



WATERSHED TALK

NEWSLETTER

Produced by the Fraser River Aboriginal Fisheries Secretariat

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2018 FRASER SALMON UPDATE

By: Aidan Fisher, FRAFS Biologist

To date the in-season information for Fraser sockeye is looking good. We are definitely still early on in the season, as sockeye fishing hasn't opened for the river mouth and in-river areas (most of the marine FSC fishery has opened as of July 19th), but in-season information for Early Stuarts and Early Summers is looking above or at p50 forecast levels. Environmental and weather info is looking somewhat favorable, but during this time of year the river temperature and flow rates can change rapidly. Hopefully we will continue to see favorable conditions for sockeye migration, as well as increasing catches over next week as we start to shift into Early Thompson, Summer and Late run sockeye migration.

On Tuesday's Fraser Panel Call, the Panel adopted an initial in-season run-size for Early Stuarts of 106,000. This has already increased to an in-season run-size of 120,000 on today's call. Some more initial signs for Early Summers are tracking at or above p50, however it's still too early to know if these fish numbers are either larger than forecast or there is earlier migration. Summer and Late run sockeye are starting to show up in the test fisheries, but it is still early for any indication regarding run-size for those two management groups.

In an unexpected change in management, DFO has announced a decision to extend the window closure by 4 days to protect migration of Early Summer stocks of conservation concern. This change is not described in the IFMP, and is being put forward in all areas where the window closure would have been lifted to date. The extension is described in Fishery Notice **FN0605**, released on Tuesday (July 17th, 2018) this week. Today would have been the last day for the window closure in the marine area to Mission Bridge in the Lower Fraser, but the extension has been applied from the marine approach, through to the Fraser River fishing areas.

This summary table will be updated throughout the season as information and decisions become available.

| Sockeye Management Group | Pre-Season Planning Forecast (P50) | In-Season Adopted Run Size | Area 20 Timing (for 50% of run) |
|--------------------------|------------------------------------|-------------------------------------|---------------------------------|
| Early Stuart | 84,000 | 120,000 | July 3 |
| Early Summer | 2,155,000 | N/A (too early for run size update) | Preseason (August 8) |
| Summer | 4,344,000 | N/A (too early for run size update) | Preseason (Aug 11) |

| | | | |
|--------------|------------|-------------------------------------|--------------------|
| Lates | 7,398,000 | N/A (too early for run size update) | Preseason (Aug 17) |
| TOTAL | 13,981,000 | N/A (too early for run size update) | Preseason (Aug 14) |

On the environmental conditions side of things, current Fraser River temperatures are above 18 degrees Celsius (when temperature begins to noticeably affect sockeye). Flows have also dropped noticeably over the past week. This is good for upstream migration, although very low flows can also be a hindrance to migration in some areas if they continue to drop. The downside to the low flow is the river is more sensitive to daily air temperatures (hot days can move the river temperature quickly).

Early Stuart proportional Management Adjustments (pMA) are being calculated at below average rates than forecasted. However, after some discussion the Fraser Panel has decided to maintained the pMA at the preseason amount of 0.69 because there would be no material change to management under the LAER. The pMA that has been calculated based on in-season information for Early Stuart has been identified at 0.5 which is below forecast of 0.69. The PSC staff also discussed potential changes to the Difference Between Estimates (DBE), but nothing was decided on regarding changes to this estimate.

Regarding upcoming fisheries, next Tuesday will be a decision date for going through with the first commercial sockeye fishery for Area 4b, 5, 6c in Washington. The Panel will use all the up-to-date information to inform this fishery decision on Tuesday.

The diversion rate is hovering around 50%, meaning about half of the sockeye migrating are travelling around Vancouver Island and through Juan de Fuca instead of going through Johnstone Strait. Compared to the modelled and historic migration route, there is a greater diversion rate observed.

The Panel has also decided to wait on allowing the test fishers to retain sockeye for “Payfish”. This is intended to allow retention of sockeye for sale by the test fishers that is not for scientific analysis, but solely for paying for the test fishery program. The Panel will announce the Payfish start date for the retention of sockeye by the test fishers in a later Fraser Panel Call.

Early Stuarts

The P50 pre-season forecast for Early Stuarts is 84,000. To date, the Mission hydroacoustic passage has accounted 106,800 sockeye. The hydroacoustic data shows the Early Stuart run tracking closer to the p75 forecast line. Today the Panel adopted an in-season run size of 120,000 with a median run timing of July 3rd. This run size does not bring the Early Stuarts out of LAER management, however there are more fish available within the LAER than the preseason planning allowed.

