

# WONALANGET' OUT DOOR CLUB

Newsletter



November 2013

CARING FOR THE SANDWICH RANGE SINCE 1892

## THE DARK SIDE ISSUE: READ IT AT YOUR PERIL

**Just to clarify: reading this issue will not give you nightmares or fill your mind with vampires, zombies or werewolves. That's fiction's job. What it will do is worse: it will destroy any illusions you might have had that nature is either benevolent or straightforward; that we're the only species that murders its own kind; that trees aren't executioners; that cheating isn't widespread across kingdoms; that animals have some sort of natural wisdom; in short, that we think other species are nicer and simpler only because we're too self-involved to look at them closely. Read on. The wilderness will be darker after -- but also more complicated and fascinating. Exit Disney; enter the new, true Grimm.**

### **The Dark Side of Gavian Ecology or Confessions of a reluctant loon biologist by Chris Conrod**

This essay is rooted in bias. Let's get that straight right off the bat. First, I am a frustrated mammalogist. Loons are not where my head is at. I have nothing against them personally other than the fact that they're not mammals. Don't get me wrong; I actually like some birds – chickadees and Corvids in particular. They have pleasing, lively personalities; they get along with each other and they don't abandon us when times get hard. I admire a bird that's willing to dig through a foot of snow just to get a sunflower seed.

Second, it's tough to find someone willing to pay you to study animals. And when you do find that rare breed, you can be certain that they already know what they want you to tell them. There is no use in me trying to explain that the loons would be better served if I stayed out back and continued to build the artificial nesting island rather than spend an entire day chasing a lead-poisoned loon around a lake. That loon is a goner: the swimming dead. It has nothing more to contribute to the population. As a hard-nosed ecologist, I have drunk the socialistic kool aid of group over individual. Unfortunately for me, the non-profit organization members and donors who pay my salary don't see it that way.

Third, science is a human endeavor. That's right; scientists are humans, with all the human frailties. We are egotistic, belligerent, biased know-it-alls who don't appreciate contrary opinions. I believe it was Robert P. McIntosh, an ecologist, who once wrote that the most quarrelsome event he ever witnessed was an all night poker game with a group of his colleagues. Don't trust the scientist. I suggest instead that you keep a cautious optimism that the scientific method will continue to push us along a spasmodic spiral toward an asymptotic truth.

I approach this writing assignment with an ambivalence born of enthusiasm for the subject and terror of the repercussions when I show up for work this spring. Are we ready to dive in?

### **Loons are sorcerer/charmners.**

Conservation biologists tend to rally around a "Flagship Species" because they know if they can attach a sympathetic

face to their work, they can wrangle more money out of the softhearted public. The so called charismatic megafauna work best and, worldwide, the panda is the all-time champion. For lake people in New Hampshire and elsewhere the loon is the premier Flagship Species. It's sort of interesting that both animals sport a distinctive black and white coat. And I find it ironic that, in the mammal world, a high contrast black and white pelage is often used as a message to, "Don't mess with me or you'll be sorry." Think skunk. Or if you've ever shone a flashlight on the business end of a porcupine on a dark night, you have another good example.

Loons have managed to take what is normally a warning color scheme and turn it into a refined, formal dress, complete with an enchanting pinstripe necklace. The whole ensemble is so alluring that they can get away with displaying their red-devil eyes, which would otherwise reveal their true pernicious nature. Add to this their ability to appear and disappear like apparitions – making you wonder if you are able to differentiate between reality and illusion – and the loon's ties to the occult become apparent. But the loon's premier tool of enchantment is its voice. The wail, reminiscent of the wolf; the giddy laughter of the tremolo; and the hybrid donkey-seagull shriek of the yodel all combine on a June evening to mesmerize the summer lake residents relaxing on their decks. Some of these people fall permanently and hopelessly under the loon's spell.

