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The West Branch Drive: Moving Logs, 1830–1971

William Geller

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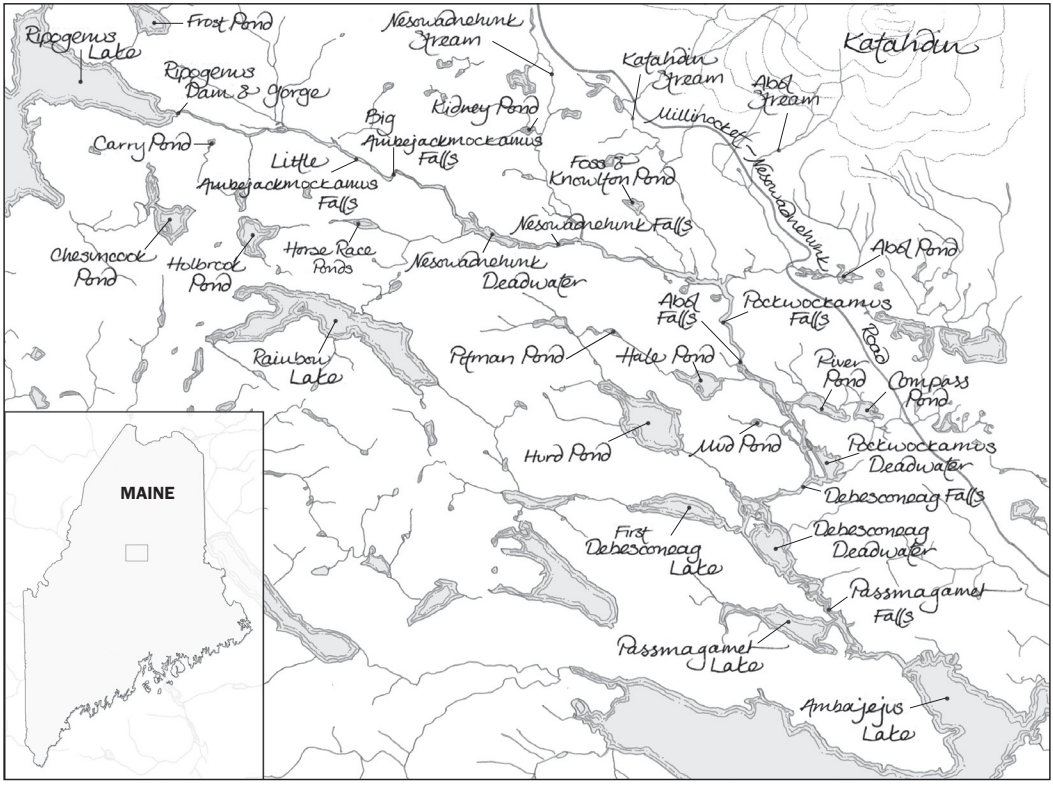

Editor's note: This story continues a series about the lost ways of life in the Maine Woods south of Baxter State Park. The region includes the northernmost 49 miles of what is now the Appalachian Trail through the 100-Mile Wilderness. The last installment in Winter/Spring 2015 (66 no. 1) told the story of sporting camps in the early 1900s through the eyes of one camp caretaker, Rex Hale. But in this essay, William Geller tells how he pieced together the history of the dangerous work pushing huge masses of logs downriver.

> June 1863: I saw 20 men deep in Ripogenus Gorge using pick poles trying to break apart the jam. All of a sudden every man began to run, and almost as quickly they were each swinging in the air above the disintegrating jam, each being pulled up on his tether by men on the cliff top . . .
>
> —*G. C. Pickering, timber cruiser*

For some time, I've wondered what life was like for the river drivers during the boom days of logging on the West Branch of the Penobscot River, in Maine. In search of an answer, I read, talked to people who worked the river, and walked the banks of the 25-mile stretch between Ripogenus Dam and Ambajejus Boom House, where the river drivers captured the logs in booms to continue the water journey to Bangor.

After three years of detective work, I had no satisfying answer. Then I read an unpublished journal by Maine writer Fanny Hardy Eckstorm (1865–1946). It became my Rosetta stone for this project.

> June 8, 1891: 200 men had just spent 14 days sluicing wood through Ripogenus Dam and were headed down river on the drive. . . . The men consumed 2 barrels of flour and a barrel of salt pork each day and had to take with them enough for the next 35 days. . . . They were using 19 bateaux for the drivers and seven for the eight cooks and their cookies [helpers].

