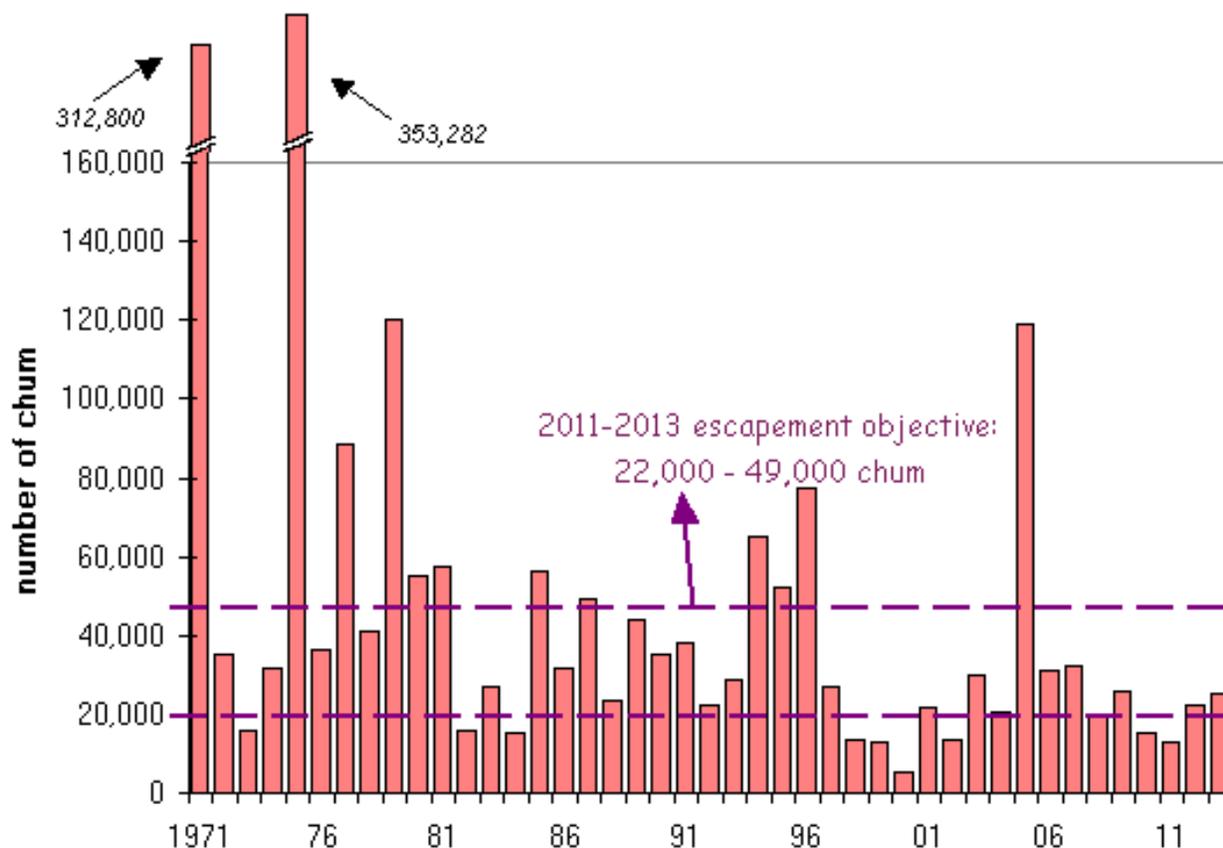


Fishing Branch River Chum Salmon Escapement



Data source: Fisheries and Oceans Canada

What is happening?

- This graph shows the number of chum salmon which arrive to spawn at the Fishing Branch River (tributary to the Porcupine River) each year.
- There was an unexpectedly high run in 2005 and this has been followed by several years with modest runs; just over 25,000 chum were estimated in 2013.
- The average number of spawning chum over the last five years has been 20,426 and this is slightly below the lower limit of the goal set by managers for the period between 2011 and 2013.

Why is it happening?

- The majority of chum salmon return from the ocean to spawn four years after they hatch. High numbers of returning spawners will often be followed by another high return four years later. This four-year cycle is apparent in the data for the 1970s (note the peaks in 1971, 75 and 79).
- Salmon stocks of the Porcupine River are fished in both Canada and the United States. Significant harvests of chum in Alaska have decreased the number of chum which are able to

make it to the upper Porcupine River watershed each year. Canadian catches, though far smaller than Alaskan catches, were increasing until 2002 when the harvest was reduced within the Porcupine watershed.

- Fisheries biologists believe that ocean conditions (poor marine survival) are responsible for the low returns of chum to the Fishing Branch River between 1997 and 2003.

Why is it important?

- The Vuntut Gwitchin people carry out a traditional chum fishery near Old Crow. Between 2002 and 2004 they adopted a voluntary fishing closure because of conservation concerns with low numbers of returning chum.
- The number of returning salmon (escapement numbers) are affected by many factors, such as fishing pressure from humans, predation by freshwater, marine and terrestrial wildlife, water level fluctuations and diseases.
- Fish numbers may be sensitive to changes in river and ocean environments that result from global climate change, such as changes in predator-prey relationships, water levels, water temperatures, and sediment loads in streams.

Technical Notes

- "Escapement" refers to the number of salmon that reach a specific location. When escapement is used alone, it generally refers to the number of salmon that reach their spawning grounds.
- The data for 1971, 1976-84 and 1990 are estimates based on aerial surveys while the estimates in this graph up until 2012 were based on counts made at the Fishing Branch fish weir. The enumeration weir was closed in 2013 and managers now use sonar to detect the passage of salmon upstream.
- In most years the number estimated is based on the actual weir count plus a small number to account for late spawners that arrive after the weir is shut down for the season. An additional adjustment was made to the 2011 count to make up for fish that were not counted during a period when the weir was not operating because of flooding.

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