



Wet rainforest

Snettisham 2008 – 9: Bear Proof Box August 15-17

With Girls Weekend behind me I was ready to get productive again. While walking Nigel one morning before work I ran into my neighbor Matt who helped spearhead the marbled murrelet study in Snettisham. He told me that, after four field seasons, funding for the study had finally run out and the Department of Fish & Game would need to remove the two tent platforms from the camp at Pt. Amner. Rather than burning it or hauling it back to town, Matt offered it to me instead. I didn't answer him right away, but pondered it for a few days, knowing that it would be a bit of trouble to haul it up the beach and put it away after it was delivered. But, in the end it was hard to turn down free lumber and I was out of 2X4s and plywood anyway. Matt was planning to head down Saturday and Sunday mornings, returning each evening, and hoped to make the delivery Sunday on the afternoon high tide.

At 5:00 Friday afternoon, my mother, Nick, Ashleigh and I headed out of Aurora Harbor on the *Kathy M*. Since I was taking my mother along for the weekend I was urged to use their boat which she graciously fueled up while I was still at work. Nick and Ashleigh brought along Subway sandwiches and cookies for supper (the third supper of Subway sandwiches I'd eaten on a boat within two weeks!) and we had an uneventful ride down. Unfortunately, the tide was a bit low when we arrived and we went aground about 20 feet from



Ashleigh and Nick crossing the mud



Mom clearing the path to the creek

“dry” land and 150 yards from the lodge. My mother and I had hip waders so we transported all the gear to the nearest rocks, anchored the boat in the mud, then debated what to do with our passengers. In the end, Nick put on a pair of sock-like waders and walked to shore and I carried Ashleigh the short distance to the edge of the mud.

Once we reached solid ground with all our gear, my mother and I toured Nick and Ashleigh around the property, then settled into the lodge for a game of scrabble (Nick won). When I first entered the lodge I was greeted with the wonderful complete lack of mouse dirt—I was finally mouse proof!!

Next morning I managed to get up early enough to fix the water pipe that Cindy the bear had bitten through before anyone else arrived at the lodge. There was such significant damage to the hose that instead of sealing the holes with rubber and hose clamps (as I’ve heard can be done) I just

cut the whole foot-long section off and spliced it together with a coupling, pouring hot water over the hose ends first to limber them up. Shortly thereafter my mom and I started to work on hooking up running water, first trekking up the hill to the olive barrel to turn the water on. On the way I whacked the softer vegetation back with my machete and my mother cut the devil’s club until we had a decent path. The olive barrel wasn’t in place, so we lowered it back into the deep hollow and loaded rocks around it. It was raining steadily and looking up through the devil’s club into the misty forest was absolutely beautiful—classic rainforest.

Back at the lodge we started putting things together. I’d visited the plumbing store the week before and procured everything I needed to get the system finally working. This turned out to be a bit trickier than



The olive barrel catchment repositioned in the creek



Running water

simply screwing some fittings together. One problem was trying to stop the leaks between all the connections and water filters. We managed to fix most leaks by wielding two awkward pipe wrenches between us to tighten them up—only a slow drip or two remained outside. Then we had to find the right place to drill through the interior siding to match up with the hole in the exterior siding where the hose was meant to come through. I think there's now an extra hole in the wall outside as I completely failed in my first attempt and decided to drill a

second hole outside, but so it goes. Eventually we were able to pass the hose through the two rather off-set holes and to the sink inside. It took us a while to stop the leaks in there too, but eventually we had the whole thing set up and the four of us stood around to bear witness to a wilderness plumbing feat. We cracked the valve outside just a tiny bit and saw water charge through the water filters. Inside, when I turned on the faucet.....nothing happened! Somehow we'd managed to hook the water up to the hot water tap without realizing it. When I turned the hot water tap on, some amazing gurgling noises came forth, followed by a beautiful gush of water. Running water!!!! Running potable water in my lodge!!! It was pretty exciting and I have a very dorky video of myself turning it on for the first time. Then, of course, we unscrewed it and hooked it up to the cold water side.

