



The View From Heifer Hill—October 2023

The River Primeval

This evening, I write to you from the shores of The Balsams, a homeliest of the many beaver ponds along this wild brook. Concentric rings of ripples reveal the lively world that exists below its surface. When a wave of bigger ripples advances down the dark channel, I know who is coming to say hello; Dew was born at The Balsams, and this summer she moved back in. With her is Bebe, a yearling, and her invisible mate, Bebryx. For many months, Bebe was the only evidence I had of Bebryx's existence. Then one day I spotted him—a torpedo speeding past underwater—and I understood why he was so elusive; some traumatic event had taken his tail. I suspect his missing tail is evidence that many people still see beavers as a problem, one easiest solved with a trap or gun.

Dew sits near me grooming and I scan downstream, hoping to see the others. The view is obstructed by a pile of silvery tree trunks that were jammed across the stream by Tropical Storm Irene the year Dew was born. It's not pretty, but I have a new appreciation for its messiness thanks to Dr. Denise Burchsted, a partner in a project BEEC has undertaken this year. We are working with two towns to raise awareness of the benefits of beavers and to demonstrate some solutions to conflicts that allow beavers and humans to coexist. Dr. Burchsted studies the way rivers and the land interact without human interference—what river systems would have been like before the arrival of Europeans. She has changed my notion of what this region was like in the days of the river primeval.

I could already imagine the brook primeval. It must have been similar to the one my beavers have recreated here over the past sixty years. Because brooks and streams carry less water than rivers, beavers can successfully dam them. All low-gradient streams, in the days before the fur trade, would have meandered through ponds, shrub swamps, wet meadows, and bogs—a crazy quilt of beaver-created habitats. In such places, the plants and animals that depend upon sunlit landscapes would have found homes. But such streams occupy only a tiny part of our landscape.

Yes, beavers do live in big rivers, but they don't dam them. I used to think, therefore, that only the brooks would have been shaped by beavers. Not so. The puzzle pieces I was missing were "big trees" and "time." Dr. Burchsted has learned that rivers, even those as large as the Connecticut, were dammed. Not by beavers. Not at first. They were dammed by the forest primeval, the large trees that grew along the banks. It would take more than a few trees to dam the Connecticut. Those of you who were here during Tropical Storm Irene might be able to imagine enough trees piling up to alter the Connecticut's flow, especially if you imagine that during previous tropical storms and hurricanes, there were a lot more trees growing next to rivers. Irene was a '100-year Flood.' Since we are a life-form that imagines a century to be an eternity, we can be excused for thinking such events are too rare to matter to a river. In the 10,000 years since the last ice sheet melted there might have been 100

such big floods (and innumerable smaller ones). That's River Time. No big machines would have been in the rivers afterward clearing up the mess.

Log jams don't stop rivers altogether, of course. Water will find another route. Sometimes it goes around each end and makes two smaller channels. Smaller channels are easier to manipulate. A log jam or rock outcrop might make the flow fork again. You see where I'm going; with river courses split by obstacles, some of the channels were small enough for beavers to dam. The ancient broad river valleys must have hosted meandering, multi-channeled water courses and innumerable beaver ponds and meadows. Once beavers have claimed a channel, they spread the water farther, sending it in new directions, each more damable. Their dams catch two precious commodities, slowing them on their inevitable trek to the sea—soil and water.

This was the landscape that shaped our native plants and animals. The Europeans arrived to find rivers teeming with fish and broad river floodplains that were as biologically complex and rich as today's paved and plowed floodplains are simple. Beaver meadows in floodplains were also among the sites favored by the many people who already lived here.

Tonight, on the shores of The Balsams the white-throated sparrows call to each other as they settle in the alders. A tiny saw-whet owl shrieks and then begins its tooting call. I hear Bebe squeaking excitedly as she paddles up the brook. She is not talking to us though. She is talking to her father. Bebryx swims cautiously around a bend in the stream and then paddles warily past us in plain sight. It is a thrilling moment. Here, by this wild brook, I can imagine myself back to the world of the river primeval.