Additionally, some work being done by researchers on Early Stuarts indicates greater than average fat content, and body size. This could be indicative of greater ocean productivity, but results are preliminary. More information will be available as the work continues.

Early Summers

Early Summers are forecasted at 2,155,000 (P50). It is still too early for an in-season run size estimate for this management group.

The test fishery and hydroacoustic data are tracking either equivalent to p50 forecast to date or greater. We are still too early in the run to make any informed assumptions regarding the Early Summer run return. It should also be noted that to date the only Early Summer run showing abundance is the Nadina group (Nadina, Bowron, Gates, Nahatlatch, Taseko). Pitt and Chilliwack, which have an earlier than average run timing in the Early Summer group have not shown up in much abundance. Early Thompson is expected later than the average run timing of the Early Summer group, and we are still early in their migration.

Summer Run

Summers are forecasted at 4,344,000 (P50). It is still too early for an in-season run size estimate for this management group. Summers have shown up in the test fisheries, but we are still early in the Summer run migration.

Late Sockeye

Lates are forecasted at 7,398,000 (P50). It is still too early for an in-season run size estimate for this management group. A small amount of Lates have shown up in marine test fisheries, which is expected, but we are very early in Late run migration.

Sockeye Closures

The Early Stuart window closure has been extended by 4 days throughout the marine area. In some marine areas sockeye FSC fishing is open (as of July 19th). The closure is still in place for the Fraser River and the some marine approach area (Area 18/29 through the Fraser). The dates (plus 4 days to account for the new extended window closure) for each region are in the table below, from the 2018-2019 Southern Salmon IFMP (p. 392):

| Area | Start (date, time) | End (date, time) | Management Action |
|----------------------------|--------------------------|------------------|---|
| Areas 111, 121, 123 to 127 | Open 15-Jul, 7 days/week | | Earliest potential opening to FN FSC fishing for Fraser sockeye = July 15 (Sn, <u>Gn, Tr</u>) |
| Area 11 | Open 15-Jul, 7 days/week | | Earliest potential opening to FN FSC fishing for Fraser sockeye = July 15 (<u>Gn, Tr</u>), July 25 (Sn) ^{1,2} |
| Area 12 | Open 15-Jul, 7 days/week | | Earliest potential opening to FN FSC fishing for Fraser sockeye = July 15 (<u>Gn, Tr</u>); July 25 (Sn) ^{1,2} |
| Area 13 | Open 15-Jul, 7 days/week | | Earliest potential opening to FN FSC fishing for Fraser sockeye = July 15 (<u>Gn, Tr</u>); July 25 (Sn) ¹ |
| Areas 14 to 16 | Open 15-Jul, 7 days/week | | Earliest potential opening to FN FSC fishing for Fraser sockeye = July 15 (<u>Gn, Tr</u>); Aug 15 (Sn) ¹ |
| Areas 17, 19, 20 and 21 | Open 15-Jul, 7 days/week | | Earliest potential opening to FN FSC fishing for Fraser sockeye = July 15 (Sn, <u>Gn, Tr</u>) |
| Areas 18 and 29 | 27-Jun Noon | 20-Jul Noon | Earliest potential opening to FNs FSC fishing for Fraser sockeye = July 20, noon |
| Steveston-Mission Bridge | 27-Jun Noon | 20-Jul Noon | |
| Mission Bridge-Sawmill Cr | 29-Jun 6:00 AM | 22-Jul 6:00 AM | Earliest potential opening to FNs FSC fishing for Fraser sockeye = July 22, 6am |
| Sawmill Cr-Texas Cr | 04-Jul 6:00 PM | 25-Jul 6:00 PM | |
| Texas Cr-Kelly Cr | 04-Jul 6:00 PM | 25-Jul 6:00 PM | FN's FSC: Open to selective fishing for chinook (dip net, angling and potential for 8" mesh gill net) and open in <u>tribs</u> for sockeye and chinook. |
| Kelly Cr-Deadman | 04-Jul 6:00 PM | 25-Jul 6:00 PM | |
| Deadman-Chilcotin | 09-Jul 6:00 PM | 30-Jul 6:00 PM | |
| Chilcotin-Quesnel | 09-Jul 6:00 PM | 30-Jul 6:00 PM | FN's FSC: Open to selective fishing for chinook (dip net, angling) and open in <u>tribs</u> for sockeye and chinook. |
| Quesnel-Hixon | 09-Jul 6:00 PM | 30-Jul 6:00 PM | |
| Hixon-Prince George | 12-Jul 6:00 PM | 02-Aug 6:00 PM | FN's FSC: Open to selective fishing for chinook (dip net and 8" mesh gill net) and open in <u>tribs</u> for sockeye and chinook. |
| Prince George-Stuart R | 12-Jul 6:00 PM | 02-Aug 6:00 PM | FN's FSC: some allowable harvest in terminal areas. |

¹ Gear restrictions remain in place to protect Sakinaw sockeye until July 25 (Queen Charlotte and Johnstone Straits) and August 15 (northern Strait of Georgia).

