‘Dam good’ video shows how beavers could fight fires

An adorable video that shows how beavers can fight wildfires is making the rounds on Twitter, and it’s everything science communication should be: short, compelling, clear, and about beavers.

The stop-motion video is the work of Emily Fairfax, a graduate student at the University of Colorado Boulder. It shows a beaver building a dam and transforming the forest upstream into a marshy wetland filled with splotches of vegetation in shades of green. When a fire rages through the forest, the ponds of water and healthy plants protect the area above the beaver dam from the flames. That includes the beaver, which holds up a little flag that says “I’m okay!”

> *As a scientist I’ve had an “elevator speech” prepared for a few years now.*
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> *This year I made an “elevator video” & let me tell you: people enjoy seeing my research way more than just hearing about it!*
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> *So what do #beavers have to do with #wildfire? Watch (with sound) & find out! pic.twitter.com/axc523sRgq*
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> *— Emily Fairfax (@EmilyFairfax) February 17, 2019*

So far, the video has more than 180,000 views on Twitter, and it’s getting the delighted reactions it deserves. Conservation experts, teachers, and beaver advocates have all asked Fairfax for her permission to share the video. Others want to know how she made it, and, as it turns out, it’s pretty low-tech:

Fairfax set up a beaver dam in her kitchen, snapped photos on her iPhone, and used an app to turn them into a stop-motion video.

The whole thing started because Fairfax is wrapping up her PhD and is studying the ways that beavers can help their habitat withstand hazards like fire and drought. Now that she's applying to jobs, she's spending a lot of time trying to explain her research, and she realized she kept reaching for a visual aid. "I'm trying to talk with my hands, and I want to pull up all these pictures on my phone," she tells *The Verge.* So she made a video instead.

"People give me beaver stuff for the holidays every year."
She set the scene on a cork board at her kitchen table with construction paper, rocks from her garden, and leftover fake plants from her wedding. She made the stream, beaver dam, pond, wetland, vegetation, and the fire out of felt. The beaver was the easy part. "I already had a bunch of little beaver toys because people give me beaver stuff for the holidays every year," she says.

It took her a few tries to snap about 300 photos on her phone, which she stitched together with the Stop Motion Pro app. Then she added sound effects in iMovie — including a banjo soundtrack. The music is a nod to documentaries about beavers, Fairfax told *The Verge.* "There's always banjo music playing when they're building, and I don't know why," she says. "I can't break tradition!"

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She tweeted the video on Sunday, not expecting it to have much reach beyond what Fairfax calls her "beaver people" — a small community of people interested in beaver science. She went on a hike, and when she came back, the tweet had blown up. "I'm getting comments from K-12 educators, I'm getting comments from land managers," she says. "Ultimately that's the goal of

something like this, to make people interested who wouldn’t otherwise read my papers, or come to my conference presentations.”

Fairfax thinks part of the video’s appeal is its brevity. “Scientists have great tendency to ramble on – myself included – when we’re talking about things we really like,” she says. This video, by contrast, is less than a minute long. And the best part is that it doesn’t use any of the jargon that can make science so impenetrable because it doesn’t have any words. On Twitter, undergrad Alysha Henderson said it best:

https://www.theverge.com/2019/2/18/18229737/beaver-fires-dam-good-video-watch