

Trail Log 2013

January 6, 2013. Went to Cleon and Betty Kimberling's wedding anniversary, a brunch at Highlands Camp. Mostly sunny, and not bad at Highlands. Took Rolston, and came back through Rocky Mountain National Park, so he could try out his binoculars, which he won as a Cub Scout award. Saw about two dozen elk, in half a dozen groups, some nice bulls, one particularly huge rack still really in town. Fern Lake Fire, starting in October, and continuing in various breakouts from smoldering throughout November and December, has burned much of Moraine Park. They were rather surprised by this, winds drove it down from Forest Canyon to Moraine Park and they even feared for the YMCA camp, which was not damaged.

2012 was the hottest year on record by an average of one degree F.

January 13, 2013. Temperature -0.4 when I got up. Coldest day yet this winter, which has been rather cold, in the single digits at night, and no higher than teens and twenties in the day for several days.

January 14, 2013. Temperature -1.4

January 19, 2013. Drove up Poudre Canyon to survey the fire damage from the High Park Fire last summer. Second largest fire in Colorado history, and at one time over 1,900 people were fighting it. It was caused by a lightning strike and was first detected on the morning of June 9, 2012. It was declared 100 percent contained on June 30, 2012, See notes in Trail Log 2012.

Fine day. Little or no evidence of burn until about a mile before Stove Prairie turnoff. After that some burn now and again, and more on high ridges to the south. Canyon generally looks good, a couple places where the fire seems to have jumped the road south to north. No burn in evidence after Narrows, None in Rustic, Poudre Chapel area and further west.

Lunched at the wildlife turnoff (Big Bend) above the fish hatchery, and toward the end of lunch bighorns appeared. At one point I counted sixteen. Across the road but nicely visible. One had a yellow neck collar. Only one big ram, more than half curl. Others female, young males, and two yearlings. They stayed there over an hour, with several other cars stopping. I walked down to the campground, light snow on the ground, with lots of blown dry spots. Some deeper drifts. A dry winter so far.

On return drove up the Stove Prairie road about 4-5 miles, to the top. Lots of burn in here, but also patches and some larger areas that did not burn. I'm not sure how much just didn't burn and how much the fire fighters prevented from burning.

January 27-31, 2013, Richmond. Meeting at Union Seminary, Sunday, Monday, Tuesday noon, and at Ann Bryant's until fly back Thursday.

Wednesday was warmest day on record for January, in mid 70's. This produced a fast moving

squall line, and much of Virginia, including Richmond city, was under a tornado watch Wednesday night, but nothing came of it, except some winds and rain. Thursday morning was sunny.

Some of the annual spring weeds in bloom. Chickweed, *Stellaria media*, especially when we drove up to Marc Bryant's to check on a fire alarm. Various places: hairy bittercress, *Cardamine hirsuta*. Mint, henbit, *Lamium amplexicaule*.

On the Green Ride van home, I was spotted by Daniel McFee, who has read my work and used it in class. He teaches in Dept. of Religion and Philosophy, Mercyhurst University, Erie, Pa, north of Pittsburgh, Catholic school, and is often in Fort Collins, because he is married to an associate pastor at First Methodist Church, Fort Collins, so he has wife and children here. He went to Marquette and Duke University.

India 2013

February 23-March 9, 2013.

February 23, 2013. Saturday. Left 7.00 a.m., Green Ride pickup. Decent weather between storms, with another coming tonight.

Trouble in Denver with United because the travel agent had reversed my first and last names. Got that sorted out with a special agent there, but had relatively little time to make the plane.

In the process I lost my reserved aisle seats and she could only get me an aisle seat to Newark.

Decent flight to Newark, and an agent there was helpful. She got me a bulkhead middle seat, Newark to Delhi, which proved just fine. I had lots of leg room and could get up and out easily.

4 hours in Newark. Take off 8.40 p.m.

The flight was circumpolar, as we flew over Maine, Labrador, Greenland, Scandinavia, Russia far east of Moscow, and the right between Afghanistan and Pakistan, and on to Delhi. Over all this territory, I almost wondered if we might get shot down by the terrorists.

Smooth flight, 14 hours.

7,323 miles

1,604 miles - Denver to Newark

8,927 miles

Add in the Green Ride, and I traveled 9,000 miles.

Essentially we flew into the sun through a whole day. You could see the progressing daylight and dark on a screen right in front of you.

Reached Delhi about 9.20 p.m. on

February 24, Sunday.

The usual confusion through customs, though the agents were efficient. My bag had to be re-tagged in Denver with the name reversal, and I was apprehensive about it, but it did come through – almost the last bag.

I met the trip guide, an Indian, Rajveer Singh.

45 minutes on a van to Maidens Hotel, northern part of Delhi. Decent hotel.

February 25, Monday.

Delhi into Ranthambore Park (or spelled Ranthambhore)

decent breakfast, and I slept well.

Some sightseeing. Definitely in the third world. Auto rickshaws, cycle rickshaws by the hundreds.

India is right hand drive, from the English legacy.

Delhi is the old Muslim capital. New Delhi was constructed by the British in the 1930's.

Delhi is on the Yamuna River, which I saw, drove alongside it. Second holiest river in India.

Delonix rizia, a red flowered roadside bush.

Acacia, by the river.

Indians chew a cheap and bad chewing tobacco.

The national language is both Hindi and English.

In Delhi the traffic sign boards are in four languages: Hindi, English, Punjabi, and Urdu.

Saw the old fort, a dramatic ruin.

Neem tree, a medicinal tree
Azadirachta indica

The leaves are used in India, Pakistan to give baths to children suffering from skin diseases. Elders find it useful in controlling high blood sugar level and is said to clean up the blood. Neem is also used to give baths to the Muslim dead. Neem leaves are dried in India, Pakistan and placed in cupboards to prevent insects eating the clothes and also while storing rice in tins(natural pesticide). Neem leaves are dried and burnt in the tropical regions of Pakistan to keep away mosquitoes. These leaves are also used in many Indian festivals by making them into garlands.

The main trees are numbered by city authorities.

We visited a large roundabout with an Indian park in the center, the Arch of Triumph, a memorial to those Indians who died fighting for the British in World War I.

Rhesus macaques - seen

There are millions of stray dogs in India. People give them a little food, and tolerate them

Birds seen about the park.

White wagtail - a Siberian migrant here now

Common Myna

House Crow

Rock pigeon.

Driving along, there were myriads of portable stalls and hawkers.

Reached the train station. Crowded and confused. The guide engaged three porters to carry our luggage, partly on their heads, partly underarm, carried 3-4 blocks, and they waited to put it on the train. He said he knew one of the porters and called him on his cell phone to arrange it.

The train was a combination seat and sleeper deal, with bunks overhead and seats that can be folded down into a bed.

3-4 hours on the train. We passed, after dark, through town of Mathura, a town where Krishna is said to have been born 3,500 years ago.

Passed thousands of slum houses, in some deep poverty.

We picked up a box supper in Bharatpur, and continued on the train, now rather dark with most of the passengers in the sleeper compartments, with curtains drawn.

About 10.30 p.m., we got off at Sawal Madhopur. No porters and some troubles with luggage.

Took two taxis to Tiger Den Resort, 20 minutes away.

Decent large room.

Tuesday, February 26. Ranthambore National Park.

The Ranthambore National Park, spread over 1,334 square kilometers, along with its nearby sanctuaries, the Salai Manning Sanctuary and the Kail Devi Sanctuary, offers the best sighting of tigers in natural habitat since the forest remains dry eight months a year. The deciduous forest receives very little rainfall and has sparse undergrowth, and chances are that the big cat will be sighted. Ranthambore has a well-laid-out network of foot trails in the forest, which is divided into eight tourism zones consisting of savannah grasslands, ravines, perennial lakes and streams.

On July 24, 2012, the Supreme Court had announced an interim ban on tiger tourism in the core areas of tiger reserves across country. However, the court lifted the ban on October 17 as per the fresh guidelines framed by the National Tiger Conservation Authority (NTCA), which were notified on October 15. These guidelines permit tourism in 20 per cent of the core zone of tiger reserves.

Tourism season in Ranthambore begins on October 1, but this time with the court ban, bookings of Gypsies (a vehicle seating six) and canters (an open-topped truck seating 20) for a safari at the park hadn't begun until October 17. About 200 canters and an equal number of Gypsies operate safaris in Ranthambore. Drivers of these vehicles and about 125 guides are dependent on tiger tourism for their livelihood. As many as 1,040 tourists are allowed into the park every day, in two shifts of 520 each. The Supreme Court order lifting ban has infused fresh energy into not only the tourists, wildlife enthusiasts and tiger conservationists, but also in these people who depend on the tiger for their livelihood.

Various figures about the numbers of tigers, often 3,500 in all of Asia. In captivity, the best figures seem to be that there are 13,000 tigers, a somewhat enlarged figure from 12,164 found. This is 3-4 times the number now existing in the wild (3,500) Tilson and Nyhus, pp. 228-229.

tigers arrived in India, 12,000 years ago. p. 45

two million years fossil history, p. 53

biggest cat?

biggest cat in the sense that the biggest tiger individuals are bigger than the biggest lion individuals. But averaged out, the two species are of similar size, tiger females are smaller than males, there is variation in the subspecies, and often the weight of stomach contents is unknown. p. 61

The tiger is the biggest cat, 50 kilos heavier, and a head longer. BBC tiger program, right at the start.

A tiger needs to kill one large deer or similar animal a week, p. 178

Exxon Mobil continues to contribute over \$ 1 million a year to tiger conservation, p. 190.

There are about twice the number of people living in the tiger's geographical range as there were forty years ago, when Tiger Project started, p. 191.

There are no verifiable Indian tigers in zoos outside India. Mostly zoos have Sumatran and Amur tigers. p. 211.

white tigers, pp. 234-235. They are not albinos.

Up at 5.00 a.m., for tea and cookies at 6.15. Full moon setting. Off about 6.45, three of us in one open-topped 4WD and three in another. With driver and guide.

Long bumpy drive through a dry forest.
8 cheetal (spotted deer) with one nice buck

10 cheetal

jungle babblers.

We are going to zone 5. There is a mother tiger here with 3 cubs, 8 months old, and one adult male.

rufous tree-pie. *Dendrocitta vagahunde* cf. magpie nicely seen

green sandpiper. A migrant

moorhen - like a coot

red-wattled lapwing, like plover

white throated kingfisher, *Halcyon coromonda*

white-breasted water hen

6 cheetal

Chital. Cheetal. Spotted Deer, *Axis axis*. India's most common and visible deer. The only prominently spotted deer in the country.

6 sambar (pix)

Cervus unicolor - large deer with a shaggy, dark brown coat. They browse more than graze. Common over India. Often eaten by tigers.

4 sambar

3 hanuman langurs. A primate, a kind of monkey.

white-naped woodpecker. *Chrysocolaptes festivus*
rare here, an endemic. First heard, and later seen.

2 peacocks peafowl

8 peacocks

6 peacocks

nilgai - 6, in bushes

10 cheetal

The guide stopped the car to listen for the alarm calls of cheetal. When a tiger is near, they give alarm calls. Also the langurs give alarm calls.

heard the rutting call of spotted deer, cheetal.

white naped woodpecker, well seen

Lots of large strangler fig trees.

lots of birds at and around a sizeable lake, with a dam at the end.

pond heron. *Andeola greyii*

common kingfisher, but it isn't common.

red-vented bulbil

white throated kingfisher

Oriental honey buzzard. *Pternis ptilorhynchus* = Crested honey buzzard

crocodile (pix)

comb duck = nakta - with a protuberance on its bill

black winged stilt

black-tailed godwit

white-browed wagtail. *Motacilla maderaspatensis*

gray heron

painted stork

Great egret *Casmerodius albus*

Great thick-knee. *Esacus recurvirostris* = Great stone-curlew

wood sandpiper

dusky crag martin

brown crake - *Amauronia akool* unusual to see it so well

rose-ringed parakeet

nicely seen, drinking

Indian flap-shell turtle, seen through a foot or more of water

6 cheetal

large gray babbler

five striped northern squirrel (p. 128 in *Mammals*)

buffalo - domestic

10 langurs

6 cheetal

6 cheetal

10 cheetal

spotted owlet, nicely seen on a snag

30 langur

returned, bumpy ride, about 10.30 for breakfast

Only two vehicles in sections 1-2 had seen tigers, none in my group.

