove east.

2 coyotes in Lamar Valley, so that makes already a three canid day.

3 common golden eyes on the river.

Drove to the confluence

Some beaver activity seen here, cut logs.

Bighorn sheep in scope in the distance, on the south side of the river.

Golden eagle in flight in the sky.

Golden eagles have a little more dihedral, and the head sticks out as much as the tail.

Bald eagle wings are flatter and smaller head, almost a headless eagle with a tail.

At Soda Butte:

2 ravens picking at the bones of a carcass, a month old, but which had been deeply buried in the snow.

Coyote passing by. We watched it 5-10 minutes.

Returned to ranch, 11.00 a.m.

Lunch and program and wolf and dog evolution.

One group went hiking to the wolf den site where I had been before, and the other hiked up to the Rose Creek release site behind the ranch. I did not go, since I had been to both before.

Junction Butte Pack. The most recently formed pack was named the Junction Butte pack in October 2012. Junction Butte is the name of a feature on the landscape. This pack began when 838M (original Junction Butte alpha male) dispersed from the Agate Creek pack with two females. In April 2012, the females disappeared but later that month 838M was seen with two new unknown females and an uncollared gray adult nicknamed "Puff", originally from the Blacktail Deer Plateau pack. During the first year, this pack had 3 collared wolves (838M, 777M, 823F) join the pack and subsequently die (2 killed by other wolves, 1 legally harvested in Montana), leaving the pack untrackable using telemetry equipment. When 838M died, "Puff" became the alpha male. With numerous uncollared gray adults in the pack, identifying individuals and determining monthly pack compositions has proved difficult. After 870F lost her status as the alpha female during the 2013 breeding season, "Ragged Tail" paired with the alpha male "Puff" to become the new alpha female. At some point in October, "Ragged Tail" disappeared and 870F regained her alpha status; the fate of "Ragged Tail" is unknown. Around the same time, the alpha male "Puff" also disappeared (fate unknown) and "New Male" briefly acted as alpha male until he was found killed by other wolves (likely the 8-mile pack) at a carcass. He was identified by a distinctive scar under his right eye (seen during the necropsy and matched with photos from the Yellowstone Wolf: Project Citizen Science website). The only remaining adult male in the pack is 890M, who has paired with 870F as alpha. 869M still has a minor mange infection, 907F (newly collared gray female pup) has mange that is progressing, and 906M (newly collared black yearling male) is mange-free.

Good shower and repaired cracks in my fingers with SuperGlue.

Went down to the bunkhouse for supper about 5.00 and discovered that three wolves could be seen off the back porch.

755M, dark, nearly black

911M

also an uncollared black female. Two wolves challenged a big bull elk a couple of times, and he lunged toward them and stood his ground, and the wolves eventually backed off and disappeared over the ridge.

Also later a fourth wolf behind them, 889F, who had been limping. But I couldn't detect



any limp, and they said it is getting well. But it was still too injured to stay up with the other three, and would go some, and then stop and rest.

These four are a “group” within the Junction Butte pack, and if they stay together and have pups, they will be called a pack.

Note on black wolves:

Melanism in the gray wolf, *Canis lupus*, is caused by a different melanocortin , a melanistic K locus mutation in North American wolves that derives from past hybridization with domestic dogs in Asia, has risen to high frequency in forested habitats, The correspondence between coat color and habitat is often attributed to natural selection but rarely is supporting evidence provided at the molecular level. In North American gray wolves, coat color frequencies differ between wolves of forested and open habitats throughout western North America, including Denali National Park and the Kenai Peninsula in Alaska, and much of the Canadian Arctic. These differences are especially dramatic between wolves of the high tundra that are migratory and follow barren ground caribou to their breeding areas, and wolves that are year-round residents in the neighboring boreal forest and hunt non-migratory prey. Dark-colored wolves are extremely rare in the tundra, but increase in frequency toward forested areas. The potential selective value of dark vs. light coat color has been suggested to include concealment during predation.

The hikers that went up the Rose Creek to the release site had a double three dog day. Saw another fox.

Evening program:

Matt Metz. Research Associate, Yellowstone Wolf Project.

There is a year round staff of ten. He does population biology.

In 1995, 14 wolves were brought to the park from Alberta, Canada, held in acclimation pens for 10 weeks, and then released. These Initial founder wolves, named for the geographic locales at which they were acclimated, were on Yellowstone’s northern range, in the Lamar Valley and nearby. In 1996, an additional 17 wolves were transplanted from British Columbia and released in more widespread locations throughout the park. Total 31 wolves. In 1995–96, a companion effort to restore wolves to central Idaho occurred, using a simpler technique without acclimation.

The population peaked in 2003 at 174 wolves. The wolf population has subsequently declined, primarily because of fewer elk, also because of mange and distemper. There is some debate whether the fewer elk result from wolf predation or from other causes, such as two hard winters. Probably both, with extreme weather the biggest factor

earlier, 130% of normal snowpack, and wolf predation the biggest factor later. The current wolf count is approximately 89 wolves, 41 on the northern range, and 48 in the interior. The present population of is considered stable.

A wolf's peak reproductive capacity peaks at four years, and declines thereafter. Mange graphs.

The northern population is much more seriously affected by mange than the interior population, presumably because it is more dense, and this spreads mange.

Canine distemper comes in cycles, and almost all of the pups die.

About 50% of the wolves that die are killed by other wolves.

Yellowstone Citizen Science lists 33 defunct packs, so they reform often.

Bison in the interior are an important food source for wolves, especially in winter. But not of the northern wolves, who eat mostly elk.

Up to 139 ravens have been counted at a wolf kill.

A bear will take over a wolf kill, especially a grizzly, but even a large black bear.

Over 100,000 people a year see Yellowstone wolves, and the total has reached perhaps a million over the years, since reintroduction.

March 6, Thursday.

Breakfast 6.00 a.m.  
some rain in the night. Temperature 37°

Out at 7.00 a.m., driving east  
2 coyotes  
1 fox, presumably the same one seen yesterday.

ravens on something, probably a buried carcass

Cougar kittens are born mostly in September and October, but can be born any month of the year. Carolyn has seen cougars in the park several times.

Common goldeneyes, several of them, which is less common than the Barrows.

Reached Round Prairie West

ravens, one eagle, later an adult bald eagle on a recent carcass.  
clear lines of tracks in the snow above the carcass, but no wolves seen. Others had seen two wolves earlier.

One mountain goat in far distance, barely seen until it turned so you could see its profile. Looked like a patch of dirty snow on snow, white on white.

A wolf can eat 20 pounds of food, and may gorge themselves to avoid scavengers getting their kill.

Some rain.

Fox seen again on return, and it crossed the road just behind the van.

Lunch, and talk about wolf pups and their stages of growth.

More rain.

One group went to Pebble group hiking on snowshoes.  
Another went to Specimen Mountain.  
I showered.

Rain turned to snow.

The Virginians went to Cooke City and saw one moose, and the two wolves on the carcass at Round Prairie.

Evening program, George Buman. I had him as an instructor in a previous year.

displacement - communication about what is absent.

March 7, Friday

joined by Danielle Oyler, who is leading Wolf Week next week.

went to Bob's Knob, and saw the Junction Butte Pack.

870F Alpha, gray

870F was injured in a tie while breeding, by another wolf, in the neck. A sister became for a while the Alpha female.

But she recovered.

890 M black uncollared pup, which at times tried to play with the 890 black, jumping around at and on it, but 890 M wasn't much interested in play.

Others had seen 5 wolves, I saw only three.

A dozen or so mallards in the river

2 beavers seen swimming in the river.  
We listened the radio signals of 870F and 890M on the researcher's receiver.

returned to ranch

then walked out on snowshoes, in bright sun, to cottonwoods out in the valley and towards the river, to see where beavers had cut some large cottonwood trees.

returned to ranch, and I got out of my long johns.

lunch.

Drove east. bighorn sheep on the other side of the van, which I couldn't see.

Snowshoe walk to a carcass, largely buried, and talk about the carcass, winter kill. nice antlers. Maybe half a mile. More trouble here to avoid postholing - falling into holes in the soft snow. Others did, especially in an area where the snow had covered sage brush and made them invisible.

getting colder, and graupel snow.

Returned. Drove east and looked at the carcass of yesterday at Round Prairie, from a point on the Pebble Creek road, but no wolves.

5 eagles, 3 on the carcass. But it was hard to tell if they were immature bald or golden eagles.

ravens, magpies.

returning, coyote digging in the snow, and pulled out a big bone. Came quite close the road and well seen.

25% of the wolves have radio collars, which are put on with helicopters, and tranquilizer darts. They don't like to dart the same wolf more than 2-3 times.

Talk on the van by Rick McIntyre

Rick McIntyre has been watching wolves 17 years, claims 4,800 days of observation.

Pack size is 4-20.

The bite of a wolf can exert 1,000 pounds of pressure, twice that of a German shepherd.

4-5 years of age is their average life span

snow fleas.

Snow fleas are not fleas, but springtails: hexapods with two tail-like appendages that fold up under the body and then extend to fling the springtail into the air. They live in soil, leaf litter, and under bark, where they feed on plant material, and perhaps scavenge some animal matter. On warm days in late winter, they emerge onto old snow, feeding on bacteria and plant material. They mate in spring, and females lay eggs in the soil. Nymphs grow rapidly, and by the following winter they look like adults.

<http://www.esa.org/esablog/research/snow-fleas-helpful-winter-critters-2/>

or

<http://www.ext.colostate.edu/pubs/insect/05602.html>

dinner

Evening talk by Cheyenne Burnett on mange and a Yellowstone Citizen website.

Mange is caused by a mite of European origin

*Sarcoptes scabiei*.

Mange was introduced deliberately to kill coyotes in the early 1900s.

But they never saw mange in the wolves until 2007. Why? Not sure.

Yellowstone Wolf: Project Citizen Science

[www.yellowstonewolf.org](http://www.yellowstonewolf.org)

has a history of the packs.

March 8, Saturday

Up at 5.30 a.m., virtually cloudless sky, full or stars  
Venus prominent on the eastern horizon.

Left 8.15 a.m. 14°, by far the coldest morning I was here. Had a lot of hard scraping to do on the jeep windshield and windows, and eventually let it warm up 15 minutes before moving it..

5-6 miles west of Tower Junction, but before Blacktail Plateau, there was a group watching wolves at great distance. Two grey, and one black, three wolves, but you couldn't really tell they were wolves until they moved. Junction Butte pack, according to one researcher there. So the wolves had moved considerable distance since yesterday.

Frequently bison on the road, and at times it was difficult to get by them.

When they went off into the snow, they were frequently breaking through the snow and falling, stumbling.

Reached Gardiner. Called Jane,

In Paradise Valley, 15 mule deer, close to the road. I turned around and watched them a while. Nicely seen white with black tipped tails. White-tails are here, but only the underside of the tail is white (which goes up like a flag when they run).

Lunch in Livingston, windy, cloudy bright.

Two dozen deer seen from I-90, probably also mule deer, I couldn't be sure while driving.