For 141 years, until 1971, crews of men—river drivers—traveled with the timber down the West Branch of the Penobscot River in Maine, stopping at the landmarks on this map, taking huge quantities of food and supplies with them, and risking their lives.
AMC/ABIGAIL COYLE

I looked at those words again: 200 men! Eating "2 barrels of flour and a barrel of salt pork each day." The quantities astounded me. I imagined the logistics of moving that amount of food along a wild, cold, boiling river with relentless long rapids. I thought about organizing the men in that environment, with uncertain weather. The brute strength and endurance they must have had, doing their work with hand tools, left me shaking my head. These facts renewed my resolve to learn how the log drives evolved over 141 years before they ended in 1971.

Loggers began cutting and moving up the West Branch of the Penobscot River in the mid- to late 1820s. Others made their way into Ripogenus Lake from the west, bypassing 45 miles of rugged river between the lake and Nicatou, at its mouth on the Penobscot River. Both sets of loggers drove their logs down the river.

In 1832, loggers had cut upriver to a short distance above the head of Ambajejus Lake but below the foot of the Debsconeag Deadwater. By 1835, crews led by a boss named Robert Gibson had reached Nesowadnehunk Stream. Gibson established an 80-acre farm with at least one building and a root cellar on the large, flat interval halfway between Abol and Nesowadnehunk streams. In the summer of 1836, his oxen grazed on the wild grasses of an island below Abol Falls, and his men harvested wild meadow hay along the river.

By 1830, Nicholas "Nick" Norcross, among a few others, came from the west and was logging in the Ripogenus Lake area. These men also worked farms to support themselves. In 1836, one farm lay a little way up the west side of Ripogenus Lake; the next year, two men were working it. By 1856, the farm had grown to about 100 cleared acres with five or six barns and a large house.

The only way to reach these farms was by water or over the ice in winter. The crews were small and few in numbers, their camps crude, and the food the same daily. When the men went in for the season, they took all they would need for the cutting and driving season. No winter supply line served the earliest camps.

By 1840, the lumbermen opened two tote roads that they used yearly for the next 50-plus years to keep the logging camps supplied during the winter. On the Caribou Lake Tote Road that served loggers at Ripogenus Lake, the oxen teams worked in relays. The team at Jo-Mary shanty hauled the ten miles to Yoke Pond shanty, stayed the night, and returned the next day with the empty sled brought down from Wadleigh Pond shanty, the last stop before

Loggers on the river cable ferry at Pockwockamus Deadwater, circa 1930. COURTESY OF THE ROY DOUGLAS NELSON FAMILY

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reaching the Morris farm near the Ripogenus Lake outlet. The Bangor and Aroostook Railroad eventually replaced this supply route after the railroad reached Greenville in 1884.

The Nahmakanta Tote Road connected Brownville to South Twin Lake and the West Branch at the head of Ambajejus Lake. When the railroad reached Millinocket Station in 1894, the land-based supply route for logging on the West Branch went up along Millinocket Stream, crossed Millinocket Lake on the ice, and gradually extended northwest to the Abol Bridge area, finally (around 1908) reaching Nesowadnehunk Stream six miles upstream from the West Branch. No tote road ever reached the Ripogenus outlet by following either side of the river. Supplies needed west of Nesowadnehunk Stream came from the west.

In the early years, the quantity of logs was small, and crews guided them downriver at ice-out, keeping them sorted from those of other drivers with each crew's unique log mark. As more crews cut and drove logs, it became increasingly difficult to keep their logs separated. Lumbermen made a first attempt to drive logs as a group on the West Branch in 1835 with the chartering of the West Branch Boom Company, organized by some of the lumbermen working the river above Ambajejus Falls. The Penobscot Log Driving Company (PLDC), which had directed the drive from Nicatou to Bangor since 1833, took over in 1845 and within four years was handling nearly all the logs of the drive. This company, composed of lumbermen, remained in place until Great Northern Paper took over the drives in 1901 and conducted them on the river above the mill for the next 70 years.

Even with cooperation, the lumbermen knew by the mid-1830s that the increasing log volume required more water, which necessitated dam construction. In 1834, they formed the Chesuncook Dam Company and

Another shot of the ferry across the Pockwockamus Deadwater. An underwater cable pulled it. COURTESY OF THE ROY DOUGLAS NELSON FAMILY

successfully petitioned the Maine state legislature for a charter to dam the outlets of Chesuncook and North Twin lakes. Failing to build either dam in the allotted time, the company sought and received three extensions. It finally built the Chesuncook Dam, immediately above the head of Ripogenus Lake, in fall 1840. The next year, 50 men using hand tools, oxen, and black powder built the North Twin Dam over almost three months.

