



# WATERSHED TALK

## NEWSLETTER

Produced by the Fraser River Aboriginal Fisheries Secretariat

### 2016 FRASER SALMON UPDATE

By: *Pete Nicklin, Fraser Fisheries Biologist*

Today's Fraser River Panel meeting was confirmation of the way the season has gone thus far: lower than expected sockeye returns. The Early Stuart run size was downgraded to 18,000 (from 22,000), the Early Summers remain at 300,000 (compared to a pre-season forecast of 447,000) and the Summers were downgraded to the P25 forecast level of 992,000 (from a P50 abundance of 1,677,000). At these abundances, there are harvestable surpluses on the Early Summers and the Summers, but no international Total Allowable Catch (TAC) for sharing.

The following table has been updated, and this week's information includes updated information related to Early Summers from the Aug 5<sup>th</sup> Fraser River Panel meeting.

Canadian smaller-scale First Nations Food, Social & Ceremonial (FSC) fisheries directed on Fraser sockeye have been in place for over a week in the marine approach areas and the Lower Fraser. First Nations Fisheries in the mid and Upper Fraser were more recently initiated, and the Early Stuart window closure is now off for the entire Fraser system.

<b>Sockeye Management Group</b>	<b>Pre-Season Planning Forecast (P50)</b>	<b>In-Season Adopted Run Size</b>	<b>Area 20 Timing (for 50% of run)</b>
Early Stuart	36,000	<b>18,000</b>	<b>July 3</b>
Early Summer	447,000	<b>300,000</b>	<b>July 22</b>
Summer	1,677,000	<b>992,000</b>	<b>Aug 3</b>
Lates	111,000	<b>N/A (too early for run size update)</b>	<b>Aug 12</b>
<b>TOTAL</b>	<b>2,271,000</b>	<b>N/A (too early for run size update)</b>	

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On the environmental conditions side of things, current Fraser River temperatures were on the rise but have declined and are now at 19 degrees Celsius, and forecast to continue to decrease close to average temperatures for the time of year. Discharge flows continue to track lower than average, as has been the case for most of the migration period. Current discharge shouldn't be a problem for sockeye migration, but the downside to the lower flow is the river is more sensitive to daily air temperatures (hot days can move the river temperature quickly).

### Early Stuarts

**Early Stuarts** have arrived in the main spawning creeks in the Stuart system. Sockeye are reported to be in generally good condition. The Panel adopted what is likely the final in-season estimate of 18,000 at today's Panel meeting. Escapement enumeration programs in the Stuart system are underway.

### Early Summers

**Early Summers** are estimated at 300,000 which compares to a pre-season forecast of 447,000. The 300,000 in-season run size estimate was unchanged at the Panel meeting today. Model estimates of the Early Summer management group are slightly less than 300,000.

### Summer Run

**The pre-season forecast of Summers** is 1,677,000 (P50). Unfortunately, test fishery catches, stock component proportions and age class data are all pointing towards a lower than forecast return. The overall spread of the Summer management group return (narrow) shows a likelihood of more fish to come, but the remaining fish are unlikely to be nearly enough to reach the median forecast. Therefore, the Panel adopted a reduced in-season abundance estimate at the P25 level of 992,000 at today's Panel meeting.

### Late Sockeye

**Lates** are forecasted at 111,000 (P50). It is still too early for an in-season run size estimate for this management group, but stock identification analysis of test fisheries continues to show the presence of the Birkenhead and Late Shuswap components of this management group.

### Sockeye Closures

The Early Stuart window closure is now off for the entire Fraser system.

## **Fraser River Conditions**

The main source of information for Temperature and Discharge data and forecasts is DFO's Environmental Watch Program (see link below).