I affectionately call these victims of sorcery "the loonytics." Affectionately, because many of them are a great help to me in my work. The educated loonytics understand the behavior and life history of their masters and they document everything. They often know to the minute when the loons arrived on the lake, when they started nesting (at the office we have actually received time-stamped photos of an egg protruding half way out of a loon's butt), and when the nest either fails or hatches. This is great because it frees up some of my time for dealing with the uneducated loonytics, with whom the loons love to play mind games. The loon's favorite teaser is to stay in one spot on the lake, spinning in circles while in a grotesquely awkward pose, doing back flips, breaching like a whale, and constantly beating its wings in the water. In mid summer I'll get at least one call a day that there is a distressed loon acting queerly. I inform the caller that what they are witnessing is

called maintenance behavior; the loon is preening and bathing so that it can keep its feathers waterproof and rid itself of ectoparasites. That's a lie. I've seen this behavior many times and there's no way the loons need to go to such extremes purely for the sake of hygiene. What they are doing is messing with our minds. That's their nature.

### **Loons are nasty.**

What many of the loonytics don't realize is that, when the loons are filling the early summer nights with their haunting calls, they are actually hurling profane insults at each other. The tremolo and the yodel are both used as warning calls and the loons can size each other up based on pitch and intensity of the calls. The wail is normally considered to be a contact call, used mostly between mates; but at nighttime, when the pair is together, it seems to be more of a territorial call such as the songbirds use. This back and forth taunting is important to loons because they are always looking to climb the social ladder. Loons without a territory are looking for one and loons with a territory are coveting a nearby territory with better habitat or a better chick brooding record.

Contrary to what you may hear otherwise, loons are not monogamous. Mate fidelity is low; territory fidelity is high as long as the pair are successfully producing chicks. If a loon is on a good territory, he or she doesn't care who their mate is as long as the mate can help hatch and raise a chick or two. Generally speaking but not as a hard fast rule, the only time mates will cooperatively defend each other is when they share an investment: eggs in a nest or chicks in the water. And even then that may not be enough to keep a pair bond intact. If one of the pair is having a bad day – perhaps he has come down with Aspergillosis or is having a hard time dealing with some fishing tackle he swallowed – a neighbor might detect his vulnerability and chase him off the territory; or worse, kill him.

Loonicides are a fairly common occurrence. They usually happen one of two ways. Sneak attacks are performed by stealthily swimming underwater and impaling the victim in the breast. This doesn't always result in death. During necropsies, many loons are found to have healed impalement scars in their breast bones. In face to face combat the goal is to incapacitate your opponent so you can grab its neck and hold the head underwater. On one fairly large lake in New Hampshire we have a loon I call The Psychopath. When the male of a pair with two chicks became sick, this loon moved in and killed the male and both chicks. The following year, when he and the female on territory (the bereaved widow of the previous year) couldn't seem to get a nest going, he swam over to the next territory, chased the male out and killed the chick. Last I heard, the female on The Psychopath's new territory had yet to warm up to him. It will be interesting to see what shenanigans he will be up to this year.

On small lakes with only one loon territory, occasionally an intruder will make the mistake of landing when an aggressive pair has chicks to defend. If the intruder isn't quick enough to realize his mistake and get airborne again, his only means of escape is to crawl up on land. Loons aren't designed for a terrestrial existence. Once or twice a year I'll get called out to check on a report of a loon sitting in someone's back yard. In spite of the fact that loons can not walk at all, I've found them as much as thirty feet from shore, cowering behind a bush or a lawn chair. I love these rescues. It's easy to capture them and they are usually still in perfect health. All I have to do is bring

them to a pond large enough for them to take flight (they need about 100 yards into the wind). I give them a stern lecture on property rights and toss them in the water.

On one small pond in Ossipee there is a territorial pair well known for their aggression. They don't even need chicks to defend. They just don't like sharing their pond. I know of two visiting loons we've rescued from that pond and I've heard stories from two people that the loon pair isn't fond of human swimmers either. One is a good friend of mine who finally decided to find another swimming hole. Reports of loons harassing swimmers come in occasionally but there are no documented cases of people actually being physically attacked. But I figure it's only a matter of time. I recommend wearing a Kevlar chest protector whenever swimming in loon infested waters.