There are huge vans with 30 people in them, and noisy engines.

lunch

Back out at 2.30, to the same section 5

thick-bulled curlew

sambar buck

sambar doe

cheetal

sambar

nilgai

6 cheetal - bucks fighting (pix)

6 peacocks

back to the lake with the crocodile, now with two more, total 3

crested serpent eagle - nicely seen

10 cheetal

sambar

greater coucal

cormorant

Indian darter = anhinga

peacocks

12 langurs

sambar, two together, and rufous tree-pies, picking insects off of them

wild pig - rooting in the dirt

Sus scrofa. Ancestor of the domestic pig, domesticated for about 9,000 years. A group of pigs is called a "sounder."

checkrow - an Accipiter hawk, nicely seen in a tree, although we could not see the front. Like a merlin.

Almost back to the lodge, there were a dozen vehicles, with a hundred or more observers, watching a leopard spectacularly high on the distant skyline, virtually at the summit. Head and shoulders looking over the valley.

Returned to the lodge.

Wednesday, Feb. 27.

off at 6.25 am. Breakfast at 6.15 a.m. Full moon setting.

brown fish owl
peacocks
gray Francois, roadside

rose-ringed parakeet

cheetal
sambar
painted stork
sambar bucks, sparring
cheetal
rut call
nilgai

30 wild pigs (pix)

common hoopoe

12 sambar

We thought we heard sambar alarm calls, and we were trying to follow them.

20 cheetal

We had been assigned zone 3, but the guide thought there was too little action there, which we drove through, so they moved into zone 4. There is a tag slot on the front of the vehicle which they changed from 3 to 4, and back again as we returned.

tiger scat

tiger tracks

We reached an area where they had just seen a tiger, but we missed it - too late

large billed crow

A mile and a half up the road a van was paused and we stopped. They heard on a cell phone that the tiger was seen again back where we were.

So a fast drive back where we were.

I saw the tiger, rather briefly but nicely, some 50, maybe 40 yards down in the bottom of a draw, looking down from above. I could see slowly moving stripes through the bushes. At times you

could see most of the tiger, never all at once, but passing by. Stripes nicely seen, the tigress's head well seen, and you could see it from top back to feet. Splendid, saw it in a couple of openings, then it went behind a thick leaved green tree and came out beyond it. You could see her muscles rippling as she walked. Maybe a minute for the whole show.

This tigress is T-16, named Machli, (pronounced muh chū lee), a female 13 years old, born 1997. (Spelling of her name varies, Machali on the park website, but mostly Machli elsewhere.) She has had four sets of cubs. 3 cubs in 2001, 2 cubs in 2002, cubs in 2005, 3 cubs in 2012, and all the cubs have survived. Her mother had the same name, which means fish. There is a fish shaped mark on the side of her face. She was often found cooling herself in water.

She mated with Bamboo Ram.

She is a good breeder.

(Dates of her giving birth to cubs are not consistent in what I have read.)

From the park website:

<http://www.ranthamborenationalpark.com/ranthambore-machali.html>

Machali (T-16), the royal tigress is the most famed in India and is exclusively the pride of Ranthambore National Park. The glorious palaces, lakes and fort of Ranthambore are the major strong hold of Machali. It is the most photographed tigress in Ranthambore and is also being known as the "lady of the lake" since it can mostly be found along the water territory of the jungle. The tigress Machali has long been under media spotlight and has gained tremendous attention amidst the vast ranges of animal and tiger lovers. There could be many reasons behind her fame but the one and only thing that has captivated many attentions are her muscular and majestic look and her dominance at the whole Ranthambore jungle. Films books and even life time awards are such accolades that have lifted her name to greater extent.

The most noticeable thing in Machali is in her name. She has the fish shaped marking on the left part of her face. Her legendary fight with 14 foot long crocodile has really created a history and it was the first time since such an encounter has been recorded and filmed. Interestingly, Machali has been photographed many times and have gained a lot of popularity amidst the wildlife lovers. Many documentaries and short films have been shot for her and she had been the star of the wild tiger world. In addition to this many books have been written on her and her park; and even received a TOFT Lifetime Achievement Award for her contribution to conservation and the wider Rajasthan economy.

This renowned tigress was first witnessed during monsoons in 1997, probably in July and this was the time when people impressed with her majestic look and flexible movements. She gave birth to three cubs, one female and the other two male by mating with a large male tiger called "Bamboo Ram". The female one was being named "Sundari (T-17)" and the cubs were named "broken tail" and "slant ear".

By the end of December 2001 both these cubs separated from Machali. Soon after

Broken Tail and Slant Ear separated from Machali, she mated again with another male tiger called "Nick Ear". Bamboo Ram had died of old age when Broken Tail and Slant Ear were still with Machali and Nick ear had taken over his territory. By April 2002, Machali had given birth to her second litter, the two cubs named Jhumru (male) and Jhumri(female). By the end of 2004 Machali mated with another male tiger known as X-male and around March 2005 she again gave birth to two cubs namely Sharmeele (which means shy in Hindi) and Bahadur (Brave).

Machali became popular due to her muscular strength and was always being noticed for saving her cubs from other animals and male tigers. It is so interesting to learn that the male tigers really got afraid of her and upon intimidating they used to run away from her and her cubs. Since her common territory was the lakes around the Ranthambore Fort and so she had great encounters with many crocodiles; the legends of which are so popular even now.

Machali, the queen of the tiger dynasty is now in her devolving stage; a painful fact to be accepted. The royal tigress that once used to conquer the whole environment of Ranthambore for over a decade with her muscular hunks and impressive strength is now a toothless tiger that really needs feeding unlike the royal battle she won with 13 foot long crocodile at her enduring stage.

Certainly the elegance in her royalty still illuminates with her every movement and the grace is still clung with her every growing muscle. Perhaps this can easily be realized when she moves. Her inevitable legacy will survive forever. In fact, two of her daughters are now being shifted to Sariska Tiger Reserve when the reserve lost all its count so as to continue the dynasty of the tigers to rule in the whole jungles of Rajasthan.

Today, Machali has grown old and has lost almost all of her teeth and most of her territory as well. But still her royalty resounds at every nook and corner of Ranthambore.

Times of India story:

<http://epaper.timesofindia.com/Default/Scripting/ArticleWin.asp?From=Archive&Source=Page&Skin=TOINEW&BaseHref=TOIJ/2010/09/06&PageLabel=1&EntityId=Ar00103&ViewMode=HTML&GZ=T>

Ranthambore 'Machli' on her last legs Anindo Dey |TNN

Jaipur: A young calf tied to a tree just outside the Lakarda outpost may look strangely out of place at Ranthambore National Park. However, conservation has its strange stories in the wild. The calf was kept as a reserved food for Machli, the most famous tigress of the national park. More than 15 years of age now — the maximum a tiger can live in the wild — Machli's health is often unstable and her future is "uncertain." In the event she was not able to hunt, the calf will be given to her.

"Sometimes she is not able to hunt for days together. In such cases, she shrinks in size and in extreme cases, she may die. Therefore, we have to be ready with such

measures,” explained R S Shekhawat, director of the park.

Machli or T-16, is not only the most famous tigress of the park — thanks to it being sighted by numerous visitors — it has also given as many as 11 cubs to the park. Hence there was no surprise when, in April last year, the Travel Operators For Tigers (TOFT) gave her the ‘Lifetime Achievement Award.’

Machli had lost three of her teeth in fights with crocodiles to save her young ones in summer. “I have seen three instances when she killed a crocodile during my tenure. The crocodiles come up on dry land in summer and are a danger to the cubs,” said Shekhawat.

But with years the story has changed. Conservationists, though not willing, when coaxed into it, agree that her future is uncertain. “Anything can happen to her anytime,” they say.

Now she lives in the Lakarda area of the forest and has managed to add a bit more to her territory after the death of another tiger, T-4, beyond the Lakarda nullah.

Fading Star

The tigress is also called Lady of the Lake . Is the most photographed tiger in the world. She even has a fan page on the Facebook ‘Machli’ contributed to Ranthambore economy

Jaipur: Ranthambore's oldest tiger, Machli, is finding it difficult to hunt for her food. “In her prime, she not only ruled the Lacerta area but also had the Malik tala, Tambakhan, Padam tala, Rajbag and a lot of other areas beyond the fort to her credit.

Eventually, her daughter, T-17, snatched away some of her territory and others too were taken away,” says Schacht. In fact, two of the tigers relocated to Sariska are also her offspring.

According to an estimate by TAFT, Machli in the past 10 years has contributed more than \$10 million per annum to the economy of Ranthambore. Why then should a tigress so brave be called Machli ? “It’s because of the marks on her face that resemble a fish,” says Schacht. Something to watch out then for the lucky few who manage to spot her this time when the park reopens on October 1.

(Her age in this article is older than others give.)

There is a BBC documentary, “Queen of the Tigers,” by Colin Stafford-Johnson, aired October 19, 2012, which features her.

T-24, a tigress, which has no name, is 7 years old, and has killed 8 people. 7 of the eight killed were illegally in the forest. Last year, she killed two people, a teenager, and also the mother of a naturalist guide that Rajveer knows. She was illegally cutting grass inside the

park.

That tiger this year killed and ate a ranger, in zones 1-2. She ate part of the ranger before they were able to rescue his body.

plum-headed parakeet = *Psittacula cyanocephala*

returned to lodge.

Trip to the Fortress of Ranthambore in the afternoon, built 10th century.

With huge crowds of pilgrims there for the day.

Afternoon safari in zone 2

I list now mostly new bird species we have not seen before.

Drove some distance along a more or less stagnant stream, in rather good woods.

checkrow - an Accipiter

black drongo - nicely seen

2 crocodiles

nilgai (lots of pix)

tiger scat (pix)

We stopped at a ranger station. The ranger lives there. Solar panels, to pump water. There was an unusually clean toilet.

We stopped to look for a bird that Rajveer had heard call, and with outrageous good luck, saw a leopard in the brush, only 15-20 yards away.

It slipped further into the bush though it did not spook.

I saw it maybe ten seconds, the upper half of the body and the head quite well.

black-tailed mongoose, nicely seen.

crested serpent eagle

We returned to camp and walked down to the river to see painted sand grouse.

There were bats, greater mouse tailed bat.

We saw in the dark painted sand grouse, but I would never have known what they were.



Machli in the bush



Leopard in the bush

Thursday, February 28.

Up at 4.30, breakfast 5.30, off at 6.10 for the train station.

waning moon

We caught the train, this time a "chair car," and better than the sleeper.

Some camels drawing carts

Reached Bharatpur about 10.30 a.m.

transfer to the Bagh Hotel (means gardens)
with extensive gardens.

lunch.

2.00 p.m. To Keoladeo Ghana National Park. (pronounced kay ō lah dō)

Once a hunting preserve developed by a maharaja in the 1800's, originally an oxbow lake and wetland, much enlarged and managed.

went on a pedal rickshaw.

little egret
Indian pond heron
laughing dove
Indian roller
large egret
Northern pintail

common moorhen
common teal
purple heron

dartar = anhinga

imperial eagle, nicely seen flying.
little grebe
greater coucal

intermediate egret
common greenshank
common redshank
common teal
common coot

Indian spot-billed duck
black drongo

bar-headed goose, the highest flying bird in the world. Flies over the Himalayas. There is a documentary on this bird.

glossy ibis
greater spotted eagle

70 coots in a long line on a pond

Northern shoveler
Northern pintail

lesser whistling duck - I later heard the whistling in flight.

nilgai - bluebull. Male dark grey-blue With the general shape of a horse (lots of pix later)

Indian flap-shelled turtle - out on a bank.

Brahminy starling
purple gallinule

bronze-winged jacana
spotted owlet

black-crowned night heron
painted stork
Indian cormorant

jungle babbler

black-headed ibis, formerly called white ibis

purple heron
Eurasian marsh harrier

steppe eagle

nilgai pix.

wild pig
gray hornbill

There was not enough water coming into the reserve, and it was drying up. Rajveer took part in some protests that marched in the street and blocked some roads to get attention.

They did get the water allotments they needed.

Friday, March 1.

All day at the Keoladeo Reserve

grey hornbill
grey heron
pond heron seen with white wings flapping

We got into a boat, but waited a while to get a second boat.

