Sherwonit forest reflections essay.doc accepted in ISLE (Interdisciplinary Studies in Literature and Environment)

Reflections on Thrush Songs, Newt Tracks and Old-Growth Stands of Trees

The songs of varied thrush pull me from bed and out into a still-young morning. It took a full week, but I can resist their beckoning voices no longer. When the decision is made, I jerk off sheet and quilt, jump out of bed, and pile on several layers of shirts plus fleece jacket to ensure I'll stay warm in the cool, damp October air of an Oregon old-growth forest.

To say it's early is a bit misleading; the clock reads a few minutes past 7 when I step out the door, cross the lawn, and enter the old-growth stand only a stone's throw from where I've been sleeping, eating, and writing these last several days.

The forest rings with the wake-up calls of varied thrushes, the predominant sound during this calm, quiet hour in the H.J. Andrews Experimental Forest. The songs aren't the gorgeously fluid, whistled melodies of the varied's Turdidae relatives, for instance the Swainson's and hermit's thrushes and American robin. But the distinctive voice is pleasing nonetheless, at least to these ears.

For those who may not know the varied's song, it's a haunting series of repeated one-note trills, each sung at a different pitch and separated by several moments of silence. Some notes seem more buzzy than whistled; occasionally they resemble a telephone ring, or the sound that comes when you try to whistle while also blowing air from your mouth. Once noticed and learned, they're among the most distinctive avian woodland voices.

Sad to say, I didn't notice either bird or song until I'd reached my mid-40s, when songbirds expanded my world in unexpected ways.

My midlife transformation began as something of a whim, after moving to Anchorage's wooded Hillside area. Upon noticing some black-capped chickadees, I filled a tray with seeds and placed it outside the house. The chickadees responded to my offering and quickly seduced me with their bright, cheery energy. Before long, other birds joined them. Though all are common in Southcentral Alaska, I'd never known they existed: red-breasted nuthatches, pine grosbeaks, pine siskins, common redpolls.

My initial curiosity quickly bloomed into a consuming passion. I found myself roaming bookstores in search of birding guidebooks; spontaneously exchanging bird descriptions with a stranger; and purchasing 50-pound bags of seeds. All of this seemed very strange to a 44-year-old who had never been intrigued by birds (except for charismatic raptors) and previously judged bird watchers to be rather odd sorts. I didn't know what it meant, except that a door had opened. And I passed through.

Now, wherever I am – city, woods, mountains – I invariably notice songbirds and their assorted voices. They're everywhere, it seems. How did I miss them before? And I wonder what else beckons that I haven't yet noticed.

For all my newfound passion, I have not become an obsessive life-listing birder. I'd just as soon know a few birds well, learn their habits and seasonal patterns. That said, I decided to keep track of all the birds I've noticed in my neighborhood. And I invariably keep an informal list of bird sightings whenever I travel. During my weeklong stay at the Andrews, I'll identify about two dozen species. Here they are, in more or less the order I noticed them:

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Varied thrush, red-breasted nuthatch, Steller's jay, golden-crowned kinglet, common raven, winter wren, American robin, ruffed grouse, black-capped chickadee, turkey vulture, Lincoln sparrow, gray jay, hairy woodpecker, dark-eyed junco, yellow-rumped warbler, American dipper, fox sparrow, white-crowned sparrow, ruby-crowned kinglet, pine siskin, Townsend's solitaire, pileated woodpecker, red-tailed hawk, western bluebird, sharp-shinned hawk.

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A varied thrush first showed itself to me in the birch-spruce-cottonwood forests of Alaska's Denali region. I was shocked by the bird's handsome plumage, a mix of grayish blue, orange, and black unlike anything I'd seen. It remains among the most beautiful northern birds I've encountered. But in my part of the world, the varied thrust tends to be a shy, secretive inhabitant, far more often heard than seen. And then only for several weeks in spring and early summer.

Imagine my surprise and pleasure, then, to discover *Ixoreus naevious* is a common and highly visible bird of Oregon's old-growth forest. The birds are everywhere, it seems, from the shoulders of gravel roads to the highest canopy. I've seen them more than any other bird here, and heard their alarm calls – a soft, whispered *chut* – even more frequently.

But their October songs seem to be sung only in the dusky hours when night passes into day. At least I've noticed their singing mainly between 6 and 7 a.m., with their voices largely quieted by the time I head outdoors – no earlier than 8 a.m. during a week when I've been saddled with a severe head and chest cold.

