Dinosaurs of Alberta's Red Deer River II Expedition

(on which we make an major find!)

June 13-28, 2014



Alberta's Red Deer badlands have the highest concentration of dinosaur bones in the world, with the World Heritage Site of Dinosaur Provincial Park being Ground Zero. In 2012, with paleontologist Dr. Philip Currie as Field Leader, we explored a 52 mile section upstream of Drumheller. This time our 18-person expedition explored the very richest run, from Drumheller down through and past the Park. We concentrated on a 112 mile section from Bleriot Ferry above Drumheller to Jenner Bridge. That's the distance including twists and turns like the numerous rattlesnakes we met (who taught us the Watusi high jump), not like a pterodacyl flies.



80,000,000 years ago at river level, approximately 45 species are found in the Red Deer's badlands with this number decreasing as you move up over the 15,000,000 years exposed in the canyon to about 25 and finally six where Birdman sits 65,000,000 years ago (he's older than he looks). There are none in the last two meters below the K-T Boundary (created by the iridium rich asteroid that slammed into the Gulf of Mexico 65,000,000 years ago splashing sunbathers at Cancun and officially marking the end of the 170,000,000 year dino reign). It's sites only in the corridor running down from Alberta to Texas that reveal their last 10,000,000 years and they're consistent; it's become a modern myth, one that's deeply entrenched, that the asteroid was solely to blame. Sorry, it ain't so, not from the evidence. For another thing, if the asteroid was solely responsible, there should be dinos laying deep everywhere but they just ain't there either. This evidence indicates that the dinos were very possibly toast before the asteroid.



Phil Currie and wife and palynologist (studies fossil pollen etc) Eva Koppelhus were joint Field Leaders and I was Team Leader. *Tyrannosaurus phil* is the recipient of The Explorers Club's highest honour, The Explorers Club Medal, and all three of us are awardees of the Club's Stefansson Medal. This time we had the honour of carrying Explorers Club Flag #134. It's the most illustrious flag of the six I've carried, has been to both poles with a friend, Marek Kaminski, and has been carried by two Club presidents and another close friend, Joel Fogel:

"The Explorers Club Flag is a symbol of courage and fidelity. The award of the flag is a significant accomplishment. Since 1918, the flag has been carried to all of the Earth's continents, as well as under the sea and into the stars. To date, 850 explorers have carried the flag on over 1450 expeditions. A select handful of the 202 Explorers Club flags have been framed and now decorate the Club house in New York. These include flags carried by Roy Chapman Andrews, Bob Bartlett, Thor Heyerdahl, Naomi Uemura, and miniature flags carried aboard the Apollo 8 and Apollo 15.

"Your expedition will now become part of the rich history attached to this flag. Earlier expeditions include:

H.R.H. Peter of Greece/Denmark 1948 3rd Danish Central Asia Expedition

H.R.H. Peter of Greece/Denmark 1953 Danish Central Asia Expedition

John C.D. Bruno 1985 The High Tartra Expedition to Poland

Alan H. Nichols 1986 Xinjiang-Tibet Mountain Bike

Melvin Marcus, Ph.D. 1986 West Gulkana Glacier Research Project

Joel S. Fogel 1987 1987 Yangtz River Expedition

James H. Smith, Jr.1989 Cueva Cheve Expedition

Donald G. Geddes, III 1990 St. Ann's Bay, Jamaica Columbus Caravels Survey

Evan Davies 1994 Rainforest Land Use Survey Expedition

Evan Davies 1998 The Illa Tiki Expeditions' Manteno Voyage

Alan H. Nichols 1998 Journey II Cycling the Silk Web

Matthew Stubbs 2002 Yukon 2002: Expedition & Environmental Survey

Marek Kaminski 2004 Together to the Pole

Marek Kaminski 2004 Together to the Pole - Antarctica

Charles J. Moore 2009 Algalita Marine Research 10 Yr. Retrospective Gyre Survey

R. Craig Cook 2012 Phoenix Island

Robert Schmieder 2013 The Clipperton Project

Robert W. Butler 2013 The Salish Sea Expedition"



Explorers Club members who flew in from across Canada and the US, L-R: Tony Mayo, Lee Treloar, Dr. James Anthony, Jessica Lansfield, Dr. Phil Currie, Dr. Eva Koppelhus, Jason Schoonover, Jessica Lindsay Phillips, Rob Tymstra, Susan Hattori, Capt. Norman Baker, Kumiko Yokoyama, Clive Coy.



Tyrannosaurus phil drew up the objectives of our expedition:

Background: The Red Deer River cuts through a series of Upper Cretaceous rocks that produce a succession of dinosaur faunas that represent the last fifteen million years of non-avian dinosaur history on the Earth. In 2012, Explorer's Club Flag Expedition #176 worked its way down the upper part of the sequence, looking for new dinosaur specimens, and old dinosaur sites with historical significance (and the potential of additional work). The expedition succeeded in its objectives, and follow-up work is being done by the University of Alberta in 2014. The trip ended in Drumheller in 2012, and the intention was always to continue the trip farther downstream in 2014.



