WATERSHED TALK
NEWSLETTER
Produced by the Fraser River Aboriginal Fisheries Secretariat

October 27, 2015 **Volume XII, Issue 14**

Taseko DIDSON

"I'd just like to see the salmon come back," said Rocky Quilt (Xeni Gwet'in). "And restore the balance between now and the numbers that we had before," added Trevainian William (Xeni Gwet'in).

Rocky and Trev are responsible for setting up and maintaining a fisheries research site on a remote stretch of the Taseko River. There have been "grizzly issues" and as they go about their work, a rifle is close at hand. They're part of a team collecting data - "24/7" - on Chinook and sockeye spawners. "We want to see how many salmon are returning, and the time of year that they come back," Rocky explained.

But how can you observe fish in the glacial run-off of the Taseko River? "A DIDSON is a sonar that provides close-to-video quality images in dark or turbid waters," said Pete Nicklin (fisheries biologist). "It's necessary if we want to see fish and their movement in the Taseko."

With a DIDSON technicians can, for example, differentiate between trout and Chinook coming up river. "Trout are about half the size so they have to work harder in the current," Trev explained. "They move their tail more, and they move from rock to rock to rest."

Rocky, Trev and Pete.

This research is a joint effort between the Upper Fraser Fisheries Conservation Alliance (UFFCA) and the Tsilhqot'in National Government (TNG). Shamus Curtis (UFFCA) is the lead biologist.

DFO is playing a role too. "Through the Aboriginal Aquatic Resources Oceans Management (AAROM) program, UFFCA receives funding to hire skilled personnel for fisheries management and assessment activities," said Adrian Wall, Aboriginal Affairs Advisor. "I was really impressed with the professionalism of the crew and enjoyed their hospitality."

Continued next page

In today's paper:

Pg. 1 - 4 … Taseko DIDSON

FRASER RIVER ABORIGINAL FISHERIES SECRETARIAT
c/o Nicola Tribal Association • PO Box 188 • Merritt, BC • V1K 1B8
Tel: 250-378-4235 • Fax: 250-378-9119 | frafs15@gmail.ca • www.frafs.ca

Taseko DIDSON (continued)

According to Paul Grinder (Fisheries Manager, Tsilhqot'in National Government), the crew has the complementary skills required for this task: "Rocky is bush savvy and he's stabilized our program by building a camp life and improving the protection level. He's also getting an introduction to new technology." For Trev, it's an opportunity to continue building his skill set. "Shamus is always working with Trev," Paul said.

The results are encouraging. On August 24th, DFO's Keri Benner (Program Head, Fraser Sockeye Stock Assessment) and biologist/DIDSON expert Brian Leaf visited the site. Keri reported: "The right bank shows potential for salmon assessment: good bottom profile; flow characteristics; and salmon migration behavior." They've made suggestions on how to improve operations, data recording and file processing, and although further evaluation is required, Keri and Brian believe that "the current site configuration can provide information on salmon migration and relative abundance."

Paul is looking forward to seeing the numbers from this summer's work. "Taseko stock assessment has been a guessing game the last number of years," he said, as the Taseko is a secondary run which has been included with the main Chilko run in management decisions. Separating out the numbers, Paul believes, will bring data-based certainty to future decision-making concerning Taseko River salmon.

Please see the following three photos for a quick tour at the Taseko site.

1) Taseko River (DIDSON on the right bank)

2) DIDSON Set-up

The **Didson** is submerged and stabilized with a frame and sand bags (centre of the photo). The camera, with a range of 12 metres, is placed at the outer edge of the fence. "If the water level drops, we move it out into the river; when it rises, we move it back in," Rocky explained.

The **fence** directs fish to the front of the camera. "It keeps them from sneaking by," said Trev.

A small **rock wall** was built a few metres upstream in order to reduce turbulence in front of the camera and improve the screen image.

Continued next page

3) Data Collection: Three Steps

i) Images from the Didson are transmitted by a data and power cable 40 minutes of each hour, 24/7. The crew keep a portable generator maintained and "topped up" in order to keep the equipment running smoothly. This is done to prevent data gaps and to ensure that the sonar screen image remains clear.

ii) Field Measurement: The acoustic images are measured at a rate of 7 frames per second. However, when reviewing the images, the rate is increased to 40 to 50 frames/second. When Trev spots a fish, the scan is paused and the following measurements are taken: type of fish; its size; the number of metres it was out into the current when it passed; and the time.

iii) Office measurement: the files are then reviewed by the lead biologist, Shamus Curtis.

Story and photos: Walter Quinlan, Communications Manager