

Dead Moose in Thick Forests

Ouch! Another wall of scratchy spruce ahead, with their sharp dead lower branches. And a fallen “great-great-grandfather” of a spruce, with broken pointed stubs of branches. So, we go around. And then ...

I was up early in the frosty morning, thoroughly awake after washing hands and face in the cold lake water (the better to feel human, at least ritually), and ate a good, if simple, breakfast, mostly oatmeal.

It rained with a stiff wind half the night, everything is dripping wet, and the sky still looks gray and threatening. Even if it doesn't rain, we'll get wet from the bushes. But it could be worse: it could be a day for moving camp, traveling with full packs. Just light packs for a day-trip. If the weather doesn't get any worse, it's hard but interesting work.

What sort of work? We go cross-country, away from the trails, looking for dead moose, mostly old bones, as a part of an almost fifty-year long study of the ecology of Isle Royale (about nine by forty-eight miles in size, in Lake Superior); the main focus of the research is the connection between the wolves and moose, predator and prey¹. In the summer, four groups of Earthwatch² volunteers go out looking for teeth and bones from dead moose (without at least one tooth, the bones can't be used in the study), to determine the sex, age, and health of the moose, how long ago it died, etc. The wolves are smarter and shyer than the (dead) moose and one has to follow them with radio-collars or from airplanes in the winter, when their tracks are clearly visible on the snow.

There are six of us and we go in a line abreast, strolling slowly about 10-15 yards apart, each carefully searching his own band of

ground, as much as the terrain permits, looking for bones and shed antlers.

And then ... more spruce. But it does seem a bit lighter ahead, giving rise to hopes that it'll be easier going, please! And in fact it is – the way goes uphill, which usually means somewhat thinner woods, where we can search more easily and keep better tabs on one another. Jo is to my right; she's just out of college, from Canada, and though the smallest of us, incredibly strong – I could hardly lift her pack. To her right is Dan, also a strong hiker, with a tendency to forge on ahead (he went missing for a day and a half starting on our first day off trail). To my left is Jeff, the boss, who led a good trip, somehow controlling the weather so all the rain came at night. Then Ron, who's now on his thirteenth time at this, by now quite adept in the search for bones. Furthest left is Clay, on his fifth trip, who goes like a bull in a china shop, crashing through the branches while talking to himself; one can hear him from quite a distance.

The plan is to go for a few hours on a bearing of 240°, hoping to reach hill 885, from where we'll head north for maybe an hour and then back to camp. We “swim” through the trees, pushing the branches up or down or aside with arms or lowered head, and break out in a small meadow, pretty, with grass and lots of dandelions. What's more, it's a pleasure to be able to move without fighting, if only for 30 yards.

“Shed!” – a cry from Jo. Jeff and I go to where she's standing with an old, mossy antler. I measure the diameter of its base with the ruler on my compass and Jeff records that in his notebook, along with details about where we found it, how old it looks, etc. I mark it with an “X”, so that no one will discover it a second time³.

Never pass up a chance to rest a bit and drink a lot of water, but then, back to work, across the little meadow and once again into the trees. Here and there among the spruce are large birches, often

old and dead for years. These corpses are tricky things: if you lean on such a dead but thick and apparently strong trunk, it falls down with a crash. More devious, if you step on such a fallen trunk, your foot goes right into the wood – the trunk has rotted away inside, leaving just the bark as if it were solid.

In front of us the way goes downhill and I can see a few cedars ahead, a swamp, I'm afraid. But before we plunge in, Ron shouts "Bone!" We all run to where he's standing over a white skull half covered by the leaves. Good! With teeth, this counts as a "catch" but even better would be a lower jaw bone with incisors, so Ron digs in the dirt right under where the skull lay. A few inches down he finds the mandibles and a bit lower two "good" teeth. The rest of us wander all over the area, including into the swamp, looking for more ex-moose parts – each wolf tears off a portion of the victim and carries or drags it off to eat safely away from the others. Jeff records all the details in the official notebook. I find a leg bone that still has marrow inside. Someone piles up ribs and vertebrae, all healthy looking, with no signs of arthritis. The rule is, whoever first finds a corpse carries the bones⁴ back to project headquarters (if one is lazy, one can search with eyes closed).

