

## **They came, they saw, they counted.**

By Anne Naumann

Calgary River Valleys (CRV) is a non-profit organization dedicated to building a strong and effective voice for river valley protection and water quality in Calgary. We consider ourselves to be “the voice of our rivers.”

Since 2009 CRV has been coordinating an annual Brown Trout Redd count in November with the support of the [City of Calgary Water Services](#), in the Elbow River.

A Redd is a spawning nest that trout make in the gravels in the bottom of a river. The female fish cleans the gravel by swishing her tail over small rocks, laying her eggs, and inviting males to fertilize the eggs. Redds can be identified by observing an area of gravels that has been cleaned of silt, with an upstream depression and a downstream mound of gravels. Brown Trout are fall spawning trout, unlike Rainbow Trout that spawn in the spring.

CRV’s Brown Trout Redd counts are conducted after spawning has occurred. This spawning behavior is understood to be triggered by changes in the duration of daylight hours, and perhaps to a lesser degree, by a drop in the river water temperature. The counting and geo-locating that CRV does of Brown Trout Redds each year provides an indication of the trends in river’s water quality and the health of the ecosystem to the City of Calgary and all citizens. Trout don’t like to spawn in silty rivers, so more Redds suggests better water quality.

Our Lower Elbow Brown Trout Redd Count is conducted in the 12 km section of the Elbow River between the Glenmore Dam and Fort Calgary, where it joins the Bow. The 2021 count on November 5 was completed with Covid-19 safety protocols being observed. Normally, we would have up to 16 citizen scientists from across Calgary supervised by our volunteer Biologist, Chris Bjornson, from Golder Associates. This year, our complement of counters was only 9, including our Biologist, so all could ensure physical distancing.

CRV’s annual project promotes important citizen science to monitor the health of the Elbow River. This annual count shows the data collected is as accurate as it can be so that trends over time can be observed. The locations of Redds are used to ensure that land use decisions will not negatively impact Calgary’s blue-ribbon trout fishery.

The final count this year was 360 Redds, up significantly from 2020, when we counted 275 Redds. This continues the upward trend in the numbers of Redds that CRV volunteers have counted, slowly returning to the pre-2013 flood levels.

CRV also counted 28 Redds in the newly opened river side channel upstream of the 4 St SW bridge, compared to four in this section in 2020. CRV’s historical Redd Count data has been used by the City of Calgary to identify suitable locations for restoring trout spawning habitat since the 2013 floods. We’re happy to see these decisions driven by our citizen scientists to benefit the trout and other creatures that rely on our rivers.