

Excerpts from Ecology Camp

By Raven

"Cheese cheese burger....Cheese cheese burger....Cheese cheese burger." Oh. My. God. That fudging bird. (I actually called it something a bit saltier, but I'm told this is potentially going to be published in a family friendly sort of thing so I beg forgiveness for my self-censoring.) Reaching blindly from my bed covers I grab at my watch-4:55. Fudge. I'm so tired, but I'm about as far north as you can go without being Canadian so the light of yet another summer day is coming through the window and I can't sleep when there's light. Can't sleep much when there's dark, either, but that's another issue. And of course there's the birds. Three weeks ago I couldn't ID a single bird by ear. I still can't ID many, but the ones I've managed to memorize seem to be everywhere. And loud. Particularly this gosh darned mountain chickadee. I just learned what it was a couple days before and it seems intent on making sure I never forget it. Or ever get the sound of cheese burgers out of my head. Before 5 am a bird who sang "coffee coffee black as your mood," would be a better one to hear.

In case the connection between chickadees and cheese burgers isn't clear, I'll back up a little. I'm not a native to the north. A desert rat by birth, I'm in training to be a socioecologist of sorts, meaning I want to study people, ecosystems, and the relations between them. In pursuit of this desire I applied, and was accepted, to an intensive four-week long conservation course hosted by the Pacific Biodiversity Institute in the Methow Valley, a dry, agricultural area on the north-eastern side of Washington's Cascade Mountains. Unlike the better known west side, eastern Washington is nearly as bone dry and flammable as Arizona, if not quite so heckishly hot. This is because it's in a rain shadow. All the moisture-laden air from the Pacific gets caught in the jagged peaks of Cascades and wrung out like a sponge. By the time the air gets over to the east side of Cascades it's mostly dry, creating the dry conifer forests and high steppe desert of eastern Washington and making me feel right at home. Half the time I've been here I feel like I'm in Flagstaff, just three hours and a good bit of elevation from home. I was expecting to be living in a field situation during the course, akin to the barracks-like abandoned ranger stations I stayed in when my parents worked dig sites on the Mogollon Rim in northern Arizona. Yeah, no. Imagine a cross between a high country ski lodge and a snuggly, log cabin style bed and breakfast, then put it in acres of woodland, add a river, and surround it with snow-capped mountains. Hallelujah, right? Even the food has been good (excepting one memorable salad that really emphasized the "sal" part of the dish). The place is called the North Cascades Basecamp and makes up a large part of the town of Mazama, along with a general store and an outdoor shop, the prices of which reveal some unsurprising things about the Methow's social make up. Think REI evangelists marrying patagucci* environmentalists, throw in a couple of biostitutes**, and mix with ranchers and retail moguls and you have a good picture of the dominant influences around here. Lots of birders, too. Which brings me back to cheese burgers. Sort of.

During the first week of the course we learned about some of the birds common around the Methow Valley, and specifically the Basecamp. We got a whole list of names and then Steve, one half of the impossibly energetic and genial couple who runs the Basecamp and an avid birder, gave a presentation on several of the most common birds and their songs. One thing he taught us were the pneumonics birds use to remember different songs. For instance barred owls ask, "who cooks for you?" Townsend's warblers sing, "hear, hear, see it see it!" California Quails wail "Cah, Cah, Chicago!" And of course I made up a few of my own, because pneumonics work best if you can relate to them. To my cultured ear the MacGillivray's warbler says, "whatwhatwhat, fudge you!" and the chipping sparrow sounds like a toy machine gun. The pileated woodpecker, he of Woody Woodpecker fame, laughs like a maniac and drums with the steady beat of a migraine. And all of them like to showcase their talents in the sleepy grey hour right before dawn, which is when we had to drag ourselves out of bed to go test our newfound knowledge in the field doing bird point count surveys. These

consist of standing in one spot for around half an hour and noting all of the birds you hear or see within a designated perimeter. It's fun to be able to ID birds for sure, but dawn surveys are never going to be at the top of my "must do" list. Especially when we have to stand in mosquito-ridden, undergrowth infested birch forests. I fudging hate undergrowth. And mosquitos. Both make me itch like a female dog even if they never touch me. Totally psychological, but seriously, nature. Gross. As much as I want to leave the desert these two aspects of the unbaked world sometimes make me rethink my life goals.

In any case, about a week and a half after learning a small set of birds, I started to hear another one with annoying regularity. When I finally asked about it, Steve informed me it was a mountain chickadee and that its mnemonic is "cheese cheese burger." Which is how I came to get cheese burgers stuck in my head at all hours of the day as the chickadee, once it gets going for the season, is apparently very chatty. In the morning, the afternoon, the evening, and at the bottom crack of dawn when cheese burgers are gross and I would rather be sleeping than thinking about them.