Reached Super 8, Hardin, about 4.00 p.m.  
\$ 77.14. 406-665-1700

I-90 was dry all the way, and much easier driving than last Tuesday.

March 9, Sunday.

Changed to Daylight Savings Time.

Left 6.15 a.m, 41° F, and drove in the dark, dawn at the Wyoming line, sunrise a little before Sheridan.

Some high spots in here were 53° F, higher spots warmer than the lower ones.

Dry road and landscape with much less snow than a week ago. No wind.

reached Casper, 10.15 a.m., and now windy.

Reached Wheatland, and lunch.

Now high winds, blowing so hard it was difficult to get out of the car.

In one spot there was low visibility due to sand and dust in the air.

I-25 signs: Extreme wind danger, 70+ mph gusts.

50+ at Cheyenne

A semi had blown over and was in the media strip, with rescue truck still there, not far from the Colorado line.

Temperature in the 60s, and by Fort Collins 70-72°.

Home about 2.30 p.m.

end Wolf Week - Yellowstone

April 10. Lory State Park. Went out after we got the kids off to school. I'd been sick with cough, and a fall in the bedroom for several weeks.

Nice day. Well Gulch Trail, where I'd been several times before, over a hundred Pasqueflowers, and stopped counting. Last year I only saw a couple dozen, after the fire, but this year they have come back remarkably. Several groups of 10-12 blossoms, all in prime flower. Rather pale purple. Great pre-Easter experience, Palm Sunday is this coming Sunday.

Small flowered Alyssum, *Alyssum parviflorum*

Sagebrush buttercup, *Ranunculus glaberrimus*,

Stork's Bill, *Erodium cicutarium*, lots of it, though so small I didn't recognize it.

Spring Beauty, *Claytonia rosea*

Yellow violet

Golden Corydalis, *Corydalis aurea*

An excellent site for Identifying flowers in this situation, by Ernie Marx, is:

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

You can just put in color, foothills, March, and almost get it.

Fred's site is: <http://www.fredswildflowers.com/>

Lunched in good sun with a little too much breeze.

Drove home over the Horsetooth Reservoir road.

June 5, 2-14. Rocky Mountain National Park. Hiked in to "The Pool," alone.

Left 7.15. a.m., somewhat slow drive up because they are still rebuilding the road up Big Thompson Canyon from the big rains last fall that washed out much of it—or at least washed out the side banks between blacktop and river.

Nice day. Left Fern Lake Trailhead about 9.30 a.m.

*Thermopsis rhombifolia*. This was banner day for *Thermopsis*, in fine bloom all over the place.

Arnica - sp

Highbush Cranberry. *Viburnum edule* - trilobed leaves, somewhat maple like. White flowers. Though not a cranberry.

False Solomon's Seal. *Smilacina stellata* (= *Maianthemum stellatum*) *Smilacina* was recently reunited with *Maianthemum*, which was recently segregated from Liliaceae and put into Convallariaceae

Clematis. Blue Clematis. Virgin's Bower. *Clematis occidentalis*.

Mountain holly. *Mahonia repens*. Barberry. Hollygrape.



Chokecherry. *Prunus virginiana*

Goat's Beard. *Tragopogon dubius*

Cutleaf daisy. *Erigeron compositus*. Or something like it.

Locoweed. White loco. *Oxytropis sericea*. Or something like it.

Arabis. *Arabis drummondii*

unknown all-yellow composite

Elder. Elderberry. *Sambucus racemosa*. In good bloom.

Small-leaved pussytoes. *Antennaria neglecta*. Probably.

Waxflower. *Jamesia americana*.

Strawberry. *Fragaria*.

Golden Corydalis. *Corydalis aurea*.

Wallflower. *Erysimum asperum*. Western wallflower.

Moose, which I hardly saw, but others just before me had photographed and showed me their pictures. It had wandered further off and I barely saw it.

Maybe two dozen elk mostly on the drive out, some good bulls in the velvet.

One deer, roadside.

Rained a bit, but I never put on my raincoat, then sun out again.

Returned, took nap, prowled a bit more, and drove home. Nice day, and I wasn't particularly tired.

June 18, 2014. Led a hike with a group from the International Society for Environmental Ethics, meeting at Highlands, Allenspark, back to The Pool, which I had scouted two weeks back with this in mind. About ten people.

## **Mongolia - July 3-19, 2014**

July 3, Thursday. Left home 1.50 p.m. on Green Ride

Big accident on I-25 about Windsor exit and had stopped both northbound and southbound traffic, but the driver knew about it and went down Timberline and some back roads to Loveland. Got to Denver only about 15 minutes late.

Found a United service agent who knew how to check my bag through Air China to Ulaanbaatur. It was heavy and I didn't want to have to deal with in Beijing.

Got to L.A. and had to ride a bus from Terminal 7 to Terminal 2, but made it about 5.00 p.m. Then long wait for 1.40 a.m. take off on Air China. Aisle seat.

July 4. Friday. I didn't have much July 4, maybe 5 hours until we crossed the International Date Line and suddenly it was same time July 5, Saturday.

Flew over Alaska, and didn't really fly across the Pacific Ocean, but crossed it at the Bering Straits.

The "Return to seats" sign was never turned off the whole flight.

I had to ask to get a poor cup of coffee at breakfast.

The flight attendants announcements in English were Chinglish, and unintelligible.

July 5, Friday.

Reached Beijing about 5.30 a.m. and made my way through International Transfers to the gate for the flight to Ulaanbaatur.

Met Chris Carpenter, lead guide, at the gate.

8.35 a.m. flight to Ulaanbaatur. Aisle seat

Ulaanbaatur - pronounced ohh lahn bah tar a little emphasis on the bah

Reached Ulaanbaatur and bus to hotel, Puma Imperial Hotel.

The group:

Chris Carpenter

50 Mu 10 Dantawan NVA

Thambon Suthep

Chiangmai 50200

Thailand

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Pomona College and Ph.D., UC Davis, in ecology  
various field ecology programs in Nepal, India, Thailand, China.

Shinee Dashzeng, local guide. (pronounced Shin- long a)

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tutors English in Ulaanbaatur

Selena - the local travel group for which she worked which arranged the local trip.

John Clarke

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originally from England, though long in U.S. A diesel engineer  
arrived a day late due to hurricane on East Coast, U.S.

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Gerry

Collette Farms, custom farm products

formerly lived in Windsor area

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Distinguished Professor in the School of Architecture and Urban Planning.  
one of the founders of the field of Environment-Behavior Studies (EBS).  
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10620 Brownsville Rd.  
Glenford, OH 43739  
she is good ornithologist, botanist  
he is professional, or semi-professional photographer

Traffic jam going into town. Saw a van with 14-15 people crowded into it. like I once saw in the African matatus.

cars are from all over, but mostly from Korea.

well over half the cars are white in color.

Hotel is not far from Sükhbaatar Square, a large square created by the Communists, as they often do for displays. Various statues and sales booths here.

Lunch in hotel - good lunch

I walked with Christ Carpenter to the Government Department Store. The name is a hangover from when it was once the Communist Government store. Big store. Chris changed money, while I looked around the store, especially for natural history books about Mongolia. Slim selection. He also bought a sim card that would work in

his phone while in Mongolia.

The signs are in Cyrillic (Russian script, but Mongolian language) and in English (Roman script).

Dinner at the Chinggis Khan Grill and Pub, with musical group "Great Mongolia" in costumes.

yatga - a flat harp - with nice sound

morin-khur - horse-headed fiddle

Ulaanbaatar is the coldest capital in the world.

July 6, Sunday

Up and down to breakfast but no breakfast until 8.00 a.m. on Sunday

Our van is a Hyundai, from Korea.

There was a high step into the van, and they found some kind of crate which they put out and took in for the rest of the trip to make getting in easier.

visited Gandan Monastery = Gandantegchenling = great place of complete joy

Biggest Buddhist sanctuary in Mongolia. Vast numbers of pigeons, with people feeding them.

Two buildings:

1. Monks chanting. We walked around them. They were given a little fruit on bread and at a few bites. Some of the monks were elderly, some no more than teenagers.

2. Migod Janraisig Süm - with hundreds of images and a mammoth statue of Buddha, rebuilt in 1996. Communists had destroyed an earlier one.

süm - a temple

khud - a monastery

Visited a Cultural Museum, National Museum. p. 46 in Lonely Planet.

There were four main empires. Lonely Planet p. 209ff

1. Hunnu Empire = Hun - the Huns. 3rd century B. C. to 1st century A.D.

2. Turkic Empire. Kok Turk to 8th century.

Greatest ruler is Bilge Khan, d. 734 A.D.

People migrated from here to present day Turkey. Present day Turks have many of their genes.

3. Ulghur = Uighur - pronounced w gur wee gur

long controlled the silk route

4. Mongol Empire Genghis Khan here spelled Chinggis Khaan

late 1100s to 1300. Dominated Asia.

not a lot of time, but lasting influence.

The West sees him as ruthless emperor, but Mongolians admire him. lawgiver. religious freedom. outlawed kidnaping. initiated diplomatic immunity.

museum had a lot of costumes, hats, jewelry.

Communists. Russian revolution of October 1917 produced a lot of upset. China occupied Mongolia in 1919. The White Russians (non-Communists) expelled the Chinese in 1921 but were ruthless. Mongolian nationalists asked the Bolsheviks for help. The Peoples Government of Mongolia was declared, and Communists took power for 69 years. Mongolians were then largely cut off from the modern world. Herders were forced to join cooperatives and private business was banned. Many were executed, especially Buddhist monks. Russian culture was imposed on the Mongolians.

With the unraveling of the Soviet Union, there was a large pro-democracy protest, May 1990, and a new constitution permitted multiple party elections in July. But there were hard times ahead, because the Soviets dropped the heavy subsidies they had given to Mongolia to keep a buffer state between Russia and China.

Mongolians were traditionally troubled by smallpox, plague, polio, diphtheria. The Communists did make great effort to improve health. They also did much to improve

literacy, and Mongolia is one of the most literate of developing nations.

97% of Mongolians are now literate (Cheng, p.81; also in Wit and Bouman, p. 167).  
Mongolia has nine universities.

Mongolia is a separate nation, not to be confused with Inner Mongolia, a part of China. Located in the middle of the world's largest continent, it has nearly 3,000 miles of border with Siberian Russia and 3,000 with China (Pang Guek Cheng, *Cultures of the World: Mongolia*, p. 10).

Mongolia is the least densely populated country in the world. (Wildlife Conservation Society paper, Mongolia, on hand = most thinly populated

Desert or open pasture forms 90% of its land. Most Mongolians live in rural areas, and about one-third are nomadic or semi-nomadic, engaged in livestock herding. (Wildlife Conservation Society paper, Mongolia, on hand)

Mongolians have traditionally depended on five animals, the five "snouts" or "muzzles": horses, camels, sheep, cattle or yaks, and goats.

lunch in Restaurant of Nomads, and back to hotel briefly and met the two who had been delayed a day by the hurricane in Eastern U.S.

visit to Bog Khan Palace Monastery

with a summer palace and a winter palace. Lonely Planet p. 50.

The home of Mongolia's eighth living Buddha and last king.