I'm not about to let a runny nose, wheezing cough, buckets of phloem and tired body stop me today. With only two full days remaining in my Andrews residency, I

already sense a sort of urgency. That can be a good thing, as witnessed by my front-row seat on a downed and moss-blanketed 500-year-old Douglas fir (give or take several decades), while all around me varied thrushes sing in the day.

Maybe I've come to enjoy their trilling so much because varieds are among the earliest migrants to reach Anchorage each spring. Sometime in late April, they'll join their voices with those of ruby-crowned kinglet, robin, and junco, early proof that winter is once more truly going to let go its half-year-long hold on the local landscape, even if snow stubbornly clings to the landscape.

There, too, the thrushes are early bird songsters, belting out their whistled, buzzy tunes before most humans have begun their daily routines. But the varieds are also late-night singers during Alaska's vernal season, while here I haven't noticed their voices at day's twilight end.

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Because one of my principal tasks is to reflect while here at the Andrews (another is to write), I've been thinking a lot about the different ways we humans get to know a place, for instance a temperate old-growth rainforest. Most of what goes on in this experimental forest is scientific research. But I'm here because some forward-thinking people decided it would be cool – and valuable – to add creative writers and "humanities" types to the mix, in what's been named the Long-Term Ecological Reflections project. The idea is to bring creative writers, especially those with a deep interest in the "natural world," to designated places within the Andrews, and ask them "to observe, think, and record their reflections."

Now here's the *really* cool part: the work of writers like myself, Robert Michael Pyle, Pattiann Rogers, Alison Hawthorne Deming, and Scott Slovic (yes, it's a little

intimidating to be in the company of such nature-writing heavyweights) is intended to be part of a collaborative process with forest ecologists and other researchers. And this collaboration is part of a program with a lifespan of 200 years. Imagine: two centuries worth of science, reflections, and creative writing, all intended to serve a larger purpose.

To be part of a project that goes far beyond one's own lifespan is indeed a marvelous and humbling thing. Makes a fella from America's far north outback wonder how he got invited to join this party.

It so happens that, before becoming a nature writer, I was one of those scientist sorts. A geologist, complete with MS degree. I got out of geology, and into writing – first as a sports reporter, then outdoors newspaper guy and eventually a freelance, nature-writing essayist – largely because I wasn't passionate about the work. Besides that, coworkers often seemed so sure of their interpretations, while I rarely felt secure in my own readings of a landscape's geologic history and structure. Others seemed to believe I had a gift for the work, but I felt certain that someday my shortcomings would be discovered and I'd suffer the shame of being "found out." And any sort of expertise seemed well nigh impossible to me.

One of the great things about being a nature-writing essayist is that I can pose questions, search for answers, and sometimes reach conclusions, but I don't have to be "the one who knows." If expertise is needed on bears or fungi or thrushes, I simply go to the people who've made such things their life's work. I can also occasionally rant and be opinionated and disagree with the "common wisdom" and politically dissent; all of which I couldn't as easily do as a scientist. Or so I felt when I identified myself as one. Maybe I was wrong, way back in my twenties, but I'm pretty damn sure I would not have "found my voice" as a geologist.

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Long before becoming a geology dropout, I had something of a love-hate relationship with science. As a college student I used to sometimes wonder: how can we be so sure about all this? How do we know that even our most strongly accepted theories and interpretations are correct? Maybe we're just getting a small piece of the story, missing something important. Maybe there's more going on beyond – or behind – the physical, measurable world, than science can ever know.

I fell in love with science during my freshman year of high school, when I fell under the spell of an enthusiastic earth science teacher named Miss Anderson, and I remained a "science and math" guy through grad school. The sciences became one way – an important way – of exploring the world and understanding a little more about its nature, how it functions. Nowadays, I often do natural history or environmental writing that depends on scientific "facts" and knowledge. I love the insights that researchers can give me, how they can help me better understand bear behavior, say, or an outbreak of spruce bark beetles (which killed spruce trees across millions of acres of Alaska during the 1990s). Or present overwhelming evidence for global warming.

But there's an arrogance to the culture of science, too, which both frustrates and unsettles me. I love Wendell Berry's *Life Is a Miracle*, because he expresses so well many of my own criticisms of science's "true believers." Like Berry, I can see the dangerous way that science becomes a religion to some, its practitioners convinced of science's "one true way" of knowing the world. That's scary stuff to a person who's still recovering from the religiously fundamentalist culture in which he was raised.

