Gitksan Watershed Authorities

Project Updates

June 2016

Ranger and monitors rescue a grizzly bear from a gill net in 2015.

Rangers/Monitors Upcoming Season Update

The GWARanger and monitors are gearing up for 2016 monitoring season; maintaining boats, field safety equipmentand preparing data forms. During the first week of June two of our monitors returned to work, with two more to returning the following week. The river is stabilized now, with not much of a flood this year due to the low snow pack (50% of normal). We could be in for extremely low and warmer waters as early as mid-July. The GWA technical staff have been undergoing Swiftwater Rescue and Level 1 First Aid training and certification.

Out on the Skeena close to GV.

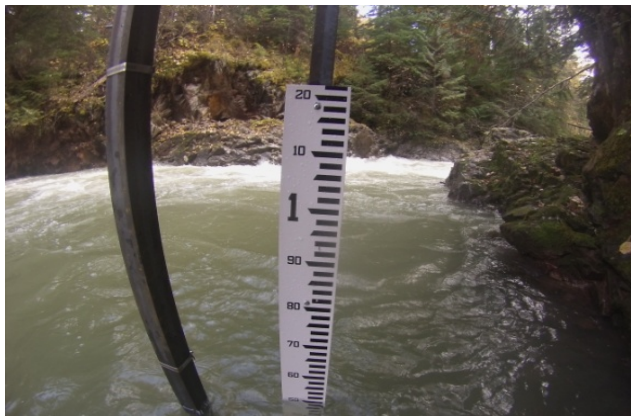
Below are the catches of the 2015 Gitksan Food Fishery from June 9th to September 10th. We would like to thank all the Fishers that continue to work with GWA staff to sample their catches and fill out set net log books.

	Sockeye	Chinook	Jack Chinook	Pink	Steelhead	Coho	Chum
Set Net	61110	2076	1072	6492	1233	1195	52
Drift	5609	628	101	852	61	137	1
Babine	380	0	0	0	0	0	0
Bulkley	40	17	7	1	0	0	0
Coast	1363	107	1	912	15	2	1
	68502	2828	1181	8257	1309	1334	54

Water & Fish Habitat Baseline

Last year the GWA ramped up field work to collect water level and temperature data as well as fish habitat information where we have previously monitored stocks of concern. This data will help us plan restoration actions, monitor and understand changes happening such as climate change impacts to these habitats and related fish stocks.

Poorly placed culverts can restrict fish movement. We have recently been compiling and presenting data on these sites to enable a prioritized approach to fixing them.



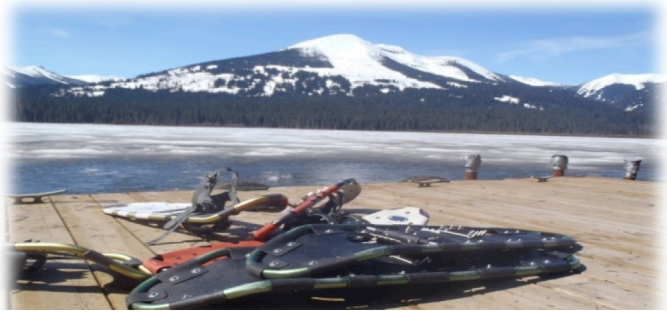
Shegunia River water level/temperature logger and gauge.

Slamgeesh Salmon Program

The Slamgeesh Salmon Program is a remote research site for sockeye and coho in the Upper Skeena, Gwininitxw territory. The early project timing and trap captures this year were successful and we estimate that approximately 20,000 sockeye smolts left the lake and made their way to the ocean which came from 246 adult sockeye females. These numbers are normal compared to recent years, and are a quarter of historical numbers and capacity estimates. Slamgeesh is part of the mixed stock fishery concern as they have similar timing to Babine enhanced sockeye.

Most of the coho smolts ready to leave the lake move in June and we are expecting fair numbers. We tag the coho with a coded wire in the nose, which are later found in the marine commercial fisheries to estimate coho catch rates.

Slamgeesh coho smolts leaving for the estuary

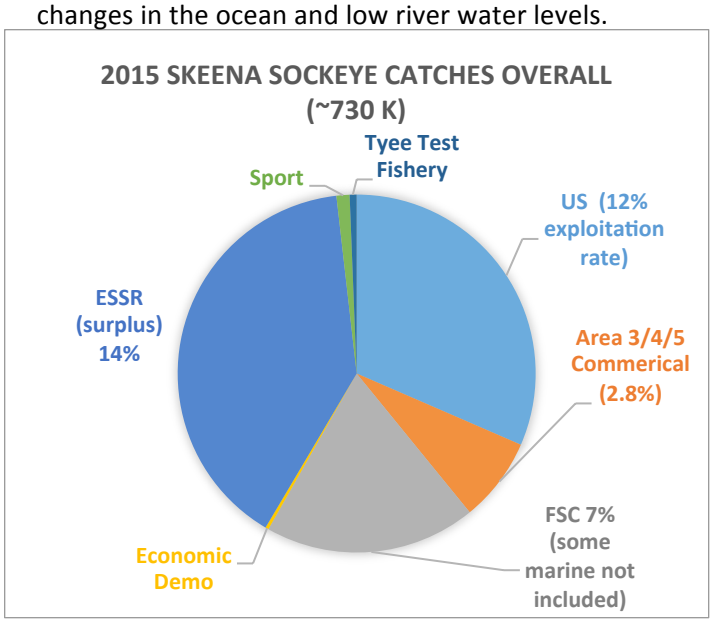


April of this year we didn't need our snow shoes for the smolt program as smolt outmigration, ice and snow melt were two weeks early

Skeena Sockeye Review and a Changing Climate

As you know, in 2015 the sockeye were later than usual with smaller sizes and less 5 year olds than expected. Recent unusually warm ocean areas, and changes to ocean feeding and growing conditions were particularly concerning in the winter of 2014/2015. This is part of the continued concerns about growth and numbers of sockeye coast wide.

After the season, DFO reported a total return to Canada of 1.76million in 2015, higher than predicted. The total return overall was reported at 1.99 million; a summary of catches are provided in the chart below. In 2016, the mid range return predictions based on a sibling modelis 1.28 million sockeye (872 thousand at lower 50% confidence level and 1.88 million at upper 50% confidence level). This is very uncertain and we won't know until fish start arriving with all the changes in the ocean and low river water levels.



With decades of fish capture experience, the GWA staff have been helping with various research projects. Here in collaboration with Simon Fraser University we are looking at changes in energy content of smolts as they migrate from rearing lakes to the ocean.

This season the GWA will continue to monitor fish, their habitat and potential impacts. With much uncertainty and changing environmental conditions we need to take a precautionary approach in fisheries management.