Then for about an hour we were in boats, polled along a water course evidently dredged out some. Wetlands on both sides.

little egret
green sandpiper

The water was full of duckweed. *Azolla*

rosy-ringed parakeet
common teal
common crow
red-wattled lapwing

bronze-winded jacana

nilgai - female
sambar

dusky horned owl, adults and two young nicely seen

greater spotted eagle

We left the boats and walked along a dike.

shovelers, lots of them
gadwall

Eurasian marsh harrier. Two of them. When they circled over the lake, this spooked the shovelers and ducks, who flew up in flocks. A few minutes later they would settle down and return.

garganey - a duck something like a teal.

Eurasian widgeon
glossy ibis
coots

Indian spot-billed duck. Nicely seen in the scope, including the "spot" on the bill, between the bill and eyes, a loreal spot

big bee hive in a tree, covered with still bees.

spotted owlet

rhesus macaques

We reached some park buildings.

chestnut shouldered petronia, a sparrow hawk (rare)

black bittern

At park headquarters, Gertrude saw a jungle cat, as did Rajveer, but no one else saw it.

Walk through the interpretive center

lunch on the lawn

back in rickshaws for the afternoon.

painted crane - juvenile

bluethroat - in the bushes, which I hardly saw

lesser golden-backed woodpecker

greater spotted eagle

turtle

10-12 painted storks on an island (pix)

yellow bittern (rare)

black bittern - I finally saw it.

We reached a Krishna Temple, Keoladeo Temple, more or less the center of the park, and oxbow lake.

ruddy-shelduck

Indian flap shelled turtle

graylag goose

little green bee-eater

European spoonbills, a dozen, on a island

Eurasian widgeon

white-throated kingfisher

pheasant tailed jacana

tail is longer in the breeding season

green bee eaters

We walked in to see the Sarus crane. Two seen reasonably well, the tallest flying bird in the world. 1.6 meters. resident Some individuals can reach a height of 7 feet. Some

individuals can live to be 80 years old.

bar-headed goose, close up
comb duck

nilgai bull

cows

rickshaw ride back

long-tailed shrike

lesser goldenback (woodpecker) = flame-backed woodpecker *Dinopium benghalense*

green pigeon - two glimpsed in the air

Returned and stopped in an outdoor market.

English and Sanscrit are compulsory in the schools. People are 90% literate.

In the lodge, the electric power was often off and on for several minutes, and I got to carrying my flashlight in my pocket, and even took it nearby when I took a shower.

March 2, Saturday.

to the Taj Mahal.

off at 8.00 a.m. in van
big piles of cow dung, to be burned as fuel, their main fuel.

wheat fields. They plant in November and harvest in April. One crop. Mostly harvested by hand in small fields.

fields of mustard (= rape). Oilseed rape. (*Brassica napus oleifera*). They crush the seed for oil, also burn the stalks as fuel.

Rape seed is a major crop in India (mustard), grown on 13% of cropped land. Rapeseed oil is edible. It is the most favored vegetable oil in India for cooking, while in Europe it is used for the manufacture of biodiesel and is in great demand there. Rapeseed was the third leading source of vegetable oil in the world in 2000, after soy and palm. Rapeseed is the world's second leading source of protein meal. In Europe, rapeseed is primarily cultivated for animal feed and for biodiesel.

Natural rapeseed oil contains erucic acid, which is mildly toxic to humans in large doses but is used as a food additive in smaller doses. Canola is a specific variety of rapeseed bred to have a low erucic acid content. Canola was developed in Canada and its name is a combination of "Canada" and "Oil" (Canadian oil low acid).

Reached Fatehpur Sikri. Joined by local guide. This is a huge red sandstone fortress built by Emperor Akbar and was the capital 1570-1585. Now a deserted city on top of a ridge. Various sandstone buildings in various stages of ruin and preservation.

Parcheesi courtyard, with a huge Parcheesi board.

Yellow footed green pigeon.

roadside Eucalyptus

Egyptian vulture

Getting married now you both check your blood type and consult an astrologer.

Reached Agra, a bustling third world city.

water buffalo, dozens of them in the streets.

Reached the Taj Mahal, accompanied by the same local guide.

constructed 1631-1653 by Emperor Shah Japan, in memory of his wife. They were married 17 years and she produced 14 children, and died in childbirth.

20,000 people worked on building it.

Shan Japan, who built it, was deposed by his son Aurangzeb in the Agra Fort for the last eight years of his life, and kept in house arrest there.

The Taj Mahal is on the Yamuna River.

Semi-precious stones are inlaid in the walls.

Lunch - good lunch in a good restaurant.

Visited Agra Fort, another huge sandstone fort, and walked through it. We saw the rooms where Shan Japan was imprisoned by his son.

Returned to Bharatpur about 5.00 p.m.

March 3, Sunday.

Off at 8.00 a.m.. driving to Delhi.

We are going a different way for the first half of the trip to avoid protestors. They are jamming the main road, a protest march over pollution in the Yamuna River. Funds were allocated for cleaning up the river, but lost in corruption.

The result was several hours of driving through village India, totally third world.

The people are poor, though not in desperate poverty.

Eucalyptus trees.

Great piles of cow dung for fuel.

The roads are halfway decent at best, often poor, broken, bumpy. The road is often worse in the towns, maybe better in the more open country.

Went through a town, Karma, associated with Krishna.

Finally, we got back on the main road.

Rest stop and bought souvenirs for Rolston and Elie.

Box lunch on the van.

The roads have many speed bumps, as if these were needed.

Often in the same town I saw palaces (usually defunct) and poverty.

The driver got lost several times and had to ask bystanders for the route.

Finally we reached the Delhi airport, about 2.00 for a 3.50 flight.

The flight was half an hour late. Reached Raipur at sunset.

Spent night in Babylon International Hotel.

Flew in over lots of rice paddies, all dry now.

March 4, Monday.

Nobel laureate Rudyard Kipling's *Jungle Book* (1894), long used by the Cub Scouts for its moral fables, is set in Kanha country.

off at 8.00 a.m.

We drove in two taxis to Kanha, through Gandal and Salatekri. The road is not shown on my India map, though I marked it in red.

Paid toll in various places in wretched toll booths, and the toll roads seemed no better than the ordinary roads.

Often the paved part of the road was only a single lane, wide enough for one vehicle. If you met someone coming, you had to get half the car off the road onto a dirt side strip. Likewise

passing, you honked the horn, and the car or cart moved over and you passed with half the car off the blacktop on the dirt sidestrip.

Flame in the Forest. *Badaga monosperma*. A tree with orange-red flowers, with few or no leaves at flowering time. So it looks like a fire in the forest.

Drove through a mountain forest. Good forest and no people.

Then back on flat land with rice paddies.

India now has no vultures, or few. All were killed from a chemical used with people and livestock, when vultures ate the dead cattle.

Diclofenac sodium, a painkiller given to sick cows and buffalo, and humans. It is banned for this use in the U.S., and now in India, but still used. It affects the vulture's liver and heart. It is used in treatment of some human illnesses.

Use of diclofenac in animals led to a sharp decline in the vulture population in the Indian subcontinent, 95% decline in 2003, 99.9% decline as of 2008. The mechanism is, it is presumed, renal failure, a known side effect of diclofenac. Vultures eat the carcasses of livestock that have been administered veterinary diclofenac, and are poisoned by the accumulated chemical, as vultures do not have a particular enzyme to break down diclofenac. At a meeting of the National Wildlife Board in March 2005, the Government of India announced it intended to phase out the veterinary use of diclofenac.

The loss of tens of millions of vultures over the last decade has had major ecological consequences across the Indian subcontinent that pose a potential threat to human health. In many places, populations of feral dogs have increased sharply from the disappearance of Gyps vultures as the main scavenger of wild and domestic ungulate carcasses. Associated with the rise in dog numbers is an increased risk of rabies, possibly leading to the deaths of thousands of persons. The resulting multiplication of feral dogs in India and Pakistan has caused a multiplication of leopards feeding on those dogs and invading urban areas looking for dogs as prey, resulting in occasional attacks on human children.

The loss of vultures has had a social impact on the Indian Zoroastrian Parsi community, who traditionally use vultures to dispose of human corpses in Towers of Silence, but are now compelled to seek alternative methods of disposal.

Reached Kanha, about 11.30, taking less time than predicted.

The road into the resort looked terrible, but the resort was a large compound with elegant rooms. Resort named: The Baagh. (means "tiger")

Afternoon game ride, 2.45.

Kanha National Park, in its current form, spans the Kanha, Banjar, Mukki, and Halon Valleys. These four valleys were used as exclusive hunting grounds by the British. Significant over-hunting of the area's abundant wildlife led to a rapid decline in their numbers.

As a result, in 1931, these valleys were closed to hunting / checkers. In 1933, the Kanha

Valley was declared a sanctuary with an area of 250 sq km. In 1935, Halod Valley was added to the sanctuary which increased the park's area by an additional 300 sq km. Subsequently, in 1955, when Bandar Valley was added to the Sanctuary, the area came to be known as Kanha National Park. Mukki Valley was added to the park in 1970. By the time the sanctuary attained its National Park status, populations of both the Bengal Tigers and Barasingha / Swamp Deer had fallen to dangerously low levels.

When Project Tiger was launched in 1973, Kanha National Park was one of the nine Tiger Reserves in India that were selected. Kanha National Park's core area was by now 945 sq. km. - the largest wildlife reserve in Asia.

In addition to the core zone, there is a buffer zone of 1,005 sq km falling in four forest divisions - Mandla, Balaghat, Kawardha and Dindori that surround the park. The expanded buffer zone is referred to as the Kanha Tiger Reserve.

Lantana, an invasive bush, planted for its pleasant smell. But troublesome in the forest. Also invasive in the U.S.

Sal forest. Nice trees.

They were burning each side of the road as a fire break.

Found tiger tracks, pug marks.

They make open sand areas, in which they check for tracks.

Listening for alarm calls from deer or langurs, but heard none.

langurs, half a dozen.

swamp deer. barasingha (pix) *Cervus duvaucelii*

Those in two other vehicles had seen a tiger cross the road. Another vehicle had seen it cross another road.

So we went to the likely area to spot it, and waited maybe half an hour or forty minutes, going up and down the road a bit.

But no tiger.

We decided to go to another area where there is a tigress with 3 cubs, a year and a half old.

6 swamp deer

6 langurs

Reached that area to find it "very quiet."

One nice spotted deer buck, large antlers in the velvet.

Returned to the first area.

Another jeep claimed to have heard some alarm calls.

bamboo grass. bushes

common hoopie

swamp deer buck (pix)

sambar

2 gaur. seen in trees but not that well.

gaur, *Bos gaurus*. largest bovine in the world, a huge cow, or wild ox. Often called the Indian bison, but is not related to the American bison. A cross with domestic cattle is a "mithun." Very susceptible to rinderpest and anthrax, which has decimated herds in the past.

There is an Asiatic wild buffalo, *Bufalis arnee*, rare, dangerous. Troublesome because it breeds with cattle, but the cows cannot deliver the oversized calf.

The water buffalo or domestic Asian water buffalo, *Bubalus bubalis*, is a large bovine animal, frequently used as livestock in India.

machua tree. *Madhuha indica*. They were burning the leaves beneath the tree, to clear the area. The flowers will drop down and they collect them for a week or so. The flowers are used to make wind, flavor cakes, as an oil ointment.

There was a Gonda young woman who rode in the jeep with us – supposedly learning to be a naturalist. It is required to take one with you. She couldn't speak English and did nothing. She is paid for this. Some of the local naturalists who rode with us later did more talking and pointing out wildlife.

March 5. Tuesday.

Out at 6.00 a.m. Cold and I used the blanket to break the wind.

Indian muntjac = barking deer. A small deer. Makes a barking sound. I hardly more than glimpsed it on the woods.

Met rangers on elephants. Mahut. Mahoot. The driver of an elephant.

Asian turtle dove.

I am now mostly listing only new species of birds seen.

female swamp deer (pix)

peacocks.

spotted deer - may dozens seen during the day.

hoopie

Indian roller

black shouldered kite.

Researchers some years ago radio-collared nine tigers, and all died within a year or so.

Presumably they had much older radio collar equipment.

There is no radio collaring now.

turtle

The tiger is a solitary hunter, unlike lions. They never hunt together, though young cubs will be together at kills.

In Kanha, tiger names are keyed to the area of their territory. They do not use numbers as in Ranthambore.