We lucked into some students in traditional costumes and presenting them. Some university students were researching traditional costumes and had made such garments and were displaying them, being filmed for local television. (pix)

Returned to hotel and napped.

Evening meal 7.00 p.m.

and rain!! We were going to a performance in the Sükhbaatar Square. But I walked back to the hotel in light rain. Then hard rain all evening. The performance was cancelled. This is their rainy season and it does rain, even in this arid land.

July 7, Monday.

Off at 8.00 a.m.

On the edge of the city, we reached a toll road, though shortly you would never know it.

ovoo shrines. (pronounced v ) Lonely Planet, p. 220

You toss a rock on it and walk around it three times to reverence the local spirits--or for good luck (your choice).

Mongolia has a lot of shamans, and people put a lot of faith in them.

Traditional folk medicine remains strong, often using animal parts. A wolf's intestines are good for indigestion, and a woodchuck's gall bladder cures toothache. Hundreds of plants provide herbal remedies (Pang Guek Cheng, *Cultures of the World: Mongolia*, p. 79)

Aubrey Belford. "Mongolia's Growth Industry: Shamans." *Global Mail*. Feb. 27, 2012. [www.theglobalmail.org/feature/mongolias-growth-industry-shamans/37](http://www.theglobalmail.org/feature/mongolias-growth-industry-shamans/37)

They make exaggerated claims for healing. They also use a lot of wildlife body parts in their healing ceremonies.

Long straight blacktop road

field of rape seed

roadside pit stop. You just get out of the van, men go one side of the road, women the other and you get behind anything you can find to get a bit out of sight.

stopped at a village. barn swallows.

March and April are the toughest months of the year. Still winter, dry, cold, and nothing to eat.

Ride through open grassland, short grass and not a tree in sight. You can drive a couple hundred miles without seeing a tree.

crossed Tuul River  
and road junction, and went left.

Tuul River in the park joins the Orhon River and flows into Lake Baikal.



Lake Baikal is 150 or so miles north of Mongolia and almost directly over the center of Mongolia.

A lot of cattle, often tended by cowboys

stopped at a shrine (ovoo) on a hill, with a lot of crutches (pix)

black kite (bird) in the sky

fields with many horses

Horses historically a linchpin of their cultures. "We are nothing without horses," said one herdsman. Mongolia today has two million horses and three million people (2006 figure, Wit and Bousman, p.11), but since a million people live in Ulaanbaatur (Wit and Bousman, p. 175), in rural Mongolia there are as many horses as people.

Mongolians eat horsemeat, only in the autumn (Wit and Bouman, p. 184).

The traditional Mongolian man lived in the saddle. Children are riding almost as soon as they learn to walk.

demoiselle cranes - a couple of them  
the most charismatic bird of Mongolia

camels - 40-50 of them

reached camp Hoyor Zagal = Two Horses, and got ger (pronounced geer - g r)

A ger looks something like a lost white pillbox in this vast landscape. Made of willow and felt. The door always faces south.

In Mongolia, one steps over a threshold, but doesn't step or stand on it.

A ger weighs perhaps 550 pounds. When they move, they take it down, place it on a cart, drawn by camels, horses, or yaks. Or, these days, a pickup truck.

This is the Elsen Tasarkhai Scenic Area.

lunch.

sheep - fat tailed sheep

The fat-tailed sheep has large tails and hindquarters. About a quarter of sheep

worldwide are fat-tailed. There is a reference found in the Bible (Leviticus 3:9), where a sacrificial offering is described which includes the tail fat of sheep. They were desired for the fat stored in the tail area and the fat (called lyyah) was used extensively in medieval Arab and Persian cookery. They sheep are hardy and adaptable, able to withstand the tough challenges of desert life.

magpie

Siberian elm

visit to remote Khogno Khan mountain and Erolenchamba monastery. Sometimes considered a sacred mountain.

On return, saw them herding sheep and goats with a motorcycle

sheep and goats (pix)

black kite, with V tail.

*Arenaria* - sandwort

*Allium*, onion, or garlic

and lots of stuff nobody could recognize.

a bit of rain at supper time.

Online list of mammals of Mongolia:

[http://en.wikipedia.org/wiki/List\\_of\\_mammals\\_of\\_Mongolia](http://en.wikipedia.org/wiki/List_of_mammals_of_Mongolia)

July 8, Tuesday.

English sparrow

cold night and brisk getting up for 7.00 a.m. breakfast

rabbit

Eurasian hippoe = *Upupa epops*

2 demoiselle cranes

ruddy shelduck

raven

lots of ponds on the landscape and that is normal in June-July, their wet season

*Silene*

walk on the sand dunes

Chris' knowledge of natural history is good but not excellent. Half the time he knows what the genus probably is. Half the time the answer is, "That might be some kind of x, but we can look it up and figure it out later." He has led this trip many times before, but this is not his home habitat, so to speak.

upland buzzard *Buteo*

white headed, fairly well seen

(*Buteo hemilasius*), feed on Brandt's voles (*Microtus bardtii*). (Wit and Bouman, p. 221).

larks - look like our horned lark.

rough road, full of potholes.

stretches of it maybe once paved, but long gone for stretches.

ravens

chough

common buzzard - two of them

Damouselle cranes

cinereous vulture. The cinereous vulture (*Aegypius monachus*) is a large raptorial bird that is distributed through much of Eurasia, also known as black vulture

often driving on pickup bypass roads, so we might have 4, 6, or 10 lane highway (!), or even make our own new route.

reached camp: Munkh Tenger Ger Camp,

at edge of town Kara Korum = Harhorin, where we were to watch Naadam Festival

This town was once a city designated by Genghis Khan as the capital of the Khan

Empire, 1220 A. D.

crows.

This is Orkon Valley = Orkhon Valley. Lonely Planet, p. 82.

Good mountain scenery on the skyline, and river at the base.

Went to the Naadam Festival.

watched anklebone tossing

archery.

wrestling. Big guys only half dressed. You seem to win when you get your opponent down on his knees. Wrestling a favorite sport. We watched 8-10 matches. They do a lot of preliminary presentations of themselves.

horse racing. 15-30 kms. The jockeys are kids, to keep them light.

Watched the end of a horse race, 25 km. They race over a course, not around a track.

We saw them coming, dust in the distance, and in a couple of minutes the winning horse came over the finish line, instantly followed by the second horse, which had no rider, the jockey having fallen off somewhere back. But this horse still placed second. We protested: But it had no jockey. The reply was, well we were racing horses, not people.

common buzzard

started to rain

lunch

cold rain and I was locked out of my ger.

visit to museum: Kharakhorum Museum, = Kharakhorin, the tomb of Shovoon Bumbagar, a nomadic tomb if 6th-8th century, Lonely Planet, p. 95

mostly underground, and a wooden door still remains, which we saw. Dry conditions seem to have favored preserving it.

excavations were 800 m. north of the museum.

The town even had a Christian church

Museum also had stone age remnants

Bronze Age remnants.

There is an old Mongolian proverb: "A man without a horse is like a bird without wings."  
(Lonely Planet, p. 219)

returned to ger

good shower, though I had to ask twice for a towel.

A young woman on the staff came and built a fire, but it went out. She came and built it again.

In a bad winter your entire herd can perish.

July 9 - Wednesday.

cool night. Women came and built a fire while I was still in bed.

breakfast - sausage and eggs.

visited Erdene Zuu Monastery. Lonely Planet, p.95.

15th century

walled compound with 108 stupas. 108 is a lucky number.

60-100 temples.

The first Buddhist monastery in Mongolia, from 1585.

Up to 1000 resident monks.

mostly destroyed by the Communists in 1937.

Our local guide had studied Tibetan in India.

We heard monks chanting.

Walked to "The Turtle." This was a large carved stone turtle, c. 1250 A.D, (pix)

Ground squirrel of some sort nicely seen at The Turtle.

There were once four, at the corners of the compound. Two survive. We did not see

the second one, some distance away.

Mongolian tree sparrow, nicely seen on park bench.

Leaving the monastery compound, there were temporary shops set up outside.

I held a golden eagle, captured for hunting. They capture the eaglet and raise it.

with a six-foot wingspan, wings as wide as I am tall.

(my eagle pictures are in folder July 8)

lunch

back out at 3.00 p.m.

Amos has lost his hearing aid somewhere, probably pulling off his hat, and we went back to the monastery in search of it. Not found.

drove some distance to visit a museum.

visited Khushuu Tsaidan Museum = Hoshoo Tsaydan

Khushuu is the name of this region.

There are some famous Gokturk inscriptions here

7th 8th century

Stele of Bilge Kham, A.D. 734, Khan = King Bilge, his name

Stele of Kulitegin = Kol Tigin. (the person's name) A.D. 731 Lonely Planet, p. 107.

The Orkhon inscriptions (Turkish: Orhun Yazitlari also known as Orhon Inscriptions, Orhun Inscriptions, and the Khöshöö Tsaidam monuments (also spelled Khoshoo Tsaidam, Koshu-Tsaidam) are two memorial installations erected by the Göktürks written in Old Turkic alphabet in the early 8th century in the Orkhon Valley in Mongolia. They were erected in the honor of two Turkic princes, Kul Tigin and his brother Bilge Khagan.

The inscriptions, in both Chinese and Old Turkic, relate the legendary origins of the Turks, the golden age of their history, their subjugation by the Chinese, and their liberation by Bilge Khagan. The inscriptions contain "rhythmic and parallelistic

passages" that resemble that of epics.

The inscriptions were discovered by Nikolay Yadrintsev's expedition in 1889, published by Vasily Radlov. The original text was written in Old Turkic alphabet and were deciphered by the Danish philologist Vilhelm Thomsen in 1893. Vilhelm Thomsen first published the translation in French in 1899. He then published another interpretation in Danish in 1922 with a more complete translation. The two steles have Turkic on one side and Chinese on the other.

The nation of Turkey helped fund this museum and built the good road this far from town.

Outside the museum, we walked a couple hundred yards to where the excavations had actually taken place, and where replicas of the steles were standing.

thyme - *Thymus* - low prostate shrub, purple flower.

Back to the Nadaam, still looking for a hearing aid. Not found.

12-15 common buzzards in the sky over the grounds on which the Nadaam was held, now winding up. They seemed to think they might find something to eat.

July 10 - Thursday.

windy in the morning  
Up 5.45, breakfast 7.00                      off 8.00 a.m.

chough. 12-15 of them  
magpie

Today I was riding shotgun. Cramped in the front seat, but you had good visibility.

After passing the museum where we were yesterday, the road instantly degenerates into nothing more than a track. Nowhere a built road, never graded. Typically one lane, and if you meet an oncoming car, one vehicle has to drive out into the grass to pass.

Only some 5% of the roads are paved (Cheng, p. 44).

crows  
common buzzard  
2 demousselle cranes  
upland buzzard

2 demoiselle cranes  
with 2 chicks

Both the males and females stay with the chicks.

Reached an over view of a Lake. Ögiy Nuur = Ögii Nuur Lonely Planet, p. 108.

2 foxes - one nicely seen

little mice-like animals crossing the road now and again - said to be voles.