So, it's a grand and marvelous thing, to be part of a collaborative project whose leaders clearly believe that right-brained creative types also have something valuable to

share, that the scientific community – and the larger community – might actually gain from. That, certainly, is worth celebrating and embracing.

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Seated on a mossy log, sniffling and coughing beneath peach-colored clouds and listening to the repeated one-note trills of varied thrushes, I ask myself*: What would I study, if I were a scientist lucky enough to work here?* On this morning, the first thought to pop into my head is, naturally enough, varied thrushes. They're abundant. They're lovely. They are birds that have had my attention for several years already. And they are life forms I would like to know better.

No matter how much is already known about varied thrushes and their place in the Pacific Coast's old-growth rainforests, there's always more to be learned.

I imagine starting with the bird and learning its daily routines, its seasonal behaviors and movements, its place in the food web, the places where it prefers to feed and nest within this forest. Then I would slowly spiral outward, to learn how the thrush affects other forest organisms and in turn is affected by them. I'd learn more about the insects and berries and seeds that thrushes depend upon to live, as well as the strategies the bird employs to evade predators – and I'd learn more about those predators, too. Through all of this, I would gradually better understand the shifting, evolving balance between the species and its chosen habitat, its animal neighbors.

Maybe I'd learn something entirely new about the varied thrush, something so subtle it can only be noticed through patient observation stretched across long periods of time. I'd insist that my research be a true field study, one that demanded I be out in the forest in all kinds of weather, year after year – field biology more like the way it used to

be practiced, before computers and other high-tech instruments pulled researchers ever farther from the creatures they investigate and evermore indoors.

I would do my best to be minimally invasive. For all that can be gained through banding and radio collaring and tagging, I'm disturbed by the indignities – and occasionally death – that animals suffer in the name of science. So I'd learn from being with the bird, rather than through data collected by electronic means. The varied thrush would be my teacher, my source of first-hand knowledge.

Along with all this, I would try to imagine what the forest would be like without the varied thrush. Already, in a week's time, I know it would be an emptier, quieter, less magical place.

Ah yes, magic. And mystery. No matter how much I learned, I would continue to honor and celebrate the mystery of the thrush and the fact that any study, no matter how intensive and obsessive, can only give us glimpses of an individual bird and its species. Maybe I would get close enough, though, to have visions and dreams, and these would give me another kind of knowledge – and, I hope, a sort of wisdom that's impossible through scientific research alone.

Yes, the thrush would be a good choice. But other possibilities leap into my head. The rough-skinned newt, for one.

Unlike the varied thrush, the newt is completely new to me. And *Taricha granulosa* has completely captivated me with its amphibian otherness since I first met one in the middle of a forest road. The newt has gotten under my mammalian skin, partly because of the nature of our meeting, but also, I'm embarrassed to admit, because I initially mistook it for a lizard, then a salamander, before learning its true identity.

One other factor comes into play: I've always been a sucker for creepy crawly critters, from the garter snakes and praying mantises and bullfrogs – and yes, salamanders – of my Connecticut boyhood to the tarantulas and rattlesnakes of the Arizona desert during my grad-school days, and the orb-weaving spiders and wood frogs that inhabit Anchorage's northern landscape.

Or what about bats? I love bats, again because they're so . . . unusual. And while "creepy" to many people – thanks, largely, to the Dracula legend and horror flicks – they're such a fascinating evolutionary adaptation. Think about it: mammals that fly. There have been times I've longed to leap off the ground and fly up, up, up; and some of my most vivid dreams have been flying dreams. Of course it isn't just me; the dream of flying seems universal among humans. Then there's the way bats catch insects, by radar or something like it. What amazing creatures, by God.

The winter wren, also a ubiquitous Andrews Forest resident – or so it's been this week – would be another great choice. Or the red-breasted nuthatch, a regular at my feeders back home in Anchorage and a constant presence in the forest with its nasally *yank-yank* call.

Then there are the more charismatic fauna: bobcats and cougars and bears, oh my. I am in the midst of a decades-long love affair with bears, so they would be a natural . And big (or small) wildcats, who could resist?

By now it's clear that I'm more of an animal guy than a plant person. But I could probably be persuaded to at least seriously consider a plant. For instance the red huckleberry, for me an unknown relative of Alaska's black huckleberries until this trip. And great tasting, so I could seasonally subsist on my research subject as I studied it. Or the moss that covers everything. Or the prehistoric-looking sword fern, which doesn't

inhabit my part of the world. Or one of the giant trees here. Which one, I wonder, is most overlooked?

And what about fungal forms: they're essential to the forest's health and some are real beauties.