² Additional sockeye closures will remain in place in portions of Areas 11 and 12 until late July in waters north of Lewis Point to protect Nimpkish sockeye.

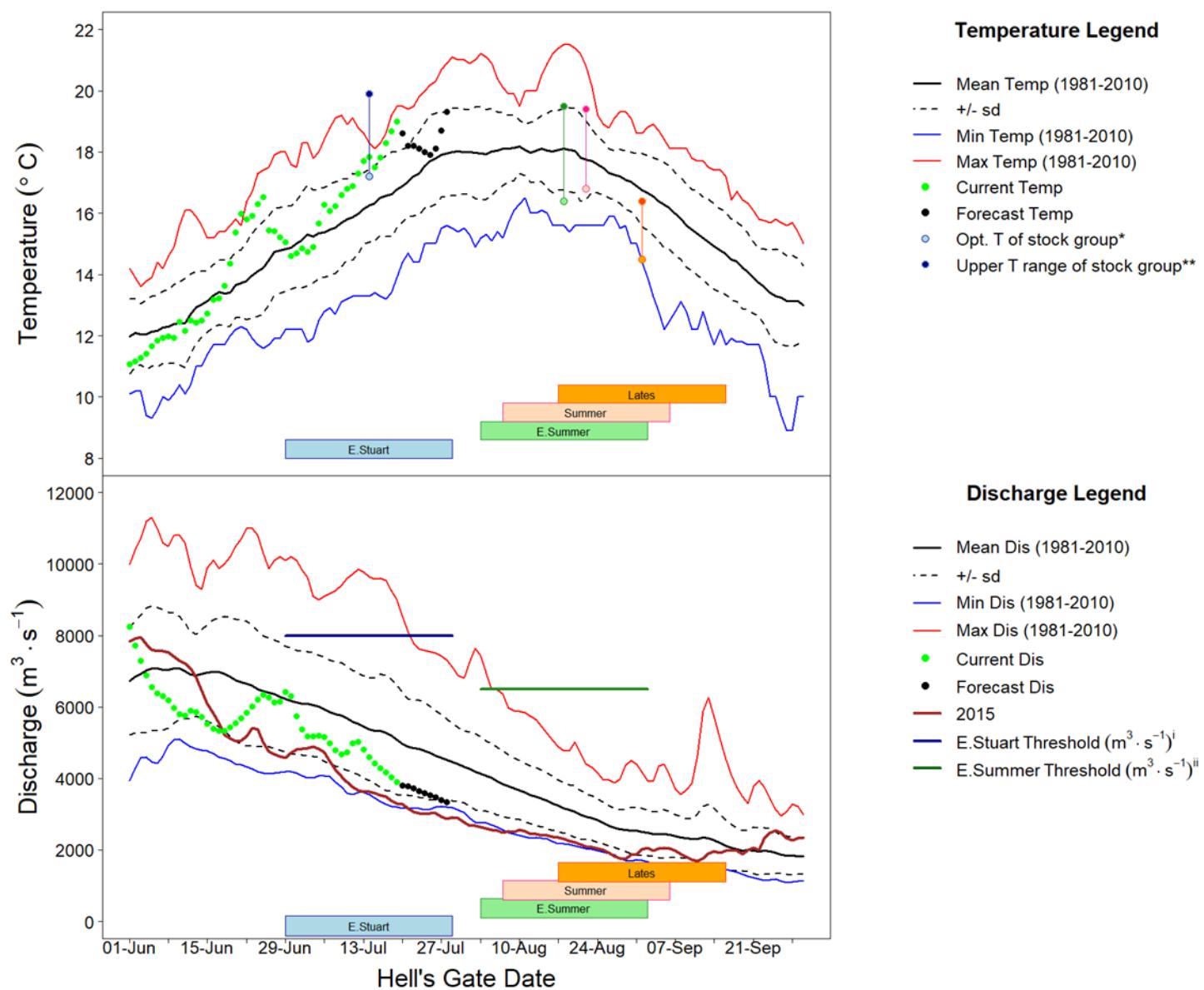
Fraser River Conditions

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).