Drove by the lake, 20 minutes alongside the shore baylines. Lots of people camping here, just pitching camp wherever they wished. Several ger camps.

continued, stopped at an overlook with a fork in the road in the distance and mountains beyond. (pix, in folder July 9)

purple gentian  
Artemisia

wheatear - with white rump

a plant used to make paper. *Stellera chaemojasme*

We stopped for lunch in a town: Dashinchilen village, in the middle of nowhere. They guides found a sort of park with some shade and recently made seats. This part of the park seemed to be a playground with kids statues of the five snouts.

Now a good highway. You could see straight ahead for several miles.

much livestock on the road.

Hustai Ger Camp, at the entrance to Hustain Nuruu National Park.

Hustain Nuruu -- Hustai National Park (Sometimes written as Khustai, or Khustain)

Park is relatively small, about 30 km east-west and 20 km north-south. (Wit and Bouman, 2006, p. 15)

winters are - 30° to - 35° C -22° F to -31°F

4.00 p.m. - video about the horses

partridge



search for the Przewalski's horses. Starting 5.30 p.m., after some wait for local guide, a woman.

drove in over rough track, maybe 30 minutes.

Reached a spot where other vans and cars were stopped, and people coming down a hill.

The guide ran up the hill and we followed uphill, maybe 300 yards and topped out and we could see several across on a neighboring hill.

The stallion was out front a little distance and five mares were following behind. (They say he has six mares.) They walked across the hill and in and out of good sun.

Watched them 20 minutes and they were moving down toward the road we had come in on, and toward the river (only a creek).

We walked to the road and they crossed it headed toward the river/creek.

They stopped and browsed/grazed. We watched them another 20-25 minutes, good views. The guide said two of the mares were pregnant.

Left and were returning to camp, but after a kilometer or so we found a second group.

4 and a foal = 5, and one loner up on the hill = 6.

Watched them 20 minutes or so. Excellent views. The loner came down and joined the group. Generally they passed around us over toward a hill.

These horses were all born wild. Only one old horse, now some 20 plus years old survives from the second group reintroduced, born in the Netherlands.

There are 33 groups in the park, of which we saw two. The park now has over 220 takhi

(park website: <http://www.hustai.mn/index.php/en>)

Notes about Przewalski's horses            pshuh-VAHL-skeez            she-VOL-skeez

The P is really silent. The w is pronounced v.

local name: takhi (about like dahgy) the takh, which means "spirit." a spirited horse.

the only wild horse in the world

stocky horse with short legs, looks somewhat like a coarse domestic pony. Massive head with long face and a massive jaw. Ears are long and stand up straight.

Eyes set far back in the skull, giving it a wide field of view

mane is stiff, erect. mohawk-like. There is no forelock. summer coat short and smooth, beige or dun, yellowish white on muzzle and belly. In winter hairs grow longer and lighter, protecting against the cold and camouflage in the sand. The lower legs are dark and may have stripes.

The Przewalski's horse is a very social animal forming herds consisting of one stallion and four to 10 mares with their offspring. The stallion is responsible for the herd's protection and coordinates daily movements of the group as they wander to graze, drink or rest. Herds don't mix but will share territory because the stallions are more protective of their mares than their territory. They do use dung piles to mark their area, which they examine by sniffing. Yearling males join bachelor groups led by an older stallion until they are mature enough to attract their own females. The younger stallion may fight, biting and kicking, an older stallion with mares to take over the group. A stallion may also bite and kick his mares to get them to do what he wishes. (Wit and Bouman, p. 124).

The Denver zoos has four, one male and three females (phone call July 24, 2014).

Never domesticated (M. Burton, *University Dictionary of Mammals of the World*. New York: Thomas Y. Crowell, 1962)

the one surviving prehistoric horse, the oldest breed of horse today. This horse has 66 chromosomes, two more than domestic horses.

Przewalski was a famous Russian explorer and naturalist who discovered this wild horse in western Mongolia in 1879. As one might expect in an ancient land, though wild and thinly inhabited, various earlier travelers had reported seeing wild horses. In earlier centuries, the wild tarpan, now extinct, was also present (more notes below). Some ancient cave drawings suggest the Przewalski horse (20,000 years ago) (Wit and Bouman, p. 87) But Przewalski brought them to the attention of the Western and scientific world.

The full-grown horses proved impossible to catch, but some foals were caught. They were difficult to keep alive. The horses were aggressive in captivity and could not be tamed.

Przewalski's horse was extinct in the wild in the mid-1960's. The last recorded sightings were in the Dzungarian Gobi Desert in southwestern Mongolia (with documentation in Nadia Robert, et al., "Pathologic Findings in Reintroduced Przewalski's Horses ...," 2005, on hand, p. 273) The last recorded sighting is somewhat confused by the fact that Przewalski's horse had interbred with feral domestic horses.

Boyd and Houpt say: "In 1969. The Mongolian scientist N. Dovchin was the last person to see a Przewalski's horse, a stallion, in the wild. It happened near a spring called Gun Tamga, north of the Tachijn-Shar-Nuru, meaning 'Yellow Mountains of the Wild Horse' with citation. p. 13. In the Dzungarian Gobi in southwest Mongolia. Confirmed in Wit and Bouma, p. 11. again p. 88, with photo of the water source.

One horse found in 1996 was claimed to be a wild Przewalski's horse (*Enc. Britannica* article) But I found this in no other source.

The species survived only because of the captive breeding based on 13 founder animals. National Zoo sheet says 14 founder animals. FAO Moscow book says 12 (p. 43). Wit and Bouman say 14, p. 11. The captive population was nearly lost in the disruptions of World War II.

In 1969, the only Przewalski's horses were in a zoo in Munich and a zoo in Prague (Cheng, p. 61), though now there are some 1,500 in zoos around the world. Susan Gray book says 2,000 in captivity (2008).

Foundation for the Preservation and Protection of the Przewalski Horse. FPPPH In the Netherlands and Dutch conservationists were the main leaders in restoring the horse. (Wit and Bouman).

Three of those released and later found dead are presumed wolf predation (Nadia Robert, et al, p. 274). Or at least wolves fed on the carcasses. Wolves killed 8 in a harem in one night in December 2000 (Nadia Robert, 275) though healthy horses can defend themselves against wolves (Nadia Robert, 282) Wolves prefer to take foals, and may take up to one third of them, as happened in 2002-2004, when they killed 36 foals. Adults are seldom killed by wolves, unless in weakened health (Wit and Bouman, p. 152).

The mares encircle the foals, and the stallion guards the circle, and may charge a wolf to run it off.

The horses are often infested with ticks, which also may carry diseases. A quarter of the adult takhi in Hustai have died from blood parasites and endoparasites. (Wit and Bouman, p. 156). In a severe winter, especially one with an impenetrable ice cover making grazing impossible, they may starve. (Wit and Bouman, p. 156)

For those who debate whether zoos are important in conservation in the wild, here is one case where they were critical.

The reintroduction of captive born horses into their original landscape habitat exposes them to climate extremes, water and food shortage, and predators, especially the grey wolf. The reintroduced horses have had no acquired immunity to diseases.

Winter of 2000-2001 was with extremely low temperatures (-50 °C= -58 °F), high snow drifts and storms, preceded by a dry summer.

A stallion will attack a domestic horse with rider, but will not attack a person dismounted and away from the saddled horse. (FAO document, Part II, Technical Documentation, on hand, p. 5)

The stallions and the mares as well may fight each other, using kicks and bites, to establish dominance. (Ibid., p. 10)

In winter they can find forage under the snow. In a severe winter in Mongolia in 1910, 10 million domestic horses died, but the Przewalski's horses managed to survive. (Ibid, p. 16) (also in FAO main document, p. 122).

In 2006, there were about 200 in the wild, say Wit and Bouman (2006 figure). The elsewhere they say 170 (p. 84).

The captive horses often have a reduced brain volume (Wit and Bouman, p. 83)

There are six (seven) reintroduction projects.

Three in Mongolia

1. First release site. Hustain Nuruu -- Hustai National Park - where I saw them. UNESCO Man and Nature Biosphere Reserve. A mountainous steppe area in the lower spurs of the southern part of the Chentai mountains, some 115 km from Ulaanbaatur

Hundreds of Mongolians waited for hours at the airfield at Ulaanbaatur on June 5, 1992 watching for airplane to land and hoping to catch a glimpse of the crates each of which contained a takhi, destined to be returned to the wild. (Wit and Bouman, p. 7, again p. 115).

2. Second release site: Takhin Tal = Takhiim Tal on the edge of the Gobi-B National Park. Released in 1997

3. Third release site: Khomiin Tal. Released in 2004. (Wit and Bouman, p. 101.) horses from a French source.

Fourth site: not yet wild, but fenced Seeriin Nuuru

Two in China (Jimsar and Gansu)  
one in Kazakhstan

one in Ukraine (With documentation in Nadia Robert, et al., 2005)

Notes on tarpan:

The Tarpan is a prehistoric wild horse type. Tarpans ranged from Southern France and Spain eastward to central Russia. Cave drawings of Tarpan horses can be found in France and Spain, and artifacts showing this breed can be found in Southern Russia where this horse was domesticated by Scythian nomads in about 3000 B.C.

The original wild Tarpan died out during the late 1800's. The last Tarpan horse died in a Ukrainian game preserve at Askania Nova in 1876.

When their natural forest and steppe habitat was destroyed, they came into conflict with farmers who did not want the wild Tarpans eating their crops or stealing their tame mares. The farmers in Eastern Europe treated the Tarpan in much the same manner as mustangs and wild burros are treated in the United States today.

The Polish government created a preserve for animals descended from the wild Tarpan at a forest in Bialowieza. Over the years this herd has developed more and more Tarpan characteristics. Today this breed is sometimes referred to as the Polish Primitive Horse.

The modern Tarpan is a genetic recreation of the original wild breed. Heinz and Lutz Heck, two German zoologists working at the Tierpark Hellabrunn (Munich Zoo) in Germany, believed that all living creatures were the result of their genetic make-up and that genes could be rearranged like the pieces of a puzzle to recreate certain vanished species. Only breeds that still had living descendants could be recreated because those living breeds would be a source for genetic material.

Several European pony breeds had descended from the prehistoric Tarpan. Primarily the Heck Brothers selected Polish Koniks, Icelandic Ponies, Swedish Gotlands and Polish Primitive Horses from the preserve in Bialowieza. Mares from these breeds were then mated to Przewalski stallions because the Heck brothers felt that the blood of the wild Przewalski would serve as a catalyst to draw out the latent Tarpan characteristics dormant in these more modern breeds. The first-bred back Tarpan, a colt, was born May 22, 1933 at the Tierpark Hellabrunn in Munich, Germany.

The Tarpan is mouse dun or grulla in color. Grulla (pronounced grew-yah) is a horse color, dun with no white hairs mixed in the body hairs. Grulla horses have dorsal and shoulder stripes, and leg barring. The body is a smoky gray color, with the face and legs being darker than the body. The mane and tail are flaxen,

but dark in the center where the dorsal stripe passes through.