During the next 127 years, the PLDC infrastructure—dams, sluices, side booms, cribs, and abutments—evolved and used the river's energy to its fullest. Chuck Harris and his crew removed many of those structures during the 1972 cleanup operation, but as I walked the overgrown drivers' paths 40 years later, I could still see remains and envision the river drivers and appreciate how they worked with the river.

North Twin and Chesuncook dams improved the flow of logs, but drive problems persisted as loggers drove ever-increasing quantities. From 1845 to 1879, crews used black powder to blow rocks in Ripogenus Gorge. In 1865, the lumbermen built the first dams near the Ripogenus Lake outlet to direct all the water into the main channel. The next year, they deepened the river channel. They blasted more rocks in 1874. William Jasper Johnston rebuilt the 1865 dams in 1882. A year later, crews working in the Debsconeag Falls area built abutments at Wheelbarrow Pitch, the head of the falls, and below the deadwater. In 1887, Johnston built the first dam across the main channel

leading into Ripogenus Gorge. The dam had a sluice but no gate because the Chesuncook Dam controlled the water.

Even with all that work to help logs flow downriver without jamming, the jams persisted. So the lumbermen continued to work on improving the water flow. Following are just a few examples of the lengths to which the lumbermen went just to keep logs going. In the mid-1890s, 60,000 logs got hung up in a jam on a ledge of Debsconeag Falls. The drivers did not break the jam; the logs sat there until the fall, when Percy Johnston cleared them—and removed the entire ledge. Drivers built a roll dam below the Big Eddy in about 1900, then replaced it with one above the eddy in 1914. A roll dam backed up water to flood out tough, rocky stream sections but let water flow freely over the top so it did not require sluicing. Realizing they still needed more water, drivers built Nesowadnehunk Dam at Nesowadnehunk Falls in 1903. High water blew it out in 1932, but no one replaced it. In 1917, Great Northern Paper replaced the roll dam at Ripogenus outlet with the current concrete dam. That dam flooded out the Chesuncook Dam and turned the three Upper Chain Lakes (Ripogenus, Caribou, and Chesuncook) into one body of water.

Here are a few more examples. At places where the river split into two channels—the back channel just above the Big Eddy, near Little Ambejackmockamus Falls, and above the island upstream of Ambajejus Falls—the men constructed rock-crib side dams to keep the water in the most opportune channel. Where the river widened, as at the Debsconeag Deadwater, the drivers positioned rock cribs connected by boom logs to form a channel that would keep logs in the main current. Side booms kept logs out of coves, inlets, and swampy areas. Shear booms kept logs in the current in Ripogenus Gorge and at the Big Eddy, Ambejackmockamus Falls, Horserace Rapids, the Ledges, Nesowadnehunk Falls, Abol Falls, and Ambajejus Falls. At all of those places, logs tended to jam. In the lower rocky gorges just above the Big Eddy, crews lined some rough rock walls with logs to smooth the way. The last substantive change at Ripogenus Gorge was the 1967 relocation of the sluice to the top of the gorge's north side ending at the cliff top above the pool at McKay Power Station.

Bridges weren't part of this industry for many years. All the drives relied primarily on rafts and bateaux, later motorboats, to transport men back and forth across the river. The first bridge might have been a floating model built circa 1920 and used through the 1940s above Ambajejus Falls. The bridge

swung downriver to allow the passage of logs. By about 1930 at Pockwockamus Deadwater, an overhead-cable ferry, powered by the current, crossed the river. A 1934 bridge over this deadwater and one built in the late 1940s to replace the floating bridge did not last. Great Northern's only successful bridge before the end of the drives was built in 1953; it crossed at Abol.

Each year's river drive preparations also included the opening of the downriver drive camps at the Big Eddy, Sourdnahunk Falls, Abol Falls, Debsconeag Falls, and Passamagamet Falls, all of which were on the north side of the river so communication did not depend on a bateau. Each camp had a small crew with a bateau. Before the log drives started, loggers re-cleared the paths on both sides of the river so they could move easily up and down the river's edge as needed. They inspected and repaired or replaced all the various types of booms designed to try to keep the logs in the main current. They prepared the trip booms and accompanying headworks.[1] The locations of these camps never changed.