Loons also hold grudges. I have experienced this first hand, as has one of my colleagues. In both instances the loons remembered us from a recent banding session. In my case, I was out checking on the loon to make sure that it was still doing all right. The loon saw and recognized me at a distance of about 200 feet. It immediately swam directly up to within 5 feet of my boat (not even similar to the boat we used while banding) and gave me a tongue lashing that surpassed any my mother gave me in my younger days. It wouldn't accept my explanation that I was only trying to help. So much for gratitude.

### **Loons are clumsy and otherwise incompetent.**

My very first loon rescue involved retrieving a loon from a tiny cell in the back of the Lee police station. It had never occurred to me that the police occasionally need to incarcerate animals. The loon was found on the side of a road, more than a mile from the nearest pond. (The story of the arrest of the loon involved a patrolman and two firemen but that's all I can tell you because the cops served me with a gag order. Apparently a cop's ego is even more delicate than that of a scientist.) How the loon got on the side of the road can only be determined by deduction. Loons don't walk; they do fly. Loons don't intentionally land on solid ground. Therefore, this loon fell out of the sky. You have to realize that loons are mainly designed for diving in water. Even their flying ability has been compromised to make them good swimmers. Loons fly fast; about 80 mph. They have to in order to stay airborne. One miscalculation at low altitude and you end up with a loon stranded on the ground. Loons have been known to mistake wet pavement for water and land on a highway but this incident occurred on a sunny, dry day.

More common than coming down on dry land is misjudging the size of a waterbody. I don't know how many loons we have had to deal with that were stranded on fire ponds, large puddles in gravel pits and water traps on golf courses. I think it might be because most loons do so little flying that they forget that they need a hundred yards to take off. I've learned through the years that if the waterbody has anything near a 200' open area, the best thing to do is just wait out the loon. Sooner or later they get desperate enough to make an "all or nothing" attempt. Sometimes the first attempt doesn't work but if they try once, they'll usually try again. One loon managed to get off the water but couldn't clear the slope on the fairway. It crawled back into the water before anyone could grab it but the next day it tried again and made its escape.

The loons' lack of adaptation for dry land presents another set of problems when it comes to nesting. It's impossible to incubate a bird egg in water, so this is the one time a loon will intentionally crawl onto terra firma. As anyone who has dropped a grocery bag knows, eggs can be delicate objects. A terrestrially awkward bird has to be careful about how it gets on and off the nest. Getting off the nest poses the biggest problem, particularly when the loon is leaving in a hurry because it is being flushed by a group of curious kayakers. The eggs are apt to end up either in the water or a few feet behind the nest. The other big challenge is a change in lake level. The loons might start their four week nesting chore right at the water's edge but two or three weeks into it the nest can be as much as ten feet away from the water; or worse, perched on a steep bank a foot or more above the water. All these scenarios result in a failed nest.

### Loons don't know when to give up.

If they were smart, they would have moved out of the state decades ago. We build a dock on the one serviceable nest site on their territory and they try to adapt. They settle for an inferior site like the beach of a commercial summer camp or they have the audacity to nest on the dock itself. We illicitly introduce bass to a lake and completely screw up the food chain but they still come back, year after year, in spite of the fact that the lake no longer produces enough chicks to sustain its own population. We boobytrap their prey with lost fishing tackle that contains a lethal dose of poison and the loons continue to gobble them up. We foul entire coves of foraging habitat with milfoil, making it near impossible for the loons to fish there, but they keep showing up. You would think by now the loons would realize that we don't want them here and move to a better place. I'm not sure where that would be. But that's their problem.

C.C.



