



MICKY BEDELL | BDN

John Holyoke and his friends don't call the book by its full, tongue-twisting title. They don't even call it *The Atlas* or *The Gazetteer*. It's just "the DeLorme."

Holyoke

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Me? I've got one in my car. Always. And I'm pretty sure there are a couple of them lying around in the house ... or the garage ... or down in the cellar. Again, I often find myself saying, "Where's the DeLorme?"

Another question to ponder: What kind of DeLorme do I need?

The answer: Every kind the company makes.

For years, I didn't realize I had many options. Then, a few years back, I chatted with DeLorme reps at an outdoors show and learned that they were selling map books with snazzy plastic covers.

As you might imagine, I had to have one. (Should have bought two.)

Then a few days ago, as everyone was sharing thoughts on the sale of the company, a pal of mine told me he'd received a fully laminated *Atlas* and *Gazetteer* for Christmas.

Let me repeat: Fully. Laminated. Not just the cover. Every single page. Sign me up!

Again, I never knew DeLormes like that existed, though I had on occasion thought it would be pretty cool if they did. One time, I nearly sent a message to the company to share my great idea. Turns out someone beat me to it. (Darn! That could have been my ticket to free DeLormes for life!)

As responses to my first DeLorme blog poured in, I was pleased to find I'm not the only Mainer who's more than a bit of a DeLorme geek.

Me? A geek? Here's the proof.

For years, I have day-dreamed about carefully re-

moving the staples and taking *The Maine Atlas* and *Gazetteer* apart. Then I'd find the largest wall in my house and create a really cool man-cave map of Maine.

I almost started doing that once but realized I'd actually need to buy two DeLormes because each page has another map on the other side. Because I was short on cash that week, I never followed through on the ambitious re-decorating effort.

Last week, I began to re-think the project and decided that before I started dismantling perfectly good map books that I'd turn into wallpaper, I ought to do a little math.

With apologies to Mr. Spielberg, here's what I learned: "We're going to need a bigger house."

Each map in *The Maine Atlas* and *Gazetteer* is 10 inches wide and 14 inches tall, you see. And according to my quick ciphering — Note: I've never been much of a cipherer — my man-cave Map-O-Maine would be more than 9 feet wide and nearly 13 feet tall.

Oops.

My wife will likely be happy to learn I'll have to give up on my home decorating plan — and to be honest I was a bit worried that I'd walk into my cave a week later and learn half of my maps on the floor.

In lieu of that grand project, I guess I'll just have to keep hoarding DeLormes as long as the company keeps producing them.

Heck, if I'm lucky, I might even find one of those fully laminated models.

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Hike

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"I know a lot of people who use and love that trail," Bloomer said. "They've come up to me personally and told me I did a great job, that what I did on the trail has helped a lot."

The trail is on property owned by Bloomer's grandfather, Peter Yates, who now lives in Maryland.

"He had plans of restoring the area," Bloomer explained. "I was in contact with him the entire time I was working on the trail. He was thrilled about it."

Bloomer completed the trail work this fall for his Eagle Scout Service Project, a requirement for achieving the coveted rank of Eagle Scout from Boy Scouts of America, an organization founded in 1910 as a youth program of character development and values-based leadership training.

"Boy Scouts has set me up for so much and has really given me the outlook to open my mind to just about anything," Bloomer explained. "It got me into aviation when I did my Aviation Merit Badge, and it also has taught me a lot of practical skills like lifesaving and first aid. ... I got a job working a ropes course because of the training I had at my Scout camp."

This past Monday, Bloomer appeared before a board of review and earned the Eagle rank.

"A lot of people went into doing this project," Bloomer said. "A lot of my friends helped and people in my troop, people in the community."

The wood for the bog bridges and the gravel for the parking lot were donated by local residents, he said. And he rarely went out to work on the trail alone.

Starting at the trailhead, the trail passes through a small stand of balsam fir and young white pines, then enters a mostly deciduous forest that includes beech, red oak and white and yellow birch. Now marked with blue blazes, the trail climbs the mountain gradually and follows a small, rocky brook for a stretch.