They stand between 13 and 13.2 hands tall. The mane is semi-erect. The head is large, with massive jaws and thick neck. The back is short and strong, with very low withers. The hooves are dark and very tough, never requiring shoes.

In 1226, Genghis Khan was startled when wild horses crossed the path ahead of him. His own horse reared and Genghis Khan was tossed to the ground. (cited in Boyd and Haupt, p. 8, who cites S. Bökönyi, 1974. *The Przewalsky Horse*. London: Souvenir Press.)

Wild horses were a dominant feature of landscapes in Asia and Europe in Pleistocene times, as are zebras, the wild horse in Africa today. Zebras also have never been domesticated. (Wit and Bouman, p, 92)

The horse became extinct in the Americas about 8,000 years ago, Europeans reintroduced it, domestically, and some of these have become feral, though not natively wild.

onager - The onager (*Equus hemionus*) is a large member of the genus *Equus* of the family Equidae (horse family) native to the deserts of Syria, Iran, Pakistan, India, Israel (where it was reintroduced between 1982-1987), Central Asia, and Mongolia. The kiang (*E. kiang*), a Tibetan relative, was previously considered to be a subspecies of the onager as *E. hemionus kiang*, but recent molecular studies indicate that it is a distinct species. It is also known as the Asiatic wild ass, Asian wild ass, or wild Asian ass (in which case the term "onager" is reserved for the *E. h. onager* subspecies, more specifically known as the Persian onager). Like many other large grazing animals, the onager's range has contracted greatly under the pressures of poaching and habitat loss. Of the five subspecies, one is extinct and at least two are endangered (their status in China is not well known). Wild asses (Khulaan, *Equus hemionus hemionus*) are found in southern Mongolia only.

Returned.

Dinner.

Decent shower in cramped stall.

Other wildlife in Hustai National Park, not seen.

Pallas's cat,  
lynx (*Lynx lynx*), rare  
the steppe polecat.

There are red deer = elk (*Cervus elaphus*, same species in U.S. West) = Maral =  
Mongolian red deer,

roe deer (*Capreolus capreolus*), = *Capreolus pygargus* ? = Siberian roe deer

wild boar (*Sus scrofa*).

Some argali sheep (*Ovis ammon*), much prized by hunters for their large horns.

suslik (*Citellus undulatus*, = *Spermophilus* ? , a large short-tailed ground squirrel)

bobak marmots (*Marmota bobac*).

= *Marmota sibirica* ?? (in Wit and Bouman, p,196. & passim)

Marmots are widespread, often shot and eaten, but their population has dropped  
dramatically (from 40 million to less than half a million today). Wildlife Conservation  
Society paper, Mongolia.

Mongolian gazelle. *Procapra gutturosa*. Local name: zeren. Form large herds, up to  
250,000 animals. Almost all females give birth in a four day period (BBC Nature).  
May be seen in small groups among the foothills of Hustai National Park (Wit and  
Bouman, p. 61).

July 11 - Friday.

Breakfast at camp.

Cool but sunny and bright.

Amos bag was missing; they concluded it had been put on the wrong van..

An hour down the road, the driver spotted the Russian jeeps of another group, partly  
because they were a horse-riding French tourist group, and were at a horse-racing  
track. So we found his bag, luckily.

returning toward Ulaanbaatur.

Reached Ulaanbaatur. Went to Government Department store.

They had some 40 wolf skins for sale.

Wolf hunting continues mainly because they kill cattle, sheep, and goats.

Mongolians generally hate wolves, and this includes park staff. (Wit and Bouman, p. 70). They do, however, value the wolf skin, and parts of the body for traditional medicine. (Wit and Bouman, p. 173).

(Jack Wolfskin is a German outdoor clothes manufacturer)

By report: There is a wide typhoon coming into Japan.

lunch in fancy Modern Nomads Restaurant.

Clouded up and a bit of rain

Maybe half the vehicles in the traffic had right hand drive.

lost an hour and a half in traffic jam.

Inconvenient pit stop leaving Ulaanbaatur

Nettles where I went in alley way between trashy buildings. *Urtica*.

crossed the Tuul

Passed the Genghis Khan Memorial, which we would visit on return.

Tibetan mastif dogs.

Tibetan mastif world's most expensive dog. *Daily Mail* 17 March 2011

<http://www.dailymail.co.uk/news/article-1366517/Red-Tibetan-Mastiff-Most-expensive-dog-sold-nearly-1m.html>

A red Tibetan mastiff has become the priciest dog in the world after being sold for 10 million Chinese yuan, or £945,000. Big Splash, or Hong Dong in Chinese, was bought by a coal baron from the north of China.



Hard rain, approaching the pass, and we could see little. Saw it much better on return. This is the Pacific-Arctic Divide.

headed toward Gun-Guluut Nature Reserve

approaching a turnoff, leaving the paved road, there are on the horizon tailings from a coal mine.

17 km. on dirt road.

Passed a pond with hundreds of waterbirds

Whooper swan *Cygnus cygnus*. (Don't confuse with whooping cranes)

White winged black tern. *Chlidonias leucopterus*

Spotted redshank. *Tringa erythropus*

Pied avocet *Recurvirostra avosetta*

The pied avocet is the emblem of the Royal Society for the Protection of Birds.

Ruddy Shelduck. *Talorna ferruginea*

Guy came by on a motorcycle with his wife, and offered us a jar of fermented mare's milk . I drank a bit. (pix).

Airag - fermented mare's milk, an alcoholic drink.

Reached Steppe Nomads Camp on Kherlen River.

Gun-Galaat Park. = Gun-Guluut

[https://en.wikipedia.org/wiki/Gun-Galuut\\_Nature\\_Reserve](https://en.wikipedia.org/wiki/Gun-Galuut_Nature_Reserve)

July 12 - Saturday.

visit to farm, with hybrid yaks.

yak milking (my yak milking pictures are in folder July 11)

visit to ger, with satellite TV

ate yak Cheese, yak butter

milking mares. They let the foal suck first a half minute, then milked her.

12-15 Pasqueflowers

but not sure which one this is. Book lists:

*Pulsatilla turczaminovii*. A purple one.

*Pulsatilla bungana* - another purple one.

*Pulsatilla ambigua* - yet another purple one

A yellow Pasqueflower is *Pulsatilla flavescens*

A couple hundred yards way there were 100 artillery shells lining an entrance to a house.

On return, van stopped on a hill.

poppy - yellow

*Orostachys macrophylla* - large, pale green rosettes of succulent leaves - cf. *Sedum*

Driving down toward camp, shells again lined the roadside.

soyombo - the national symbol of Mongolia  
created by Zanabazar, Buddhist monk, 1635-1723. Lonely Planet, p. 118.

lunch.

missed the river raft trip because I got the time wrong.

off to see if we could spot argali sheep. = Marco Polo sheep

the largest, most robust bighorn sheep in the world.

Drove maybe 30 minutes on a track, failing to spot them two places.

Then, third place, we spotted two climbing toward a saddle ahead of us. One splendidly seen on the skyline with big horns in good profile. After 3-4 minutes, he soon went over the ridge and disappeared.

Then we spotted a group of 11 on a mountain face opposite us, above a clump of dark trees. Watched them 20 minutes.

We got the spotting scope on them. but people kept knocking it off the view with the sheep.

I saw two with horns.

Eventually the group went over the ridge on that side.

This is said to be the region of Mt. Baits. Nothing about it in Lonely Planet

Argali. *Ovis ammon* world's largest sheep

dramatic spiraling corkscrew horns.

Ammon or Amen was an Egyptian deity usually represented as a human with the head of a ram. Marco Polo was the first to describe one of the subspecies.

There are maybe 10,000 in Mongolia. Maybe 100 in Gun-Gulaat Park. The sheep is hunted in Mongolia, although some sources think this is illegal,

The females also have small horns, cf. Rocky Mountain bighorn sheep.

returned

dinner

July 13 - Sunday.

bright and sunny.

left the ger camp

upland buzzard on ground

got back to the ponds with all the waterfowl

brown headed gull

shellduck

2 swans and cygnets

16 swans in a group

Eurasian widgeon.

continuing, found a hawk's nest on a train bridge, with a lamb legs dangling down (pix)

presumably scavenged.

ovoo (pix)

raven

We crossed the divide, where we couldn't see anything in the rain on the way in, and could now see well. larch trees, a deciduous conifer.

trees grow where trees are - creating their own microclimate.

reached the huge Genghis Khan statue and museum. Tsonjin Boldog

The Genghis Khan Equestrian Statue, part of the Genghis Khan Statue Complex is a 40 metre (131 ft) tall statue of Genghis Khan on horseback, on the bank of the Tuul River at Tsonjin Boldog (33miles) east of Ulaanbaatar), The statue is symbolically pointed east towards his birthplace. It is on top of the Genghis Khan Statue Complex, a visitor center, with 36 columns representing the 36 khans from Genghis to Ligdan Khan. It was designed by sculptor D. Erdenebileg and architect J. Enkhjargal and erected in 2008.

biggest horseman statue in the world. They glorify Genghis Khan.

Supposedly this is the place where he found a golden whip in 1177.

Mongolian horsemen use a short whip, not spurs.

Inside in two museum rooms. ancient artifacts, 9th-6th century B.C. decorative and arrowheads, knives, bronze spearheads. horses bits.

outside, back at the parking lot, on stands

golden eagle  
vulture

We continued, and turned off on road to park/camp

crossed the Tuul River, with toll bridge.

brake trouble, with bad smoking. Driver undid the brake.

10 minutes later reached camp.

Terelj area- Lonely Planet, p.87.  
Gorkhi-Terelj National Park  
Khan Khentil Strictly Protected Area, p. 88

marvelous Pasqueflower on the way to the ger (pix)

lunch at camp

walk up the hill late in afternoon

Plantain

Willow herb - *Epilobium palustre* - cf. Fireweed, which it looks like.

*Galium verum* bedstraw

*Dianthus*, sp. a pink. Caryophyllaceae.

*Arenaria*

*Goniolimon speciosum* common name not found, except as Goniolimon

thistles

*Orobanche coerulescens* Broomrape  
*parasitizes* Artemisia. Like Indian Pipe. Purple flower.

hundreds of Pasqueflowers gone to seed

*Allium senescens*. onion. fields of it.

Edelweiss, a composite of composites.

*Leontopodium leontopoides*

poppies. *Papaver nudicaulis*.

visit to Turtle Rock. A natural formation that resembles a turtle, and something of a playground.

*Potentilla* - 8 or 10 of them in the book

*Polygonum viviparum*. Looks like bistort.

Forget me not. *Mysotis?* *Lappula?* several are similar.

*Achillea* sp. Yarrow

*Pedicularis flava*

willows.

Wildflowers of Wildflowers of Gorkhi Terelj National Park, Mongolia

<http://www.stonehorsemongolia.com/wildflowers-gorkhi-terelj-national-park-mongolia/>  
as much advertisement as description of wildflowers.

returned to camp

There was some burnout in the main power line.

No power, no water in the toilets. No candles in the ger.

Came back on about dark.

lots of *Artemisia*. here called Wormwood (cf. Sage)

many are allergic to it pollen.