*Loon photos courtesy of Andy Thompson*



Editorial note: It's not just the loons. Consider the shrike, the Vlad the Impaler of the avian world. Or cuckoos, who lay massive eggs in the nests of other species and have programmed their hatchlings to destroy the hosts' legitimate eggs and young. (And what do we say about the hosts, who go on feeding this monster, even when it bears no resemblance to its own young and outweighs its foster parent?) Or parrotlets where a male, moving into the turf of a widow, will often kill her chicks (horribly, I regret to say). Or, a new couple who want her nest site may harass or kill her to get it. Gangs of young single males look for "unhappy couples or weak-looking husbands", dive-bombing and pecking the male to drive him away, so they can take over the female. In this situation, the chicks are usually killed but the parrotlet researcher, although horrified at the carnage, was far more puzzled by the rarer and biologically inexplicable phenomenon of the new male adopting the chicks. And I'm not even talking about mammals! Some things are too awful, even for me.

# Cheating, Death & Mutually Assured Destruction in the Rhizosphere

by Susan Goldhor

We all (well . . . almost all) cheat. Is there any one of us who hasn't (to take a fairly benign example) listened regularly to a public radio station without sending in money? Do we pay the government every penny that the tax code demands, or do we try to give less? Do we buy a senior ticket before we're really seniors, since we all look like seniors to the 18 year olds in the ticket booth? Friends, we are cheaters. But -- and this is important -- we are not *just* cheaters. Most of us are neither saints nor sinners, but shuttle between one and the other as we respond to opportunity and desire. And why should any other organism be different?

They aren't. Indeed, I've come to regard evolution as an inexorable force pushing all of us towards cheating. And this is a really inclusive "all": animals, plants, bacteria and fungi. If I knew more, I bet I could include the viruses and archaeobacteria, as well. But since I'm currently immersed in the fungal world, I'd like to talk about that kingdom and, specifically, about the underground connections between what are called mycorrhizal fungi and their plant partners. Unlike Chris, who could assume that all of you know what a loon is (even if you had some idealized fantasies about loon family life), I'm going to start with the basics of mycorrhizal (myco=fungi; rhiza=root) relations. Skip the next paragraph if you know it all.

When plants emerged from the ocean 450 million years ago (give or take), they did so accompanied by fungal partners either on their roots or in place of roots. Today, we estimate that 90 - 95% of all land plants still have fungal partners. Mycorrhiza are microscopic structures made of cells from both organisms, and formed where fungi have actually penetrated the plant rootlet. A tree in our forest may have mycorrhiza from twenty different species of fungi, and from many individuals of each of those species within its root hairs and those hairs may be so thickly covered by mycorrhiza that the plant rootlets are not actually in contact with soil. From the viewpoint of the plant, that's not necessarily a bad thing, since plant roots are not really very good at accessing either water or nutrients from soil, while fungi send out miles and miles of fine filaments (called hyphae) that can seek water in distant places; excrete acids that free usable phosphorus from mineral particles, and access nitrogen in a variety of ways. (If you're wondering what roots *are* good for, the answer is stabilizing the plant in its substrate. Although, as Doug points out in this issue, they can't always do even that, given a big enough wind.) Of course, fungi don't do all this for plants out of charity, since that's not how nature works. They do it because -- like us -- they don't have chlorophyll and can't photosynthesize and therefore -- like us -- depend upon the plants for the carbohydrates that all living things need to build tissue and generate energy. Genetically, fungi are a lot closer to animals than to plants. So, these underground fungi have developed a symbiotic relationship with plants where they exchange inorganic nutrients and water for sugar.

We should note here that the term "symbiotic", which we learnt in school meant that both parties were happy with the relationship, actually means only that it's a mutualistic relationship. Like marriages, some symbiotic relationships are happy and fair (whatever *that* means) and some are abusive and

unequal. But in all relationships, things are constantly changing, and biologists studying these relationships now refer to a mutualist-parasite continuum. Just as a marriage may change if one partner loses a job or becomes ill, so can the symbiotic mycorrhizal relationship change, through an alteration in resource availability or mutation or . . . whatever. So, suppose you're one of many many fungal partners accessing a tree's sugars via mycorrhizal connections. You might start to wonder (consider "wondering" as another way of describing mutation) why you're handing over all your valuable phosphorus to this tree, when so many other fungi are doing just that. Surely the tree is getting enough phosphorus (or nitrogen or whatever) without your contribution. This is what I call the NPR theory of fungal cheating. If everyone else is donating to keep public radio going, why should I? Of course, if I stop giving to public radio, they can't keep me from listening. All they can do is to stop sending me the program guide and lay on the guilt. So the big questions for scientists studying cheating (and this is a very new field of study) is: does a plant know if one of its partners is a cheater and, if so, what can it do about it?