> The wind was favorable, blowing down river, so they were sluicing straight through the night. The signal men at their watch posts on the rim of the gorge could see enough in the dark so they could signal with flaming birch bark torches whether a jam was forming or . . .
>
> —*An 1881 river traveler*

For more than 100 years, the jam watchers stationed themselves in view of each other between the Ripogenus outlet and the Big Eddy. At the Big Eddy, the watchman could see up the back channel to the crib works, the station of the next watchman who could see as far as a west-side cliff site at a drop in the river called the Little Heater. The next site was on the former cliff at the McKay Station, in sight of the outlet. A 1905 traveler on the river noticed locked telephone boxes, but Fred Gilbert, who directed the drives from 1900 to 1903, did not trust them and used the old signal system. Before 1917, when logs jammed, the crews broke them apart using picks or (after 1879) setting

1. A *headworks* is a log raft with a capstan fitted to a keyhole in the middle. Protruding from the capstan are as many as six equally spaced arms. One or two men on each arm turn the capstan to wind in a rope pulling a trip boom to the anchored headworks. When a headworks tows a boom of logs, its anchor is carried the length of the rope in the desired direction of movement, dropped, and then the crew turns the capstan to wind in the rope and pull the boom of logs to the anchor. The process is repeated until the destination is reached.

Lumber workers in 1909 keep the long logs moving through a boom-lined channel.
MILLINOCKET HISTORICAL SOCIETY

off dynamite. Once Ripogenus Dam was operating in 1917, crews generally broke jams by releasing water.

> I set the dynamite down in the water in the jam, but the charge did not go off and we did not know if the current moved it or if it would eventually go off.
> *—Dana Brown, a late-1940s crew leader at the Ambajejus Boom House, who was called to clear a jam at the Passamagamet Falls trip boom.*

If a jam began to form and a drive camp crew could not break it, one runner went downriver for more men and another went upriver to tell the drivers stationed at the closest "trip boom"—a string of connected logs that could control log flows—to close it—thus, shutting off the flow of logs. The men used a headworks to pull the trip boom back across the river. In later years, they used a winch with a two-man hand crank. A closed trip boom could also cause a jam behind it, with the pressure of oncoming logs forcing others underwater and often stacking them down to the river bottom. The drive crews no longer needed the trip booms at Abol and Debsconeag falls beginning about 1915, but the ones at Passamagamet and Ambajejus falls were in use through the last drive.

> June morning 1857: The Abol drive camp crew ferried George Goodwin of Stetson, Maine, out to the "Gray Rock of Abol" in the middle of the river above Abol Falls to keep the jams from forming. . . . He fell in and drowned.
> *—Members of a drive crew, as quoted in the journal of Fanny Hardy Eckstorm*

Once the sluicing began, the crews at the drive camps kept the logs moving through their assigned sections. With their bateaux, they transported men to either side of the river or placed them on jams mid-river. The crew's first priority was to keep an open channel in the river and prevent jams from forming. Logs washed up on the banks and got stuck in shallow waters near the shore, but the men had little, if any, time to deal with these. With logs being sluiced through the night, the drivers never knew what they might find in the morning. They were ever vigilant for the sudden appearance of a mass of logs.

> A portion of the drive crew was sluicing the last logs. The cooking crew had already moved over the portage with provisions, gear, and 12 tents for 200 men . . . 12–15 men portaged the 1000 foot two inch hemp rope . . . they carried the spare tools and the forge and all the iron the blacksmith would need. . . . As 200 men picked the rear and slowly moved down river, another 100 men, those of the drive camps and those driving cuts on the tributaries, joined the journey.
>
> *—Fanny Eckstorm*

The drive boss had determined where the next encampment would be below the gorge. Here the cooks and their crew set up the camp and began cooking again. The 200 men ate the evening meal and first meal of the next day at the camp. Cookies delivered the day's other two meals as far as six miles away. Beginning below the dam, the lumbermen picked and otherwise manhandled logs jammed against the dry-ways[2] and caught along the edges of the gorge. Downriver, others were beginning to work both sides, where high water at the beginning of the drive washed logs up on the rocky banks and into the wooded edges. The drive boss determined how far from the river they worked

2. Where a river divided into two channels, loggers typically dammed one channel, which was then the dry-way.

by the current river level and how much water was available behind the dam. The last person down the river was a clerk who noted, by log mark, any logs left behind. The drive boss moved the camp as needed to keep pace with the movement of the rear of the picking.