After that we celebrated with a brunch of some amazing banana pancakes that Ashleigh cooked. In the afternoon, I futzed about fixing the gray water system inside the olive barrel. I brought the barrel inside to dry (intending to fix the bear chew holes with epoxy), then sat on the floor and put together a replacement fitting for the barrel's outlet (which had disappeared in the bear event last year). The through-hull fitting was still in place, so I'd gone to (a different) plumbing store the week before and found a series of couplings that would more or less fit in place and would



Reconstructing the gray water system

hopefully work once I sealed them up with a bit of epoxy. I needed a short length of vertical perforated pipe to somehow attach to and drain into the through-hull fitting...which required something to fit into the through-hull (which has no male or female parts on the inside), then convert to 1 1/4" size couplings to fit the pipe I have. It was pretty makeshift with 1 1/4" couplings fitting around 1" couplings and a couple of 90 degree angles to bring the vertical pipe away from the edge of the olive barrel (which was in the way), but eventually I'd constructed the whole thing (which included the pipe we drilled holes in and the filter bag), sealed the necessary parts with epoxy, and then stuck it

inside the bottom of the olive barrel and sealed it in with more epoxy. My mother assisted and offered helpful hints all along the way.

By 1:30 I broke from that project and fetched the boat to pick everyone up on shore. I'd talked to Matt about helping tear the tent platforms apart (he suggested I show up at least to "rally the troops" a bit) and offered to provide rides to town if needed. We showed up at the camp near Pt. Amner (just outside the entrance to Port Snettisham on the



Ashleigh, Nick and the biologists deconstructing a tent platform

south (east really) side) to a flurry of activity. Three boats were at anchor, there were piles of lumber here and there, and several Fish & Game biologists were unhappily whacking at boards and pulling nails in the rain. I dropped everyone off, then anchored the boat and kayaked to shore. Nick and Ashleigh were already at work removing the last of the 2X4s from the first platform, but Matt insisted that they take a walk around the point. I felt compelled to stay and help, so Matt accompanied them while my mother and I helped deconstruct the platform in the steady, slimy rain. An hour or so later we were wrapping up removing the final nails from the first platform and dumping the lumber on a pile at the edge of the beach and the crew was clearly ready to head out. My mother and I loaded up a bunch of 2X4s onto the *Ronquil* and Nick and Ashleigh boarded Matt's boat for Juneau.

Back at the homestead my mother and I had a late lunch of quesadillas before getting to work. Last fall I'd dug and constructed a gray water system to deal with sink water using an Alaska Department of Environmental Conservation pre-approved plan that involved a sort of simple grease trap running into a gravel-less drain pipe. It was all functional last year until a black bear carried the olive barrel (which was the center of the system) up the

hillside. More than just replacing the missing parts and fixing the barrel, there was no point in reconstructing the system if we couldn't protect it from bears.

So for nearly a year I'd been throwing around ideas for making a bear proof container, anything from brick fortresses to steel cages. In the end I landed on a simple plan that offered more than just protection for the water system—a small enclosed deck where I could store the propane tanks and other sundries behind the lodge (which had been looking a bit white trash). Regardless of the plan, though, it needed to be sturdy enough to thwart the efforts of a nosy, hungry bear.



So my mother and I started digging in the rain. I had two pier blocks left over from previous construction efforts for the outside corners of the deck and one 8' 4X4 to connect them (the whole box would be 8' long, or half the width of the lodge). Parallel to the 4X4 we nailed a 2X4 against the lodge, eventually spanning the two pieces with 2X4s—all pressure-treated lumber left over from deck and lodge construction. But I'm getting ahead of myself. First we dug the holes for the pier blocks, fully burying them to add stability. The deck was low to the ground, so the upright posts on which the 4X4 rests were fairly short and we excavated a little so the 4X4 wasn't in contact with the ground. There's always a lot of back and forth at this stage of deck construction, raising and lowering the pier blocks, pushing them this way and that, but we eventually were pretty satisfied with the location of the outside corners. When we placed the 4X4 on the posts, though, we found that it landed right on top of the hose that connects the olive barrel to the drain field. Last year I'd very carefully set the whole system up so there was sufficient drop between the sink and the olive barrel for a gravity system, and then between the olive barrel and the drain field. I was very limited due to the height of the water level underground which limited how deep I could bury the drain pip. Plus, the flexible hose I was using was heavily curved in such a short length (about six feet) and keeping it at a downward slope was tricky enough when it was impossible to straighten out. We figured we'd probably have to cut a notch in the 4X4.