The 2014 Expedition: On June 13, 2014, eighteen members of the Explorer's Club will put their canoes into the Red Deer River carrying Flag #134 just downstream of the Bleriot Ferry. The rocks in this area represent the lower part of the Horseshoe Canyon Formation, which has produced numerous dinosaurs of the Edmontonian Land Mammal Age. Over the next two weeks, they will work their way downriver, stopping at exposures to look for new dinosaur fossil sites, and to attempt to re-find several guarries that had been worked by early dinosaur hunters before the availability of good topographic maps and GPS. The expedition will pass through the lower beds of the Horseshoe Canyon formation, the marine beds of the Bearpaw Formation (which are unlikely to produce dinosaur fossils, although occasionally good skeletons of dinosaur cadavers that had drifted out to sea have been found), the world-famous beds of the Dinosaur Park Formation, and the upper part of the Oldman Formation, and will emerge from the badlands at Jenner on July 28th. Any dinosaur skeletons with good potential for excavation will be worked in subsequent years by the University of Alberta. However, in addition to the specimens, a significant amount of data (on the stratigraphic and geographic distribution of palaeontological resources) will be collected and incorporated immediately into several palaeoecological studies that are assessing the changes in dinosaur diversity as they approached the extinction event of 65 million years ago.



Tyrannosaurus phil and the Danish Delight in their brand new 17'6" Kevlar Hellman Prospector. He's still catching on to the J Stroke, named in my honour.



Due to cattle and heavy siltation, the Red Deer is not potable. Each person was required to bring 13 gallons. That added 260 pounds to each of our nine canoes.



We launched with the traditional popping of champagne. Getting back to Nature - and seeking to unlock her secrets - is always reason to celebrate.



All good expeditions begin with maps. Love 'em.



Each evening I announced our river and dinner plans for the following day, then turned it over to *Tyrannosaurus phil* who programmed the field. Most of our 18 were amateurs and he told them what to look for - particularly articulated specimens - to leave them in situ and to take GPS coordinates. For smaller pieces, to bring them for identification to him, Eva The Danish Delight, Clive (*P-rex's* brilliantly talented technician from the University of Alberta where *P-rex* teaches), or me, though I'm certainly the least knowledgeable, though I've been bone hunting since 1979 and my first of four paddles down the Red Deer River.

For this purpose members grouped around those of us with GPSs.





A final briefing about the dangers. Spread out - 18 sets of eyes are better than two - but stay in nothing smaller than pairs. Don't let anyone get out of sight. Drink lots of water. Watch for

sinkholes. At the first splash of rain, get down. The bentonite - a volcanic layer which is so slippery it's used in everything from drilling mud to soap - is deadly slippery. Oh, and watch for rattlesnakes once we reach Dinosaur Provincial Park. We knew when that was because the prolific voles disappeared....



We were running into up to four rattlers a day. I was ducking under a fence gate when I heard the first of several familiar buzzes - causing me to do the Watusi. And I had only walked down the trail a mere 20 feet further when I saw this guy lurking in the grass, though I'm not sure, it might be a bull snake. Actually, I kinda like rattlers. They're considerate, and give you fair warning, which a lot of others don't do, but rather just sink their fangs into you. If you give our rattlers time, they're happy to slither away. Our Canuck rattlers are like us, polite and nice.



Well, this one Birdman shot don't look so friendly....



We had an even closer call paddling through Drumheller!



But getting back to *P-rex's* briefing, we spread out - and up.





The Dragon Lady taking a find to *Tyrannosaurus phil* for identification.



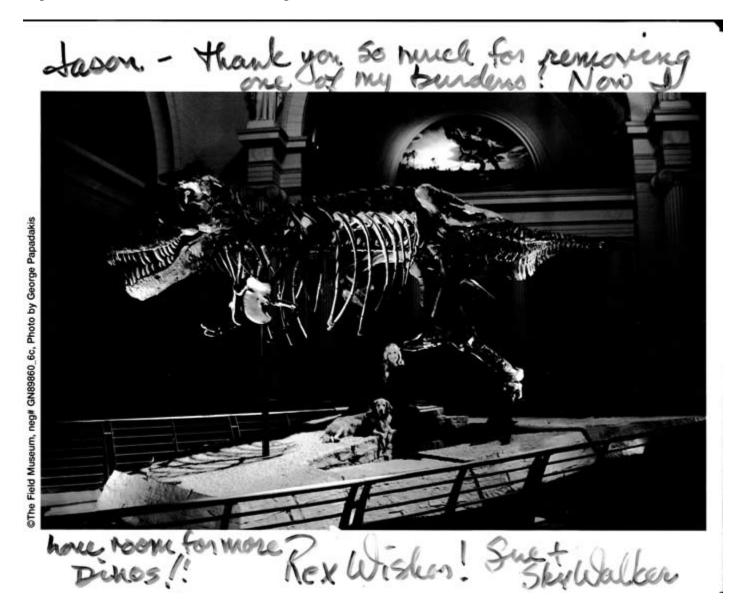
Incredibly, we were only an hour into our first field trip when *P-rex* hit paydirt - a *Hadrosaurus!* In that it takes four months of man hours in the field to yield one find like this, it's no wonder this is a picture of one happy paleontologist. "If this is the only find we make on this expedition, I'll be happy."