5 spotted deer bucks, running, leaping across the road. Aesthetically pleasing.

Breakfast in the park.

A long drive and no tigers.

spangled drongo = hair-crested drongo

We met the rangers on elephants again (pix).

They saw a tiger shortly after we met them in the morning.

Returned for lunch. Lunch outside, by now quite warm, though hardly hot.

Afternoon. Off at 2.45.

We went to an area where some said they had heard the sound of cubs.

Monsoon rains start mid-July, and continue to late September or October. The parks close then. Too wet to use the roads.

Leopard tracks seen

wild hogs (pix)

gaur (pronounced go uh, as in the Portuguese enclave Goa. (pix)

largest bovine in the world.

We have heard nothing of any kill sites.

Toward the end of the day, we waited quite a while (half an hour) at one site.

They said a tiger had been seen there in the morning. Also they knew it was an area where a mother tiger and her cubs were frequently seen.

And suddenly: a tiger!

The car ahead (our group) first spotted it, with Rajveer, Tom and Sherry O'Shea.

They said they had heard a little noise in the leaves and spotted it, but had heard no alarm calls.

Then the tiger came out on the road and I could see it quite well. Walked across the road slowly and I got a full side view.

Splendid, and I could see the rippling muscles again.

Then she went into the bushes and disappeared.

Great luck, even if they knew the area in which to look.

Tom O'Shea in the car ahead of me got a great photo.

This is the area known as Mahavir, and the name of this tiger's mother is Mahavir Bali (bali means tigress), which means the tigress of Mahavir.

She has three cubs and the tiger I saw was one of her daughters. Two female cubs and one male cub.

So this is a daughter of the Tigress of Mahavir. She is 18-20 months old, a subadult.

Saw two chickens on the way back. Red jungle fowl. So on one great day we saw a tigress and a leopard and on another great day we saw a tigress and the ancestor of all domestic chickens.

peacocks

new birds:

lesser adjutant stork

wooly necked stork

Eurasian turtle dove.

There are almost 65 tigers in Kanha, maybe 15 males.

There are about 56 tigers in Ranthambore, maybe 12-15 males.



One elephant forest guard was killed in Kanha last year. He was not on an elephant but walking in the woods to get it. It ate part of him, as also did her cubs, but they rescued part of his body.

We watched a BBC film DVD during supper, narrated by David Attenborough. "The Tiger" made in 1986.

chēētal. Attenborough's pronunciation.

In the film a tiger kills a langur.

langur "the eyes of the forest"

March 6. Wednesday.

Out at 6.00 a.m. Fairly long queue at the entrance station.

swamp deer (pix)

golden jackals (pix)

found good pug marks, and a place they claimed the tiger had been sitting, with one spot with urine.

Jungle owlet

breakfast on the hood of the 4WD

black stork

2 jackals lying the road. They just lay there, stayed and didn't spook for 20 minutes,

later a 5th jackal running in the road ahead of the 4WD for quite a way, a quarter of a mile.

no tigers. They thought they heard a couple alarm calls, but mostly they were going where they thought the pug marks were headed.

returned for lunch 11.30 outdoors.

off til 4,30 p.m.

sal = *Shorea robusta*. shala tree - species of tree belonging to the Dipterocarpaceae family. often the dominant tree in the forests where it occurs, sometimes dense forests of huge trees. Evergreen or dry-season deciduous. In legend, Buddha was born under one. Sal is one of the most important sources of hardwood timber in India, with hard, coarse-grained wood that is light in colour when freshly cut, but becomes dark brown with exposure. The wood is resinous and durable, and is sought-after for construction, although not well

suited to planing and polishing. The wood is specially suitable for constructing frames for doors and windows. The dry leaves of sal are a major source for the production of leaf plates and leaf bowls in northern and eastern India. The leaves are also used fresh to serve ready made paan (betelnut preparations) and small snacks such as boiled black grams, gol gappa, etc. The used leaves/plates are readily eaten by goats and cattle that roam the streets freely.

continued on visit to tribal villages

first village, Gonda people. for which the ancient super continent Gondwana land is named.

woman sifting rice to get the fungus grains out

In their gardens, tomatoes, potatoes, maize, all from the New World.

coriander

woman making blocks for a house with walls made of mud, cow dung, and rice straw.

large dug well from which they dip water in buckets.

and also fitted with an electric pump

They irrigate their gardens Nov through June 15.

Lots of hand pumps have been put in by the government, and women and youth often seen pumping and getting good flow of water,

visited second village, Bega tribe.

village name Cuichrangdur

No electricity in this village

though a tourist lodge had given for one main home a solar power unit that would light just two electric bulbs.

The people in this village were moved out of the park in the 1970's

over 40 years ago, and some of the people remember this.

The government would like to re-locate them again and put this land in a buffer zone, but they don't want to do it,

though I could wonder in his poverty whether their lot could be any worse if moved. Likely to be for the better.

returned and took a ride at twilight into dark over a road to look for tigers, which I thought

wasted effort.

But they did point some fireflies in some dark woods.

returned and dinner outside by the fire.

March 7, Thursday.

up and out 6.00 a.m. frosty breath.

2 gaur (pix)

25 spotted deer

heard call of jungle fowl

white rumped shama

peacocks in display (pix)

stayed quite a while at a spot where spotted deer were bunched up and looking up into the forest, not eating.

The guide in another car said he had seen a jackal and thought a jackal had taken a fawn, which he heard scream.

The tiger is successful in a hunt only 1 in 20 times.

breakfast in the forest in the pavilion area.

returned for lunch.

Left the hotel for drive to Naipur 1.00 p.m.

stopped to see fruit bats, roosting in some trees and Tom tried to get closer and scared them into some splendid flight displays

Indian flying fox

Pteropus giganteus

back on the road for a six hour drive to Naipur, which proved an ordeal.

One huge traffic jam of trucks stopped to pay their taxes crossing state borders, messed up by some road paving.

We could have gotten stuck there for the night, but the driver did a lot of pulling around and found some back alleys.

ox carts

lentils

The lentil (*Lens culinaris*) is an edible pulse/bean. It is a bushy annual plant of the legume family, grown for its lens-shaped seeds. It is about 40 centimeters (16 in) tall and the seeds grow in pods, usually with two seeds in each.

Lentils have been part of the human diet since the achromic (pottery nonproducing) Neolithic times, being one of the first crops domesticated in the Near East. Archeological evidence shows they were eaten 9,500 to 13,000 years ago. Lentil colors range from yellow to red-orange to green, brown and black. Lentils also vary in size and are sold in many forms, with or without the skins, whole or split.

naan (bread). Naan or Nan is a leavened, oven-baked flatbread. It is typical of and popular in West, Central and South Asia. A typical naan recipe involves mixing white flour with salt, a yeast culture, and enough yogurt to make a smooth, elastic dough. The dough is kneaded for a few minutes, then set aside to rise for a few hours. Once risen, the dough is divided into balls, which are flattened and cooked. Served with butter or ghee melted on them. Nigella seeds are commonly added to naan as cooked in Indian restaurants.

drove through Fench Tiger Reserve, but did not stop

stopped at a restaurant for toilets with a banyan tree said to be nearly 500 years old.

Indian people were quite courteous without exception. The main challenge was long rides on bumpy roads through Indian villages, dodging everything from ox carts to huge lorries, motorcycles, bicycles, rickshaws, both pedal and motorized, monkeys to water buffalo. You need a good driver, a good horn, and good luck.

even bumpier 4WD roads.

reached Naipur, 7.00 p.m. and thankful the drive was over.

excellent hotel.

March 8, Friday.

Up at 4.30 a.m. breakfast at 5.30
6.00 off to the airport

Flight back through Jaipur and then to Delhi, 3 one half hours. fair flight.

Air India.

India has over a billion people, 1.3 billion.

reached Delhi. Long ride to visit Qutb = Qutub.

Qutub Minar, soaring high tower minaret, started 1193, after defeat of last Hindu kingdom.

slightly tilted, but nearly 1,000 years old.

lunch nice restaurant

to visit Humayun's tomb, something of a challenge to the Taj Mahal built by the senior wife of Humayun, second Mughal emperor.

to visit Kashmir gift store

fine dinner in Raddison Hotel

check in at airport

Delhi - Newark

depart 11.50 p.m.

long but more or less decent flight. 15 hours.

Halfway around the world and across an ocean I never saw, all in the dark.

Essentially we were stretching out the night - moving 500 mph and the daylight advancing 1000 mph

March 9, Saturday

Arrived in Newark in the dark.

Customs was a bit of hassle with heavy duffel bag and I found my Denver flight canceled on account of snow in Denver.

Got a standby for a 9.00 a.m. flight and got on it.

Wet runways and snow on the grass.

Reached Denver 11.15 a.m. landed in snowfall, with wet runways.

Green Ride home in snowfall. Wet roads, often slushy.

Home at 1.30 p.m.

46 hours since I woke up, though I slept pretty well on the plane.

Lots of complaints about the Forest Rights Act, or, full title: Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights), 2006. Each family is entitled to 4 hectares of land in the forest. Much abused, and people claiming land who live in cities.

Tilson and Nyhus, pp. 306ff

In Nepal King George V and his party shot 39 tigers in 11 days in 1911-1912.

The Maharaja of Nepal and his guests shot 433 tigers between 1933 and 1940. p. 316

Noble royal hunters could brave dangers, and they also visited local chiefs and made some claims of protecting the people from tigers.

In Nepal, in a study a few large males dominated reproduction, having territories with several females. Other males could not command territories or did so only briefly, with little reproduction. This made for more inbreeding.

Further, when a bigger male took over the territory of a lesser male, he killed any cubs. Otherwise the female would not come into estrous for over a year. Overall, the primary cause of the death of cubs was infanticide. This further makes for less genetic diversity. pp. 335-336.

India 2013 Bird List

white wagtail - a Siberian migrant here now

common myna

house crow

rock pigeon.

jungle babblers

rufous tree-pie. *Dendrocitta vagahunde* cf. magpie nicely seen

green sandpiper. A migrant

moorhen - like a coot

red-wattled lapwing, like plover

white throated kingfisher, *Halcyon coromonda*

white-breasted water hen

white-naped woodpecker. *Chrysocolaptes festivus*
rare here, an endemic. First heard, and later well seen

peacocks peafowl

Indian pond heron. *Andeola greyii* seen with white wings flapping

common kingfisher, but it isn't common.

red-vented bulbil

Oriental honey buzzard. *Pernis ptilorhynchus* = Crested honey buzzard

comb duck = nakta - with a protuberance on its bill

black winged stilt

black-tailed godwit

white-browed wagtail. *Motacilla maderaspatensis*

gray heron

painted stork - 10-12 painted storks on an island (pix)

great egret *Casmerodius albus*

great thick-knee. *Esacus recurvirostris* = Great stone-curlew

wood sandpiper

dusky crag martin

brown crake - *Amaurionis akool* unusual to see it so well

rose-ringed parakeet, nicely seen, drinking

large gray babbler

spotted owlet, nicely seen on a snag

thick-billed curlew

crested serpent eagle - nicely seen

Indian cormorant

Indian darter = anhinga

checkrow - an Accipiter hawk, nicely seen. Like a merlin.

brown fish owl

gray Francois, roadside

large billed crow

plum-headed parakeet = *Psittacula cyanocephala*

black stork - nicely seen

painted sand grouse.

little egret

laughing dove

Indian roller

large egret

Northern pintail

common teal

purple heron

imperial eagle, nicely seen flying.

little grebe

greater coucal

intermediate egret

common greenshank

common redshank

common teal

common coot – 70 coots in a long line on a pond

Indian spot-billed duck

bar-headed goose - the highest flying bird in the world.

greater spotted eagle

Northern shoveler

Northern pintail

lesser whistling duck - I later heard the whistling in flight.

Brahminy starling

purple gallinule

bronze-winged jacana

black-crowned night heron

jungle babler

black-headed ibis, formerly called white ibis

purple heron

Eurasian marsh harrier

steppe eagle

gray hornbill

grey heron

green sandpiper

rosy-ringed parakeet

common teal

common crow

red-wattled lapwing

bronze-winged jacana

dusky horned owl, adults and two young nicely seen

greater spotted eagle

shovelers, lots of them

gadwall

Eurasian marsh harrier. Two of them. When they circled over the lake, this spooked the shovelers and ducks, who flew up in flocks. A few minutes later they would settle down and return.

garganey - a duck something like a teal.