Fraser Discharge and temperatures at Hope and Qualark Creek (near Hope) respectively look like this (graphs from the Fraser River Panel Distribution July 20th, 2018):



The Fraser River water temperature at Hope is currently 19.0 degrees Celsius (2.2 degrees Celsius above average for this time of year), and is forecast to decrease to 17.9 degrees Celsius by July 25th. The Fraser River discharge is within the usual annual differences at 3,902 m³/sec at the Qualark water station on July 19th (23% below average for this time of year). The discharge is predicted to continue tracking below average but within the usual annual variation, with a forecast discharge of 3,535 m³/sec by July 25th.

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>

DFO staff have distributed 11 Fraser Salmon Bulletins, and we strongly encourage people to review and comment on the DFO bulletin if time and resources permit. Contact your local DFO Resource Manager for a copy, and addition to the distribution list.
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Fraser Sockeye Salmon

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 (July 20th, 2018) and the Fraser River Panel meeting from the same day.

Stock Identification

In marine test fisheries, stocks from all 4 stock groups have been identified, which is a good sign for the Late run group. Early Stuarts have mostly dropped out of samples, while the other groups are growing.

For in-river test fisheries, Summer runs have started to show up while Early Summers have begun to dominate. Lower Fraser stocks (Pitt, Chilliwack) have not been identified in much abundance.

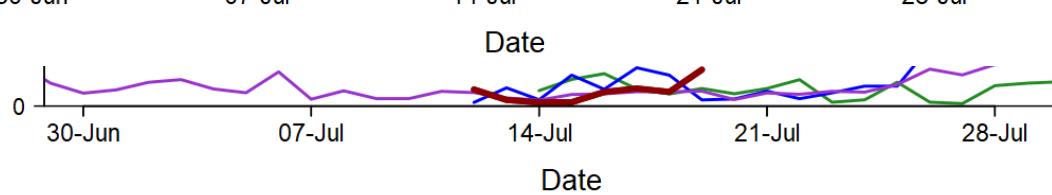
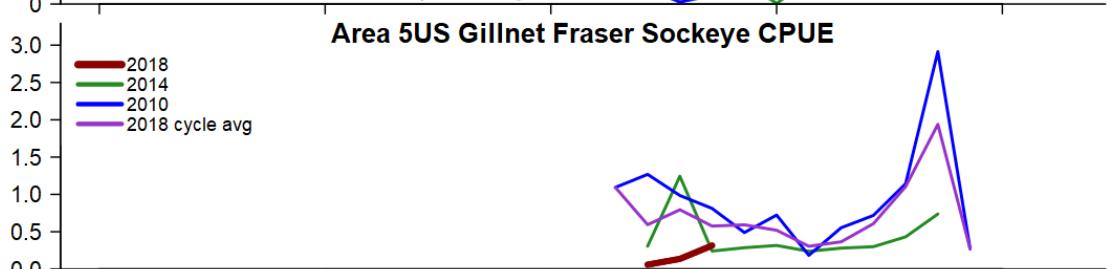
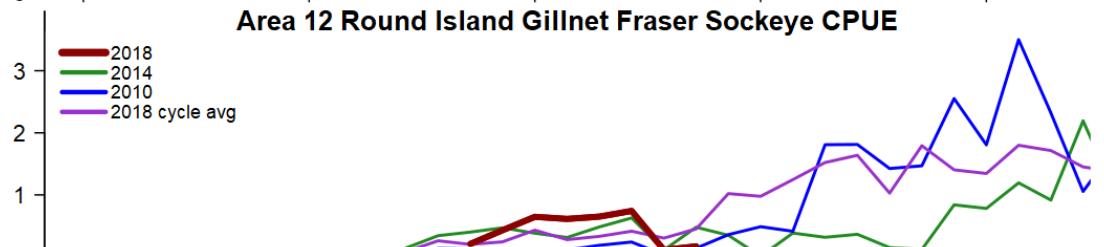
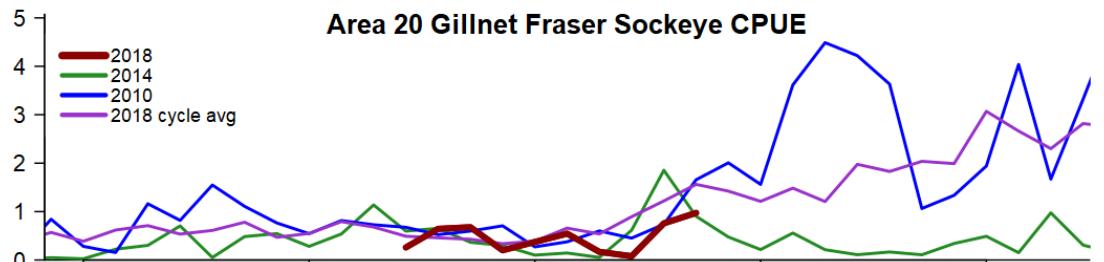
Test Fisheries