Also called duck-billed dinos, they were the cattle of the Cretaceous, so numerous were they.



It takes an experienced paleontologist to recognize a major find, to read what's below. These ribs were the only clues that the rest lay locked up. Major finds are often made from less than impressive surface finds. Here's an example:



Sue Hendricksen's famous *T-rex* Sue, which auctioned for 8.36 million dollars and which now stalks Chicago's Field Museum, looks like this mounted. Sue, like Phil and Eva (and Marek Kaminski, Joel Fogel and current Club president Alan Nichols who previously carried Flag #134), contributed to *Adventurous Dreams*, *Adventurous Lives*.



But her world famous find looked like this when she discovered it in 1990 in South Dakota. Sue didn't see any of that money, by the way. Rather it cost her \$100,000 in legal fees, so ugly was the fight over ownership. A movie has been made about the find, *Waking the T. rex3D: The Story of SUE*. It's shown at the Field.



The weather was hellacious our first week. Near record rains were sweeping the Canadian prairies causing disastrous floods in many communities. The Red Deer was considerably above normal and sped along like a conveyor belt. With light paddling our canoes could hit a searing 6 mph, hurrying us to our next planned exposures...if we could get onto them. On those dry days, they needed drying until 2pm before we dared hit their treacherous slopes. As luck would have it, our wettest two days coincided with the days we had the most miles - over 20 - to put in between exposures so we didn't miss many anyway. Also as luck would have it, the days we had full days for exploration were invariably sunny. Mudstang Sally shot.



Fortunately, we had lots of wimen to do dishes in the rain. (Just kidding, just kidding....) Hey! Didn't you read the preamble? Get that black pot off the table! It's impossible to get the soot off!



Everyone and everything was wet inside and out of our tents by the time the weather broke several days in and we had a chance to dry out.



But we had gorgeous days too.





And the canyon country is beautiful too. Our row of tents can just about be made out along the row of cottonwoods on the other side.









Bones were everywhere, needless to say.













I took the GPS coordinates of this rib for *P-rex*.



I saw at least two dozen vertebra of all sizes and kinds. Well, *Hadrosaur*, *Ceretopsian* and *Champsosaur*, the latter kinda like an early croc. It's an interesting fact of dinos that each species only lasted two million years, at most, evolving and out in that time. Some reptiles, like crocs and turtles, did far better and have been around for forever it seems.





Diane, the One Woman Party, is always among the most observant on a brigade, whether it's for mushrooms in northern Saskatchewan or esoteric finds here. She came up with a perfectly fossilized pine cone, like the one on the left here. It helps bring that early world to life to imagine the familiar sighing of the breeze through 70,000,000-year-old pine trees as dinosaurs stomped between them. She also found at least two teeth. Long Lansfield was also sharp on finding raptor teeth, always primo finds and saved for study.



The tooth fairy wasn't good to me this time. Last expedition in 2012 I was the Tooth King. This time all I found in the way of teeth was this croc specimen, and a bit of broken *Hadrosaur* tooth.



And a lot of small stuff. L-R: croc, turtle, tendon, *Champsosaur* vertebra and the tooth magazine from a *Hadrosaur*. The latter constantly moved into position, replacing what was worn away. You'll see an excellent example down a bit.



Here's what a piece of turtle shell looks like in situ, the pockmarked light yellowish piece in the center. Below it. and to the right, are bits of light-coloured bone.



I didn't even find this beauty. Unfortunately, it had been exposed to freezing and thawing and was cracked up.



Paleantologists like bones that tell a story - and this one does. See the grooves meeting on the right? They're tooth marks. This was a meal for a raptor like *T-rex* 70,000,000 years ago.



I'm also equally interested in paleoarchaeology, of course, and the badlands are also a place to keep an eye out for tools. That's the largest hand axe I've ever found, with a couple of crudely made tools, by an early aboriginal hunter who possibly brought something down in the badlands and wanted to cut it up on the spot and didn't have his buck knife with him. I showed the hand axe to *P-rex*. There was a pause. "Rock," he said. I laughed. His focus is intensely and exclusively on dino.



By this time he'd found his second *Hadrosaur* and was saying, "If this is all we find this *year*, I'll be happy!" Here he shows us his favorite view in Dinosaur Provincial Park, *the* area of the highest concentration of dino bones on Planet Earth and his playground since 1976. We were given an exclusive tour (and we had a rare permit for prospecting for bones which was a fantastic privilege). Educating is as important to him as prospecting and he never misses a chance to pass on his incredible knowledge.



You'll remember Lady Danger - Jessica Lindsay Phillips - from the Turkish gulet cruise, Explorers Club Annual Dinner in New York and San Francisco Tribal Art Fair Blah Blahs, as well as *Mantracker*, *Treasure Trader* and *Four Walls*. She's not only lots of fun, but damned handy on an expedition.



