

Regional District of Central Kootenay (RDCK) Local Conservation Fund 2023 Project Results

Bat Roost Habitat Monitoring in the Kootenay Lake Region - \$20,441 to Wildlife Conservation Society Canada (WCSC) to restore natural, and secure anthropogenic, roosting habitat for bats in the Kootenay Lake area by locating, creating, and monitoring roosts, and communicating with landowners. In 2023, WCSC assisted in the design and monitoring of the new Crawford Bay bat condo, constructed an additional BrandenBark™ pole roost at Meadow Creek spawning channel, evaluated the effectiveness of artificial structures by installing and monitoring guano traps on 'tree' roost creations, and used bat detectors and guano sampling to monitor use of bat condos. Through microclimate monitoring, WCSC is assessing the suitability of roost designs and informing adaptations, and closely monitoring bat species diversity, range and relative population sizes through continued North American Bat Monitoring, most notably along the Duncan Reservoir, which they have now identified as a bat migration corridor. An interactive map of all known roosts in the Local Conservation Fund area was created, the annual BC Bat Count Initiative was expanded, and Kootenay Lake area landowners were supported by answering emails and phone calls, completing site visits, training volunteers and developing communications materials.

Grizzly Bear Coexistence Solutions - \$11,500 to the Lardeau Valley Opportunity LINKS to assist private landowners with reducing grizzly bear conflicts through a 50% cost share with residents for electric fencing equipment to protect their livestock and/or crops from bears. In 2023, the project helped to support the installation of 12 electric fences in the Kootenay Lake area with RDCK LCF and partner funds: 4 fences installed in Electoral Area E, 3 in Electoral Area A, and 5 in Area Electoral D. Two of these electric fences were installed in response to grizzly bear activity in Meadow Creek. The project tracked 8 grizzly bears in the Meadow Creek area in fall 2023 through sightings and remote cameras. In 2023, there were increased returns of kokanee salmon to the Meadow Creek Spawning Channel and Lardeau River, along with a decent crop of huckleberries in the Kootenay Lake area in 2023. This resulted in an increase of natural foods available to bears and a reduction of human-bear conflicts in the RDCK LCF service area. Education and support to prevent conflicts and promote coexistence was provided through emails, phone calls, social media posts and responses, and the delivery of three grizzly bear safety workshops. These efforts lead to direct conservation action and are helping to increase tolerance and conservation for grizzly bears in the Kootenay Lake area.

2023 Expansion of Harrop Wetland Restoration - \$14,662 to the Friends of Kootenay Lake Stewardship Society (FOKLSS) to address declining critical habitat for western toad, blue heron, western painted turtle, and other at-risk species that depend on ephemeral wetlands along the West Arm of Kootenay Lake, while ensuring the wetland sustains essential habitat values in a changing climate. In 2023, the project continued long-term work restoring and enhancing the degraded Harrop Wetland complex and expanded the area of functional wetland. FOKLSS

restored of 0.5 hectares of degraded wetland habitat, non-native invasive reed canary grass was scraped off, a large perennial marsh pond was established with a drainage area toward the previously restored wetland, native grasses were re-introduced, and habitat features (such as woody debris and loafing logs) were installed. This project continues to address vulnerabilities created by higher rates of evaporation during progressively hot summers and improve habitat potential for wetland species that have increasingly limited habitat options in Kootenay Lake's West Arm.

Kootenay Watershed Science - \$7,773 to Living Lakes Canada to collect scale-appropriate climate data that will enable and inform land-use response in the face of climate change to better conserve and restore ecosystems, support sustainable community development, and prepare for increased hazards. Kootenay Watershed Science (KWS) is producing a long-term dataset of hydrometric, air temperature, precipitation, and alpine lake data. The dataset fills a major gap in the understanding of small- and medium-sized watersheds, and alpine lakes in the region and how they are affected by climate change. This information will benefit Kootenay Lake residents through accurate water resource and irrigation planning, ecosystem health, fire suppression, flood management and more. In 2023, the project successfully completed hydrometric monitoring on seven creeks, high-elevation snow monitoring at two sites, and climate station monitoring at one low-elevation site, while also developing a fire suppression report and associated maps, monitoring lake health at two alpine lakes, and building a publicly available online streamflow modelling tool. They continue to develop partnerships and collaborate with regional stakeholders, and have implemented a series of field tours, labs and workshops with Selkirk College students and other interested groups.

Habitat Restoration for Beavers along the Duncan Lardeau River Floodplains - \$10,000 to BC Conservation Foundation (BCCF) to encourage a healthy population of beavers to re-establish along both the Lardeau and lower Duncan. In 2023, the project focus shifted to direct augmentation of the beaver population by moving a colony of beavers from Castlegar to the lower Duncan River valley bottom, where beavers' wetland engineering works are needed. The beavers were monitored post-release, and have had a beneficial impact on the area so far by building one large and two small dams in 4 months, and raising the level of a critical over-wintering pond for Western Painted Turtle by around 60 cm. This efficient, effective wetland engineering is on track to improve at least 2 hectares of wetland over the next 2 years if the beavers and their works survive. The remainder of the project's focus in 2023 was on implementing a willow live-staking project to restore willow as beaver food, to increase structural and species diversity (including songbird nesting habitat) along the riparian zone of upper Argenta Slough, and to attempt to out-compete and gradually reduce aerial coverage of invasive reed canary grass. Over 2,700 willow live-stakes were cut in mid-February and planted within a pre-identified area of 1 acre (0.4 ha).