About halfway up the Young Tunk Mountain, the



COURTESY OF DEREK RUNNELLS

BDN reporter Aislinn Sarnacki snowshoes up a hill that locals know as Young Tunk Mountain recently. A hiking trail that leads to the top of the hill recently opened to the public.

trail meets a wet section of the woods.

"Water accumulates right there into a big pocket — a giant puddle," Bloomer said. "It's one spot people would get lost. So I built a walking bridge over it."

The trail then continues to the hilltop, which is just over 550 feet above sea level, according to contour lines on Google Maps and the Maine DeLorme *Atlas* and *Gazetteer*. Emerging from the trees, the trail makes a sharp left and ends at a hump of exposed granite, from which hikers can look to the northwest and see the hill's namesake, Tunk Mountain, rising 1,157 feet above sea level.

Tunk Mountain is one of the most popular spots to hike in the region. Harold Pierce and his children donated Tunk Mountain to the state of Maine for preservation in 1994, a generous act that is commemorated on a plaque near the mountain's summit.

Also from the top of Young Tunk, hikers can look north and see the Humpback (Lead) Mountain. On a clear day a line of wind turbines are faintly visible along the horizon.

While the trail officially ends at the first granite hump, people often continue along the top of the hill, following the exposed granite, to additional views of the area and patches of wild lowbush blueberries. To the

west you can see the nearby Caribou, Black and Catherine mountains, all of which can be explored by public hiking trail. To the south and southwest is the ocean and on a clear day, the mountains of Acadia on Mount Desert Island, and to the east the forests and lakes of Washington County.

In response to a proposal by Bloomer and his grandfather, the Downeast Salmon Federation and Maine Coast Heritage Trust are working on establishing a conservation easement on the property to ensure the trail remains maintained and under public protection in the future.

Personal note: It was 6 degrees Fahrenheit at noon on Valentine's Day, and the bitter wind was pushing the temperature far below zero. So what did I do? I asked my husband, Derek, to go on a snowshoe adventure Down East. He wasn't all that surprised. When he married me, he knew what he signed up for.

Knowing it was dangerously cold outside, Derek and I bundled up in layers of synthetic cloth, wool, down and fleece. We wore our thickest wool socks and our bulkiest mittens. Derek hid his face behind a fleece-lined face warmer, and I wrapped my face with the flaps of my bomber hat, which is lined with soft rabbit fur. We also tucked chemical hand warmers and toe warmers

in our mittens and boots.

Our breath fogged and trailed behind us as we tramped up the hill through fluffy snow. We kept a good pace, not lingering too long in any one spot, though I had to stop once to place toe warmers in my boots. My feet had gone numb.

A fierce wind swept over the top of the hill that day from the northeast, clearing the rough granite summit of snow and creating deep drifts on the west slope of the hill. The views were spectacular, but we could only enjoy them for so long without fear of frostbite on our cheeks and noses. Tears streamed from my eyes as I tried to film the landscape, and eventually my camera simply refused to work until I warmed it back up again in my mittens.

After a quick Valentine's Day hug, we headed back down the mountain and I noticed that my right eye wasn't opening all the way. After a quick investigation with my fingers, I realized my bottom eyelashes had frozen to the top. I laughed and told Derek to wait as I sandwiched my lashes between my thumb and index finger and waited for them to melt.

For more of Aislinn Sarnacki's adventures, visit her blog at actoutwithaislinn.bangordailynews.com. Follow her on Twitter: @Iminhikegirl.

Salmon

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When it comes to the Atlantic salmon, much of the five-year plan focuses on opening up and improving their freshwater habitat in Maine through the construction of efficient, modern fishways and the removal of dams.