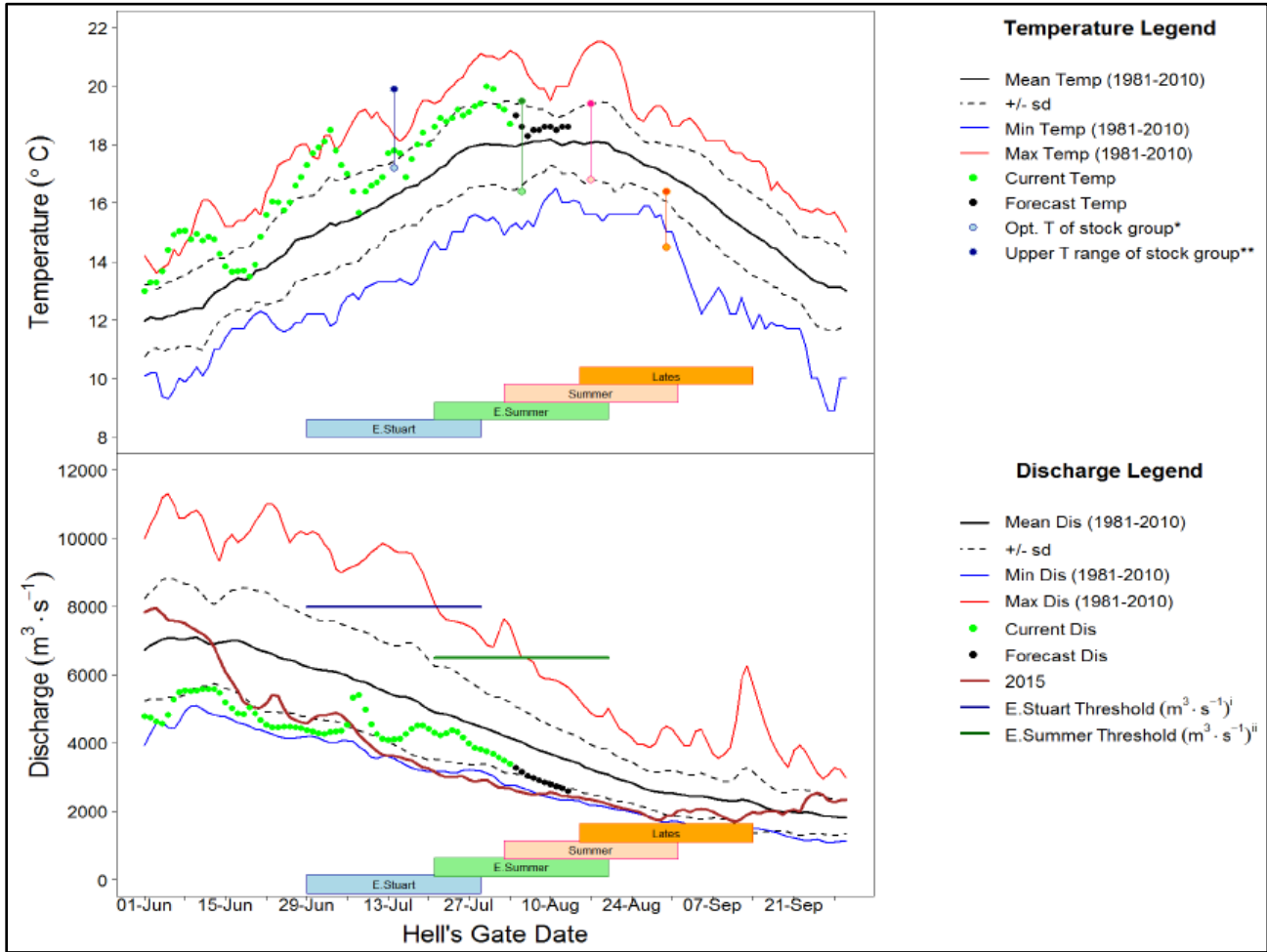
The BC River Forecast Centre website (see links below) has information and links related to discharge and temperatures at various monitoring stations throughout the Fraser watershed, including snow pillow and melt updates.

Environment Canada's Water Office webpage provides access to real time hydrometric data at many locations throughout the Fraser watershed (see links below).

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Fraser Discharge and temperatures at Hope and Qualark Creek (near Hope) respectively look like this (graphs from the Fraser River Panel Distribution August 5<sup>th</sup>, 2016):



The Fraser River water temperature is currently 19 degrees Celsius (1.1 degrees Celsius above average for this time of year), and is forecast to decrease to a temperature of 18.6 degrees Celsius by August 10<sup>th</sup>. The Fraser River discharge continues to track at low levels for this time of year with a flow of 3,270 m<sup>3</sup>/sec at the Qualark water station on August 4<sup>th</sup> (20% below average for this time of year). The discharge is predicted to continue tracking below average, with a forecast discharge of 2,792 m<sup>3</sup>/sec by August 10<sup>th</sup>.

