

# What's up at ARMS?

## Alouette River Management Society

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Geoff Clayton releases a returned sockeye into the Alouette Reservoir

## Upcoming Events

September 22 –  
Great Canadian  
Shoreline Cleanup  
at Maple Ridge Park  
(10am)

September 29 –  
Salmon spawning  
survey training at  
Maple Ridge Park  
(1pm)

September 30 –  
Rivers Day at Allco  
Park (11am to 3pm)

October 6 – Salmon  
spawning survey  
training at Maple  
Ridge Park (1pm)

November 18 –  
Hyde Creek Salmon  
Festival

## Sockeye Return to Alouette River!

ARMS is excited to announce there are sockeye salmon returning to the Alouette River after an absence of over 80 years. The returning sockeye are from the 2005 release of kokanee from the Alouette Dam. These "sockanee" escaped in the spring of 2005 when the spillway of the dam was opened for a surface release.

During the week of August 13, 2007, sockeye were found in the holding pens at the Allco Fish Hatchery. Approximately 18 sockeye mortalities were found later by BC Hydro employees at the base of the dam. It is thought the sockeye were simply jumping over the Allco Fish fence, intent on making their way home. The sockeye died having tried unsuccessfully to reach the reservoir through the low level outlet flow. BC Hydro made a temporary shield over the low level outlet pipe in order to avoid any further mortalities and the fish fence has been modified at Allco to deter any sockeye from jumping over the fence.

On Saturday August 18, 2007, DNA samples were collected by employees of the Pacific Salmon Commission, the Department of Fisheries and Oceans, and the Pacific Salmon Foundation. The tests confirmed these sockeye were from the 2005 "sockanee" smolts (juveniles) that escaped in 2005 during an ARMS, Katzie First Nation, and LGL Limited project. The project involved tracking coho salmon that had been marked with colour dye

tags and released into Alouette Reservoir. Similar tests were conducted with steelhead in 2006, although due to low reservoir water levels and a late opening of the dam spillway, fewer kokanee smolts escaped. In 2007 it was estimated that 70,000 to 90,000 sockanee travelled over the spillway on their way to the Pacific Ocean. Once approved by the Water Comptroller in Victoria, the spillway will continue to be opened each year until 2014 through a monitoring program included in the Alouette Water Use Plan Review. These projects have been funded by BC Hydro's Bridge Coastal Fish and Wildlife Restoration Program.

BC Corrections, through Fraser Regional Correctional Centre, has allowed this dream of ARMS and our community to become a reality by their dedication of staff and inmate labour to the hatchery operations. Further support has been provided by Department of Fisheries and Oceans, Ministry of Environment, Bridge Coastal Restoration Program, and BC Hydro.

The Ministry of Environment and BC Hydro have also been providing funding to fertilize the Alouette Reservoir since 1998 through the upgrading of the Stave Lake Reservoir project. Fraser Regional Correctional Centre has provided staff and inmate labour throughout this project. The success of the

fertilization program has been seen through the increase in numbers of kokanee currently in the Alouette reservoir. The kokanee population was 20,000 before the project and is now estimated to be 300,000. This funding will continue to support fertilization in the reservoir for the next 70 years.

The Alouette Monitoring Committee, comprised of representatives of BC Hydro, Department of Fisheries and Oceans, Katzie First Nations, Ministry of Environment, District of Maple Ridge, and ARMS met on Friday, August 24, 2007, to release the six surviving sockeye into the reservoir. Four of these sockeye were implanted with radio tracking devices to trace their spawning patterns in the reservoir. Since the initial release, four additional sockeye have been released into the Alouette Reservoir.

Historically, sockeye in the Alouette system were early and late spawners, meaning they would not spawn until October - we think - but were known to enter the river in two runs: in May and September.

This is a monumental, historic event for the Alouette Watershed as there has not been sockeye here for over 80 years. Sockeye passage to Alouette Lake and upper watershed spawning grounds was blocked when the Alouette Dam was constructed.