P-rex's greatest find ever at the Park was this baby *Ceretopsian* called Baby, on display at the Park's field centre. Baby anything is very rare, the *T-rexs* quickly gulped them down, and this specimen is exquisite in detail. Clive aka Coy-san did the meticulous restoration and it's as much a work of art as of paleantology. *Tyrannosaur phil* showed this to The Dragon Lady and I and others as part of a field trip to Dry Island a few years ago. It was then in Edmonton at the UofA dino lab when Clive was still prepping it, and it was largely still encased in the matrix. We had instructions to take no pictures and not to publicize it then. Now it's been unveiled to the world.



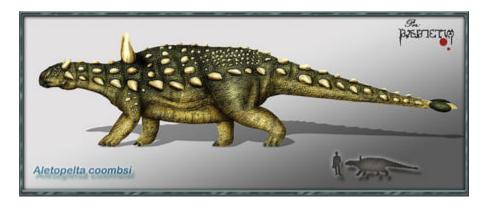
Although I was striking out, I was a small part of Lee's major find though. We were on a shelf when she called me over to see something odd she had found.



It was Lee's first time in the field and just two days before she had asked me what a dino bone looked like. It's difficult to tell when you're new at it and although we were virtually standing on hundreds of unidentifiable broken bits that I call Tim Bits. I picked up a small whitish-brown piece like one of these and handed it to her. She was ecstatic, excited as a 10-year-old kid, which all of us explorers are inside, as she studied it. Then - just two days later - she makes a MAJOR find!



I didn't know what the hell it was either. I'd never seen anything like it. I called Eva, The Danish Delight, over. She studied it and grew serious, something uncharacteristic of her as she's normally radiating happiness. "That looks like skull material. I better call Phil over." She hurried away with me in tow. *P-rex* was about 150 yards away, over a couple of badland ridges with another group. We hurried back together. He studied it for 15 seconds. "It's an *Ankylosaur* skull."



Ankylosaurs were the tanks of the Cretaceous fully armoured and with a nasty bone club at the end of their tails.



"We found seven one year years ago," *P-rex* explained high fiving Lee, "and then we haven't found another until now." He's not given to excitement, but I haven't seen him so happy since we discovered that century old lost Sternberg quarry last expedition in '12. But that didn't compare to Lee's smile - she had a coprolite eating grin on her face for the rest of the trip. And this, indeed, was the highlight of *my* trip: enjoying seeing someone so delighted - absolutely tickled pink - about their discovery. And a BIG discovery.



Coprolite happens. It sure does. "We'll be here awhile, I can see," he said. He and the Danish Delight settled in for the lengthy extraction job, beginning by Dee Dee injecting a special crazy glue that absorbs deeply into the bone to give it added strength, carefully excavating it with awls and brushes and wrapping it in a jacket of burlap and plaster-of-Paris. Lee - now *Ankyleeosaur* - grinning from coast-to-coast the whole time.



The jacketed head. Lee's going to take part in the restoration in Edmonton next year...though she has no idea how long it takes when you're working with dental picks and the like. We Schoonovers, born lacking a patience gene, make great prospectors but lousy restorers.



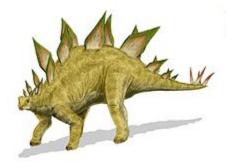
Yes, twas reason to raise a few cold beers! LR: Capt Hook, *P-rex*, Long, Lady Danger, One Woman Party, Coy-san, Birdman.



Here's how Long got her river name. She's, well, long. A Ph.D student, she's the Canadian Chapter's Student Rep, and doing a bangup job of it too.



Just a minute! My luck is turning around! Paydirt! A big find! A Stegosaurus!



No, wait, it couldn't be. *Steg* is from the Late Jurassic. But, what the hell, Spielberg had all those Cretaceous beasts charging around out of time in *Jurassic Park*. I was forced to rename this one *Sandstoneosaurus*.



It was on one field trip that *P-rex* spotted footprints, not as clear in the photo as they are to the eye. Imagine a five-ton, three-toed chicken with teeth plucking your head off. He's pointing to a middle toe that's pointing at him.



It was on this field trip that Mudstang Sally and Coy-san returned with the jacketed Maxilla (upper jaw) of a *Hadrosaur* which Sally had discovered, proving once again the usefulness of amateurs in paleontology. Sally had once worked with Jane Goodall. She shot the following two pics.







Coy-san also jacketed the foot, ankle and partial tail of a *Dromaeosaur*. He's got a helluva fine tuned eye and also added a *Hadrosaur* to our finds. *Droma* were a nasty little critter. Imagine a trailer park teenager on crack riding a dirt bike. Note the typical raptor claws as I'll come back to them in a moment. Nearby Tony found the frill of a *Hadrosaur*. Sally shot the following as well.