*Astragalus* - several of them. Milk-vetch.

thistle

supper

found some Edelweiss a few yards outside my ger.

Now enough hot water to wash my face, and went to bed.  
with cuckoo calling in the dark.

July 14 -- Monday.

cuckoo calling, early a.m.

5.00 a.m. people cheering in the dining hall as Germany defeated Argentina to win the world soccer cup.

breakfast

trip to the monastery, though I did not walk up

pie wagtail wagging its tail. sometimes called white wagtail.

Ladybells. *Adenophora stenanthina*. Like Campanula,

I wandered about in the woods, larch forest, some aspen

aspen (*Populus tremula*) The U.S. quaking aspen is *Populus tremuloides*, so named because it resembled the Eurasian *Populus tremula*, and some think the U.S. species should be a subspecies of it.

Eventually I got inside the monastery gate. Very good wildflowers here

Tiger lily. Tiger lily. orange 6-merous.

*Lilium pumilum*

found a dozen or so

*Geranium* sp. blue flower. 2-3 species

Rose. *Rosa acicularis*

*Potentilla* - 8 in the book

shrubby *Potentilla* may be *Potentilla anserina*. Silverweed.

Inside the gate, on the road up to the monastery, there was a series of signs. I noticed one:

“One’s migrations from a bad birth to a bad birth are as numerous as the specks of dirt on the earth. Ones migrations from a bad birth to a good birth are as rare, comparatively, as the specks of dirt on the fingernail of a Buddha.”

The guard at the gate saw me writing in my spiral notebook.

“No.” He grabbed the book out of my hand, looked at it to see what I was copying, and tore out that page. I said I would like to copy what was on the back of the page, which he likely could not understand.

So I grabbed the notebook from him, and left before I might be attacked again. I said “Goodby” and started walking out. I did have my hiking stick on my hand, which he could see, and I might have hit him to get the book, but did not.

Returned to ger.

Lunch.

Left ger for drive to Ulaanbaatur.

walked across the bridge over the Tuul River.

Even on good highways you have to stop for horses, sheep, goats on the road. They also have much broken pavement.

Crossed the Tuul River again, and soon bumper to bumper traffic, especially coming out from the city.

reached Puma Imperial Hotel.

My skin has been doing well, but now there is some rash appearing on arms. I took a good shower and put the lotion on well.

I’ve quit taking Pepto Bismal. It locks me up.

Found a good computer open and available to get online. In the hall on the 3rd floor. Sent e-mail to Jane and did some research.

July 15 - Tuesday

early a.m. shower and got lotion on



Jane's e-mail says tragic weather in U.S.

One airline went bankrupt, and we had to change airline flights, resulting in mid-day departure. So we lost half of what was scheduled in the Gobi desert. Did not see the ice gorge.

Chingiss Khan airport. Domestic side has 4 different check in booths.

international side lists 14 departures for the day.

Flight on Aero Mongolia. Plane is Fokker 50

reached Dalanzagad, a town

elegant lunch

museum

Then drive to ger camp

There was air conditioning in the van, but you could hardly feel it.

The road is only a track across a stony gravel desert, nowhere graded or improved.

The Gobi gets some water. Their wet season is June-July.

camels - couple dozen bunched up in the middle of nowhere  
pit stop

not much growing, but a little short grass and onions

reached the ger camp. Gobi Tour Camp. Bayan Zag - name of location of the camp.

In two and a half hours of driving, we did not meet a single oncoming vehicle (though I saw one at a ger camp, one at a farm, and one motorcycle out in the fields.

There were multiple tracks made to avoid mud in the rainy season.

In my ger, there is a big rock hanging on rope in the middle (where there were previously stoves) holding it down.

Some sort of grain, maybe rice, in the pillow. Not particularly comfortable.

toward sunset, went to Flaming Cliffs, not far away.

This is the area where Roy Chapman Andrews found dinosaur eggs.

Dinosaur fossils are extremely well preserved here because of the dry climate.

The gravel is more or less rounded, polished by the sand wind erosion.

returned to ger camp

dinner

lots of stars and the Big Dipper and north star quite visible high in the sky.

The winter is cold but dry. There is little snow in the winter, and it mostly falls and disappears.

July 16 - Wednesday.

cool, not cold. Some bit of rain when I got up.

There are about 9,000 Asiatic ibex in the Gobi park  
*Capra sibirica*.

Visited camel farm.

drank fermented camel's milk  
tasted camel' milk butter

felt some camel's hair wool.

The woman in the ger has 10 children, 34 grandchildren

There is a village 8 km away, where the younger children go to school on a motorbike.  
But they live in this village in the winter.

camel ride

The camel kneels to mount.  
There is a bit through its nose.

We rode camels about an hour.

Notes on camels.

Mongolian (or Bactrian) camels have two humps and are smaller than the Arabian camel, or dromedary.

A few hundred of the world's last surviving wild camels are yet found in the Gobi desert (*Camelus bactrianus ferus*). (Wit and Bouman, p. 47, Cheng, p. 60)  
The wild Bactrian camel is called havtagai ("flat") in Mongolian. It is closely related to the domesticated Bactrian camel (*Camelus bactrianus*): they are both large, even-toed ungulates native to the steppes of central Asia, with double hump (small and pyramid-shaped). Most modern experts tend to describe it as a separate species from the domesticated Bactrian camel. It is restricted in the wild to remote regions of the Gobi and Taklamakan Deserts of Mongolia and Xinjiang. A few wild Bactrians still roam the Mangystau Province of southwest Kazakhstan and the Kashmir valley in India. They are also found along rivers in Siberia: they migrate there in winter. Their habitat is in arid plains and hills where water sources are scarce and there is very little vegetation; shrubs are their food source. (Wikipedia)

There is a group here from Taiwan for 31 days, spending 10 days in the Gobi.

We went to visit saksaul forest, after the camel ride. We had been to the edge of it on the camel ride, but they did not want to take the camels into the bush.

saxaul saksaul  
*Heloxylon ammodendron*.  
exists only in central Asia.  
photosynthetic stems, vestigial leaves.

morning glories

hundreds of ground squirrel holes.

visit to farm Del Brigade.  
15 families. built around an oasis spring, with irrigation arranged from there.  
"brigade" was a work unit term for the Communists, and the name survives from that era. Communists probably started it in this more aggressively irrigated form, though people must have found and lived near the oasis for centuries.

A women took us into fields where they grow garden crops - vegetables  
tomatoes

potatoes  
carrots  
onions

“Agriculture in Mongolia”

[https://en.wikipedia.org/wiki/Agriculture\\_in\\_Mongolia](https://en.wikipedia.org/wiki/Agriculture_in_Mongolia)

Salt cedar, *Tamarix ramosissima*. Second most important shrub in the desert. Not seen, not knowingly seen at least. Considered a bad invasive species in the U.S.

Two jerboa are endemic here.

38 endemic plant species.

The dominant grass is *Stipa gobica*.

return to ger

Watched a Roy Chapman Andrews video. American Museum of Natural History, 1988

made from surviving film footage taken on the expedition. The vastest part of these films have since degenerated and can no longer be used.

First expedition 1921-22. Spent the winter in China preparing. Then set out April 1922, in motor cars and trucks. Much troubled by muddy roads.

They did the first accurate mapping of Mongolia.

Andrews was looking for evidence of human origins. He believed that the origin of man was in Ethiopia, and hoped to prove it

Instead he found the first dinosaur eggs. A colleague found the eggs when he accidentally tumbled down a hill.

The eggs are not that big - about the size of a big potato

Cretaceous sediments contain dinosaurs.

Left to visit sand dunes in later afternoon. with temperature 115° F.

flat tire on the way

reached sand dunes. I walked up on the first dune. Moltsoᠭ els (els = dune) name of the dunes we visited.

toad-headed agama (a lizard), well seen. I watched six feet away, with my binoculars *Phrynocephalus versicolor*. It has some changing skin colors. Most common lizard in the Gobi.

Some people had gathered at the van to try to sell us something.

little girls were leading their camel around.

The most extensive sand dunes are: Khongoryn Els. These are 6-12 km wide and 100 km long.

returned to the ger.

dinner.

July 17 - Thursday.

Up early and got a cup of coffee at the restaurant. But no breakfast.

Left on van about 5.30 a.m, to make it back to airport in time to catch our flight.

On the ride now, saw lots of birds, over a hundred. Small birds rising up before the van.

Again, not a single oncoming vehicle. (one motorcycle in sight of airport)

Rio Tinto - big mining firm here. Australian. Here they operate Oyu Tolgoi, one of the world's largest copper-gold deposits. In some long term partnership with the Government of Mongolia. By the time it reaches full production in 2021, the International Monetary Fund estimates that Oyu Tolgoi alone will generate up to a third of Mongolia's GDP.

Mongolia has extensive mineral resources; mining now accounts for about half the industrial output, with mixed enforcement of environmental protection regulations (Wit and Bousma, p. 194).

reached the Dalanzagad airport in good time. And they had packed a breakfast for eating here.

flight back to Ulaanbaatur

Puma Imperial Hotel  
lunch

fighting a sore throat.

went to Natural History Museum, with only a rather small portion of it opened from relocation and upgrading.

One brought back from the U.S. May 6, 2013. U.S. Immigration and Customs Enforcement (ICE) officials returned a *Tarbosaurus bataar* skeleton to the government of Mongolia during a repatriation ceremony May 6, 2013, at a Manhattan hotel in New York. The skeleton was looted from the Gobi Desert and illegally smuggled into the United States. ICE special agents seized the skeleton after it sold at a Manhattan auction for \$1.05 million.

[http://science.nbcnews.com/\\_news/2013/05/06/18088489-its-official-mongolia-has-disputed-dinosaur-skeleton-back](http://science.nbcnews.com/_news/2013/05/06/18088489-its-official-mongolia-has-disputed-dinosaur-skeleton-back)

The Mongolians claimed it was *Tarbosaurus bataar*. Those who owned the fossil claimed it was *Tryanosaurus bataar*, and might have come from Montana or elsewhere, not Mongolia. But the Mongolians had good scientists and lawyers and made the claim that it was a distinctive species to Mongolia.

So the Mongolians have one of their dinosaurs back, as well as their wild horses.

saw a clutch of dinosaur eggs from western Gobi

back to the hotel

took the van to buy cashmere. With the help of Shinee. Huge cashmere store in a sort of shopping mall, but no yarn in the main store. So they took me into a basement where they were spinning the cashmere yarn. There I picked out and bought two spools.

musical performance - the Tumen Ekh Ensemble  
<http://tumenekh.wordpress.com/>

spectacular contortionist.

elegant good-by dinner in a sort of Roman Coliseum, but a Korean restaurant.

July 18 - Friday.

still fighting sore throat

left at 9.00 a.m. for the airport

reached Beijing

7 hour layover, 2 p.m. - 9 p.m.

fighting sore throat and needed water. I managed to buy a bottle for US \$ 2.

Then found a water fountain much later and filled my canteen.

But they searched my carry-ons just before boarding and made me pour it out.

polar route over the Bering Strait.