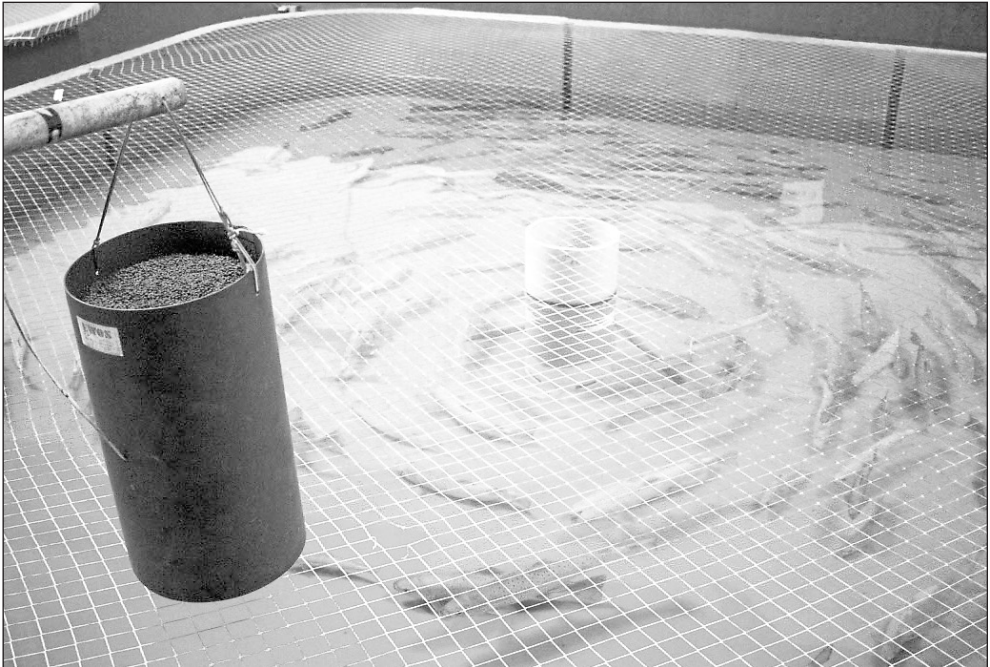
"There's a lot of work to be done," Kircheis said. "A lot of the dams on the Kennebec River don't have fishways. We're currently working with hydro developers on the Kennebec to get fishways in place. We're doing the same on the Androscoggin River and the Union River. We're hoping we'll have a lot of new fishways within the next five years in these rivers and hopefully some dam removals, too, if we can work that into negotiations."

The 'King of Fish'

Atlantic salmon, known as the "King of Fish," once lived in abundance throughout the Northeast, spawning in rivers and streams throughout Maine and as far south as the Long Island Sound. But over the years, their numbers have dwindled, largely because of the construction of dams, which block them from accessing important spawning habitat. Other factors working against their survival are water pollution, predation, commercial fishing and more recently the ecological changes because of warming ocean temperatures.

Today, the only wild Atlantic salmon found in U.S. waters exist in the rivers and streams of Maine, where they have a long history of ecological, economic and cultural importance.

"It was very much a welcome sight to see the salmon runs in the springtime after what was often a very tough winter," said John Banks, director of Natural Resources for the Penobscot Indian Nation, reflecting on the past. "For instance, just below Indian Island, where



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Atlantic salmon swim in a holding tank at the Craig Brook National Fish Hatchery recently.

the Milford Dam is now, our tribal folks used to net and spear salmon every spring by the tens of thousands. It was very much a staple food source that allowed our tribe to survive and prosper for a very long time."

Atlantic salmon are anadromous fish, spending the first half of their lives in freshwater rivers and streams and the second half maturing and feeding in the ocean. They then return to their natal river to spawn, completing their life cycles.

Today, about 75 percent of the Atlantic salmon returning to the U.S. to spawn swim up the Penobscot River and lay eggs in gravel and rubble along the bottom of the river and its many tributaries, according to NOAA. To aid their return, a group of organizations and agencies have been working since 1999 to improve the waterway. This collaborative effort, known as the Penobscot River Restoration Project, has gained national recognition as one of the most innovative restoration projects in the nation and includes the removal of the Great Works Dam in 2012 and the Veazie Dam in 2013.

"We play a very prominent role in the Penobscot River Restoration Project,

which makes sense," Banks said. "This has been our tribe's homeland for 10,000 years. We have an inherent stewardship responsibility to improve the ecological conditions of the watershed, and the Penobscot River Restoration Project allowed us to put this into action."

More work to be done

The Species in the Spotlight Atlantic Salmon Action Plan acknowledges the success of the Penobscot River Restoration Project and other recent efforts that have been made in Maine to restore Atlantic salmon and other fish to rivers and streams.