Eurasian widgeon

glossy ibis

Indian spot-billed duck. Nicely seen in the scope, including the 'spot' on the bill, between the bill and eyes, a loreal spot

spotted owlet

chestnut shouldered petronia, a sparrow hawk (rare)

painted crane - juvenile

bluethroat - in the bushes, which I hardly saw

lesser golden-backed woodpecker

greater spotted eagle

yellow bittern (rare)

black bittern - I finally saw it.

ruddy-shelduck

graylag goose

little green bee-eater

European spoonbills, a dozen, on a island

Eurasian widgeon

white-throated kingfisher

pheasant tailed jacana
tail is longer in the breeding season

green bee eaters

Sarus crane. Two seen reasonably well, the tallest flying bird in the world. 1.6 meters.
resident Some individuals can reach a height of 7 feet.

bar-headed goose, close up

comb duck

long-tailed shrike

lesser goldenback (woodpecker) = flame-backed woodpecker *Dinopium benghalense*

green pigeon - two glimpsed in the air. Others seen later.

Yellow footed green pigeon.

Egyptian vulture

common hoopie

Asian turtle dove

Indian roller

black shouldered kite

spangled drongo = hair-crested drongo

red jungle fowl

lesser adjutant stork

wooly necked stork

Eurasian turtle dove

jungle owlet

white rumped shama

123 species seen

References

Richard Grimmett, Carol Inskipp, and Tim Inskipp, *Birds of the Indian Subcontinent*, Oxford University Press, 2011. Best of the bird guides.

Richard Grimmett, Carol Inskipp, and Tim Inskipp, *Birds of India: Pakistan, Nepal, Bangladesh, Bhutan, Sri Lanka and the Maldives*. Second edition. Princeton: Princeton University Press, 2012.

Looks like they did a volume with OUP in India and with Princeton UP.

George B. Schaller, *The Deer and the Tiger: A Study of Wildlife in India*. Chicago: University of Chicago Press, 1967, reprinted 1984. I read it in Tom O'Shea's copy in the Delhi airport.

Schaller is 80 years old, published a book of memories last year. He was born in Nazi Germany, father a German diplomat, mother an American.

She brought him to the U.S. after the war. (I later reviewed this book: *Tibet Wild: A Naturalist's Journeys on the Roof of the World*. Washington: Island Press, 2012).

Sinharaja Tammita-Delgada, *A Traveller's History of India*, 5th ed., Northhampton, MS: Interlink Books, 2011. Sherry O'Shea was reading a copy and I looked at it.

The Ranthambore Foundation publishes TigerLink, a news letter that serves as a valuable resource library and is a strong pressure lobby to counter misguided development policies of the government. It is distributed widely, especially among policy makers, decision makers, experts and NGO's concern with tiger conservation across the globe. It also serves as an information base for media professionals and those seeking concise information on tiger conservation issues.

<http://www.conservationindia.org/resources/report-tiger-link-%E2%80%94August-2011>

Valmik Thapar, *The Tiger: Soul of India*. New Delhi: Oxford University Press, 2011. got it ILL from the University of Wyoming. Half reproductions of tiger in art and lore across the centuries, half text, quoting various others, and the author's own sightings of tigers. Nothing about tiger natural history or conservation.

Valmik Thapar, *The Last Tiger*. New Delhi: Oxford University Press, 2006. Copy at CSU.

generally a bleak picture, with dysfunctional government, inept rangers, foresters, and much corruption and poaching. With extensive annexed documents, letters.

Ranthambore (Ranthambhore) is very fragile, a tiny island. Nearly 100,000 people with 40,000 livestock live around the periphery of the park. But it is still the finest place in the world to see wild tigers. p. 131.

Israel, Samuel and Toby Sinclair, eds. *Indian Wildlife*. Insight Guides. 2nd. ed. Boston: Houghton Mifflin, 1993. Useful description of both the wildlife and the park areas.

A tiger conference, "Tiger 2000" was held in London in 1997. A book came out of it:

J. Seidenstricker, S. Christie, P. Jackson, e's., *Riding the Tiger: Tiger Conservation in Human-Dominated Landscapes*. Cambridge University Press, 1999.

Ronald Tilson and Philip J. Nyhus, e's., *Tigers of the World: The Science, Politics, and Conservation of Panthera tigris*. 2nd ed, Academic Press (=Elsevier), 2010, A first edition was 1987, printed typescript, and in CSU Library. I got the 2010 edition ILL from UC Boulder. Excellent resource and nicely done. Articles are seriously scientific but also relate conservation, people, policy problems, often in the first person experience of the contributors. Some references above to this 2010 edition.

end India

Searching for tigers in India

By Holmes Rolston

For the Coloradoan

A tiger! There! Black stripes moving slowly through the bushes.

I was seeing with my own eyes the largest, most charismatic cat on Earth — and the most endangered. Looking down a draw, 40 yards off, I watched the tigress creep forward. For a moment, I could see her head well. Then she disappeared behind a thick-leaved tree.

Gone.

No. She reappeared beyond, this time in enough of an opening that I could admire her muscles rippling, accentuated by the flowing black stripes framed against her yellow coat.

We had been at this spot a half-hour earlier, seen nothing and passed on. But we

hastily returned, hearing others had seen her. Two minutes later and we would have seen nothing.

I was in Ranthambore National Park in India, spending two weeks in search of tigers. We were on the prowl in an open-topped four-wheel-drive vehicle and had seen tracks, called pug marks and scat, and also heard the alarm calls langur monkeys give. They are the eyes and ears of the forest, and alert the cheetah, or spotted deer, who likewise call in alarm.

The tigress we are seeing is T-16, named Machli, the famous tigress queen that is 13 years old. Her name means fish, and there is a fish-shaped mark on her face. She is a good breeder, with four sets of cubs.

She is also especially muscular, a good hunter. Although

many tiger cubs starve, all her 11 have survived. She once killed a 14-foot crocodile.

Another tigress, T-24, in the next zone south has killed eight people. "She must be a man-eater," I protested. "In the states, we'd put down a grizzly that had killed like that."

I was told she wasn't a man-eater, because seven of the eight killed were not supposed to be in the forest. Last year, she killed the mother of a naturalist guide who was illegally cutting grass inside the park. The naturalist was a friend of my guide.

T-24 did kill a ranger earlier this year. She and her cubs had half-eaten the ranger before other rangers were able to rescue his body.

That evening, toward twilight, we heard an unusual



With more than an estimated 1,400 tigers, India is home to half of the world's population of tigers. However, the chances of seeing one in the open like this are rare. COURTESY OF THOMAS O'SHEA

bird call and stopped to look. We found no bird, but with outrageous good luck there was a leopard in the bush, only 15 yards away. It looked at us for 10 seconds, then faded into the bush.

What a day — a tiger and leopard.

The tiger is the largest cat. The biggest males are 110 pounds heavier and a head longer than the biggest lions. Females are smaller, and some tiger subspecies are smaller, so big lions can outsize some tigers. Records are confusing because, as big eaters, the weights of trophy tigers can include a full stomach — especially when hunters used prey for bait.

I saw my second tiger a week later at Kanha National Park. Late on the second day of searching and lingering where a tigress had been spotted in the morning, we heard the sound of leaves crackling but could see nothing.

Then, black stripes moving in the dark bush. We held our breath. This time the tiger obligingly and rather casually walked out onto the forest road in full view 35 yards away. The tigress looked at us, walked a little further down the road, paused at the other edge and



Holmes Rolston and guide Rajveer Singh are pictured. COURTESY OF HOLMES ROLSTON

disappeared.

A colleague, Tom O'Shea, a wildlife biologist from Glen Haven, was right beside me and managed to get a good photograph.

Still looking for her down the road 10 minutes later, a hen and a rooster darted from the roadside into the bush. This was the red jungle fowl, the wild ancestor of all domestic chickens. And there were other interesting birds.

India rich with wildlife

At Keoladeo Ghana National Park, a bird refuge, I saw dozens of bar-headed geese. These are the highest-

flying bird in the world, flying over the Himalaya Mountains to get here from Siberia.

Using a rickshaw to get about the refuge, I also saw the tallest flying bird in the world. The Sarus crane can reach a height of 7 feet. These cranes can live to be 80 years old.

A tiger, unlike lions, prefers to hunt solitary, stalking in forests. The black stripes and yellow tawny body provide surprisingly good camouflage in the wooded-bushy terrain it prefers. That makes them hard to spot. We stalked

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Tigers

Continued from Page C8

the tigers resolutely for days up and out at daybreak, back in the afternoon until dark and saw only two. I consider myself lucky.

I saw cheetal by the hundreds. The largest Indian deer is the sambar, which we also saw. Harder to see were barasinga, or swamp deer. I also saw nilgai, a large antelope. The males, blue bulls with dark blue-gray coats, are the size of and have a profile like a horse.

Half a dozen times we spotted gaur, a wild cow that is the largest cow in the world. Huge and dark colored, they are often called the Indian wild bison, though unrelated to American buffaloes. We also saw a hundred or more wild pigs, ancestors of the domestic pig, and a dozen jackals.

A tiger needs to kill one of these large deer, antelope or gaur about once a week. It succeeds in only one of 20 chases.

Future of the India tiger

Nobel laureate Rudyard Kipling's "Jungle Book" is set in Kanha country.

Half the remaining tigers in the world are in India. A re-

cent estimate is 1,410 in more than 43 reserves. Most reserves are small with a dozen or fewer tigers. There are about 55 in Ranthambore and about 65 in Kanha.

India launched a flagship program, Project Tiger in the 1970s, with powerful support from then-prime minister Indira Gandhi. That program has been praised as a success, although recent studies find management effectiveness ranges from very good to poor. The main threats today are loss of habitat and poaching for body parts, largely sold in China and Tibet.

Earlier, many tigers were shot for sport. The Maharaja of Nepal and his guests shot 433 tigers between 1933 and 1940. King George V and his party shot 39 tigers in 11 days in 1911-12. Noble royal hunters made some claims of protecting the people from tigers.

Jim Corbett, the famous hunter, once killed a tiger that had killed 436 people. He also noted that most of the man-eaters he killed were suffering from disease or old gunshot wounds.

Corbett became a celebrated conservationist. A main tiger reserve is named for him, as is a foundation to help the poor in India, especially those displaced by tigers.

The best estimates give the wild tiger only a 50-50 chance of surviving. My grandchildren might see tigers only in zoos. There are about 13,000 tigers in captivity, three or four times the number in the wild.

One positive sign is Indians enjoy their tigers. More Indians than internationals were riding around in four-wheel drives looking for tigers. The tiger has been revered in Indian mythology for at least 10,000 years, when the first cave images known were painted.

The goddess Durga rides a tiger. Its majesty is one of the reasons it was hunted nearly to extinction in the last century.

India has about four times the U.S. population in a land area one-third the size.

The world's most densely inhabited democracy with well more than 1 billion people is challenged to save the world's largest population of tigers.

I marveled at this awesome cat and was left hoping this superb embodiment of ferocity and power can remain wild and free.

Holmes Rolston is a Fort Collins resident and university distinguished professor emeritus of philosophy at Colorado State University who loves to travel.

March 12, 2013. Knee surgery, meniscus tear, so I wasn't doing much for the next couple weeks.

April 2-7, 2013. Utah Valley University, at Orem, below Salt lake, Symposium on Aldo Leopold, and spent one day with Giles. Nice views of Wasatch Mountains repeatedly. One morning of hard rain.

Apr 9, 2013. Record cold. Lowest daily high on record for this date. never got over 20 degrees, more or less.

April 10, Lowest daily low on record for this date, something in the single digits.

April 14-20, 2013. Richmond Virginia, Staunton, Rockbridge Baths, and Huntington WV. Went to the last of the IRT Science and Religion seminars, Sunday night, all day Monday, and Tuesday morning.

April 16, Tuesday. Drove to Staunton, via Bybees Road Baptist Church, visited Hebron Church, and my gravestone, and spent the night at 320 North New Street, in the old basement room. Drove up into the Shenandoah National Park for half an hour and saw splendid Bloodroot, *Sanguinaria canadensis*, maybe 200 plants in full bloom, and nothing else out. Mayapples coming up. Lots of good redbud on the drive up and in the valley. Some decent dogwood. Fine day.

