



Methow Beaver Project

Our Vision is to respond and adapt to climate change and its predicted impacts in support of people, the environment, and sustainable ecosystem function.

Beaver complex in Devon, UK⁹

Greetings Beaver Believers!

Are you feeling especially cooped up and isolated this winter? Us too. That's why we're taking you on an adventure "across the pond" in this month's newsletter! That's right, we are featuring our North American (NA) beaver's (*Castor canadensis*) European cousin *Castor fiber*, aka the Eurasian beaver, and going on a mental journey across time and space! Let's explore the evolutionary and cultural history and present day status of the only other species of beaver in the world!

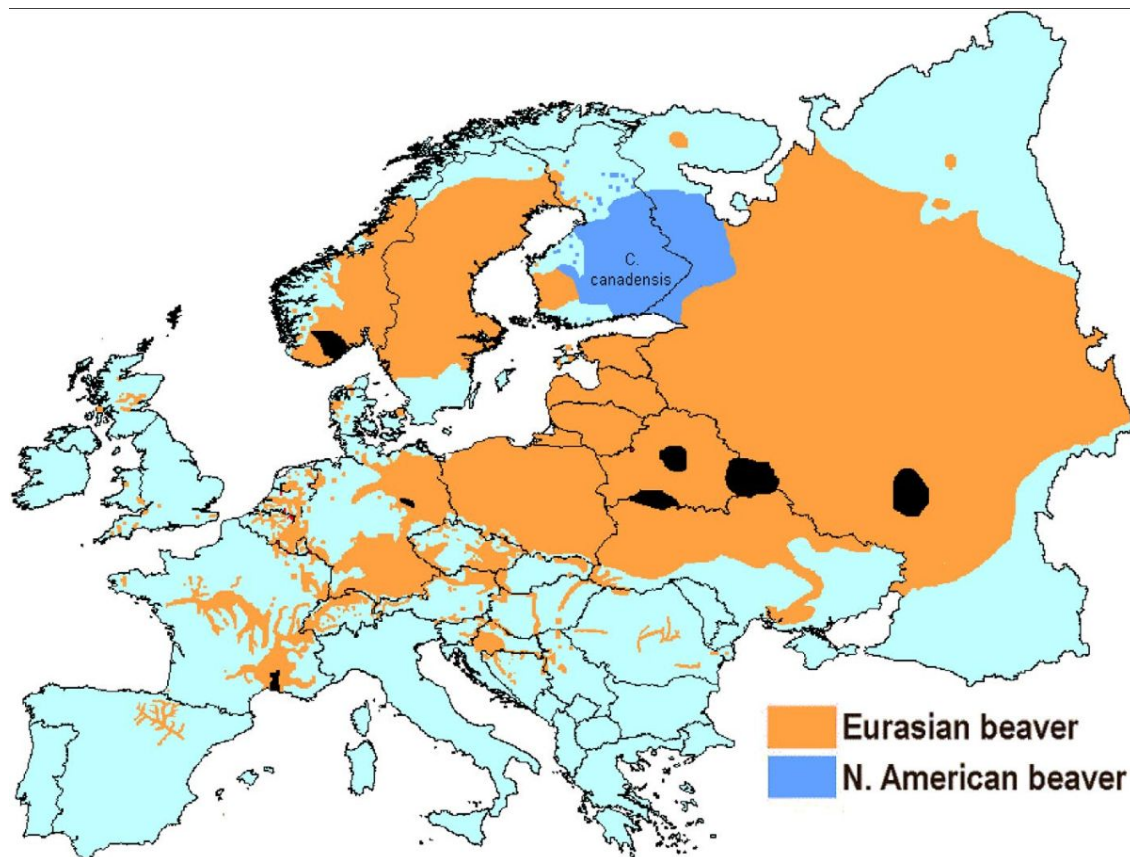
Our story begins about 33 million years ago in Eurasia when the first Castorids show up in the fossil record¹. These rodents were quite different than the cute and cuddly beaver we know today and includes the now extinct relative, *Castoroides*, a giant beaver that could be over 7 feet long and nearly 300 pounds². The remains of the modern beaver's ancient ancestors begin to show up in fossil records in both Eurasia and North America between 5-10 million years ago¹. Though fossil evidence of ancient beavers arrives on both continents around the same period, Paleontologists believe beavers dispersed from Eurasia into North America via the Bering Land Bridge and this migration event could be the origin of the split between Eurasian and North American beaver species we know today¹.



