Beaver Restoration in Bandelier National Monument

Sarah Milligan

Bandelier National Monument, Los Alamos, NM, USA

Following the Las Conchas Fire in 2011, which burned over 65% of the park, and subsequent flooding, restoration projects were discussed to determine how best to manage the damage done to the riparian areas of Bandelier National Monument (BAND). One of the primary methods discussed was beaver reintroduction. As a National Park unit, management staff wanted to avoid using unnatural, "heavy-handed" restoration methods. Beavers were extirpated from the area in the 1960's and had not been seen in Bandelier since then, though the evidence of their existence remained through old dams and lodges.

In 2018, the New Mexico Department of Game and Fish assisted BAND staff with an analysis of Frijoles Canyon to determine if the area could support a beaver population, how many it could support, and where the best reintroduction location was. Once that was determined, the Resource staff, with a team of volunteers, created three introduction ponds. In 2019, six beavers were reintroduced to Frijoles Canyon for the first time in almost 80 years. Since then, a total of 27 beavers have been translocated into BAND. Many have not survived over the years, but there is currently one very active family of four that has built over ten different dams in Frijoles Canyon and likely 2-3 more beavers in the upper areas of the Canyon.

In addition to the beaver reintroductions, park staff has been planting native trees along the stream and reintroducing native fish back into the system. The Southern Colorado Plateau Network has been monitoring the macroinvertebrate populations and water quality since before the fire. Discussions are underway to create a more robust restoration plan to increase planting efforts to include more shade plants and to purchase specific water monitoring equipment to monitor turbidity, pH, temperature, and dissolved oxygen.

As Ecosystem Engineers, beavers have provided other species a place for consistent water and food as well as a nice area to be in. The wildlife cameras set up on the beaver ponds have taken photos of most mammals and many birds that are seen at BAND. Long-term, they appear to be the best solution for the damaged riparian system at BAND.

<u>Contact Information</u>: Sarah Milligan, Natural Resource Program Manager, Bandelier National Monument, 15 Entrance Rd, Los Alamos, NM, 87544, USA, Phone: 505-672-3861 or 505-709-5488, sarah_milligan@nps.gov