Slug-licking at Bugs and Slugs Camp

**Fall Programs at the Rivers Heritage Centre**

Junior Naturalist Club –  
October 27,  
November 17, and  
December 8

Family Hatchery Tour –  
September 29,  
October 13,  
November 3 and 10

Senior Hatchery Tour –  
October 10 and 24,  
November 7

Contact ARMS for info:  
604-467-6401 or  
armseducation@telus.net  
Contact Parks and  
Leisure to register:  
604-467-7322 or  
604-465-2452



Trethewey Channel near completion

# A Summer Full of Camps

ARMS hosted three summer camps this year: Wildlife Week, Outdoor Adventure Camp, and Bugs and Slugs.

Wildlife Week turned out to be a wet, fun week. Our wildlife themes were BC mammals, birds, amphibians and reptiles, wolves and coyotes, and beavers. We were pleased to welcome special guests Matt Connolly from the BC Conservation Corps at Golden Ears and Karen Kamstra with Raptors Ridge Birds of Prey. Mr. Connolly shared a collection of skulls, horns, and antlers with camp participants. Mrs. Kamstra brought Storm, a two year old Harris Hawk, and Stomper, a two month old Barn Owl. The

children enjoyed an animal track treasure hunt, built a bird's nest, made animal crafts, played wolf trivia, and built a mini beaver dam.

A small but enthusiastic group made Outdoor Adventure Camp a hit. Participants learned how to build a fire and put up a tent, made sand candles, and explored Allco Park using a compass.

The creepy, crawly, slimy Bugs and Slugs camp was also a success. The focus for Bugs and Slugs was fun! From bug and slug races, to relay games, to butterfly and snail puppets, the participants loved it all.

ARMS would like to thank our guests, our summer employees and volunteers and Fraser Regional Corrections for their hard work.



Karen Kamstra and Stomper with ARMS summer student Eric Braun

# Alouette River Pesticide Project

We are happy to announce that phase one of the Alouette River Pesticide Community Awareness Project has begun. Phase one involved collecting sediment samples from the Alouette Watershed to test for pesticides. ARMS and Environment Canada staff collected four sediment samples from various sites within the Alouette Watershed on Thursday, September 13, 2007. The samples will now be scanned for approximately 75 currently used pesticides by AXYS Analytical Services in Sydney, BC. We expect to

receive the results in mid-November which will allow us to move forward with phase two: public awareness.

This project would not have been possible without the financial assistance or In-kind assistance of many organizations. We would like to thank Pacific Salmon Foundation and Westminster Savings for funding the sediment testing. Additionally, In-kind support has been received from the District of Maple Ridge, City of Pitt Meadows, and the

Ministry of Environment. ARMS would like to extend a very special thank-you to Mark Sekela and Melissa Gledhill from Environment Canada for providing their expertise and equipment in collecting the sediment samples.

ARMS is looking forward to starting phase two of the project. We have so far received funds of \$2500.00 from Shell Environmental Fund. We will continue to seek funds from other organizations to complete the project.

# Trethewey Spawning Channel

After many years of planning for this project, funding approval was received this spring from BC Hydro's Bridge Coastal Fish and Wildlife Program for the Trethewey Spawning and Rearing Channel. The land is owned by the Trethewey's and is managed under the name of Coniagas Ranches, which deeded ownership includes both opposing river banks and the channel of the river, as was the custom in old land grants on the Alouette.

The spawning channel project involved transforming a reed canary grass, riparian mud flat, into side channel ponds with

additional potential for spawning habitat. Strategic gravel placement and grading has allowed for both spawning and overwintering refugia at this site.

A footbridge across the channel has allowed access to the banks of the South Alouette River. Clusters of woody debris anchored to boulders were placed within the pond. The site will be re-vegetated during the fall when the weather is more suited to this type of work.

The success of this project has already been realized with coho having taken up residence in

the pond. This project sets an example to private property owners to develop and improve aquatic habitat on their property.

We take this opportunity to thank BC Hydro's Bridge Coastal Fish and Wildlife Compensation Program for providing funding for this project. We would also like to thank the Department of Fisheries and Oceans for supporting the project through In-kind labour and engineering plans. The owners of the property are also thanked for the opportunity to utilize private property to enhance fish habitat within the Alouette Watershed.