I could go on and on, but enough's enough.

Someone might be wondering, why a single species? Why not consider the bigger picture, the larger forest rather than one of its trees – or birds? My answer – perhaps not well thought out, but earlier suggested – is that I'd like to start small and then spin outward into ever widening and intersecting circles of relationships. Start with the thrush, end with the old-growth ecosystem, or something like that. Perhaps if I got to know the thrush well enough, I'd have a pretty good understanding of the forest's larger complexities.

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While at the Andrews, visiting writers are asked to spend time at three "reflection sites." My favorite is the log decomposition site. There, a research team has been studying 570 slowly rotting logs, placed beneath 500-year-old Douglas firs that loom more than 100 feet overhead. Now a university professor, Mark Harmon is the guy who got the 200-year-long study going; in 1985 he organized the cutting and placement of four different tree species (Douglas fir, Pacific silver fir, western hemlock, and western red cedar), all of them six meters long but ranging from 1 to 100 cm in diameter.

The idea – or at least part of the idea – is to observe and record the varying rates of the dead wood's decay and to gain a better understanding of the role that dead wood plays in the old-growth ecosystem.

While showing me the decomp site, AEF forest ecologist Fred Swanson tells me that forest scientists have been humbled by what they've learned. "It turns out," he says, "that there's more living cells per cubic centimeter on a dead tree than a living one." Moss, insects, and fungi are among the varied life forms that breathe life into what most of us see as merely dead and decaying. Furthermore, dead wood accounts for one-quarter to one-third of an old-growth forest's total carbon budget, which in turn affects the amount of CO2 in the atmosphere – and climate change.

Because so much of the forest floor is covered by decaying trees – as much as 25 percent in old-growth stands – "it's become clear," Swanson says, "that managing the dead wood is as important as managing the trees themselves. That's become an important consideration, as forestry practices evolve."

Scattered throughout the decomp site are the low-tech field tools that collect samples and data later to organized and analyzed in high-tech labs and offices: white plastic jugs and funnels and tubes and pipes. "Researcher trash," Swanson fondly calls it.

While I appreciate the importance of the work being done here, my attention is drawn to the forest itself: the still air, the "natural quiet," the softness of the forest floor and the lush carpets of moss that seem to cover everything. Leaning against one piece of dead wood with plastic pipes projecting from its sides, I listen for birdsong and am rewarded with the *yank-yank* of nuthatches, the high-pitched, reedy *tsee-tsee-tsee* of golden-crowned kinglets, the distant raspy screeches of a Steller's jay.

After a period of quiet listening, I open my journal and write:

Where to begin? With humility and respect, perhaps. I'm beginning my journal at the unpoetically named "log decomposition site" and I'm humbled both by the forest and the long-term ecological project that I've been invited to join. Dwarfed by trees that rise 20 to 30 times my

5-foot-seven-inch height and weigh immeasurably more than my 150 pounds, I shrink in size. That's good. Even better is the shrinking of ego.

But the five-centuries-old Douglas firs and younger hemlocks aren't all that inspire humility. The thick mossy bears that hang from branches and carpets of moss are equally enthralling, as are the many understory plants unfamiliar to this Alaskan. The forest not only stretches far beyond me in height and distance, but also in years. Though a middle-aged human, I'm but a brief flicker of life here, where the years stretch into centuries and millennia. An ancient place, indeed. And yes, I'll say it: this place holds a sense of the sacred. With apologies to the Japanese poet Basho and Charles Goodrich's recent reading of Basho's work, I'd like to adapt one of his haiku to this place, because it seems so apt right now, as I sit in a still and silent and holy grove of old-growth trees.

The temple bell has stopped ringing
But the sound keeps coming
Out of the forest.
(Forest here replacing "flowers" in Basho's version.)

It's strange, in a way, to be thinking and feeling and recording such notions in a place dedicated to the scientific study of the forest (and specifically its "dead wood"), to be in a poetic place within sight of white plastic pipes and red and pink flagging tied to wires . . . But the mix of such "trash" and poetry is exactly what this project is all about.

I love the way a forest offers a larger perspective on life, especially an old-growth stand. It can swallow you up in a way that's similar to the sky on a cloudless and moonless night, with that infinity of stars flashing in an even greater blackness of space. The universe's incomprehensible immensity (and mystery) is both humbling and enthralling. To be even the tiniest bit player in such a grand creation is amazing, truly a miracle. I feel some of that here. In a very real way, there's so much going on that we can't begin to comprehend. Mystery and magic abound.