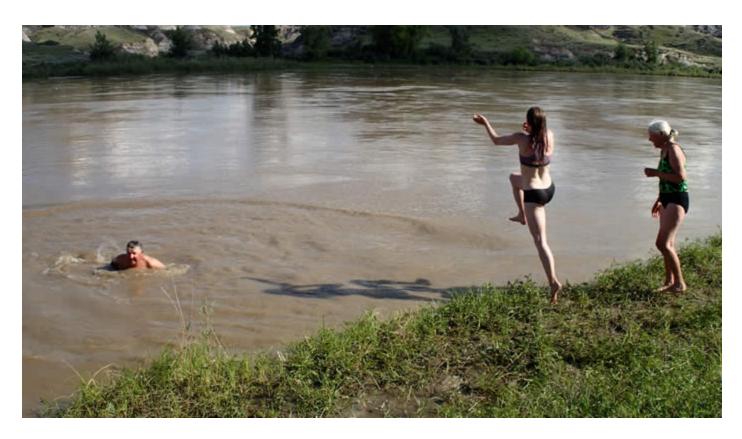








A tiny claw find I made intrigued me much but I lost it! There was a hole in my collecting bag! I wanted to show it to *P-rex* as baby anything he takes a huge interest in. "It'll probably turn up at the bottom of your gear," he offered, unconcerned. I was sure it was toast and was enormously disappointed but, sure nuff, when I was cleaning out my daypack once home, out it fell! It was found on the same site as *Ankyleeosaur's* find.



By this time, *P-rex* had found at least one more *Haddie*. It was enough for more celebrating and cannonballing was the order of the day. Speedboat Doug (author of *Their Names Live On*), Long and the Danish Delight.



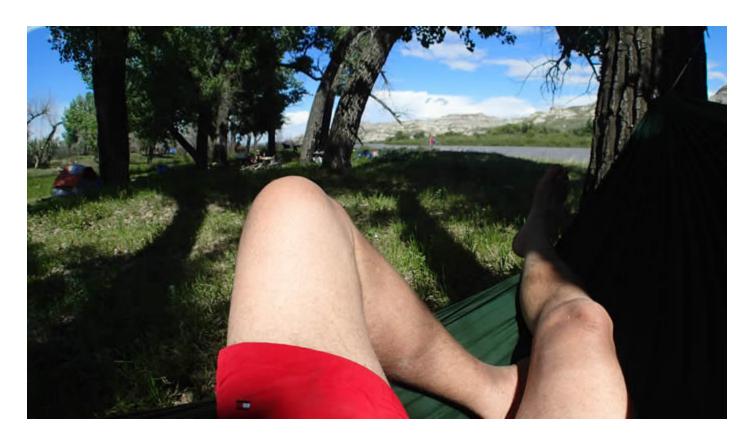
Lady Danger.



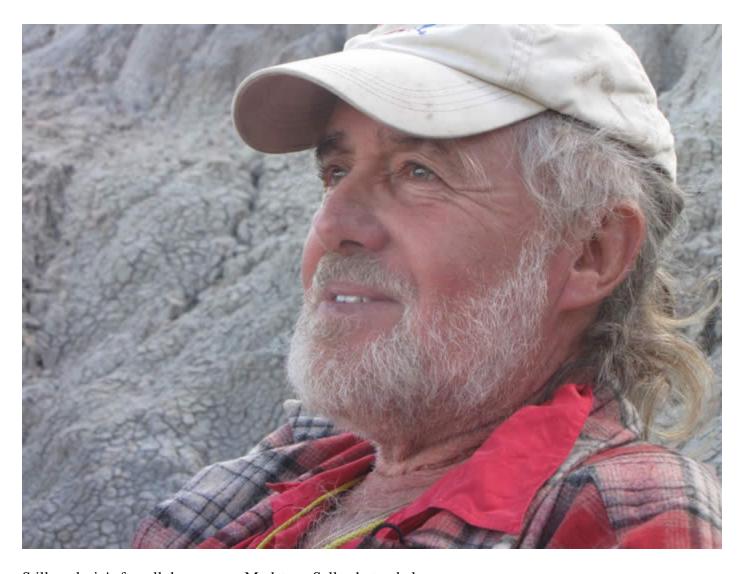
P-rex walking on water he's so pleased with the expedition's finds so far.



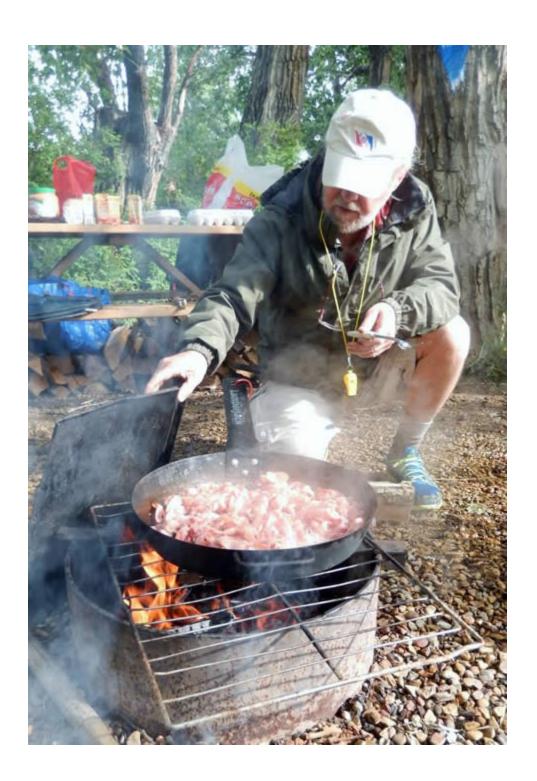
And Dee Dee. The great thing about being on expedition is just how much fun it is. But then, as I said, we're all basically 10-years-old inside, just following our curiosities around like we did as kids, playing in the dirt.