April 17, Wednesday. Drove out through Rockbridge Baths, ate lunch by chance luck at a Wednesday noon lunch at Bethesda Presbyterian Church. Talked at some length with Ken Mohler, long a forester, and now a farmer here. Sent him copies of two of my books.

Continued through Goshen Pass, but now with little time to prowl. On to Huntington, WV, and sister Julia.

April 18, Thursday. Hiked the natural trail behind the Art Museum.

Blue violet *Viola soraria*

Round Leaved yellow violet. *Viola rotundifolia*.

White trillium. *Trillium grandiflorum*.

best event on the day, best of the trip. Maybe 400 trilliums in great bloom halfway down the Tulip Tree trail, in some of the wetter area where there is a draft into a creek. Splendid.

Red trillium. *Trillium erectum*. Maybe 70 lower down. In good bloom, though not opened up that much.

Cult-leaved toothwort. *Dentaria lacinata*.

Verbena, sp.

Bluets, *Hedysotis caerulea* = *Houstonia caerulea*.

Small-flowered crowfoot, *Ranunculus abortivus*

Potentilla

Anemonella thalictroides = *Thalictrum thalictroides*

Celandine Poppy, *Stylophorum diphyllum*

Spoke at Woodlands that night, on "Promised Land and Planet of Promise."

April 19, Friday. Drove to Richmond in rain all day, off and on hard rain.

Serviceberry, in good bloom in woods. *Amelanchier arborea*. Checked it where we had an in-car picnic lunch.

Henbit in Ann's lawn. *Lamium amplexicaule*.

April 20, Friday. Flew home.

April 29-May 3. Princeton on a Center for Theological Inquiry event. Nice dogwood.

May 5, 2013. Well Gulch Trail in Lory State Park, with Jane, Rolston, and Ellie Jane. Nice day, but cool for Jane. Looking for Pasqueflowers and found them, about two dozen. Area is badly burned from last summer's fires, but some Pasqueflowers still there. Recent big snows have left the area with late flowers, some crushed down. Also re-keyed Sugarbowls, *Ranunculus hirsutissima*. Met Fred Johnson coming out.

June 11-18, 2013, East Anglia, Norwich. ISEE Conference, University of East Anglia. With Jane.

June 11, Tuesday. Denver-Dulles-Heathrow. Late taking off in Denver because of the heat, which, they said, meant the plane needed to have fewer people on it. First they wanted three or four, then when we were all on the plane and thought we were ready to take off, they said they needed three more, and upped the price. But all this meant we had little time for the connection in Dulles. Walked onto the plane, being held for us, and ready to go. Decent overnight flight.

June 12, Wednesday. Landed Heathrow, and took a National Express bus to Norwich, nearly four hours, and took taxi to Earlham House Bed and Breakfast, then to the International Society of Environmental Ethics conference at East Anglia University. Decent conference, I was a commentator on papers by Phil Cafaro and Allen Thompson on the Anthropocene. Bus to and from B&B to East Anglia Conference site was expensive.

June 13, Thursday. Conference.

June 14, Friday. Conference, noon picnic outdoors, walk across an area they call "the broads," and around a lake, too windy for Jane.

"The Norfolk Broads" seems to refer generally to marshes, fens, rivers, lakes in East Anglia, often with navigable waters, and more or less managed over centuries, with various dykes, pumps, and drains, for agriculture, pasture, thatch, recreation, boating, footpaths, wildlife. They are often designated as ESAs. Environmentally Sensitive Areas. So humans have created the broads, within the constraints dictated by nature. Various floods have often disrupted this management.

Lots of Ivy-leaved Toadflax, *Cymbalaria muralis*, Kenilworth Ivy, in the walls all over town. Hundreds of photos at:

http://www.google.com/search?q=%22Cymbalaria+muralis%22&lr=&hl=en&as_qdr=all&tbm=isch&tbo=u&source=univ&sa=X&ei=KFDHUbKGE-fuyAGE3IDICQ&ved=0CH4QiR4&biw=1024&bih=654

June 15, Saturday. Best day of the trip. Rented car with Phil Cafaro, Allen Thompson, Jane, and local guide, Tim Holt-Wilson. He does what he calls geoconservation, or geodiversity, in with and under biodiversity. Concerned with the mix of nature and culture in the East Anglia landscape, and he was resolved to take us to the two wildest parts of East Anglia. (Address: 1 The Avenue, Upper Oakley, Diss, Norfolk, IP21 4AY. Diss is the name of a town. timholtwilsdon@onetel.com.)

Drove to St. Margaret's Church, Hales, an ancient church out in the open country, very scenic, and we were there under great sky, cloud, and lighting conditions. Yellow field of rape added to the color. St Margaret's Church is a Norman church, relatively unaltered by later forms of architecture. The church has a round tower with circular splayed windows that bear the impressions of basketwork from their construction. The apsidal chancel is decorated with blind arcading, and there is a nave doorway.

<http://www.heritage.norfolk.gov.uk/record-details?TNF223>

Pheasant and chicks. Some sugar beets in nearby fields.

Then to Hales Green, a commons area, mentioned in 13th century documents, with Hales Manor, or Hales Hall, a big country estate. Hales is a small parish in the southeast of the county. The village of Hales is in the far north and the parish landscape is one of scattered farms and clusters of settlement on the edges of Hales Green.

Hales Hall contains the remains of a late 15th century house built by James Hobart from 1478 onwards. This is variously incorporated into later building, 16th century. The only

upstanding remains of the Hall are the gatehouse range and the large brick barn, which stand to the east of the moated site where the main house was constructed. The foundations of the late 15th century house and octagonal corner turrets are visible on the moated platform which is divided by an earthwork bank, probably a garden terrace. Roger de Hales almost certainly had a house here in the 12th century, which was associated with a deer park

<http://www.heritage.norfolk.gov.uk/record-details?MNF1053>

jackdaw. moorhen, chit-chat, chaffinch, house martin,

Then drive through Beccles, and reached Wrentham, on Route A12. Rhododendron roadside.

Reached Covehite, at the sea, with a spectacular ruined church, St. Andrew Covehite Here we started a hike over cliffs, 50-75 feet high, and eroding back a few feet each year.

Walked down a rough road, less than half a mile, with hawthorne hedges, Alexanders or Black Lovage, *Smyrniolum olusatrus* An umbel, looks a lot like Angelica.

Just as we reached the sea cliff, there were RAF planes flying overhead, one large one, maybe a bomber or troop carrier, as big as a passenger jet, with five small fighter planes closely surrounding it--which we later learned was part of the Queen/s birthday celebration.

This is an AONB, Area of Outstanding Natural Beauty. It is also a SSSI, Site of Special Scientific Interest.

Walked along the cliff over the beach, along a path that is eroded back each year, and new path created a few feet further inland. Nice surf. These are cliffs cut in fluvio-glacial sands,. This is the most rapidly eroding area on the English coast.

After perhaps a mile, came to a forest, with trees nearest the sea being killed by salt. Reached a pond, probably brackish.

avocet
little tern
great crested grebe
mallards
cormorants
common tern
greylag geese
black headed gulls
herring gulls

Walked back, couldn't find a place to eat that was open, and drove to Southwold, a small beach resort, with lots of people, in much contrast to the Covehite area where we had just been. Fish and chips, decent lunch. Big gambling game room in the same building.

This is the county of Suffolk, the one above is Norfolk. Originally this meant the "south folk" and the "north folk."

unpollarded trees because they are maintained in a partially juvenile state, and they do not have the weight and windage of the top part of the tree. Older pollards often become hollow, so can be difficult to age accurately. Pollards tend to grow slowly, with narrower growth rings in the years immediately after cutting.

Roan tree, *Sorbus aucuparia*

Birch, *Betula pendula*. European white birch.

Bracken, *Pteridium aquilinum*

A forested area to the west of here a mile or two is known as Rendlesham Forest, a recreational area, and was the site of supposed UFO sightings in 1980, by US Air Force personnel who were then stationed in the area.

Tim wanted tea, and, again, we had trouble finding a place, though eventually found one. It was adjacent to a pond or lagoon.

oystercatchers
curlew
shelduck

Lots of references during the day to the Norman Conquest. The Norman conquest of England was the 11th-century invasion and occupation of England by an army of Norman, Breton, and French soldiers led by Duke William II of Normandy, later William the Conqueror. William, who defeated the Anglo-Saxon King Harold II of England at the Battle of Hastings on 14 October 1066, was crowned king in London on Christmas Day 1066. He then consolidated his control and settled many of his followers in England, introducing many governmental and societal changes.

Angles, hence England, Anglo, was derived from Angles, a tribe in northern Germany, in the region of Angeln.

Large sections of East Anglia were marshland and bogs until the 17th century, despite the construction of early sea barriers by the Roman Empire. During the 17th century the alluvial land was converted into arable land by means of systematic drainage using a collection of drains and river diversions.

In the 1630s thousands of Puritan families from East Anglia settled in the American region of New England, taking much East Anglian culture with them, as well as the name New England. East Anglia, with much of its earnings based on wool and textiles, was a rich area of England until the effects of the Industrial Revolution moved manufacturing to the Midlands and the North.

During the Second World War, the Royal Air Force and the United States Army Air Forces constructed many air bases in East Anglia for the heavy bomber fleets of the Combined

Bomber Offensive against Nazi-occupied Europe. On average the American bases came once every eight miles. Building them was a massive civil engineering project that inevitably damaged the environment. East Anglia was chosen because it had considerable open space and level terrain and it was relatively close to mainland Europe, thus shortening flights and allowing for greater bomb loads. Remnants of some of these bases are still visible while a few remain in use. One, near Norwich, has become Norwich International Airport.

Much of East Anglia is flat land, often fenland and reclaimed marshland, though much of Suffolk and Norfolk is gently undulating with glacial moraine ridges providing steeper hills in areas such as North Norfolk.

The area near the sea, especially in Suffolk, is called the Sanderlings, or Sandlands. Sandy, whereas there is more clay further inland. Fluvio-glacial sand and gravel. Often acid soils.

Some of it is called "The Heaths," but I saw no heather. Apparently there are, or were, expanses of heather, or heather and grassland, also gorse, broom, and birch. But I gather the heaths were before that forests, the heather planted in or invading cut forests. Usually some visual framework of hedges, hedgerow trees, and woods. Some conifer plantations. Again, a mixture of human developments operating on a natural framework of geology and soils. Some peatlands, some bracken filled areas.

Tom Williamson, *Sandlands: The Suffolk Coasts and Heaths*. Windgather Press, 2005. ISBN 978-1-905119-02-8. 978-1-905119-02-8
Copy in CSU Library.

Tom Williamson, *The Norfolk Broads: A Landscape History*. Manchester: Manchester University Press, 1997. Copy in CSU Library. St. Martin's Press.

The map Tim had was Ordnance Survey: Woodbridge and Saxmundham # 212

June 18, Tuesday. Flew home, via Air Canada and Vancouver.

Flew north of Skye (Scotland), over the Hebrides (largest is island of Lewis), over Iceland, over middle Greenland, way north of Churchill (Canada), east of Yellowknife, and into Vancouver. Flight speed was over 500 mpg, Earth rotates at equator about 1000 mpg, but at this far north latitude, probably something about 500 mpg, so essentially we were flying into the sun at a rate that made the sun stand still. We arrived at Vancouver at more or less the time we took off from Heathrow.

Very decent flight, aisle and center seats toward the back, and not crowded.

Delay in Vancouver, about two hours, waiting for the pilots to come in on an inbound flight from Denver. There had been a tornado at Denver Airport. Tornado touched down briefly on the eastern runways, mid-afternoon. Also touched down on Pena Boulevard. Winds of 97 mph winds destroyed some communication equipment. At the alarm, thousands of passengers and staff took shelter in the tornado shelters, which are the toilets, and stayed there 30-40 minutes.. Traffic was briefly blocked by police from I-70 to Pena Boulevard. Nine flights were diverted to other cities.

end East Anglia trip

July 1, 2013. Monday. With Rolston and Ellie Jane in Roland Moore Park, returning home from the swings, Ellie spotted a nice deer. a doe, which later came out into full view.

July 2, Tuesday. Jane and I took Rolston and Ellie Jane to Rocky Mountain National Park. Couldn't go up Bear Lake Road, due to construction. So we hiked Deer Ridge maybe an hour and a half. Then picnic at Hidden Valley, then to Endovalley Picnic Area, at the start of Fall River Road, for a walk around. Kids played in a stream, off shoot of the main river, with enthusiasm, crawling under or over logs across the stream. Couple dozen elk in aspen at the start of the Moraine Park road.