I have no trouble believing that trees and other plants are sentient beings, in some conscious, even if it doesn't fit our western sense of awareness. Now and then, I

imagine that we humans are to old-growth trees as buzzing insects are to people, not so much in size but in our rapid passage through the forest and life; things (or perhaps better put, "beings") move and grow and age on a different scale here.

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Besides the three designated sites (the others are lower Lookout Creek, behind the Andrews Forest's headquarters, and a dispiriting clearcut that's being colonized by invasive plants), I find a lovely stretch of Lookout Creek that I take as my personal reflection spot.

There's a clear human presence here: a huge fir that fell across the stream channel has been made into a rough-hewn footbridge that's part of a 3 1/2-mile-long trail. But the human "footprint" is both minimal and primitive, and the forest here remains a primeval place.

It's hard to say exactly what about the spot is so appealing, but vivid juxtapositions are part of the allure. This section of Lookout Creek has several placid pools and gently flowing stretches of water. It's a calming, peaceful place. Yet a massive pile of forest debris is jammed against the Douglas fir bridge, with huge chunks of "dead wood" up to four feet in diameter thrown into a chaotic mess, a giant's version of pickup sticks. What sort of raging current could have tossed such logs about? Signs of violence – and death – are everywhere in the Andrews, but here the remains of trees ripped from the ground have been left in a stunningly jumbled heap that's in the open, and within a few feet of tranquil ponded waters and softly streaming currents.

Upstream of the bridge, several gray snags jut into the sky, some rising a hundred feet or more above the creek; it appears they were doomed when the creek changed course, flooding the trees' roots. Just beyond them, are living, green-needled

giants, many bearing shaggy manes of moss. Life and death, side by side, impossible to ignore. But death from "natural causes," not commercial harvest victims. Does this make a difference? I guess it does to me.

Light and dark, shadow and sunlight, life and death, calm and tumult, it's all here in a way that demands my attention. I, in turn, seek the pleasing company of "my" spot nearly every day, sometimes for an hour or more, sometimes a few minutes. I clamber across downed trees, explore the channel and its waters while looking for fish (which I find, a school of trout) and salamanders (which I don't). I listen for owls (again no luck), watch a dipper dip, pop huckleberries and blueberries, wait hopefully for a deer or wildcat to appear (none does), write copiously in my journal, shut my eyes and slow my busy mind, slow down into forest time, even if only for a little while.

Two more haiku:

Bright streaming sunlight
falls upon bearded hemlock,
moss bursts into flames.
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Traffic zooms past newt
Walking along forest road.
I'll give him a lift.

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Ah yes, the newts. During my week at the Andrews I experience moments of awe, moments of pleasure, moments of peace, moments of frustration and angst, moments of surprise and absolute joy. But nothing in the forest gets me as excited in the spontaneous, little-kid way of gleefully discovering something new and different and cool, as the rough-skinned newt.

I'll always – always – remember that newt perched on its toes in the middle of the blacktopped road, absolutely still, and just a few feet from a squished and flattened one of its kind. I'll remember waiting for the newt to scamper off, when I imagined it to be a lizard (its pose was absolutely lizard like); and my great surprise when it remained a statue while I moved my hand toward its hairless, long-tailed, ground-hugging form. Then, after picking it up, the feel of dry, drab, bumpy skin as I rubbed a finger across the newt's upper body; and the soft, moist, bright-orange underbelly against the palm of my right hand.

I'll remember carrying the newt to the side of the road and gently placing it upon a moist leaf. Then returning to look at the creature one more time, to crystallize its shape and colors in my mind.

I'll remember thinking this must be one of the local salamanders, despite the fact that it didn't feel or look like any salamander I'd ever caught or touched. But that was years ago and far away, in Connecticut. Then, the second wave of surprise when I Googled "*Enstatina eschscholtzii*" – a local species of salamander pictured on an Andrews poster – and saw that my capture looked nothing like the *E. eschscholtzii* specimens pictured on the Internet. And my delight to discover, during a conversation with Andrews camp manager Kathy Keable, that what I'd found was not only a rough-skinned newt, but the AEF's official mascot. In fact its image is embroidered onto Andrews Forest T-shirts, which naturally I had to buy. Now how cool is that?

After talking with Kathy, I Google "newt" and discover the local species to be the rough-skinned variety, *Taricha granulosa granulosa*. And I print off several pages of text and photos from various websites, just in case I eventually need or want to learn more. One thing I discover is an urban myth bound to the newt's toxic nature.