But as I'm now awake, I might as well get up. I have to do vegetation surveys at 6 anyways and I have a book to finish. "The Wolverine Way" is an account of a wolverine study in Glacier National Park and is relevant to my interests for several reasons. Foremost among these is that I will be going to the University of Michigan in the fall, and the mascot is a wolverine, making it necessary for me to be as well versed in the creatures as possible. Wolverines are also cool as fudge and totally impossible creatures that fight bears and climb mountains as if they were flat ground. Last week, we went out to Cutthroat Trail to see a retired wolverine trap. Looking a bit like a small log cabin, the trap was built out of giant logs on all four sides and it's very heavy lid. The trap is triggered when a wolverine yanks in bait within the trap-using considerable force in order to keep lesser beasts from triggering it-and releases the vice grip that holds the lid open. The log cabin then shuts, enclosing the wolverine, and a signal is sent to the researchers alerting them that something has been caught. However, as both the ranger who showed us the trap told us and the book I am reading asserts, wolverines are fully capable of gnawing their way through one foot diameter logs and don't always go down when injected with a dose of knockout drugs, or two, or occasionally even three. Wolverine is also the call sign of one of my favorite X-Men. Thus I really want to finish this book before the end of the course and I will move my bottom out of bed and down to the couch at 5:15 am in order to do it.

So I do. Sort of. I slump down stairs, give thanks to the coffee faeries that seem to follow me wherever I go and ensure that hot coffee is always around when I wake up, and collapse into the leather couch in the common room. It consumes me. I don't fight it. My book is on my stomach, my coffee's on the floor next to the couch. I don't move for a time, possibly doze, vaguely contemplate picking up either my coffee or my book.

"Cheese cheese burger...Cheese cheese burger...CHICAGO! Cheese cheese burger, hahahahaha ha ha ahahah ha-CHICAGO!-cheese burger...thumpthumpthumpthump hahahahaha ah ah haha, cheese cheese burger...ca ca CHICAGO! Cheese cheese burger...cheese cheese burger...cheese cheese burger...cheese cheese burger..."

Fudging nature.

*a delightful term I heard from Tanager describing those of us who covet Patagonia like others covet Gucci

**a hilarious term I heard from Biologist George, describing those biologists--himself occasionally included--who play politics for either the greater good or the least of two evils, or perhaps in the case of serious biostitutes just because they're paid enough

Ever seen Jurassic Park? I just saw it last week. I know, I'm a little late to get on that train. But now that I'm on it I can make more references than just Harry Potter and Lord of the Rings (but don't worry, I'm not abandoning my status as either a potterhead or fellowshipper), which is great because going out into nature means running into birds, and there is no reference better for birds than dinosaurs. Ever seen a wild turkey lurking about? I have. We saw it when we were hiking in wolf country, 'round Benson Creek drainage. Best description I can give is a feathered, seemingly docile, velociraptor.

Disembarking from our Scooby van at Birder Craig's house, we glimpsed the creature in the dry brush up on the hill. With lots of squealing and "oh my god a turkey!" "Do you see it?" "I see it!" "Get the binoculars!" we determined that it was a female before Birder Craig and Camp Mom Kim hustled us up the hill for a grueling hike--this hill was fudging vertical, allowing for some hyperbole--to look at other birds, see an old coyote den, and get in a good position to talk about wolf reintroduction to the Methow Valley. Birder Craig left us at the coyote den, needing to attend to other business, but we all spent a fair bit of time examining this bit of subterranean architecture. Coyote, being both highly curious and bold enough to follow through, volunteered to see if she could fit down in. She did. Feet first, she got in almost to her neck before a bend in the tunnel halted her progress. In order to get a visual, I decided to one-up her and go down head first. Beaver gave me her large, fancy machine rather than let me whip out my ancient iPhone in order to get a truly detailed picture of the hole, so I went down more elbows first than head first.

"Don't fudge up my camera!" Beaver warned me. This was my excuse for not going down quite as far as I might have been able to. Had to be careful with that fancy-pants camera. Responsible, that's me, holding myself up on my forearms and the camera away from the dirt. Couldn't slither in on my belly and fudge the camera, right? I also let Cougar hold my ankles in case I needed a quick exit. All of which probably negated my one-upping attempt, but fudge that. Dark holes are scary and exactly what you are not supposed to stick body parts into. Especially essential body parts, like heads.

Contrary to my expectations, though, the den was not unpleasant. One reason many animals spend time underground is that the temperature underground stays relatively constant and cool, a steady 70 degrees or so. Seeing as it was a bit warm out and the sparse, burned forest provided little shade, the cool darkness of the den was a nice reprieve. I dutifully photographed the interior, confirmed to Coyote that she was correct about the bend in the tunnel, and got powdery, grey-brown dust all over myself, knees to elbows.