Reached Los Angeles

got shuttle to Radisson Hotel without much trouble

July 19 - Saturday

decent nights sleep

in something of a rush at the airport

huge crowds and long wait in security.

Hurriedly paid \$ 7.68 for a cup of coffee, a banana, and a decent blueberry muffin.

reached DIA about 12.00

caught 1.00 pm. Green Ride

and home

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Official tourism website: [www.mongoliatourism.gov.mn](http://www.mongoliatourism.gov.mn)

United Nations Environment Programme

[http://www.rrcao.unep.org/pub/soe/mongolia\\_land.pdf](http://www.rrcao.unep.org/pub/soe/mongolia_land.pdf)

Hustai National Park and Takhi

<http://www.owc.org.mn/macne/hustai/Takhi.htm>

MACNE is the Mongolian Association for the Conservation of Nature

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*Development Project*. Leiden: Nederlandsche Commissie Voor Internationale Natuurbescherming. 1998. In English. I got it ILL from a German library. 50 pages and a useful description of the first phases of release. I spent an hour or so in it.

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Online at:

<http://search.ebscohost.com.ezproxy2.library.colostate.edu:2048/login.aspx?direct=true&scope=site&db=nlebk&db=nlabk&AN=6075>

Document: English : Internet Resource Computer File.

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Foundation for the Preservation and Protection of the Przewalski Horse. FPPPH

<http://www.treemail.nl/takh/index.htm>

I downloaded a good photo. B-2\_jpg-FPPPH.jpg

and also copied it from the Van Cleaf book,

Photo gallery:

<http://www.treemail.nl/takh/gallery/index.htm>

with free permission to use the photos.

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ISBN 978-90-50111-236-6. Oversize book, With a DVD documentary disk, not present in the copy I got from Yale University Library. Excellent. Good text,

sometimes repetitive, first-hand memories of their efforts in reintroduction, good photos. Much beyond just the horse. Information on plants, other animals, Mongolian culture, the people around the park. Park successes, challenges, problems. This book was for sale at the Hustain Nuruu National Park bookshop, giftshop.

end Mongolia trip

# Xplore



A Przewalski's stallion leads a mare up a hill in Hustai National Park, Mongolia. Once nearly extinct, the only wild horse has been restored and once again roams free in Mongolia.

COURTESY OF CHRIS CARPENTER

# WILD HORSES, VAST DESERT

Mongolia's cultural and natural history both unique on Earth

**By Holmes Rolston III**

For the Coloradoan

I reached the ridge top and there they were — the stallion out front and five mares, his harem, following.

I celebrated seeing the only wild horse, Przewalski's horse, once nearly extinct, now restored, again free in Hustai National Park, Mongolia.

Mongolians call this horse the takhi, which means a "spirited horse." No one was ever able to break, or tame, this horse. Domestic horses have been bred from other species.

The horses moved down the neighboring ridge, nicely profiled against the skyline. They were making their way down to drink. We followed.

Finding greener grass near the river, they paused to graze, which allowed us to get a closer view. Using binoculars, I examined each of



**A Mongolian university student wears a replica of a costume worn by noble women in ancient times.**

COURTESY OF HOLMES ROLSTON III



**Author Holmes Rolston III holds a golden eagle used for hunting by Mongolians.**

COURTESY OF HOLMES ROLSTON III

**See MONGOLIA, Page C4**

# Mongolia

Continued from Page C1

the seven. The takhi is a stocky horse with short legs and looks somewhat like a coarse domestic pony. Their mane is stiff, erect, mohawk-like. There is no forelock.

When they lifted their heads to look around, I could see the massive head with long face and a big jaw. Their ears are long and stand up straight. Their eyes are set far back in the skull, giving a wide field of view.

These are in summer coat, short and smooth, beige, with yellowish white on the muzzle and belly. Their lower legs are dark. Sometimes their legs have stripes, but I couldn't see any.

Two mares were pregnant. That is further proof of this successful restoration of the oldest breed of horse today, the one surviving prehistoric horse. This horse has 66 chromosomes, two more than domestic horses.

## The brink of extinction

Wild horses were dominant on landscapes in Asia and Europe in Pleistocene times. The zebra is the wild horse in Africa today, also never domesticated. Eurasian wild horses continued into human memory. In earlier centuries, the wild tarpan, now extinct, was present.

In 1226, Genghis Khan was startled when wild horses crossed the path ahead of him. His own horse reared and he was tossed to the ground.

Przewalski was a famous Russian naturalist who discovered this horse in 1879. Some ancient cave drawings suggest the Przewalski horse 20,000 years ago. Earlier travelers had reported seeing wild horses, but Przewalski brought them to the attention of the Western and scientific world.

The full-grown horses proved impossible to catch, but some foals were caught. They were sent to European zoos and, aggressive in captivity, proved difficult to keep alive.

Przewalski's horse ceased to exist in the wild in the 1960s. The last well-documented recorded sighting was a lone stallion in the

Dzungarian Gobi Desert by a Mongolian scientist in 1969.

The species survived because of the captive breeding of about a dozen founder animals, which were nearly lost during World War II. In 1969, the only horses were in a zoo in Munich and a zoo in Prague. But veterinarians persisted. Now there are some 2,000 in zoos around the world. The Denver Zoo has four.

Mongolia was Communist from 1921-90. With the breakup of the Soviet Union, Mongolia became an independent democratic nation. Some Dutch conservationists saw an opportunity and found the new nation receptive.

## Icon of Mongolia

I saw horses everywhere on the landscape, maybe 10,000 of them. Horses are historically a linchpin of their cultures. "A man without a horse is like a bird without wings," according to an old proverb.

Mongolians have traditionally depended on the five "snouts" or "muzzles" that include horses, camels, sheep, cattle or yaks, and goats. Horses are used for herding the 100,000 sheep and goats that I also saw. They also milk their horses. I drank some fermented mare's milk.

Mongolia today has 2 million horses and 3 million people. Since a million people live in the capital, Ulaanbaatur, in rural Mongolia, there are as many horses as people. So the Mongolians welcomed the return of its most charismatic species.

The Dutch conservationists created the Foundation for the Preservation and Protection of the Przewalski Horse. They worried about the narrow genetic base, created a stud book and selected the best to be released.

As I landed at the Ulaanbaatur airport, I recalled how hundreds of Mongolians waited for hours at the airfield on June 5, 1992, watching for an airplane to land and hoping to catch a glimpse of the crates, each of which contained a takhi to be returned to the wild.

Reintroducing these captive-born horses exposed them to climate extremes, water and food shortage, disease and predators. Wolves killed eight in one night, though healthy adult horses can defend themselves by

kicking and biting. A stallion also may bite and kick his mares to get them to do what he wishes.

As we were returning to camp, to our surprise, we found a second group of a half-dozen even closer. One mare had a foal, six weeks old, sticking close and trying to nurse. A lone stallion up the hill later joined the main group.

I left hoping wolves would not get this foal. Wolves prefer to take foals, and may take up to one-third of them, as happened in 2002-04, when they killed 36 foals. Mongolians hate wolves, which also prey on their livestock.

The horses I saw were all born wild. Only one old horse, now more than 20 years old, survives from a second group reintroduced, born in the Netherlands. There are 33 groups in the park totaling more than 220 animals.

In one of the villages, at what they call the Nadaam festival, we watched a horse race. Mongolians do not race around a track but over a distance course, in this case 25 kilometers. Children ride as soon as they walk, so before they reach their teens, they are excellent riders. These light youngsters are preferred as jockeys.

We saw dust in the distance, and a minute later, the winning horse came over the finish line, instantly followed by the second horse, which had no rider. The jockey had fallen off somewhere in the distance.

But this horse still placed second. We protested that it had no jockey. The reply was "We were racing horses, not people!"

I was lucky to see argali, the largest, most robust big-horn sheep. There were two rams, splendidly profiled on

the skyline, with their enormous corkscrew curved horns. A group of 11 climbed a saddle and disappeared.

Mongolians still hunt with trained raptors. I held a golden eagle they had captured as an eaglet and raised, now a huge bird with wingspan as wide as my 6-foot height.

Ninety percent of Mongolia is arid grassland steppe or desert. You can drive all day without seeing a tree, on unimproved roads that are only a track. The Gobi is the world's coldest, northernmost desert and is bleak, stony, vast, harsh and even extremely hot in summer.

Mongolia is the most thinly populated country in the world. Driving to our ger camp and back two days later, nearly five hours of driving across the thin, rocky grassland track, we did not meet a single oncoming vehicle.

The Gobi is where Roy Chapman Andrews, the famous paleontologist, found the first dinosaur eggs when a fellow researcher accidentally fell down a cliff face. We visited that area and saw a clutch of eggs in a museum, surprisingly small and not much bigger than a potato.

We were fortunate to find some university students who had researched ancient costumes. They made their own; the men's outfits were for horsemen soldiers, the women's for noble ladies. They were modeling them on Buddhist temple grounds for a television show.

I left convinced that Mongolia's cultural and natural history both are unique on Earth.

*Holmes Rolston III is a Fort Collins resident and CSU distinguished professor and professor emeritus who enjoys traveling.*



Foal nursing

August 22, Friday. Trail Ridge Road.

Drove up on a somewhat cloudy day, no traffic on Big Thompson road, fair traffic on Trail Ridge road. Walked the boardwalk at the old beaver points. Spent the rest of the day on top. Walked to the Toll Memorial and scrambled up to the directional plate, cool but no wind, no rain. Rather good visibility under cloudy bright skies, and some low hanging clouds enhanced the aesthetics. Never saw the summit of Long's, but saw all but the summit, and striking clouds in and out of the Needles. Pikas, coneys, scurrying about below the parking lot.

Ate lunch in the parking lot that overlooks the gorge and the Never Summers just above the alpine visitor center. Prowled around a bit here and there. Maybe fifteen elk seen at a distance at the Alpine Visitor Center. Maybe thirty seen at a distance at Lava Cliffs overlook. Ravens and magpies. Then back down and took a nap in the Hidden Valley parking lot, now in some rain. Home about 5.30. Jane had been in a downpour.

Sept. 10-15, 2014. Montana, Missoula, Michael Mansfield Conference on Wilderness.

Sept. 10, Wednesday flew from Denver to Salt Lake and then to Missoula. Blossom's B&B. Reception there, then panel, with Smoke Elser, my former outfitter.

Sept. 11., Thursday. I spoke at 11.00 a.m. on "Why Wilderness."

Sept 12, Friday, conference continues.

Various people here from the Flathead region. Named for the Flathead Indians. Despite their name, the Flatheads do not, and never did, have flat heads. This paradoxical statement is explained by the fact that the Indians of the Columbia region, most of whom formerly bound up the heads of their infants to reshape them, considered their own heads as pointed, and contemptuously applied the term 'flat-heads' to their neighbors in the mountains, who did not do this but kept their skulls in the natural shape.