Since 1988, 25 dams in the current range of endangered Atlantic salmon have been removed, the plan states, restoring access to more than 600 miles of rivers and streams. Twenty of those dam removals occurred since the Atlantic salmon was first listed as endangered in 2000.

Nevertheless, more than 90 percent of the rivers and streams historically used by the Atlantic salmon of the Gulf of Maine remain blocked by dams and hydro-power facilities.

"This is a major problem," Kircheis said. "Some

of these dams have fishways, but the fishways are only partially effective."

For example, several existing fishways are about 50 percent effective, meaning they let about 50 percent of the salmon pass through and up river. Kircheis said that number isn't high enough. NOAA has determined salmon need fishways that are around 95 percent effective for their populations to survive.

"We also have downstream issues," Kircheis said. "Fish can go over the top of a fishway, but they can also go through turbines, kind of like going through a big blender — doesn't work out too well."

In the next five years, Maine dams that no longer support communities will be prioritized for removal, and NOAA will work with hydroelectric companies to improve their fishways.

Five dams in Maine — the Weldon Dam on the Penobscot, the Ellsworth and Graham Station Dams on the Union River, and Shawmut and Williams Dams on the Kennebec River — will be due for relicensing in the next five years, the plan states, and during that time, NOAA will use their authority under the ESA to establish performance (survival)

standards at these facilities. In addition, NOAA will exercise its authority for fish passage under the Federal Power Act to ensure effective fish passage for all diadromous fish, particularly river herring and American shad that are integral to supporting fully functioning ecosystems upon which salmon depend.

"We realize there's this balancing act," Kircheis said. "Dams are an energy source. I turn on my lights every day. I value that. So it's a little bit of give and take. We need to work with hydroelectric facilities to come up with reasonable alternatives."

Following the fish

The oldest salmon hatchery in the country, Craig Brook National Fish Hatchery was established in 1889 in Orland to raise and stock juvenile Atlantic salmon for Maine waters. Today, this hatchery and its sister hatchery at Green Lake in Ellsworth are likely the only reason Atlantic salmon still exist in Maine.

"The goal here for our program — and I'm going to include Green Lake [National Fish Hatchery] in this — is to prevent the extinction of this species," Denise Buckley, a hatchery biologist at Craig Brook, said. "It's to ensure that these individual populations are able to maintain their genetic diversity and eventually work toward recovery, meaning they have self-perpetuating populations that need very little if any input from a hatchery program."

The Craig Brook hatchery produces millions of eggs each year from seven distinct strains of sea-run Atlantic salmon that originate from seven Maine rivers: the Penobscot, Dennys, East Machias, Machias, Narragagus, Pleasant, Sheepscot rivers. These fish are bred in separate tanks because they are genetically different, so much so that they have slightly different physical characteristics that make them more suited for their natal rivers.

Each year, the two hatch-

eries release eggs and young salmon into the rivers and streams of Maine with the hope they'll survive and one day thrive. Listed as an endangered species, these fish are off limits for fishermen while in U.S. waters. But when they mature and migrate out to sea, they lose that protection.

All of Maine's Atlantic salmon migrate to same place, the sea south of Greenland, where they spend the winter feeding on small fish called capelin. There, fishing Atlantic salmon is a part of the economy and culture.

"We can't go to them and say, 'Hey, you have to stop fishing or we're going to arrest you,'" Kircheis said. "All we can do is negotiate, and we can get the countries that share our interests on board with us."

These international negotiations are another component of the Species in the Spotlight Atlantic Salmon Action Plan.

In addition, NOAA plans to work with partners in the U.S. and internationally to better understand how changing marine conditions because of climate change are affecting Atlantic salmon in an effort to improve their survival rate while at sea.

The spotlight expands

It's not just about the salmon, Kircheis said. Other species that are native to Maine rivers and streams are in trouble. But by trying to save salmon, they'll be opening and improving habitat for other species as well, he explained.

For example, after two dams the recent removal of two dams on the Penobscot River, stocking efforts have helped reestablish runs of thousands of river herring and hundreds of American shad.

"By putting that one species in the spotlight and doing anything you can do to benefit them — anything that helps freshwater habitat for example — it's going to help myriad other species," Buckley said. "That can only be a good thing."