> When he was home he talked and worked incessantly on planning the drive. . . . He drew pictures and made small models of the river . . . experimented with imagined water levels . . . trying to figure the best way for the men . . . then [Great Northern Paper] took over and did not hire him and the others who had led the river drives for decades . . .
> —*The wife of river boss John Ross, recorded by Fanny Hardy Eckstorm*

In 1891, the rear of the drive reached Ambajejus Boom House around July 5. In another four weeks, after towing the log booms across the Lower Chain Lakes and driving the logs down the lower West Branch, they would reach the Penobscot boom at Nicatou. This timing reflected that of the previous 60 years and the next 10 to 20 years during which the drive changed little. The PLDC had successful drives year after year except in 1861, when the Civil War engaged the men necessary for the drive; in 1879, when the North Twin Dam blew out; and in 1880, when the Chesuncook Dam washed out. Even with low water levels, the lumbermen successfully completed drives on time, always getting through Ambajejus Lake by early July.

The drive began to change in 1901, after Great Northern was running it; by 1915, nearly all logs coming downriver went to the company's mill in Millinocket instead of floating another 75 miles to Bangor. The deadwaters and large coves from Debsconeag Deadwater downriver became occasional storage areas, where crews used headworks to move logs out of storage into the current and drove them to the mill through the summer and early fall. By about 1920, log lengths were only 4 feet instead of the previous 12, and by then, a single crew of 50 or so men worked at Ripogenus Lake, towing and sluicing logs through much of the summer. Crews were not necessary at the downriver drive camps because the shorter logs rarely jammed. The drive of short wood with bateaux took about 45 days and 60 men to pick the rear. When the drivers switched from bateaux to flat-bottom motorboats in the mid-1940s, 25 to 30 men picked the rear in only 10 days. Until 1953, they stayed at the drive camps during this time. Once the road crossed

at Abol Bridge and reached Ripogenus Dam in 1953, the crews stopped using the camps. At the end of each day, Great Northern transported the men to more easily maintained and comfortable facilities. Other than the trip boom operators at Ambajejus and Passamagamet falls, watchmen at the drive campsites were no longer necessary.

A way of life was ending.

A few years ago, I sat on the porch of the Ambajejus Boom House, thinking of Fanny's journal. Her West Branch travels had ended just before the river's sporting-camp era had begun. Many of the loggers she met played key roles in the development of these camps. Had she continued downriver in 1891, she could have stayed at logger Joe Francis's sporting camp at the Debsconeag Deadwater. Other men who'd worked the log drives ran camps at Pockwockamus Deadwater and Passamagamet Falls. And Seldon McPheters, who piloted the towboat on the Lower Chain Lakes, established sporting camps at the foot of Ambajejus Falls. As I looked across the cove at Seldon's former Camp Wellington, now called Ambajejus Camps, I imagined woodsman and guide John Farrington paddling away from the dock with his sports. They might stop at his family's personal camp on the Debsconeag Deadwater or at one of the others situated along the route to Ripogenus Lake and Frost Pond. I could imagine it all as if it had just happened a few years ago.

William Geller is the retired comptroller of the University of Maine at Farmington.

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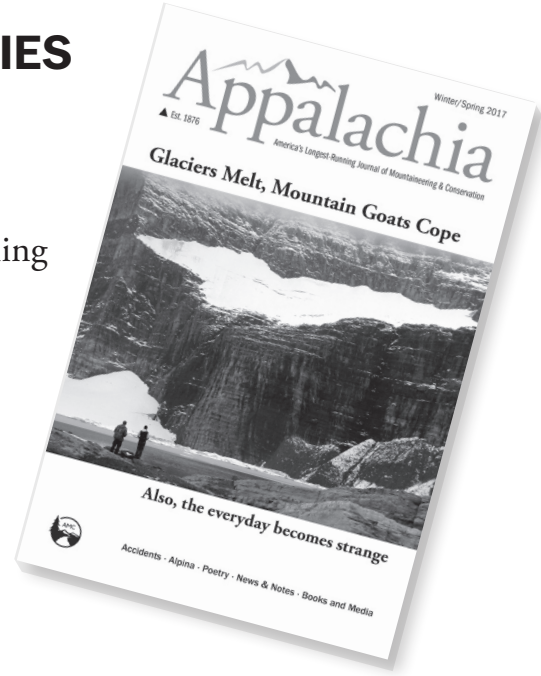

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