Ah, finally, a few moments in my beloved hammock.



Still explorin' after all these years. Mudstang Sally shot, n below.





Jeez you guys - I asked you to keep the damned black pots off the table! YOU try to get the black crap off....



Thanks, that's better. We found several excellent campsites, which ain't easy along this river, especially in flood.



And it's back into the badlands. These rods were placed here as an experiment by the University of Alberta to determine the annual erosion rate. This is how we know the badlands are melting back at a 1 cm average a year. The last two years have seen heavy snows, read heavy runoffs, and summer rains, thus the exposure of that *Ankylosaur skull* of Lee's. All it takes is one year of water getting into it and freezing, expanding and cracking and it ain't the same. Which is the reason we had to take it out.



One of our goals was to seek out old quarries and we found several. This one at Site 24 was likely a major one. It's believed it was excavated by the legendary Barnum Brown of the American Museum of Natural History in New York in 1911.



Indeed, over 50% of the dinos at the AMNH are from Alberta and that period.



Nearby was an early iron chisel perhaps lost by Brown. We salvaged it for Coy-san who is forming something of a museum of old dino bone equipment. His library of books by and about Roy Chapman Andrews, past Explorers Club president and whose 1928 expedition by vehicle to the Gobi Desert for the AMNH is one of the legendary adventure stories of all time, is in the hundreds. Different members of our expedition gave talks on their widely diverse specialities each night and Coy-san did his on Andrews.





I found two Centrosaurus quarries.



What was interesting about this one was that two large bones were missed, that had eroded out subsequently.



The fossil wood - stumps - at one site were incredible in size. Dee Dee guessed they were conifer. Fossil wood is very hard to ID.



To Dee Dee's chagrin, plant fossils are rare in the badlands, and particularly Dinosaur Provincial Park where this beauty was shot.



Who Doo Dat? We took a couple of side trips.



Another was to a national historic site and an old coal mine. Hundreds used to line the river. They were first discovered by a young geologist, Joseph Tyrrell, in 1884, who also first noted dino bones along the river. An outstanding explorer, the Royal Tyrrell Museum in Drumheller, which *P-rex* was the major guiding force behind, is named after him. I still think they should have called it House of Currie, but I'm always told people would have thought it was an East Indian restaurant. In any case, he's having another museum named after him - the Philip J. Currie Museum will open in December near Grande Prairie, Alberta. It's not enough that *Tyrannosaur phil* has been gathering up top medals from everything from The Explorers Club to the Royal Canadian Geographic Society lately....



There's goes Capt. Hook again - to the top. 84 and he just knows no fear.



He became one of our two casualties though - but not from a fall. On one hot day in the badlands, he didn't drink enough water. The dehydration caused his feet to swell and bad (very bad) blisters to form. "On *Ra II* we were all dehydrated the last month. Who would think dehydration would cause this!" Capt. Hook - Capt. Norm Baker - referred to one of the three reed boat floats he was first mate on with Thor Hyderdahl, specifically *Ra II* across the Atlantic in 1970. As any outdoorsy knows, digits infect fast and furiously while living outdoors. Our medical officers, The Dragon Lady and Tipper, determined he had to be evacuated. Because Tipper is a veterinarian (though of which war I don't know), Hook was required to make a sound like a cow while having his hooves examined.



This was our 8th expedition together and the last thing Hook wanted was to leave - he lives to be on expedition - but "I'd be crazy to refuse medical help." We fortunately had a crude road to this site and were able to call in a 4-wheel drive. Hugs went all around and it was a sad parting.



The driver kindly drove him to Brooks about 30 miles distance where he was treated, and took a hotel room. The Dragon Nurse is seeing him off. Going with him was the Cabbage Lady Phyllis Biegun, who had flown out with him in his Skyhawk from Massachusetts. The docs pumped Capt. Hook full of antibiotics, bandaged him up and he was fit to fly his plane after the expedition ended to Toontown where he got weather bound for a day, giving us a chance to enjoy another dinner with him at Yoko's and Chicken Leg's, the latter who couldn't join the expedition. Phyllis, whose food restrictions were such that she virtually had to live on cabbage this trip, was able to grab a \$500 commercial flight back to Boston.



He wasn't our only casualty. Tony Mayo, aka Firestarter, and appropriately the author of *Twenty-Nine Lives: One Man's Twenty-eight Brushes with Death*, tried to make kindling out of his fingers.