Major tragedy with firefighters in Arizona, near Prescott, Yarnell fire. Nineteen killed, burned to death in a fire, the most killed in any one incident since 1931, before I was born.

July 18. 2013. Nine people were injured in a series of lightning strikes at Grant Family Farms north of Fort Collins. The strikes happened about 3:30 p.m. near the intersection of West County Road 72 and North County Road 17, Wellington Fire and Medical reported. They were evacuated by ambulance, to hospitals, two in critical condition. Others had only tingling sensations. Due to storm conditions, air ambulances could not be used.

That same day, a 65-year-old woman was struck by lightning on the Ute Trail in Rocky Mountain National Park. She was found by a park visitor and taken to a hospital about 1.00 p.m.

July 20, 2013. Gem Lake, alone. Big parking lot at the trailhead now, used by lots of people, but many are climbers going up in the Lumpy Ridge area somewhere. On the trail about 9.15, and steady climb, something of a challenge in the high steps. Not as far as I recalled, sign says 1.7 m., but there is pretty steady climb. At the Lake about 11.15, and stayed there until maybe 12.00 or so, eating lunch, and chasing off ground squirrels and chipmunks. Climb back down was again a challenge, now getting down the big steps, with dicey knees. But I made it, back about 1.30. The usual flora, no birds really. Nice day, clear and partly cloudy.

Drove home thru Glen Haven, with some cramping in Glen Haven, and I pulled off in the Post Office there. There had been a serious thunderstorm in the lower part of the Big Thompson Canyon, but I saw little rain. Last time I was at Gem Lake was Jan 15, 2004. On August 12, 1997, I led a hike to Gem Lake, leading a group from the Society for Contemporary Philosophy, about fifteen. There is another Gem Lake to which I hiked in the Encampment River region.

July 28-August 3, 2013. Virginia Beach and Dismal Swamp

Dismal swamp trip - Monday, July 29, 2013

Drove out, about an hour. Put in at a launch site on Route 17 on the eastern side of the Great Dismal Swamp Wildlife Refuge, a mile or two north of the Feeder Ditch.

We were in six kayaks, each seating two

1. David Rolston and me
2. Randy Rolston and Bonita, his wife
3. Lynn Ward and Mac
4. Carl LaChance and Manu
5. Kyler Rolston and Christopher
6. Cindy Allen and Sara Hudgens

We put in at maybe 1.30 p.m. We had to wear life jackets, which zipped up the front. Started out on what is an inland portion of the Intracoastal Waterway, wide enough for cabin cruisers, etc., but we saw no traffic at all on it. Paddled this for a mile or two, headed south

passed an ancient cantilever bridge

passed a pontoon float-raft you could pull back and forth across the river

Then took a right turn and padded for several hours on the "Feeder Ditch," more narrow. Wide enough, trees on both sides, and once in a while a tree blown down into the ditch (as they are here called, though I might have called them canals). Forests on both sides, branches hanging out over the ditch so you could check the tree leaves, etc.

George Washington, or more accurately, Washington's slaves, dug this ditch. The Corps of Engineers maintains it.

Some Spanish moss. The Dismal Swamp is as far north as Spanish moss grows (First Landings, Bald Cypress Nature Trail, guidebook).

No evident current, which made paddling easier.

Several black vultures overhead. One great blue heron.

Various birds could be heard in the bushes, maybe warblers.

10 miles of paddling to Lake Drummond. We reached a spillway, maybe 3.30 p.m. and had good lunch there. Nice grassy area, and a campground. Toilets and water, electricity. We had to pull the kayaks out and up a rail rack, and put them in maybe six feet higher than the ditch. There was a small dam and water spilling over it. This keeps the lake level where they want it.

Paddled a short distance now, maybe a quarter mile and we were on Lake Drummond.

Then paddled a mile or so down the lakeshore to find the big bald cypress trees

There were three of them.

First one, pictures of Dave and me.

Second one, we were on the shadow side, and got pictures in which the tree is dark.

Third one, furthest down, was the biggest one. You could take the kayak under the arched roots, though you had to lie down backwards in the boat to do this.

pictures of Dave and me here.

Most of the group got into the water here, standing waist high or a little more. They said there was a good sandy bottom. Also said there were cold and warmer parts of the water.

Back in the kayaks, we took the shoreline closer in coming back, where there were many good bald cypress. Kayaks got stuck several times on submerged logs. Maybe an hour here, and Randy was beginning to say we needed to paddle out to get out by dark--though we could paddle the last part in the dark in we wished.

Essentially no insects, though a couple said they saw a few mosquitoes.

Paddled out, now getting somewhat tired.

Out about 7.30 or 8.00 p.m. Twilight.

Drove back to the beach.

Edgar Allen Poe went into the swamp to commit suicide. He was thinking one should commit suicide in a dismal place. But he found the swamp so beautiful, he changed his mind.

Sailors wanted the swamp water on their ships. They claimed it didn't "spoil," when they kept it many months at sea. Water doesn't spoil, of course. What they seemed to have meant was that the tannin in the water, making it acidic, kept down the bacteria in the water that might cause disease.

Tuesday, July 30,

At the beach, Dave and I took the same kayak out to see dolphins. Saw bottle-nosed dolphins surfacing dozens of times, sometimes only 25 feet away from the kayaks. They were often surfacing two at a time.

Wore life jackets again. The only hard part of this was getting the kayak through the breaking surf. You had to push in, and get somebody to push out the kayak, and then paddle hard to get through the surf. Then it was easy, and no wind, or current, taking us out of the area.

Out for perhaps an hour. Return similar, with more risk of the kayak being over turned.

ghost crabs on the beach, of some size.

Trip into First Landing State Park, Thursday, July 31, 2013.

Went in the south entrance and walked the Bald Cypress Nature Trail. Four of us. A bridge over the trail at the start was closed, so we had essentially to walk it in reverse. Did so with a nature guide booklet that Dave read at each marked point, which was reasonably informative.

This is where the Dismal Swamp reaches the sea.

This is called First Landing State Park because when the first settlers first arrived here. The passengers were still on the Susan Constant; the captain, on April 26, 1607, read aloud to the passengers assembled on the deck, the laws and conditions of the new colony. They did not yet know they had reached a great swampland. Several weeks later, they decided to settle at Jamestown, dating that colony from May 13. So maybe you can say that America really began where the Dismal Swamp hits the sea. (from the Nature Trail Guide, of which I have a copy)

turtle on a log

trees: gum, bald cypress, maple, hickory
greenbriar vines
partridge berry on the ground

resurrection fern
2 turtles
lots of Spanish moss

good walkway, sometimes boarded. lots of good views of bald cypress swamps, with good cypress knees.

Cape Henry is only 3,000 - 3,500 years old.

A rare species here is called the chicken turtle, named for its long striped neck. The neck when stuck out is almost as long as its shell. There are only two places in Virginia to find it, and it is on Virginia's endangered species list. There is one but only one known in First Landings State Park. The populations are more or less stable in other southern states.

saw one red-bellied water snake, quite nicely, posed for us on a log. Only found in southeastern Virginia.

some shrubs in bloom and we took photos of them, later asked the naturalist, but she couldn't identify them. Maybe a *Clethra*.

Toward the shore, there are now forested high sand dunes interspersed in the swamp. We walked up some of them as the trail wound around.

We didn't really do more than half this trail, and then came out more or less midway, which was not far from the parking area.



Holmes Rolston (center) on Lake Drummond in the Great Dismal Swamp, eastern Virginia



The Dismal Swamp with bald cypress trees and cypress knees

Great Dismal Swamp is not a dismal place at all

By Holmes Rolston III
For the Coloradoan

So that's Lake Drummond in the middle of the Great Dismal Swamp.

I made it thanks to a lot of paddling and thanks to George Washington. This swamp is Virginia's equivalent of the Okefenokee Swamp or the Everglades.

Before he became the father of our nation, about 1763, Washington dug the "feeder ditch," or canal, along which I paddled. Otherwise, I couldn't have made the 10 miles in and out. Or more accurately, Washington's slaves dug the ditch. That must have been miserable work. George Washington and others acquired 40,000 acres of the swamp land through a "royal grant."

Washington did not have conservation in mind, but exploitation, taking out 70,000 cypress shingles in 1765. He did remark that it was a "glorious paradise abounding in wild fowl and game." The ditches were used to float out logs.

Not far before the lake, we reached a spillway, a small check dam used to keep the lake level higher. Unlike other basin swamps, the Dismal Swamp is gently sloping, with a northwest to southeast flow, dropping only 10 feet across an 8-mile expanse. We pulled the kayaks out and up a slide rack, and put them in again maybe 5 feet higher than the lower ditch.

We paddled another mile along the shore, searching out the biggest bald cypress trees. The oldest were 50 yards out into the lake with basal arches large enough to get our kayaks into, if we lie back low.

The water was a little more than waist-deep, with cold and warmer spots, and a good sandy bottom. The water is colored like tea, soaking out the tannin in the bark of submerged trees.

Lake Drummond is more than 3,000 acres in a nearly perfect circle. The origin of the lake is unknown. Based on bottom sediments and radiocarbon dating, geologists conclude the lake is much younger than the swamp — no more than 4,000 years old, in a swamp that is 10,000 years old. Maybe it was great peat fires, geological upset or a meteor crash that created it.

Making our way back, we wove in and out of the bald cypress at the edge between lake and forest. We never found Atlantic white cedar, another cypress. Once the largest known stands were here, but it is now rare, being logged out.

The Dismal Swamp southern bog lemming, once thought to be extinct, still lives here. The Dismal Swamp southeastern shrew, formerly a federally threatened species, has now been delisted.

The swamp is often scenic, aesthetically pleasing. Spanish moss grows here at its farthest northern reaches. Tall bald cypress, maples, gum, pond pine, loblolly pine, ferns and wildflowers are common and colorful.

Yes, swamps can be beautiful. To many, a beautiful bog or a pleasant mire is almost a contradiction in terms. Mountains are sublime; swamps are slimy.

Poet Edgar Allen Poe once went into this swamp to commit suicide, at least according to local folklore. He was thinking one should commit suicide in a dismal place. But he found the swamp so beautiful, he changed his mind.

Today, biologists agree that wetlands support rich biodiversity and are the most threatened of landscapes. Here, life persists — phoenix-like — forever regenerated in the midst of its perishing.

We could see that on all sides of our kayaks.

Our kayaks kept getting stuck on submerged logs, and we had to push off and dodge the cypress knees and the



The Great Dismal Swamp National Wildlife Refuge stretches for more than 112,000 acres in North Carolina and Virginia. PHOTOS COURTESY OF HOLMES ROLSTON III

bushes, sometimes covered with poison oak. That made me even more grateful to Washington's slaves for the ditch.

By now, we were running out of time. We didn't want to have to paddle out in the dark. Steadily paddling back, we got out at twilight, with sore arms but proud of ourselves for venturing 12 miles in the swamp.

Washington sold, or tried to sell, his share of the swamp to "Light Horse" Harry Lee, father of Gen. Robert E. Lee. But Lee couldn't make the payments, so Washington got his share back. Later, a Dismal Swamp Land Company owned the swamp.

About the turn of the 20th century, much of the swamp became the property of the Union Camp Corporation. In 1973, Union Camp donated 49,100 acres to become the Great Dismal Swamp National Wildlife Refuge that now consumes more than 112,000 acres.

The new colonists discovered the lake when William Drummond lost his way while hunting in a "Slough of Despond," and found it. Drummond was later the first governor of what is now North Carolina. He was hanged in 1677 for taking part in Bacon's Rebellion, the first armed rebellion of the colonists against their British-appointed rulers.

The early settlers feared the dark swamp. By their reports, there were rattlesnakes as big around as a man's leg, coiled up hundreds at a time. There were cottonmouth water moccasins hanging in bushes above to drop into your boat. Though both of these snakes are there, their size and abundance are gross exaggerations.

We saw only a red-bellied water snake, who poised nicely for us. There also remain in the swamp some 300 bears.

Settlers feared the Dismal Swamp was full of poisonous air, rising from the rotting logs. Malaria, which means "bad air," was caught by those who lived near wetlands. That the disease was carried by a protist in mosquitoes breeding in stagnant or slow-moving waters was unknown until the 1890s.