And then we're underway again, into the swamp. Lower ground tends to be thoroughly soaked, either old beaver ponds or from collected rain, gradually becoming meadows, though very wet ones for a long time. Going carefully, one can find places to step, but it's like climbing on a jungle gym, which would be a whole lot harder with big packs. Skunk cabbage sprouts everywhere. A lot of trees have big holes from the pileated woodpeckers or smaller ones from the hairy woodpeckers.

I have to confess that the terrain is rather claustrophobic for my tastes: almost completely covered with thick forest, hardly a viewpoint anywhere except the lakeshore (and it was odd to me to see so much water without any salt). Everything was bas-relief, except for one cliff we encountered that fell 150 feet into the lake and that

we had to find a way around to get down to the beach. One couldn't go more than a kilometer an hour and learned patience or went nuts.

But it was interesting work in lots of ways, not least that so far it hadn't killed me.

But I'm a philistine – to a naturalist this is a paradise.

Through the swamp with mostly dry feet, we go uphill again, away from the mosquitoes, and sitting on a couple of down logs, we eat an enormous amount of carefully rationed food: cheese on crackers, raisins, peanut butter, chocolate. And we drink a lot of water. A breeze would be wonderful, but the weather is now fine – everything's nicely dried out.

After lunch, we go north for a while and then back towards camp, mostly along a long whaleback ridge, completely wooded but not impenetrable, even a short moose trail now and then. Most of the trees are eerily draped with "Old Man's Beard", a pale gray-green lichen that hangs in tangled threads from branches and rough trunk. On the way we find three more shed antlers, two likely a "couple", and two sets of bones but no teeth. Oh, well. We did find a beaver skull, on top of a knoll, far from any water, strange to tell. Jeff explained that the beavers and even more, the moose (which eat every sort of tree except the spruce⁵) finished off all the aspen near their pond, and since they – the beavers – have to go further to look for food, they're easier prey for the wolves. I carry the beaver skull – it's much lighter than moose bones.

It's been a long day and we're all in various degrees tired, scratched, and damp, from sweat if not from rain. I'm running somewhat on stubbornness, buoyed up by plans for a bath when we get back to the campsite – that is, to tell the truth, just a quick rinse with a bandanna in the icy lake water – and by thoughts of dry clothes, dinner, and a nice warm sleeping bag, listening to the loons laughing in the night. Meanwhile, on, on.

Coming down from the ridge, we come face to face with a drowned meadow, what was once a beaver pond. Going around would be a long detour, but directly in front of us is their old dam, maybe a foot wide and 25 feet long, with the twigs and branches now covered by slippery grass that bends under one's foot, easy to wind up in the water. We all get across with hardly a splash.

And on through trees, swamps, meadows... Ah! Finally close to home – the wooded knolls and swamps all look alike, but there's the tiny brook that hits the lake right by our campsite. In a half hour – comfort!



The author filters water from a beaver pond.

¹ Today there are 14-15 wolves in three packs and about 500 moose. In the past there have been as many as 50 wolves and almost 3000 moose, with the numbers going up and down over the years. For more information, take a look at the web sites <http://www.earthwatch.org/expeditions/peterson.html> and <http://www.islerovalewolf.org> .

² Earthwatch is a private organization based in Massachusetts that supports scientific projects all over the world both financially and with volunteers on a “working vacation”. For more information, see their web site: <http://www.earthwatch.org> .

³ Male moose grow new antlers every year; late in Autumn they shed them. In the course of the week, we found 48 shed antlers.

⁴ Not the entire body: the teeth, skull, one leg bone, and any arthritic vertebrae or pelvis. We found 8 dead moose with teeth and maybe another dozen that didn't count. All the bones we dealt with were clean, with at most a bit of dry cartilage here or there; in 1996, after a very severe winter that killed a couple of thousand moose from starvation (because of the deep snow), the teams had to carry bones covered with rotten flesh, teeming with maggots and stinking mightily.

⁵ They seem especially fond of balsam fir. One sees clumps of them frequently, barely a foot or two in height, almost without branches or needles, all but naked stems, but alive, even 20-30 years old.

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