This time he whinnied like horse while Dr. Tipper squeezed his cut together and used super glue on it. That's dino techie Coy-san in the middle, who found the *Dromaeosaur*. He also nailed down a *Hadrosaur*.





By this time, well into our two-week expedition, the discoveries were piling up. The Danish Delight found the top frill of a *Ceratopsian* which will be excavated next year, for the University of Alberta's collection. To put numbers in perspective:

Total Found Worldwide - Total Red Deer

T- rex 30 2

Hadrosaur 300-400 20-30

Triceratops 100 10-15

Ankylosaur 30-40 10



Our last find was a baby *Hadrosaurus* jaw which *P-rex* made and which was timely because he was working on a paper about baby finds. In the end, our final count was incredible: *six* new articulated specimens:

- 1 Dromaeosaurus foot, ankle, tail Coy-san
- 4 Hadrosaur Tyrannosaurus Phil 3, Coy-san.1
- 1 *Ceratopsian* The Danish Delight.

And we also brought out the three jacketted specimens, two of which were discovered by amateurs Mudstang Sally and *Ankyleeosaur*, as well as a selection of teeth which will be passed on to graduate students for study. "Awesome." "incredible" and "absolutely delighted" danced in the air as cold cans of beer were cracked on our last day's blowout. I had surreptitiously ensconced several cases of beer in the back of our truck and our ferrying vehicle brought in the ice.



P-rex confirmed our expedition was not only well within the top 10% most successful he's ever been on, but one of his most successful period. The biggest conclusion we drew is the value of amateurs to paleontology. 18 sets of eyes are better than one, even if they are green. We also had the advantage of hitting the badlands after two of the heaviest rain and snow years back-to-back in decades - indeed, the previous summer saw major flooding in Calgary, 100 miles away. This certainly eroded back the badlands more than the 1 cm annual average.



P-rex and Dee Dee generously presented me with a bottle of my favorite Scotch, Lagavulin-16, for my efforts organizing and leading the expedition. And I had spotted this apropos *Far Side* cartoon for *P-rex*. His passion for dinos began at six when he pulled a little plastic dino out of a box of Rice Krispies. It was the spark that led to my book *Adventurous Dreams*, *Adventurous Lives*. He still has that plastic dino, in a position of honour in their Edmonton home.



When Birdman isn't raising beers with me on the Kwai (see previous early Blah Blah), or getting 5-6 Thai massages a day, he's birdwatching. In fact, he's one of the world's top birders. Here's his report on the trip:

"Birds observed:

Western Grebe

American White Pelican

Double-crested Cormorant

Great Blue Heron

Turkey Vulture

Canada Goose

Gadwall

American Wigeon

Mallard

Blue-winged Teal
Northern Shoveler
Green-winged Teal
Common Goldeneye
Bald Eagle
Northern Harrier
Sharp-shinned Hawk
Swainson's Hawk
Red-tailed Hawk
Ferrugineous Hawk
Golden Eagle
Prairie Falcon
Merlin
Sharp-tailed Grouse
Gray Partridge
Ring-necked Pheasant
American Coot
Killdeer
Willet
Greater Yellowlegs
Upland Sandpiper
Spotted Sandpiper
Long-billed Curlew

Marbled Godwit
Common Snipe
Franklin's Gull
California Gull
Common Tern
Forster's Tern
Black Tern
Rock Pigeon
Mourning Dove
Black-billed Cuckoo
Great Horned Owl
Short-eared Owl
Saw Whet Owl
Common Nighthawk
Belted Kingfisher
Yellow-bellied Sapsucker
Downy Woodpecker
Hairy Woodpecker
Pileated Woodpecker
Northern Flicker
Western Wood Pewee
Alder Flycatcher
Least Flycatcher

Say's Phoebe
Western Kingbird
Eastern Kingbird
Warbling Vireo
Red-eyed Vireo
Black-billed Magpie
American Crow
Common Raven
Tree Swallow
Violet-green Swallow
Cliff Swallow
Bank Swallow
Barn Swallow
White-breasted Nuthatch
Rock Wren
House Wren
Mountain Bluebird
Veery
American Robin
European Starling
Gray Catbird
Brown Thrasher
Cedar Waxwing

Common Yellowthroat Spotted Towhee **Chipping Sparrow** Clay-coloured Sparrow Vesper Sparrow Lark Sparrow Lark Bunting Song Sparrow Red-winged Blackbird Brewer's Blackbird Yellow-headed Blackbird Western Meadowlark **Baltimore Oriole** Brown-headed Cowbird House Sparrow American Goldfinch 95 species "The birds we saw were remarkably consistent with those observed by Percy Taverner in his 1919 report, "The Birds of the Red Deer River." Species we observed that were not on Taverner's list included the not unexpected White-breasted Nuthatch (one seen at Bleriot) and the introduced European Starlings and Rock Pigeons which were seen on a number of occasions. We saw White Pelicans regularly while Taverner failed to see any himself (although others had seen them in the area). Prairie Chickens were still extant in the Red Deer in 1919 but have been extirpated across Canada. Interestingly, Taverner mentioned that the Red Deer River was cloudy

in his time, too, making it difficult for fish-loving species such as Belted Kingfisher. We only saw one. Taverner thought that the introduced Hungarian Partridge had disappeared but Phil

Yellow Warbler

found them, confirming that they had indeed survived! All in all, the birds we found were the expected species and in roughly the same relative abundances as in Taverner's time.