After that we made our way farther up the hill, out of the burned forest and into full steppe desert. From there we could look out onto rolling hills of the valley: present and former ranch land, and now wolf country, too. The age-old battle between ranchers and wolves had restarted in the early 2000s, according to Camp Mom Kim, and the situation was far from resolved or stable. Of course, being a bunch of eco-minded students, we were firmly on the wolves' side. And hungry as them. So we headed back to Birder Craig's house to eat our lunch and ID more birds. His garden is built to attract native species, and we called out their names from the porch: Cassin's finch, calliope hummingbirds, black chinned hummingbirds, spotted towhees, orioles, quails, cowbirds (invasive species, darn them), and, what ho! The turkey came back.

"Look!" whispered Tanager excitedly to me. "Do you see it?"

"Yup." I saw it. I was a bit enthralled with it, to be honest. Before we had seen her from a distance, but this time she was pecking about right behind the porch, easy to both see with the naked eye and catch in a binocular lens. Ve-lo-ci-raptor. Luckily without the temperament of Jurassic Park's infamous trio, at least so long as we didn't approach her. I won't approach a turkey, nor a goose, nor a swan. All of these shrunken, feathered, allegedly vegetarian dinosaurs have chased, bitten, or tried to bite either me or one of my family members. In particular, my brother was chased by a turkey that, at the time, was larger than him. Though in all fairness he had chased the turkey first. Still, scary mofos the lot of them. So I stayed on the porch with the rest of the Scooby pack and observed a giant, longhorn beetle with Coyote. But together with Tanager I kept one eye on the turkey-raptor as it stalked about on its long bottom legs and big bottom claws. Evolution, am I right?

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The western grey squirrel prefers ponderosa pine forest with enough canopy that it can move easily between trees and some understory vegetation, but not too much. These are some of the conclusions that have been drawn by the ongoing studies by the good folk at the Pacific Biodiversity Institute. But of course, more information is still needed. This is especially true because the forests on the eastern side of the Cascades are burning up, literally. More than 40 percent of grey squirrel habitat has burned, and since they favor healthy forests-and are admittedly easier to gather data on than birds-PBI scientists are using their presence or absence to understand the impact of fire in the North Cascades. Which is why I and the rest of Dumbledore's Army are bushwhacking through a burned aspen forest in undergrowth tall enough to tickle our armpits. In case you've never had the experience of tromping through armpit assaulting undergrowth oozing plant sweat (evapotranspiration is the technical term for the process) into the summer heat and thus turning the air into a soupy morass, I can safely assure you it's not the most pleasant of adventures. And that's leaving out the mosquitoes. Fudging gross.

I had stupidly forgotten the rule of dressing for the heat of the day rather than the cool of the morning and was wearing my light weight flannel as an over shirt instead of my quick-drying adventure shirt. Usually I am pretty good at dealing with being hot in multiple layers, as I am both pale-skinned and have a horror of the parasitic pests that favor dense undergrowth and tall grass. But oh, the humidity. I had dumped sunscreen on myself in place of my over shirt at the last site, but one glance at this site and I had quickly put it back on, visions of ticks, chiggers, mosquitoes, and heck knows what else dancing in my head. But oh, the humidity. Within minutes I had caved dripping heart and derived down to my tank top, at least while standing in the relatively open area at the center plot. It took us a bit of work, wriggling and tripping and sucking it in to try and avoid the gosh darned scritch of the verdant heck surrounding us on all sides, before we got to that island of reprieve, but we made it without physical injury. Psychologically I was writhing.

Intern Kristina was old hat at this and dealt out our respective tasks for this plot with minimal concern: setting hair tubes, recording vegetation data, and gathering tree data. Hair tubes are simply baited tubes with sticky tape at each end. The idea is that a squirrel (or whatever small animal you are aiming to learn about) will go through the tube to get the bait and some of its hairs will get stuck on the tape in the process. This helps establish the presence of a species in an area, and if enough hair is gathered genetic analysis can be done to get data on individuals, too. Snowshoe Hare and I had done the vegetation data at the last plot, identifying all the plants we could (not many), taking pictures of the ones we couldn't, and estimating what percent of the central

ten meters were covered with what types of vegetation or debris. This time Lamprey, Salamander, and Beaver did the veg stuff while Snowshoe Hare and I took the tree data. Intern Kristina watched us, answered questions, and enjoyed having someone else do some of the dirty work, I'm sure. I certainly would have been overjoyed to have some hapless sub-interns to do this nightmare of a plot if I were her.