Giant Pleistocene Beaver, *Castoroides ohioensis* skeleton in Minnesota Science Museum. - Ryan Somma

Though nearly identical in appearance, Eurasian beavers have 8 more chromosomes (48) than NA beavers and they cannot hybridize³. Eurasian beavers are slightly bigger on average than their American counterparts, have a narrower tail, a more elongated snout, and more variations in fur color, including black! The historic range of the Eurasian beaver was truly impressive, once extending from southwest Europe, north to Scandinavia across Russia, Mongolia, and into northern China, truly coast-to-coast! ³

Just like NA beavers, Eurasian beavers are strict herbivores and build dams and lodges to create flooded wetland systems that protect them from predators and support their favorite food sources. They fill the same niche as NA beavers and are considered a keystone species.³ Unfortunately, Eurasian beavers were highly prized for their meat, luxurious fur and castoreum and driven to near extinction across Asia and Europe by the mid 1800's.³ Most people know about the fur trade and beaver hats, but did you know beaver meat was also a delicacy?⁴ During the 1700's, the catholic church decried that beaver were considered "fish" and thus allowed to be consumed during Lent, a tradition that continues today.⁵ By the 1800's, less than 1,300 individual beavers remained in isolated populations in France, Germany, Norway, Russia and Mongolia.³ Now do not get distraught, this story has a happy ending!



Beaver distribution in Europe in 2020. Black = refugia where Eurasian beaver was never extinct³.

Like the NA Beaver, its Eurasian cousin has staged a tremendous comeback through protection and reintroduction programs. Eurasian beavers are now present, albeit at a fraction of their historical numbers, in nearly all their former range excluding Portugal, Italy, and the southern Balkans.³ Legislation among European nations is quite variable, some of the first protections created as early as the mid-1800s in Finland, Norway, and Sweden³.

Today, the total population of beavers in Europe and Asia has tripled since the 1990's, largely driven by reintroduction efforts, some sanctioned by governments, others done illegally by activists called "beaver bombers".⁶ One such example is the small population located on the River Otter, in the county Devon, UK. First discovered in 2008, the beavers kept a low profile until 2013 when a mother and her kits were photographed by a local wildlife enthusiast. They were the first wild breeding population seen in England in over 400 years⁷ and were suspected to have been released illegally. The Devon beaver family faced removal but were supported by multiple grass roots groups and the public. A 5-year study conducted in conjunction with local universities determined that beavers "replenished and enhanced" the local ecology of the watersheds they inhabited in Devon county, prompting

the Department of Environment Food and Rural Affairs to make the landmark decision allowing the Devon beaver family to remain in the River Otter.⁸

There are now beaver re-introduction efforts across the UK, and organizations just like the Methow Beaver Project springing up all over Europe! Examples include the Beaver Trust, Cornwall Beaver Project, Beaver Advisory Committee for England, the Scottish Beaver Alliance, the Welsh Beaver Project, and many more! How does it feel to be a part of a global movement people!?



Beaver family in Devon, UK⁷.

Partnering with beavers is one of the most hopeful and practical solutions to climate change simply by storing more water for longer periods of time behind innumerable beaver dams across our watersheds. Redundant beaver dams creating alternating ponds and stream reaches, like beads on a string, will slow water down while increasing critical wetland habitat quantity and complexity. These riparian wetlands provide climate change refugia and support nearly unparalleled but severely threatened biodiversity, including the juvenile stage of several of our endangered salmon species' rearing and overwintering in beaver created wetlands. More water in more places moving slowly through the ecosystem restores natural watershed function and provides resilience to future disturbances (like massive wildfires) while often repairing damaged and altered rivers and streams.

Ultimately, it comes down to this: Water is life and dam building beavers work 24/7 to keep it around longer. That is an incredible Partner opportunity! Let's do our part as a good teammate and learn to coexist with them better!

If you would like to learn more about joining this burgeoning restoration phenomenon and about other critical partnerships necessary to advance beaver restoration, please check out this webinar, where our very own project director, Alexa Whipple, will be co-presenting on “Coalition Building for Beaver Restoration Success”. [Register now!](#)

Learn more about beaver projects in WA and in the West through these links:

- [Cowlitz Beaver Project, WA](#)
- Wishpush Beaver Project, Kickitat WA
- [Beavers Northwest, WA](#)
- [South Sound Beavers, WA](#)
- [Tulalip Beaver Project, WA](#)
- [Montana Beaver Working Group](#)
- [The Beaver Coalition, OR](#)
- [SLO Beaver Brigade – San Luis Obispo, CA](#)
- [Beaver Works, OR](#)
- [Wenatchee Beaver Project, WA](#)
- [Occidental Arts & Ecology Center, CA](#)



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