



## Tree climbing with a higher purpose

**One forest ecologist's got a great idea: mix practicing scientists with artists and generate that much more data.**

BY ANNE CASSELMAN, 26 DECEMBER 2006



IMAGE: ANNE CASSELMAN

Jodi Lomask, artistic director of the Capacitor performance group in San Francisco, hangs off a 650 year old Douglas Fir by a rope the width of a thumb. The tree is one of 17 at Cedar Flats Research Natural Area in the Western Washington Cascades rigged for research purposes.

Like any experiment, Nalini Nadkarni's latest stint of fieldwork in the old growth forests of Southeast Washington state began with a hypothesis: "By putting scientists and artists together in the field doing experiential work, will each group gain something that would not have happened if they had been doing their work separately?"

To test her idea the tree canopy ecologist from Evergreen State College invited an array of artists to join her scientific colleagues and herself in the field for a couple weeks as part of the "Canopy Confluence". Nadkarni keeps eight different field sites in the Cascades Mountains as part of a long-term study of old growth Douglas fir stands. This summer, she visited two of them with an army of artists, dancers, scientists, tv people, and writers in tow, including myself.

I arrived at the Swift Reservoir campsite one morning in late August. It didn't take a lot to spot the self-described Hindu-Jew's smiling face, framed by energetic black curls. "You MADE it!" she exclaimed. I emerged from the car, legs cramped, goldfish crumbs glowing orange on my chest to get an enthusiastic hug. Within two hours I was caught up to speed, caffeinated, and trundled off to the Cedar Flats field site.

Nadkarni's motivation for, say, leaving singer/songwriter Dana Lyons hanging with his nose in the deep grooves of old growth Douglas Fir bark ("Really what's blowing my mind is you're really intimate with the tree this way," his voice booms, suspended from on high) comes down to communication. "He sings how many concerts a year? And could I ever get to those people? Could I sit around in a coffeeshop and hand out my scientific papers and say here read them? I don't think so!" she says. "There's a huge audience that I'm incapable of getting at with all of my efforts."

Sure enough, it worked. Dana Lyons, the voice behind the biting vegetarian anthem “Cows with Guns,” spent the rest of the day putting pen to paper and fingers to his miniature backpack guitar. It was the first song he’d ever done in a day. That evening at campfire, after all five 80 meter tall old growth trees were stripped of climbing rope, data books collected, canopy mammal traps checked and reset, Dana sang for us. “I just sat down by the tree and did a little bit with the bass note,” he explained, his brand new lyrics lying open on an empty spool of climbing rope. “It’s really a climbing song and of course climbing is a metaphor for everything.” The song sounded “driven” to John Calderazzo, a poet and English Professor at Colorado State University. It was also catchy and moving. If Dana continues to like the song (the attrition rate is very high he explained) then he’ll start playing it at gigs. If it passes muster with the crowds, he’ll record it.

Nadkarni’s communicated science outside the box for a while. Several years ago, Nadkarni converted her data on the translocation of tree nutrients into music so that she could play her data at conferences. The melody was a hit. She also hosted an artists’ retreat called “Branching Out” set in the forest. In a different vein her “Tree Canopy Barbie,” 300 of which were sold around Olympia for donation, not only gets smiles from young girls, but also generates their interest in forest ecology (“Ground Support Ken” is on the way). Other projects include counting biblical references to forests and trees (there are 328) and telling local churchgoers about it. More recently she teamed up with the Cedar Creek Correctional Facility where she got prisoners to study how to best grow mosses artificially.

Still the best results she’s seen have been with artists. “Artists are allowed to articulate the emotional, the aesthetic, and spiritual in a way that scientists, even though they might feel it, aren’t allowed to,” she says. “[They] are much more able to communicate those aspects which are more compelling to the public in terms of conservation that almost all the scientific content in the world.”

The creative output from this Canopy Confluence alone is immense when considering how many eyes and ears will fall on it. Local Olympia, Washington artist Chuck Willyard will paint numerous tree portraits. Jodi Lomask will fold the science she learnt into Capacitor’s show “Symbiosis,” which opens this February in San Francisco. John Calderazzo put pen to paper and wrote countless poems. Canadian writer Ann Eriksson’s study of tree canopy science will be funneled into her upcoming novel in which the protagonist is a forest ecologist. Dana Lyons may have just written his next hit.

Ever the scientist, Nalini hopes to play with different variables in follow up experiments expanding on the basic premise of the Canopy Confluence. “If that hypothesis is true, then how can we set up the confluences in the future to maximize the probability that that will happen,” is how she puts it. Would it work with all kinds of science? With equal numbers of scientists and artists? With kids? With camp cooks? She hopes to get funding to find out.

On the last day of the Canopy Confluence, I asked Nadkarni how she thought her experiment had gone so far. Her eyes followed Zack Bernstein a dancer from the Capacitor performance group, shimmy up a red and white climbing rope, ready to collect branch growth data for her lab, as she collected her thoughts.

“Certainly I could go along in my research collecting data and writing papers without the help of a dancer or a juggler or an artist or poet but I think that there’s something of value here,” she said. “Really, I have no idea where it might go but I really feel that we’re onto something with this.” Bernstein had long since disappeared up into the canopy, his presence 70 meters above us only betrayed by a slight sway in the rope, like the wake of a freighter from miles away.



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