Using a specially cut prism, I identified all of the trees of importance to the plot-if they are big enough or close enough for the prism image to overlap the image you can see with your naked eye, the tree needs to be taken note of. Different prism cuts are used for different size plots. Snowshoe Hare marked an "x" on each tree I pointed to, fighting her way through the overgrowth to reach each one. And now it was my turn. In order to get the height of each tree, one of us needed to hold a tape measure at the tree and the other had to walk 20 meters away to use an inclinometer. The first couple of trees were fine, for me at least. They were close to the center where team DA had already trampled the clinging vegetation flat and I could avoid most of the undergrowth and pretend I wasn't in tick territory. Snowshoe Hare had the unfortunate task of trying to get 20 meters away from each tree. I appreciated her sacrifice and dutifully wrote down all the numbers she yelled at me while also measuring the diameter at breast height (DBH in forestry circles) of each tree. We were also supposed to measure how high any burns went in each tree and at what height leaves started growing, but pretty much every tree was dead and with no noticeable burning. Aspens do not survive fire very well, even if they are not reduced to charred sticks, apparently. All but one of the trees we marked was doornail dead.

Now, though, my time of suffering had come. The rest of the marked trees were some distances from the center and in order to complete my duties I had to get to them. Fudging heck. Looking at this wall of green and trying not to think about the sheer amount of opportunistic life likely surrounding me, I don my flannel shield and dive in.

It's not as bad as I've been anticipating, mostly because I'm already covered with a disgusting mix of ash, dust, sweat, sunscreen, and bug spray; my capacity to emote anxious grossness is close to being exhausted and I am nearing a state of perfect apathy. I'm also tired, which further reduces my ability to freak out. By the time I approach my second periphery aspen I am also approaching field work zen. But I'm not quite there yet and as I shove my way through the overwhelming greenery I still duck in a futile attempt to protect my face. By tree three my flannel is hanging precariously from my shoulders as I attempt to protect myself and get some air circulating across my sweat slicked skin. At the fourth and final tree--a mass of burned and dead sticks that are only identifiable as "not an aspen"--I'm so hot and so thoroughly shrubbed that I can't muster the energy to care. I simply let myself get scraped up as I wrap the DBH tape around the trunk and attempt to point out to Snowshoe Hare exactly where the top of the burn is located. Grasses as tall as my head bob and wave around me, tickling my cheeks and chest where my tank top dips. I fudging hate that feeling, grass on my skin. But you can get used to anything, yeah? In any case we get the last sad snag of a tree done and we stumble our way back to the center point. The other group has also finished with their vegetation surveys so it's hair tube time. I might be feeling a bit apathetic about the amount of buggy undergrowth around me, but that doesn't mean I'm willing to dive back in if I can avoid it. I stay mulishly silent when Intern Kristina asks, "Who wants to set up a hair tube?"

Luckily Lamprey and Beaver are real DA material and volunteer for the task. Granted a brief reprieve, I finally tear off my flannel, giving myself up to the bugs because oh, the humidity. The shirt is damp with sweat--mine and the plants'--and my tank top's not much better. My sports bra is melting into my skin and I don't think I'll ever be able to get it off. I can usually take the heat. One hundred and ten degrees? Bring it on. But cheesus don't add fudging water. Dieting a bit, I lean back against a charcoal stick that, once upon a time, was a lovely

aspen. Before a raging fire, courtesy of decades of misinformed management and an unlucky lightning strike, razed the Squaw Creek watershed to the ground. These blackened graveyards are great place for shrubby monstrosities to grow in the short term and can benefit trees over the long term, but this one, at least, is a bad place for squirrels. Not much canopy connectivity, too much understory, no pines to speak of. Just ashy aspen skeletons. And sweaty bushes. Bad place for humans, too.

I stare at the remaining hair tubes piled in our squashed-plant haven: three left. Three more trips out of the Circle of Safety and into the devil's snare that at least two of us are going to have to take. I look over at Salamander and Snowshoe Hare, both slumped on decaying logs and slowly being consumed by undergrowth. Or drowned in the water-soaked air, it's hard to tell. No one is talking much, in any case. I silently weigh the suffering of putting my shirt back on versus the bug bites I might be getting. Fudge it, I toss my shirt into my bag and give my bottom to the bugs in one ungrateful motion, sliding down to sit on the trampled, mushy ground. My arms are streaked with charcoal, my fingernails are black, snowberry and hair-raising grasses are attempting to swallow me from behind, and I'm sure there's some gross shizzle crawling up my pants. There's just no point in trying to stay above it all.

When our least squeamish teammates return, I again stay silent and will someone else to be a better person. Eventually, Salamander reluctantly volunteers as tribute, along with the apparently inexhaustible Lamprey. I feel a bit bad as I watch them disappear to find the point 20 meters west of the center, where the tube needs to be set according to the study methods. I know I'll volunteer for the next tube, but in the meantime I sit and gulp down water and wonder why in Heck's bells I ever left the desert. Bone dry, mostly dead, and always obvious about how it wants to kill you, that's the key to getting along with nature.