William Byrd, surveying the Virginia-North Carolina state line in 1728 wrote: "Doubtless, the Eternal Shade that broods over this mighty Bog, and hinders the sun-beams from blessing the Ground, makes it an uncomfortable Habitation for any thing that has life. Foul Damps ascend without ceasing, corrupt the Air, and render it unfit for Respiration. Not even a Turkey-buzzard will venture to fly over it."

He was wrong. We saw a half-dozen buzzards in the air, a couple of them close enough that we wondered whether they thought we might be their next meal.

Early sailors wanted the swamp water on their ships.

They claimed it didn't spoil when they kept it many months at sea. Water doesn't spoil, but the tannin in the water, making it acidic, kept down bacteria that could cause disease.

A rare species in the

swamp is called the chicken turtle, named for its long, striped neck. The neck when stuck out is nearly as long as its shell. This turtle is on Virginia's endangered species list, though it is stable in other states.



Holmes Rolston III, front, discovered the best way to explore Lake Drummond in the middle of the Great Dismal Swamp is by kayak.

Another day, we visited where the Dismal Swamp reaches the sea, now in First Landing State Park. Here, at the mouth of the Chesapeake Bay, the first settlers arrived. Still on the ship the "Susan Constant," the captain, on April 26, 1607, read aloud to the passengers assembled on the deck the laws and conditions of the new colony.

Just inland, forested high sand dunes are interspersed in the swamp. We walked over several of these on good terra firma. The newly arrived settlers did not yet know they

had reached a great swamp-land, then perhaps a million acres, and quite unsuitable for their landing.

Several weeks later, they decided to settle at Jamestown, reaching their new colony May 13.

So maybe you can say America really began where the Dismal Swamp meets the sea.

Holmes Rolston is a Fort Collins resident and university distinguished professor emeritus of philosophy at Colorado State University.

August 9, 2013. Snowy Range, Medicine Bows with Fred Johnson.

Met him at Watson Lake and drove to Centennial and Libby Flats, nice day. Started hiking, walking, where we went in 2009. Open subalpine, alpine, with no trail, though there is a trace of an old road over part of it.

yarrow, *Achillea millefolium*

Taraxacum ceratophorum = *ovinum* Horned Dandelion, a large one, a native, but same genus as the common weed, introduced. Some even make it a subspecies of *Taraxacum officinale*, the common one

Tweedy Plantain. *Plantago tweedyi*

Alpine clover, Parry clover, *Trifolium parryi*

Tansy Aster, *Machaeranthera pattersonii*

Bistort *Bistorta bistortoides* = *Polygonum bistortoides*

Dusky Beard's Tongue *Penstemon whippleanus*

Subalpine Larkspur *Delphinium barbeyi*

Rayless arnica *Arnica parryi*

Lovage. *Ligusticum porteri*

Redstem cinquefoil *Potentilla rubricaulis*

Dwarf goldenrod *Solidago nana*

Thick-bracted Senecio *Senecio crassulus*

Subalpine Arnica *Arnica mollis* Thousands of them, in magnificent display.

Willow herb *Epilobium alpinum* = *Epilobium anagallidifolium* ??

Alpine Mertensia *Mertensia alpina* calyx split to the base

Tall Chiming Bells *Mertensia ciliata*

Mountain death-camus. *Zygadenus elegans* also spelled *Zigadenus*.

Alpine Speedwell. *Veronica wormskjoldii* = *nutans*

Mountain blue violet. *Viola adunca*

Congesta sandwort *Arenaria congesta*

White campion *Silene scouleri*

White bog orchid *Habenaria dilatata* = *Platanthera* = *Limnorchis*

Kings Crown *Sedum integrifolium*

Queens Crown *Sedum rhodanthum*

Viviparous Bistort *Polygonum (Bistorta) viviparum* Lower bulbet with a small leaf coming out.

Slender hawkweed *Hieracium gracile*

Parry's lousewort *Pedicularis parryi*

Northern Gentian *Gentianella amarella*

Elephantella *Pedicularis groenlandica*

Arctic sage *Artemisia arctica*

Red prickly currant *Ribes montigenum*

Sibbaldia *Sibbaldia procumbens*

Black-headed daisy *Erigeron melanocephalus* blackish bracts

Antennaria sp.

Sun-loving aster *Aster foliaceus*

Yellow stonecrop *Sedum lanceolatum*

Sickle-top Lousewort *Pedicularis racemosa*

Lunch in good sunshine, but soon after started to rain, then graupel, hail, and everything else. Walked out in off and on rain, hail.

Had to search around for a pond we remembered with some interesting plants, and found it in the rain.

Kalmia microphylla Mountain Laurel

Gaultheria humifera Alpine Wintergreen. The low mat-forming mystery plant near the *Kalmia*

and beside a pond. Best picture of it is in Joseph F. Duft and Robert K. Moseley, *Alpine Wildflowers of the Rocky Mountains* (Missoula, MT: Mountain Press, 1989, 1994), p. 151. Barely 3 cm. high. "humifera" means "spreading over the ground." I had previously keyed it from the Wind Rivers in Wyoming. Weber, *Rocky Mtn Flora*, 1967, lists it as rare.

Saw lots more *Kalmia* coming down than I remembered from before.

Western Pearly Everlasting. *Anaphalis margaritacea*. Plant I brought in. White phyllaries ("pearly", and they keep well dried, "everlasting"). No rays. Trouble keying it because in nearly all the pictures I could find the phyllaries were spread out like petals, but not in the one I had.

Out about 2.30.

Drove home, with quite hard rain between Centennial and Laramie, and som spectacular lightning, including one horizontal stroke across maybe 20 degrees of the horizon.

Home about 4.15.

Sept. 6, 2013. Lyon Gulch. Alone. Half a dozen bighorn rams, half curl, on the roadside on the way up. On the trail about 9.15, and got up top where the ruins are about 12.00. Slow and steady, but not that bad climbing. Couldn't find anything of the Griffith Homestead, about which I had an earlier note that it was a good ruin.

Lunched nearby and returned. Had to pick my way downhill looking for as flat a spot as I could find to place my feet. On the uphill stretches in here, I was having a tendency to cramp. But took it steady, shaking out the tendency to cramp as I could, and made it back about 3.30 p.m. This is about all the hiking I can now take - alas! Maybe a dozen people on the trail, often young women with dogs, which they did call and leash up when they saw me ahead of them on the trail.

September 11-18, 2013. Near record-breaking rains and flooding. CSU closed on Friday. 16 helicopters, including Chinooks and Blackhawks, used to rescue stranded people, though often unable to fly on account of weather. 7 dead, over 800 unaccounted for, though most of these were eventually found. Bridges out. I-25 to Denver closed for a day. Big Thompson Canyon road washed out. Lots of wash and debris in the mountains, but biggest troubles with the high river levels on the plains, sometimes 10 feet over flood level. Airlifted hundreds of people from campgrounds, homes and destroyed mountain communities. 85 children and 14 adults trapped while attending an outdoor by education camp near the mountain community of Jamestown. School group at an ecoweek at Estes YMCA had to be brought home to Fort Collins over Trail Ridge Road and through Wyoming. Town of Lyons destroyed, all roads cut off for exit, no power, no water, no sewage, residents evacuated. In Larimer County, 1,500 homes destroyed and 4,500 damaged. 200 businesses destroyed, 500 damaged. 11,700 under evacuation order.

October 17-24, 2013. Davidson, 60th Reunion and Eastern Mennonite University, Harrisonburg. Jane and I left crazy early on Thursday, flew through Chicago, where there was some wait, and to Charlotte. Rental car and crazy traffic Charlotte to Davidson on I-77, now getting dark. Stayed in the Guest House.

Friday, Oct 18, Lunch with Andrew Lustig, who holds chair I endowed at Davidson, that evening a dinner.

Saturday, Oct 19. Various activities, breakfast near Davidson College Presbyterian Church, a memorial service for those deceased. Sobering, over half my class are dead. But of the living more than half are here (maybe thirty-five), often with wives. Lunch, the new woman president spoke, football game in afternoon in some rain.

Sunday, Oct. 20, flew to Charlottesville, got car, drove down Blue Ridge Parkway from Afton to Route 60 and into Lexington, visiting Elizabeth Welsh. She has just put Danny. her husband, into a home in Staunton. She is not sure he still knows she is his wife. Alas! Sunday night at 320 N. New Street.

Monday, Oct. 21, to Hebron, then to Afton and drove north at a leisurely pace all day, lots of stops, and reached Big Meadows Lodge. Fortunately now open, though it had been closed for over three weeks with government shutdown and locked Congress.

I did a couple of short strolls, one at the start of the Rip Rap trail. Witch hazel, *Hamamelis virginiana*, in evident bloom. Decent leaf colors, though few reds. Jane came on this one.

Tuesday, Oct. 22, leisurely half day still on parkway. Cooler now. I did one hike about a mile. A few hemlocks in good shape, though the aphid has killed most of them. As we were leaving the park on Route 33, Jane saw a bear climbing over a stone roadside wall, though I did not see it.

Flowers mostly gone, though *Galinsoa parviflora* evident and more or less weedy. *Liatris* Drove out to Cooks Creek Church, and found a few Rolston graves. Drove on to the area of the John Hinton Rolston homesite. Reached Joshua Wilton B&B in Harrisonburg, a fancy one.

Wednesday, Oct. 23. Spoke at chapel, then a lunch, then two classes, and gave a main lecture, symposium. The worked me pretty hard. Main host: Christian Early.

Thursday, Oct. 24. Drove to Charlottesville, and flew home.

November 5-9, Caldwell Idaho, College of Idaho.

Nov. 5, Tuesday, Flew to Boise, arrive about 5,00 p.m. and picked up by Laurie Henberg. Went to basketball game that night, lively competition between them and Northwest Nazarene University, in nearby town.

Wednesday, Thursday, spoke in six classes, and gave Thursday night lecture, Three Big Bangs.

Nov., 8, Friday, day in Owyhee Mountains. Marv Henberg my host. He is president of College of Idaho, and an old friend. Owyee is an old spelling for Hawaii, and some cowboys from

Hawaii were once brought here, and the name stuck.

Drove south on Route 95, through some country with orchards, Pears, peaches, and apples. Crossed the Snake River.

Turn west at Succor Creek and go west, and after 2-3 miles pass into Oregon. Malheur County, Oregon. Now very dry country and little inhabited. This is the least inhabited part of Oregon. This is BLM land.

Marv made a mistake and went too far and dropped into a Succor Creek Canyon, but it was quite scenic. Lots of potholes in the towering dark basalt rocks, giving it a Swiss cheese-like texture, or honey-combed texture. More so than I previously remember. hoodoos, a name for a carved hill, like a butte but more pointed on top. State Park and campground where the road nears the creek.

Returned and found the road we wanted, the Leslie Gulch Road, and drove it some distance to Juniper Gulch, with parking space and toilet. Proceeded now on foot. People go up the Gulch, called a slot gulch because it is narrow. Flat sandy floor bed maybe 15 feet wide is the floor of the wash and easy walking, with a few more difficult spots. Steep walls and pinnacle cliffs on either side. Hiked an hour or two, and had lunch. Cool, but reasonably pleasant. Biggest sagebrush I have seen. More than head high. Presumably *Artemisia tridentata*.

Hiked out maybe by 2.30 and drove back home. Marv had some people to see later that afternoon.

Steve Stuebner, *Boise Trail Guide*, 2008, ISBN 0-09644343-8-5. Describes this hike, which he calls a scramble.

November 9, Saturday. Flew Boise to Denver and home.

November 8, 2013, and following. Super typhoon Haiyan hits the Philippines, and no doubt one of the biggest storms ever known, and said by some, by some measures at least, to be the biggest storm every known in human history. Sustained winds of 315 kph (195 mph) and gusts as strong as 380 kph (235 mph).

November 28, 2013. Thanksgiving Day. Ran the Turkey Trot with Shonny and Ellie Jane and Rolston. 4 miles. 3000 runners. Did o.k. To my surprise, Shonny called later to say that I won the race. Well, more specifically, I won in my age group, over 75. More specifically still, I was the only one to run in that age group, or at least to finish. So I came in both first and last. It's not hard to win a race when you are the only one in it. Anyway, I got my name in the paper on the first sports page as a winner!!

December

Some spells of below zero weather.