On that note we decided we'd better get the whole gray water system functional before we finished the porch. We went inside and started cutting a hole in the siding under the sink for the drain pipe which was currently stuck in the wall and hanging from the outside. I had the usual frustration of not being able to find the right sized hole saw, then struggled to pry wood out of the hole saw we decided to go with, etc. etc. The hole saw was too small so I started making multiple holes....and then crashed into a wall. It was 8:00 and I was suddenly and dramatically incapable to accomplishing anything. Despite my drive to reach a more satisfying stopping point, we quit, had a snack, drank a bottle of wine and headed to bed for the night.

The next morning I arrived at the lodge to a very unusual and pleasant surprise. My mother was up before me and had a fire going and was ready with a batter of banana pancakes! Wow, what a treat!! On that hearty note we got back to work. I'd awoken in the middle of the night for about an hour and a half (thanks to the wine) and had come up with a brilliant solution to the drain pipe dilemma. I had an 8' length of rigid black pipe left over from the piece I'd bought to connect the sink drain to the olive barrel (the same length of pipe we'd caught a mouse in earlier this summer). It turned out to be the

perfect length. I shoved the curvy flexible pipe inside, effectively straightening it, and connected one end to the olive barrel; the other end fit right inside the drain pipe, a straight shot. The best part? Instead of curving under the front of the new "porch" and the 4X4, it now passed under the (future) joist along the side. Brilliant.

From there we finished the porch, nailing in the 4X4, then cutting and nailing in 32" long joists so they formed a tiny cantilever. After the joists were secure we cut pieces of plywood to make the floor, forming about an 18" platform on one side of the olive barrel and a 4.5' platform on the

other (the olive barrel sits in the middle on the ground). Then the fun part—walls! We used the 2X4s from the Fish & Game camp to construct three stud walls—one eight foot wall on the outside, and a single frame on each of the end walls. Oh, and did I mention it was raining? We did all of this in the dismal rain, the ground around us black and slick



Framing on the front porches

and slimy, the lumber wet, everything wet. About the time we were finished framing on the front porches we saw Matt's boat approach (it was now late in the morning). He and two biologists arrived with a load of 2X4s and other sundry items including rebar, some aluminum pieces, shelving units, and copper tubing. Everyone helped unload and haul the lumber to the lower decks in front of the lodge, then Matt said he intended to bring the big bundle with the plywood by on the high tide that night.

Unfortunately we couldn't stay that long, but we did manage to progress a bit farther on the bear proof box before we had to go. We nailed in the three walls, then decided to make a gently slanting roof to shed rain and snow. The height of the walls was only 42" so the roof would be below the level of the back window. We nailed a 2X4 against the back wall for support, then cut more 2X4s as roof beams and began nailing those in. We then found the last piece of full plywood on the property (all the way up at my cabin) and carried it down, cutting the roof piece from it. At that point we reached a stopping point and quit. The filters and the water hose needed to be moved so we could put the plywood in place but we simply didn't have the time. I was departing for a week of site visits on the Kenai and in Anchorage the next morning, and still had some work to do in town before I left. We hastily packed up and headed out around 3:00, very pleased with our progress. On the way out of Snettisham we noticed hundreds of murrelets everywhere on the water. I was pretty chilled, so around Grand Island we broke out the Mr. Buddy propane heater and...I admit, it was pretty luxurious! My pants even dried out a little. We'd brought along plenty of extra fuel, but in the end only burnt 40 gallons.



Mom lifting up the stud wall (note the drains into and out of the olive barrel and the water hose)