Kathy had warned me that handling newts can be dangerous, because of the toxins they secrete through their skin; not good news, since I'd handled carried two off the road by then. Even more alarming, my website search reveals that rough-skinned newts secrete an "exceptionally potent" neurotoxin, tetrodotoxin.

My research ends on a happy note, since those toxic secretions are normally dangerous to humans only if the newt is ingested. Apparently there's been at least one case when someone did in fact die after swallowing a newt; a drunken guy egged on by his buddies, according to one account. Still, the newt's poisonous secretions can sometimes irritate skin; and they can also transmit salmonella, so in fact it is a good idea to wash after handling them. (It turns out that we humans also pose a threat to newts when we two species touch, because of stuff that's on *our* skin.)

There's more, but you get the idea. I have become enamored of newts. So, on further reflection – and that's what this is all about, eh? – I just might have to go with newts instead of varied thrush, were I a scientist devoted to old-growth forest studies. After all, they're more exotic than thrushes and yet easy enough to find, especially when wet weather lures bunches of them onto roadways. Even in the Andrews' driest month, October, I found 10 newts in six days of off-and-on searching; eight of them on or along forest roads. And because they're slow-moving crawlers, they must be easier to follow around the forest if a guy is willing to hunker down low and get a little dirty. Then there's the whole amphibian metamorphosis thing, going from tadpole to eft to newt. Moving from water to land and back again.

Besides all that, there's the Connecticut boyhood connection. Memories of excited searches for salamanders – close cousins of newts -- under rocks and leaves has a power that's hard to ignore. I also like the fact that newts are easy to overlook, if you're

not paying attention. Easier than even songbirds, especially varied thrushes, whose curious and arguably haunting voices are more likely to make a person pause and wonder "what the heck is that?"

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Now back home in Anchorage, I have one last reflection to share, sparked partly by those memories of salamander searches, but also something I learned my last hour at the Andrews Experimental Forest.

No matter how much I looked – and I looked plenty – I couldn't find any salamanders during my week of explorations. One of my few disappointments. As I was getting ready to leave, I met a former Andrews researcher named Tim Fox, who wondered if I had any questions. Recounting my salamander search, I asked if I'd been hunting in the wrong places.

"No," Tim told me. "It's just that they're hard to find. They're really well camouflaged and very good at staying hidden. Plus most are small and easy to miss."

"Most?" I asked.

"Yeah, all but the Pacific giant salamander. They're big, up to a foot or more long. But they're not very common. I don't think I saw but two or three in all the years I worked here [doing spotted owl research]. And I spent lots of time poking around in the forest."

Even in my scattered state of leaving, I was impressed. To think I'd been exploring a landscape inhabited by giant salamanders. I wished I'd known that. But pretty soon I forgot about them, as the return trip to Anchorage and catching up on other parts of life demanded my attention. In fact I didn't even think about the Pacific giant salamander (also known as the coastal giant salamander) until sitting at my home

computer, writing about the Andrews and my newt encounters and recalling boyhood salamander searches.

Now I'm thinking that maybe, just maybe, *Dicamptodon tenebrosus* would be the best starting point to any scientific exploration of Oregon's old-growth seasonal rainforest.

A Googled website search quickly confirms the potential that this mega-salamander holds. The critter itself is amazing. The continent's largest terrestrial salamander, I learn, is able to defend itself with "a painful bite." And when threatened, it may produce a low, rattling sound. This is good stuff.

Given the salamander's size and bite, it comes as no surprise that this crawling amphibious creature is a predatory beast, feeding on a variety of invertebrates, small fish, other salamander, lizards, and even small rodents. It's a diet that suggests *Dicamptodon tenebrosus* moves a lot faster than other salamanders I've known.

Then there's this information to consider: Pacific giant salamanders, more than either varied thrushes or rough-skinned newts, have a limited range that's closely tied to Pacific Northwest rainforests, where they tend to be found in, or near, clear and cold bodies of water. The research that's already been done suggests a long-term population decline tied – no surprise here – to logging of old-growth forests and the accompanying siltation of forest streams.

What better life form to study as part of a 200-year-old experimental forest project, than one to be known only through patient, careful field observation and close attention to habitat; and whose well being is intimately tied to the health of old-growth forest ecosystems with cold and clear-running streams? It's something to think about, seriously.

Bill Sherwonit is a nature writer who lives in Anchorage. He spent a delightful, though-provoking week at the Andrews Experimental Forest in October 2006, while sharing the landscape with newts and varied thrushes and, unbeknownst to him, Pacific giant salamanders.