I want to say here that the big surprises for me in studying the work done in this field were not in fungal behavior but in plant behavior. Who knew that plants were so smart and so flexible? In fact, given all these books about folks who stay in awful relationships, or get out of them only to find another, equally awful one, plants seem to be smarter than us. It's been pointed out by modern botanists that they fooled us for a long time as to exactly how smart and how flexible they were because they tend to do things very very slowly (and silently) and/or to do it underground. Plus, we lacked the tools to spy on them until recently. So, *yes*, plants do know when one of their fungal partners is cheating on them, and the answer to the second question is yes, they do have the ability to single that partner out for punishment. Or, using U.N. type terminology, to "sanction" that partner. Some sanctions are brutal. In one case, researchers discovered that the punishment was truly horrid; namely, being eaten by springtails. As to why the cheating fungi were more appealing to the springtails, the answer was that the plants were supplying their fungal partners not only with sugars, but also with defense compounds. Cutting off the supply of such compounds to the cheaters left them literally defenseless.

Since a single tree may have multiple species of fungal partners and multiple sites where individuals of each species have formed mycorrhizal attachments, it's pretty impressive that the tree can sense cheating and isolate that individual fungus for punishment. (It's also impressive that scientists have developed methods for monitoring these attachments, about which more below.) Of course, this is a system that's been evolving for hundreds of millions of years -- far longer than the relationship we have with public radio. If the tree was unable to respond to cheaters, what would happen? Presumably, cheating would become rampant (morphing into parasitism) and the tree would either die or become too weak to offer meaningful support to its "partners". So there are good reasons for both partners to remain faithful, and for cheaters to be in the minority. In a healthy ecosystem, this system works well because mycorrhizal fungi are sufficiently numerous and varied in the environment that the tree can pick fair partners, and dispose of the slackers. But in impoverished or stressed environments, such as most urban settings, the choices are limited and the available fungal partners tend to be thugs; thuggishness being defined as giving less nutrients to one's plant partners while demanding more sugars in exchange.



*Pine seedling without and with mycorrhizal fungal partners*

It's incredibly difficult to do this kind of research in natural ecosystems, although a few scientists have been able to work out techniques to isolate a single mycorrhiza and figure out what's happening in the system by measuring flows of radioactive P and C. So it's not surprising that most work on cheating in plant-microbe partnerships was done in smaller, agricultural systems; namely, legumes and their nitrogen-fixing rhizobial partners. A soybean is easy to grow in the field or lab and its bacteroid partners are easier to identify than the chaos of fungal species, many of which are not only unidentified, but unidentifiable by our current DNA technology. Rhizobial root nodules are easy to recognize and isolate, and each nodule represents a clone of genetically identical rhizobia. Just like us, some are better partners than others, and up to ten-fold differences in nitrogen donations have been found in rhizobia from the same soil. Both rhizobia and mycorrhizal fungi face the same dilemma: how much of their resources should they hand over to plants and how much should they keep for their own benefit. This has been compared to a "Tragedy of the Commons" problem (like why should one fisherman spare the catch if the next guy with a net will grab it), but -- in fact -- these relationships are pretty stable over time because plants are smarter than humans, and maintain the relationships by rewarding the good guys (more sugar for you!) and punishing the microbial Madoffs.

