

Smokey the Beaver: How Beavers Build Fire-Resistant Riverscapes

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Beaver dams and beaver mimicry (e.g. Beaver Dam Analogs) are gaining popularity as a low-cost, nature-based strategy to build climate resiliency at the landscape scale. Though once abundant on this continent, beavers were pushed to near extinction during the Fur Trade. With the loss of beavers came vast losses in beaver-engineered wetlands. Beavers slow and store water in their ponds, canals, and the surrounding soil during wet periods which can then be accessed by riparian vegetation during droughts. As a result, the well-watered vegetation in beaver-dammed riparian corridors is less flammable. Recent research has shown that these beaver-influenced patches of the landscape stay green and can serve as fire refugia, preserving intact, mature riparian habitat, even during megafires. Modern riverscape restoration has increasingly looked toward beavers as inspiration, or even partners, in ecological restoration. And now our data suggests that we could benefit from partnering with beaver's ecosystem engineering to achieve many of our wildfire and climate resilience-related restoration goals as well.

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