### Fraser River Fisheries Information

Fraser First Nations Fisheries information can be found on the DFO website at:

<http://www.pac.dfo-mpo.gc.ca/fm-gp/fraser/index-eng.html>

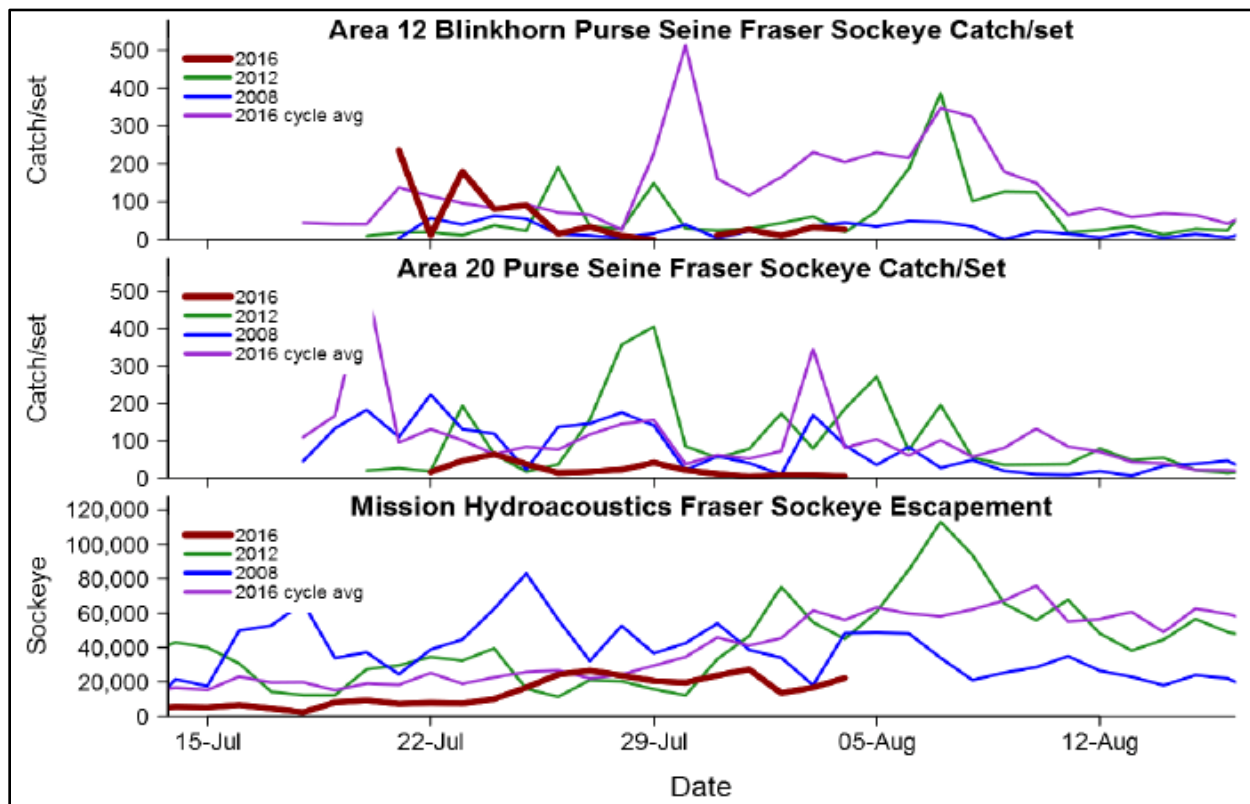
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## Fraser Sockeye

The Pacific Salmon Commission (PSC) distributes the Fraser River Panel meeting agenda and technical information for Panel members and observers to the process. The following information is a summary of key information from that document (August 5<sup>th</sup>, 2016) and the Fraser River Panel meeting from the same day.