It's reassuring (or frightening, depending upon one's core beliefs) to know that the rhizobia can retaliate. When the host plant cuts off the supply of carbon compounds (aka sugars) to a nodule of selfish rhizobia, those rhizobia are capable of turning on their host and starting to digest its tissues as carbon sources. Thus, if it does not wish to be consumed, the plant must be wary of imposing sanctions by turning off the carb supply. However, the plant may still save itself from what one researcher has termed "rampaging rhizobia" by limiting oxygen supply to the nodules. This prevents them from utilizing *any* carbon sources, and thus forestalls their eating their host. In fact, I've started to envision this symbiotic relationship less as one of mutual assistance and more as one of mutually assured destruction, similar to the constraints that keep nuclear powers from unleashing their stockpiles on one another. Indeed as one specialist on mutualism said, when I heard her speak, "Don't assume the best of symbionts; assume the worst."

It's clear that the relationship between plants and their little pals in the rhizosphere is one that has evolved over a very long time, and that it represents a dynamic equilibrium where each side is sensitive to slights and insults and capable of pretty brutal

retaliation. The rhizobia-legume relationship has given rise to the term "Darwinian agriculture", and this has led some researchers to ask how human intervention has affected the ability of plants to select useful mutualistic relationships. In particular, if plants such as soybeans are grown in nitrogen-rich soils for breeding trials, will the resulting crop plants maintain their ability to punish those symbionts which fall behind on nitrogen fixing?

As you might guess from the title of a pioneering paper in this field ("Human selection and the relaxation of legume defenses against ineffective rhizobia"), the answer is "No". In a test of sixty year old legume cultivars versus newer ones, the newer ones were less able to punish cheaters among the rhizobia, and showed lower yields when colonized by rhizobia of mixed efficacy.. Since rhizobia vary so widely in their ability to fix nitrogen, and since most plants' roots will be colonized by a mix of rhizobia -- some generous with N and some miserly -- the ability of a plant to impose sanctions on the ineffective rhizobia will not only affect its own growth, but will also have an effect on the bacteria that survive to replenish the soil and colonize the next year's crop. In short, by fertilizing legume cultivars, we are relaxing selection on their relationships with their symbiotic partners, and damaging their ability to grow without added fertilizer. One can only admire our ability to mess up the products of millions of years of evolution in increasingly short periods of time. To err is human, and boy, are we good at it.



*Rhizobial nodules on legume roots. Honestly now. . . could **you** tell if one was cheating?*



In a dense blowdown on a remote trail, the crosscut saw moved slowly through a large trunk. Suddenly a sharp crack rang out like a pistol shot. The tangle of trees shifted, branches sprang, trunks rolled a few degrees. We stepped back and held our breath until the monster settled. Master woodwork tactician Fred Lavigne gave the wedges a few taps and cautiously resumed sawing.

Welcome to the dark side of trail work: the lurking dangers. There are no statistics on the number of trail workers injured each year, but an allied occupation – that of logger – has the highest fatality rate of any category tracked by the Bureau of Labor Statistics: 40 times higher than the average for all US workers. Loggers and trail workers know the many types of hazard they face, and respect them. The names they have assigned to members of this rogues' gallery suggest grim levity: snag, sidewinder, Dutchman, Russian coupling, widow maker, springer, leaner, hanger, butt drop, and barber chair (wherefrom many a logger has gotten a close shave). Some of these hazards result from the actions of a careless worker; others are the product of nature alone.

Nature hit the Sandwich Range hard in late October 2012, when Hurricane Sandy carved a narrow path through the forest, crossing the Sleeper Trail. Two and a half miles of the Sleeper were untouched. But for eight tenths of a mile wind-thrown trees broke off, uprooted, and took out their neighbors as they fell, leaving the trail buried beneath something like a 50-ton pile of Pick-Up Sticks. Sawing out that blowdown took two days. The WODC crew cut over 200 trunks bigger than 4" in diameter, and many more small trees and branches. The green trees we removed were bent, twisted, compressed and stretched every which way but loose, creating multiple hazards.