The Confederated Salish and Kootenai Tribes of the Flathead Reservation are the Bitterroot Salish, Kootenai and Pend d'Oreilles (Upper Kalispel) (pronounced: "pond-oray") tribes. These people never practiced head flattening, but the Columbia River tribes who shaped the front of the head to create a pointed appearance spoke of their neighbors, the Salish, as "flatheads" in contrast. The Flatheads lived between the



Cascade Mountains and Rocky Mountains. The Salish (Flatheads) initially lived entirely east of the Continental Divide but established their headquarters near the eastern slope of the Rocky Mountains. Occasionally, hunting parties went west of the Continental Divide but not west of the Bitterroot Range.

Line officer. In the U.S. Forest Service, each forest is typically composed of several ranger districts, under the overall direction of a forest supervisor. Within the supervisor's office, the staff coordinates activities among districts, allocates the budget, and provides technical support to each district. Forest supervisors are line officers and report to regional foresters.

Sept. 13, Saturday, with Christopher Preston, hiking in Bitterroots. Also along, Iheanyi Amadi, recently arrived from Nigeria, to do a second M.A. in environmental ethics. He teaches in a technological university in Nigeria.

Left 9.30 and drove to Hamilton, got sandwiches there, then drove up road to Blodgett Canyon overlook trailhead. Then on foot to Blodgett Overlook, decent trail, not too steep to Blodgett Overlook, nice view up the canyon. Lunched there. Lovely day, Lots of color in the understory plants, particularly the yellow *Apocynum*, Dogbane. Lots of Snowberry, *Symphoricarpos albus*, with bright white berries. Some excellent ponderosa. Burn some years back in last half mile, lodgepole regrowth shoulder high.

Returned, and drove to the canyon trailhead, and walked from there an hour into the canyon and an hour back. Lots of *Ceanothus*. Mountain ash, *Sorbus scopulina*,. Creeping Snowberry, *Gaultheria hispidula*, as near as I can figure, looks like a Partridgeberry in the East. Low vine, evergreen, mat-forming. . More good Ponderosa. Returned.

On drive back up the Eastside Road (east side of the Bitterroot River), a number of deer, one nice group of 6-8 with big buck in a yard. White-tailed deer.

Roadside, gray partridge, as near as we could make out.

On way back went to Lee Metcalf National Wildlife Reserve, beside the Bitterroot River. Established 1964. Approaching, saw deer and ruffed grouse in field. Returning, saw lots of waterbirds on a pond, but didn't have a scope or time to figure them out. One elk way off in a field.

Dane Scott is a rock climber and has a group called Friends of Climbing in the Bitterroots, or something like that. He has drawn criticism in some newspaper letters claiming that his climbers do not respect the canyon walls and leave trash.

Sept. 14, Sunday. Flew home.

Sept. 20, 2014. Hike to Lake Mitchell from Brainard Lake, with Phil Cafaro.  
Spectacular golden aspen.

I picked Phil up at 8.30. Drove down I-25 to Lyons turnoff, thence to Lyons, up S. St. Vrain to turnoff to Ward (left at road north to Allenspark, Highlands. Spectacular aspen began here and it was perhaps the best I have ever seen in Colorado, certainly on this side of the divide. Blue skies and excellent lighting, stark green and bright gold.

Reached Brainard Lake area, a fee area, but they took the National Parks Pass. Niwot Ridge evident on the way in. Lucked into a parking space at an area marked Long Lake cutoff trail. Then walked on blacktop about a mile to the Mitchell Lake Trailhead (passing the South St. Vrain trail, marked, and passing the Buchanan Pass-Mt. Audubon Trail, which is in the parking loop.

Hiked to Mitchell Lake, about a mile, good trail, plenty of people, too many with dogs, on leash. Lunch at Mitchell Lake, in a gorgeous setting, peaks in the distance, and flanks of Mt. Audubon. Sphagnum moss here, also Bog Birch (*Betula glandulosa*), turned red in fall. Lingered here a while midday, and then hiked out.

On the way back, we walked up to the Long Lake trailhead and walked up to Long Lake, maybe half a mile, and lingered there a bit. Peaks seen from here: Pawnee, Shoshoni, with steep face, Apache, Navajo. Then hiked out the Cutoff trail back to the car. Out about 3.30 p.m.

Home about 5.15 p.m.

September 26-October 7, 2014. Trip to Huntington, WV, Greensboro, NC, and Alabama.

Sept 26, Friday. Left in the wee small hours, after skin surgery on Thursday, and teaching an Osher class on Wednesday.

Reached Dulles airport o.k., but a little late, and rushed to find the Dulles-Charleston WV flight, only to find it delayed. Eventually we got on the plane, only to find that the flight attendant could not talk on the phone with the pilot. They could have just left the cockpit door open, but that was against the rules due to fear of terrorists. We had to get off the plane, and after a series of postponements over five hours, the flight was canceled. We were given a hotel room and a little voucher to eat.

Sept. 27, Saturday. Early flight to Charleston, though we were threatened with not being able to land there, due to fog over the airport.

Got rental car and reached Julia's about noon. She is suffering from Alzheimer's and confined to a wheel chair, though she has round the clock caretakers. She knew who I

was and could talk in bits of short sentences.

Monday, Sept. 29, drove from Huntington to Greensboro NC. Drive went well and some parts rather beautiful, through the lower part of West Virginia, and across some of Virginia, and into the North Carolina mountains, then to Winston Salem and Greensboro.

Mary Jack is further advanced with Alheimers, in a nursing home, and, so far as I could tell, did not know who I was.

Wednesday, October 1. Drove south to Atlanta area, stayed in motel at Norcross, Ga.

Thursday, October 2. Drove west to Birmingham, parts of this drive were scenic. Arrived at Forbes in time for lunch. Turned in the rental car.

Went to Red Mountain Park, 1,200 acres reclaimed from old iron mines. Nice area. Hiked about two miles to an overlook, Ishkooda Overlook. Moosewood = striped maple.

Friday, October 3, lunch with Cecil Culverhouse, one time Marion pastor, also studied New College, Edinburgh. His present (second) wife is Jane Childress, whose brother (at the University of South Carolina) wrote the physics text that Shonny used at CSU), and the aunt of Elaine Childress Thompson, Ernie Thompson's wife. In the afternoon, with Bill and Augusta Forbes, drove to Marion and my grandfather's old farm three miles outside Marion.

Saturday, October 4. Went to Perry Lakes Park. Adjacent to Marion State Hatchery ponds, and the Barton's Beach Cahaba River Preserve, 800 acres of mature hardwood floodplain forest, oxbow lakes, swamps, sloughs, streams, hammocks and higher ground environs. Climbed a 100-foot tall tower, reconstructed from a fire tower moved here, with view of the forest at all levels and topping out above the trees. This was done by Auburn University students, especially two women students.

Notable trees: bald cypress, cherrybark oak, swamp chestnut oak, overcup oak, sand post oak, basswood, red hickory, shagbark hickory, water hickory, pignut hickory (= white walnut), water and swamp tupelos, Florida maple, hophornbeam, blackgum, water-elm, slippery elm, sweetbay, American beech, two-winged silverbell, sweetleaf. 206 species of birds on their checklist. Heard pileated woodpeckers.

Lots of bald cypress with Spanish moss seen in, around, and from the tower.

Sunday, October 5. Went to church in the Marion Presbyterian Church, where I was baptized, over 80 years ago.

Prowling about the old farm, in the carriage house (= garage, but so named from the years when horse-drawn carriages were kept there) there is still one of the old Delco batteries, on top of the old engine generator, a 32 volt system that once lighted the house. 1910's. In those days granddaddy was more progressive than I later recall. Also there was an old ice box in here. The old blacksmith building is still standing. The anvil from it, which I had forty some years in my basement in Colorado, is now outside the old peahouse. Looked o.k., although somebody had tried to pain it half black.

Also found the old watering trough down near where the water pump belt-powered from the International motor once stood, and from this we could locate the old dug well, from which he pumped water. The water tower near the house has been long since gone. Ate a few pecans from the old far trees. The farmhouse chimney bricks were made and the chimney's originally built by slaves, in 1820's.

Recalling how granddaddy used to like clabber, with cream and sugar on it. we wondered exactly what clabber is. Clabber is produced by allowing unpasteurized milk to turn sour at the right humidity and temperature. Won't work unless the milk is unpasteurized. Over time the milk curdles or thickens into a yogurt-like substance with a strong sour flavor. Yogurt of various types has various bacteria added. Clabber forms from the bacteria naturally in the raw milk. Clabbered milk was regularly used in baking. It reacts with the baking soda to make biscuits and pancakes light and fluffy.

Also recalled the choice the grandchildren had at supper of cold milk, or warm milk, the cold milk from the kerosene refrigerator and the warm still warm from just being milked from the cow.

Went to Bobby DeYampert's grave (first cousin), died a year ago. Then to the Fairview Church site, where the cemetery was nicely kept in the midst of surrounding woods. Daniel Long, great great grandfather, and his wife buried here.

Then spent the rest of the afternoon looking up the old Daniel Long homesite, which I had marked on a topo map, but proved hard to find. Across the road (to the north) is Parker Hunting Preserve.

Mandy Stokes killed a 1011 pound alligator near Camden, 15 feet and 9 inches long., August 16, 2014, record size according to Safaro Club International.

Monday, October 6. Drove around the farm in Bill's John Deere Gator (all-terrain utility vehicle). Made our way to Lake Mary, named for mother, which also turned out to be on the GPS map system. Saw two deer, one a buck, on what was once mother's (and later my) land. Several fox squirrels. Lots of "wolf trees" in here, some nice ones, resulting from the days when they were in fence rows or isolated in open fields.

Bermuda grass is the prime pasture grass here, also with some Bahia. Cogongrass is

a bad invasive weed in Alabama.

Then rode to the bluff to the north, with privet hedge a great nuisance weedy shrub. There is here an Alabama champion American beech (though a larger one may have since been found). Impressive tree, and the light was just right to highlight it. Heard pileated woodpeckers..

Drove back to Birmingham and had supper with Mary Frances (cousin).

Tuesday, October 7. Lunch in the Botanical Gardens, and flight home at 3.40 p.m. Reached home o.k. about 8.30 p.m.

October, November, some mild weather and then a cold spell.

November 27, Thanksgiving Day.

Ran--jogged, or more accurately, fast-walked the Turkey Trot, with Shonny and John and Rolston and Ellie Jane. Did it in a trifle over an hour, or 4 miles at about 15 minutes for a mile. Nice day.

December 26-30, 2014. Friday through Tuesday. Trip to Huntington, WV. My sister Julia Hampton died. To Denver on Green Ride in snowstorm, 45 minutes late, but made the plane. Plane had to be de-iced and was late to Chicago, but made the transfer to Charleston WV, with decent weather in both Chicago and Charleston. Stayed at Woodlands Retirement Home.

Julia's Memorial Service on Monday. Returned to Charleston late that day. Tuesday, Dec. 30, left Charleston in early a.m. (up at 3.15 a.m.), take-off 5.20 a.m., flew to Charlotte in the dark, flew to Denver in the face of unusually strong headwinds, 45 minutes late. Denver, bitter cold, it had snowed all day Monday. Caught Green Ride on snow packed and icy roads. Saw 12-15 vehicles on I-25 which had gone off the road into the ditch. But home safe. That night - minus 18 degrees, though we had only minus 11.7 degrees at home.

end 2014.