"Here's the link to Taverner's interesting paper:file:///home/chronos/user/Downloads/birdsofreddeerri00taveuoft.pdf"



The complete 18-member expedition, Explorers Club members and future members L-R: Tony Firestarter Mayo, Speedboat Doug Chisholm, Cabbage Lady Phyllis Biegun, the Danish Delight Eva Koppelhus, *Tyrannosaurus Phil* Currie, Long Jessica Lansfield, Lady Danger Jessica Lindsay Phillips, Birdman Rob Tymstra, Capt. Hook aka Capt. Norm Baker, Clive Coy-san, Madame Su The Dragon Lady Hattori, *Ankyleeosaur* Treloar, James Tipper Anthony, Mudstang Sally McIntosh, Yoko Kumiko Yokoyama, Brian Ol' Griz Gentner, Diane The One Woman Party Fay, Jason Capt. Magnus Schoonover.



Another great adventure with The Dragon Lady!



And with that I head down the hill, sad to finish this magnificent adventure I'd looked forward to all year long...but the whole summer lies ahead and there ain't no better summers than Canadian summers....

UPDATE SEPT 29!

This exciting letter with photos came in, appropriately, the day I was at Everest's north face in Tibet. Appropriate because both represent the heights. It concerns the subsequent excavation of one of ours finds:

Dear Fellow 2014 Red Deer River Dinosaur Expedition Members;

Phil, Eva, Susana Gutarra [a volunteer from Spain], and Clive spent four intensive days in mid-September in Steveville collecting the specimen that Clive found in June during our canoe trip.

While the overburden was not too deep, the sandstone was very hard, and we had only hand tools to attack it with. After several nine to ten hour days, we reached the bone level and began to uncover just enough of the skeleton to determine the outline of the body -- what wonderful things we uncovered!

As you will recall, in June, Clive had seen only a few toe bones sticking out of the sand. During the few hours he had there, he exposed an ankle. This time, we exposed the other foot, leg, roof of the skull, and a very wicked looking ungual (claw) from the hand – all bones were in their approximate life positions! From what we could see, it appears to be a completely articulated skeleton! Phil has identified it as the small theropod *Saurornitholestes*, which some researchers believe is the same as *Velociraptor*.

This is a very exciting find for the University of Alberta and for Cretaceous dinosaur research worldwide. For Phil, it represents the culmination of a 34 year quest for a small theropod from Alberta that is complete enough to resolve how closely related the theropods of Alberta and Mongolia are! He was extremely excited and proclaims it as the best small theropod ever found in the province.

The 2014 trip was highly successful; with the ankylosaur skull found by Lee, the ceratopsian found by Eva, the juvenile ceratopsian jaw found by Phil, and the other important specimens we collected, the trip exceeded all our expectations.

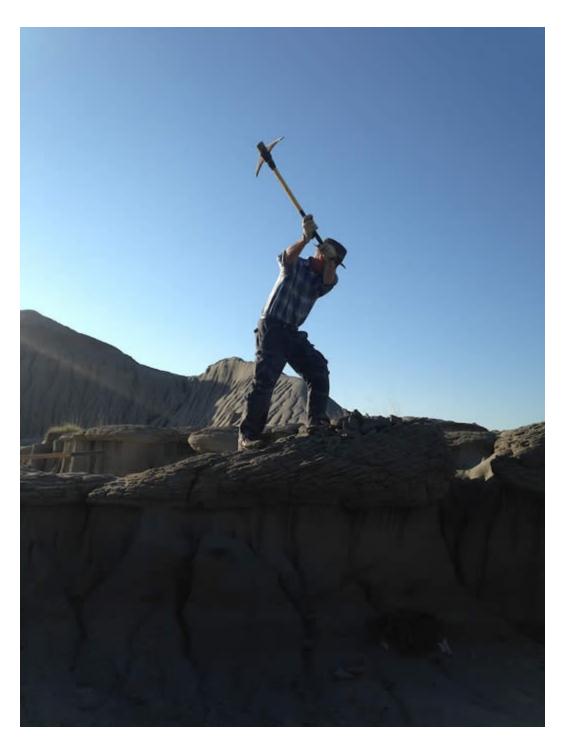
The field jacket is now open, and the painstaking job of exposing the delicate bones and stabilizing them for research has begun. We will keep you up to date over the next year as the project progresses.

With best wishes

Phil, Eva, and Clive



Discovery site.



Opening quarry.



.Almost down to the bone.





Skull roof.



Claw from hand.



Foot.



Happy paleo.



Plastered block.



Rnncher helps with quad.



The Happy Gang Two.



Out it goes.



Almost there.



Safe in the van.



Clive begins preparation.