But we avoided injuries. In fact, WODC trail crews have always done well on injury prevention. Good fortune is, of course, always nice; we'll take it whenever we can get it. But habitual caution – the WODC way – is much more to the point. Before any cutting, WODC trailworkers perform careful spatial and force vector analysis, determining which element of the stack will move which way and how it will affect all the other elements. Then it's time to factor in all the unexpected possibilities, and anticipate all the unknowns.

WODC trailworkers are good, and can usually process this data expeditiously. But sometimes our poor minds boggle. Then it's time to consult Fred. Seasoned by decades of logging, Fred has an uncanny instinct, a deep sympathetic connection with the souls of trees. He knows exactly what they will do in their contorted misery as we release them, step by step, from their jackstraw jail. He also knows exactly what we need to do: Stand back! Dark side be banished!



*The bright side of trail work. WODC Crew, Sleeper Trail, 2013, proud of a job well – and safely – done. From the left: Fred Lavigne, David White, Tyler Keniston, Dave Giampietro and Doug McVicar. (Photos & graphics by Doug McVicar.)*

**In Memoriam: Dana Steele** On June 25th of this year, a few weeks short of his 70th birthday, Dana Steele died after a valiant but failed battle with a rare cancer. To those of us who had hiked or played tennis or partied with him last fall, his death was an unforeseen tragedy. To those who knew him as a star athlete, who had won so many awards in baseball, tennis, squash (the man could make a ball do *anything*), it was hard to accept that he'd lost this match. But, Dana could do more than play ball -- he could run a business, be a surveyor and forester, write poetry (the stuff just flowed out of him, almost until the day he died), and teach kids how to ski and play ball. Martha Chandler wrote that her fondest memories of Dana "are connected to his baseball coaching, a wonderful, patient, and fair coach---played even the klutz, forgave errors---a good leader of young boys, and of course, they respected his skills." (And as a klutz, I loved hiking with Dana -- no matter how slowly I went, he would insist that my speed was exactly his preference. No wonder he'd been a popular trip leader for New England Hiking Holidays for 22 years.)



Dana was active in the Barnstormers, the Tamworth Outing Club and, of course, was a Trail Chair for the WODC. One friend defined Dana's style as "understated", and I think that was accurate. Dana could do absolutely anything except ovulate, lie or boast. Dana leaves his wife, Grace Payne, his first wife and lifelong friend, Helen Steele (with whom he farmed in Wonalancet), his daughter, Molly and grandchildren, Rose and Asa, and his brother (and tennis partner), Warren. But he also leaves all the rest of us, who never thought we'd lose his company so soon. How I looked forward to those raucous parties he and Grace threw, where I'd wait until he was sufficiently lubricated before demanding that he read his poetry. Like all good populist poets, Dana's poems contained his voice, and I hear it when I read them now. A bronze plaque in his memory was installed at the Great Hill fire tower, engraved with his poem of that name (printed in the April issue). Climb to the fire tower, drink some wine, read the poem, and mourn one who leaves a big hole in so many hearts. SG

## TRAILS REPORT

The 2013 Trails season was a productive one. The Weather Gods held off rain for our volunteer work days. We completed two projects on Dicey's Mill, and one each on Cabin, and Walden. We did get one curve ball; for our June work day there was an Air Quality Warning advising against any activities involving heavy exertion above 3,000 feet. We changed plans and spent the day clearing drainages on the lower section of Dicey's Mill. Fred led a small group up to Rollins(our original June plan) some days later to clear the high number of blowdowns from Super Storm Sandy. As documented on the next page, Fred and a crew of four did an overnight to clear the blowdowns strewn over a quarter mile section of the Kate Sleeper Trail where, in Fred's words, "we now have a new forest".

We again hired one of Jed Talbot's crew to do some annual maintenance to supplement our volunteers and adopters. Tyler Kenniston did a great job in both clearing blowdowns and cleaning drainages. Due to new requirements of the RTP Grant program, we were unable to start our major trail reconstruction project on Dicey's Mill until September. Jed Talbot of *Off The Beaten Path* did a great job installing rock steps and associated rock structures. We had estimated that Jed's crew could install 80 steps in five weeks, Jed et al. surpassed our expectations, installing 86 steps. Not only was Jed's crew productive, but the quality of the work is unsurpassed.