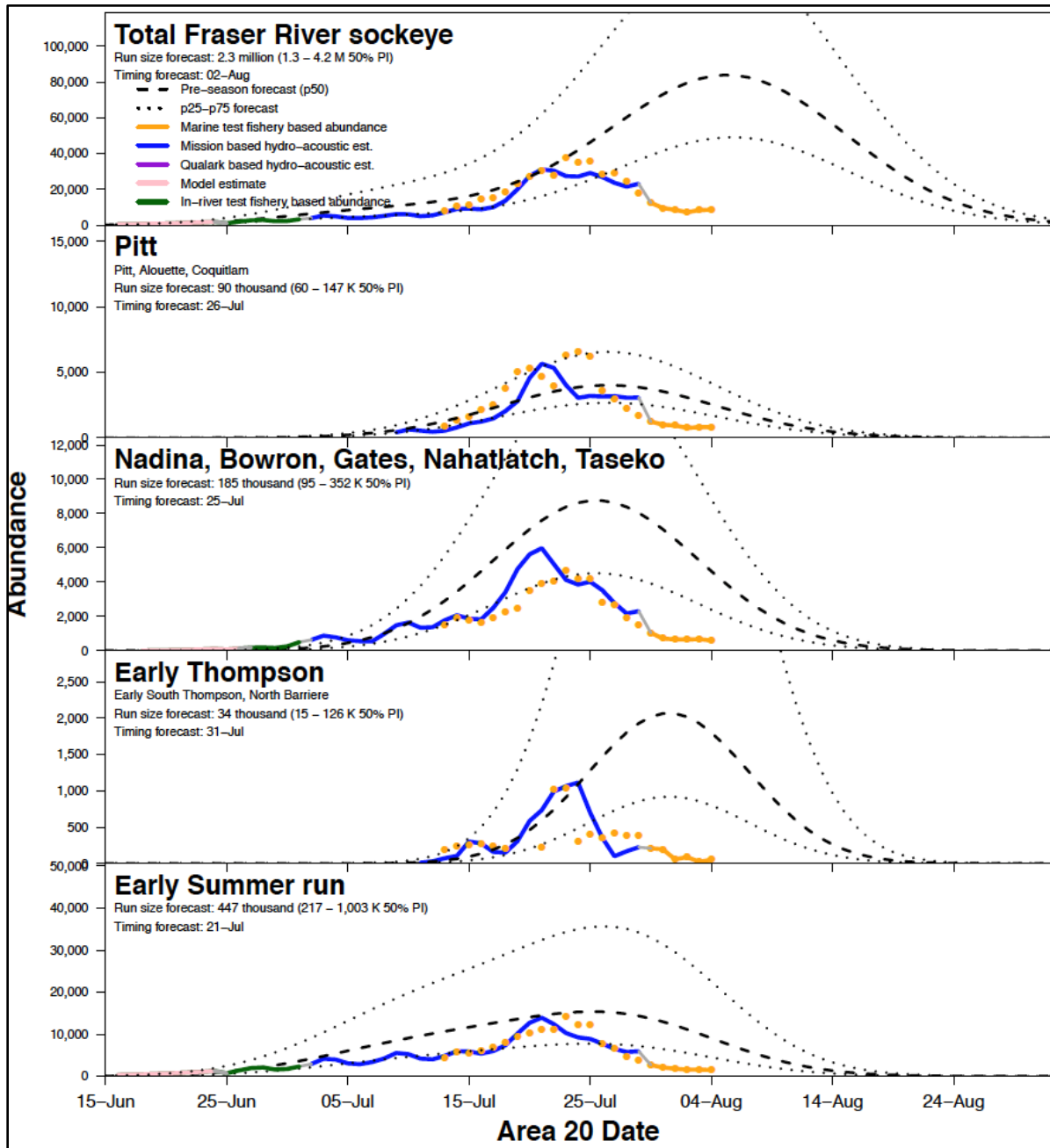
Test fisheries are in place in the Fraser River (gill net) and both marine-approach areas (Strait of Juan de Fuca and Johnstone Strait – purse seine and gillnet). Hydroacoustics programs are in operation at Mission and Qualark (Yale). A total of 439,400 Fraser sockeye have been accounted-to-date, comprised of 18,000 Early Stuart sockeye, 204,700 Early Summer run sockeye, 209,100 Summers and 7,600 Lates. Stock Identification analysis from the marine and river test fisheries shows Early Summers, Summers and Late sockeye.

Test fishing graphs and Mission hydro-acoustics information from the PSC distribution package look like this:

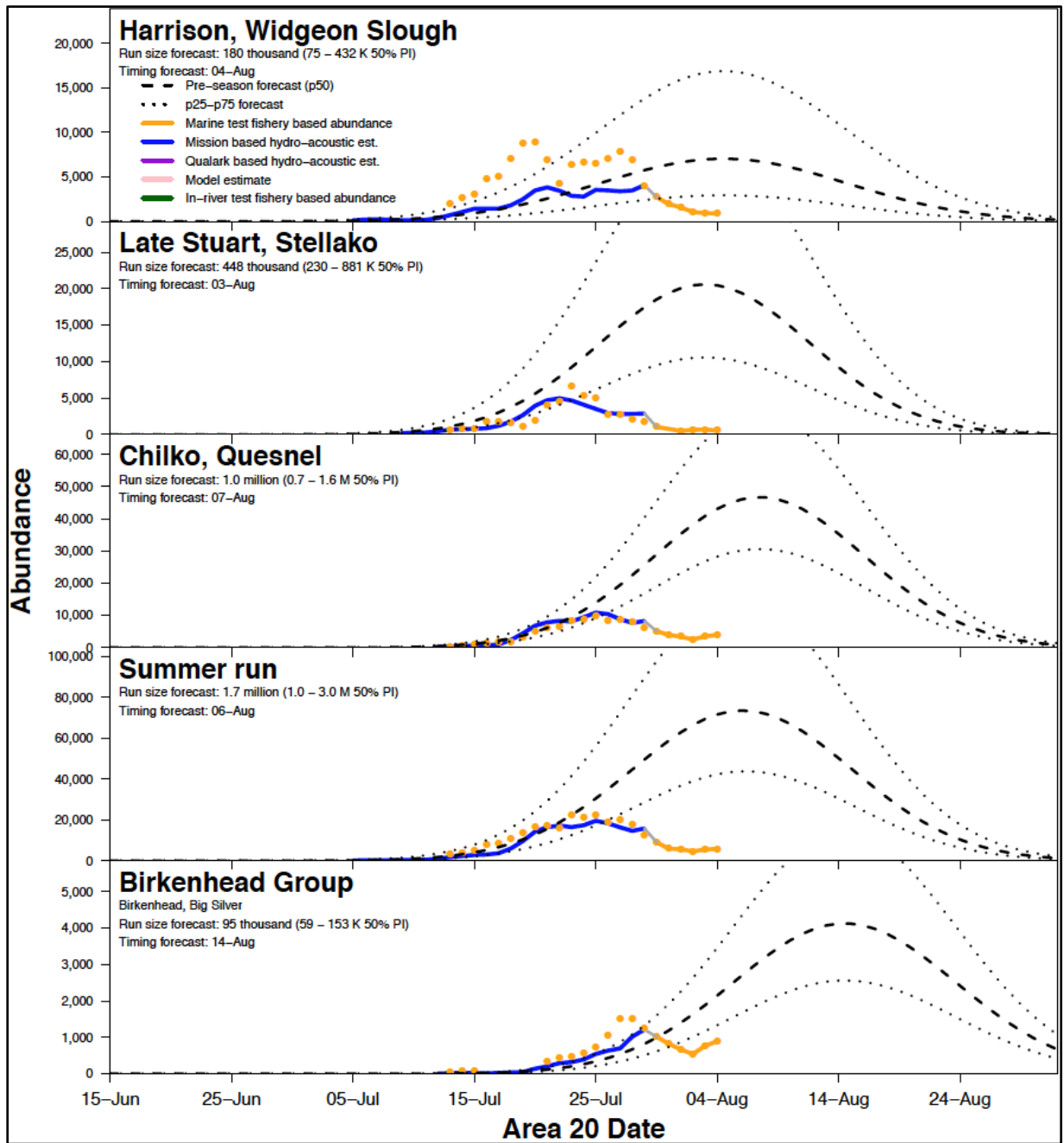


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# Estimated Abundance and In-Season Timing Compared to Forecast



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The next Fraser River Panel meeting is scheduled for 10:30AM Tuesday August 9<sup>th</sup>.

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## Links

With Chinook and sockeye approaching and in the Fraser, these links may be of interest:

Fraser River Fisheries Information: <http://www.pac.dfo-mpo.gc.ca/fm-gp/fraser/index-eng.html>

BC River Forecast Centre Website: <http://bcrfc.env.gov.bc.ca>

Environment Canada's Water Office Website: [http://www.wateroffice.ec.gc.ca/index\\_e.html](http://www.wateroffice.ec.gc.ca/index_e.html)

Pacific Salmon Commission Website: [www.psc.org](http://www.psc.org)

Pacific Salmon Commission Test Fisheries: [http://www.psc.org/info\\_testfishing.htm](http://www.psc.org/info_testfishing.htm)

Pacific Salmon Commission News and Regulatory announcements: [http://www.psc.org/news\\_frpnews.htm](http://www.psc.org/news_frpnews.htm)

Fraser River Mission Escapement Reports: [http://www.psc.org/info\\_inseasonfraserescapement.htm](http://www.psc.org/info_inseasonfraserescapement.htm)

Fraser River Environmental Watch Reports: <http://www.pac.dfo-mpo.gc.ca/science/habitat/frw-rfo/index-eng.html>

The Albion Test Fishery information can be found at:

<http://www.pac.dfo-mpo.gc.ca/fm-gp/fraser/docs/commercial/albionchinook-quinnat-eng.html>

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