On the Move Again: The Great Annual Summit Lake Western Toad Migration

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Caution signs were erected to increase driver awareness of the migration occurring at Summit Lake.

Among the great wildlife migrations in the world, the annual Western Toad migration at Summit Lake in the Kootenays, is a natural phenomenon that attracts hundreds of spectators every August, Just south of Nakusp. along Highway 6, Summit Lake is one of the key breeding areas for Western toads in British Columbia. In the spring, adult Western toads descend from upland habitat to lay their eggs on the shores of Summit Lake. Later in the summer, tens of thousands of juvenile toadlets start to emerge from the lake and make their way back to upland areas. There the toadlets forage until they reach adulthood, when they return to Summit Lake to breed and complete their migration circle. During these migration periods, either toads or toadlets cross Highway 6.

Once widespread throughout North America, the number of Western toads has diminished considerably, especially in the United States and southwestern B.C. Habitat loss and road mortality are suspected to be among the leading causes for this decline. In Canada, Western toads are federally listed as a "species of concern." However, in B.C., the toads are blue-listed and considered vulnerable by the Province. The British Columbia Ministry of Transportation and Infrastructure (BC MoT) pays particular attention to the protection of the province's red and bluelisted species of wildlife.

This summer, as they have done in the past, BC MoT, the Ministry of Environment (MoE) and BC Parks worked closely with the Fish and Wildlife Compensation Program (FWCP) to protect the Summit Lake toads. The FWCP is a joint initiative between BC Hydro, the Province of British Columbia and Fisheries and Oceans Canada, established to compensate for fish and wildlife habitat impacts caused by the Columbia River dams. Following the success of their collaborative effort in 2010, this multi-agency, multi-jurisdictional group planned the family-oriented, "Western Toad Events" for August at Summit Lake. The events were designed to raise awareness of the importance of

the Summit Lake breeding site, and to help toadlets as they migrate from the lake shore to upland habitat.

West Kootenay District Manager Glenn Olleck and Nakusp Area Manager Bruce Lintot, worked with the ministry's partners to arrange for displays at Summit Lake, and traffic control on Highway 6. As always, public safety was a paramount concern for the ministry; however, in this situation, toadlet safety was a priority too. Biologists from the FWCP conducted surveys at Summit Lake to determine when the toadlets were ready to migrate and once the start date of the migration was determined, media announcements were made. The Western Toad events were scheduled for Aug. 22 and 25. The public was invited to visit Summit Lake and learn more about Western toads, and help the toadlets cross Highway 6.

Over the course of two sunny weekdays, community response and participation was overwhelming. More than 500 people turned out for the events which ran from 3 to 4:30 p.m. and again from 5:30 to 7 p.m. each day. To provide a better educational experience

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Young toadlets, some still with a tadpole tail, wait on a fern frond for their safe release on the other side of Highway 6.

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for the public and help build awareness of other amphibians and reptiles, FWCP biologists also captured and displayed adult Western toads, spotted frogs, snakes, alligator lizards and salamanders. Events also included a raffle for many environmentally-themed prizes.

Following guidance from Elke Wind, one of Canada's leading Western Toad experts, ministry Graphics Production Technician Kathy Macovichuk designed some unique "Toad Xing" T-shirts for the raffle. The ministry also contributed copies of its Wildlife Identification Field Guide: Red and Blue Listed Amphibians and Reptiles in British Columbia as raffle prizes. Carbon Neutral Program Director Tom Greene provided many "green" items that fit the spirit of the events, like reusable canvas lunch bags, compostable pens and recycled paper notebooks.

The events attracted a lot of ministry staff and maintenance contractor attention and support. Glenn Olleck was on site keeping the motoring public and the event participants safe. West Kootenay District Program Engineer Ryan Oakley attended with his family. West Kootenay District TELP Katie Ward photographed all the activities.

Environmental Services Coordinator Donna Olsen and Assistant Environmental Coordinator Genevieve Pelletier also volunteered and gave numerous tours for groups as large as 20 people. At the start of each tour, Donna and Genevieve provided information on the biology of the toads, their life cycle, and the importance of the toad's annual migration. To safeguard both the participants and the toadlets, they also provided instructions on the proper handling of the toadlets. Once the orientation was over, each group was given plastic buckets and taken to the lake shore and surrounding wetlands to collect toadlets. When enough toadlets were collected, Highway 6 was temporarily closed so the toadlets could be safely carried to the adjoining uplands.

Yellowhead Road and Bridge, the ministry's maintenance contractor in the area, provided flagging services so the highway could be safely closed for short periods of time. Once everyone was across the highway, the toads

were released behind an amphibian fence previously installed by BC MoT and MoE. Over the years and working closely with MoE, the ministry has undertaken various projects to protect Western toads by installing special amphibian fences to direct the toads into strategically located culverts, or "toad tunnels". Currently, Western toad use of ministry "toad tunnels" is being monitored by the Ministry of Forests, Lands and Natural Resource Operations.

With great weather, lots of activities for children and thousands of toadlets to help, the "Western Toad Events" provided the perfect family occasion to learn about the environment and witness firsthand an incredible natural phenomenon. It was a truly rewarding experience for the ministry participants too!





A mother and daughter carefully release Western toads on the safe side of an amphibian fence.



West Kootenay District Manager Glenn Olleck holds a tiny toad during his volunteer time at the Great Western Toad Migration Event.