We have now invested four summers in hardening both Blueberry Ledge and Dicey's Mill with heavy duty rock work. For some folks, this work changes the character of the trails from paths in the woods to engineered walkways. There are times when I wonder myself about these impacts, but when we balance this against the hordes of

hikers heading to 4,000 Footers, I think that we have made a decision whose wisdom will be proven over time.

The Honorable Newsletter Editor has me on a strict word count limit so I don't have space to thank everyone who helped. But to all the volunteers, adopters, friends, neighbors, and passing hikers who pitched in and made this productive season possible: you know who you are. WODC is deeply grateful to you for your commitment to maintaining trails in the Sandwich Range Wilderness.

Jack Waldron  
Trails Chair (& President)

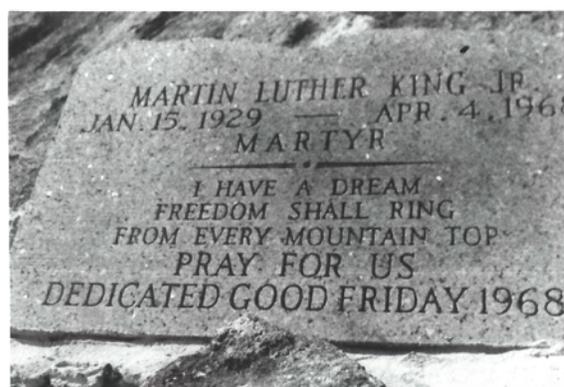


Celebrating Martin Luther King's "I have a dream" speech. Doug McVicar reading the line "So let freedom ring from the prodigious hilltops of New Hampshire", from the east outlook of Passaconaway, looking over Paugus, to Chocorua on Aug. 28th, 50 years later. (Photo by Paul King) See Editor's Ramble.



**Editor's Ramble:** Fifty years ago, our nation was mired in racism, hatred and violence. It's tempting to consign to ancient history the four young girls killed in the bombing of a black church; the three civil rights workers murdered, the police brutality sanctioned by southern governors and mayors; the KKK's cross burnings and lynchings; the iconic photograph of a terrified little girl, walking to school between a phalanx of armed men, but many of us can remember these events. In the American south, to protest the dehumanization of a group of people who happened to have darker skin, was to risk vituperation, physical attack and even death, especially if the protestor was an African-American. So when Martin Luther King led a march on Washington, and gave his "I have a dream" speech, on August 28th at 3 PM, it took real courage. At this August's Annual Meeting of the WODC, Paul King (probably not a relation, although one never knows) suggested that since one of the most emotional and powerful parts of the speech starts out, "So let freedom ring from the prodigious hilltops of New Hampshire", WODC members might honor Dr. King's memory by climbing one of our mountains and reading the speech. Paul suggested Mt. Passaconaway, which certainly fits the "prodigious" description. Those of us not in shape to climb a 4,000 footer pointed out that it does say "hilltops" -- the term "mountains" being reserved for New York in this speech. (We don't blame Reverend King for this, since his life fighting injustice left him little time for hiking. And one can't help wondering how he would have been welcomed on New Hampshire's trails, huts and inns fifty years ago, if he'd had the time.) So, on August 28th, three separate parties summited Passaconaway, Israel, and (for the wimps) Katharine, to take turns reading the speech and ringing bells. Thank you, Paul, for sparking this very moving event. And here's where the dark side lightens up. Would Rev. King have believed that our nation would elect (and re-elect) a President of color, just fifty years after his speech?

Paul wasn't the first to want to celebrate this emotional and powerful speech on one of our mountaintops. Here's the tablet an unknown person placed on the summit of Whiteface. It was photographed by George Cleveland in early August of 1968. Shortly thereafter, a different unknown person removed it.



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