For in-river test fisheries, Cottonwood is fishing well while Whonnock is not catching many fish. The challenge with this difference is that Whonnock is used for species composition, and without sufficient catch the stock composition data from Whonnock is not usable for expansion to the hydroacoustic site at Mission.

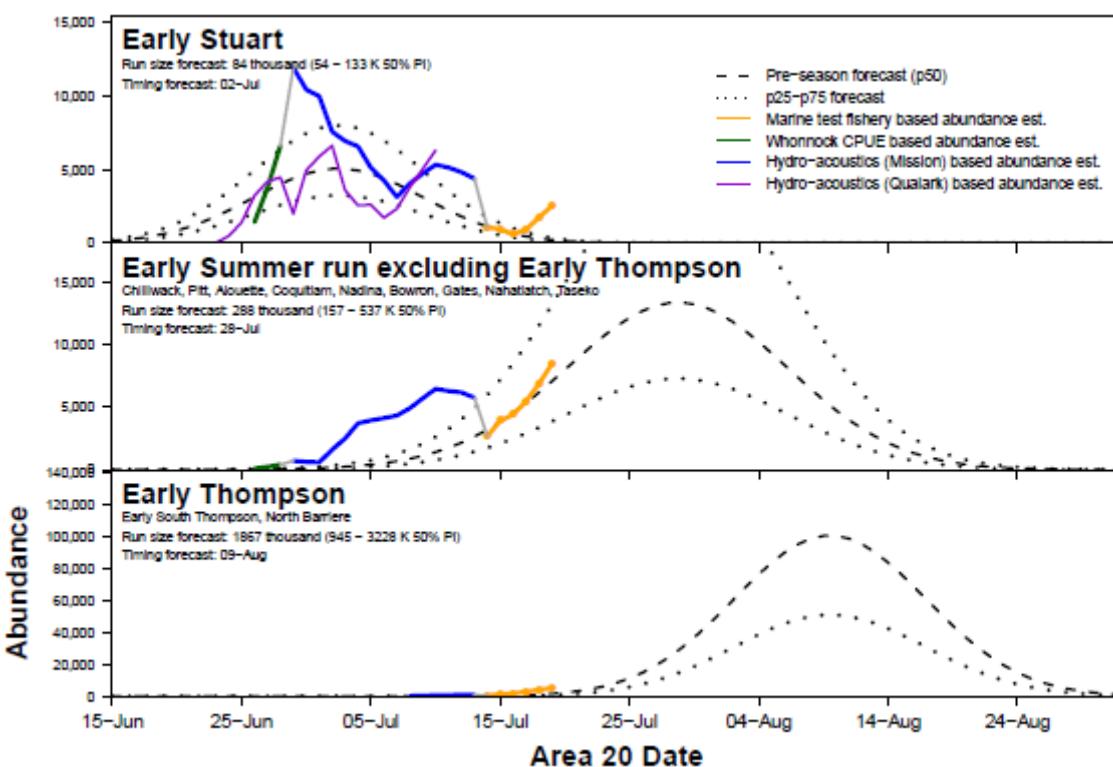
Test fisheries are ramping up operation throughout the approach and in-river. Hydroacoustics programs are in operation at Mission and Qualark (Yale). A total of 177,600 Fraser sockeye have been accounted-to-date, comprised of 106,800 Early Stuart sockeye, 61,900 Early Summer run sockeye, 8,800 Summer run sockeye, and 100 Late run sockeye. Test fishery catch to date has been 1,900 sockeye (500 Early Stuart, 1,000 Early Summer, 300 Summer, 100 Late).

At some point this summer the FRP will be allowing the retention of “Payfish” on the test fisheries. This program is to offset some of the cost of running the test fishery, by allowing the test fishers to continue fishing for sockeye above and beyond the necessity for scientific analysis.

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



Estimated Abundance and In-Season Timing Compared to Forecast



The next Fraser River Panel meeting is scheduled for 11AM Tuesday July 17th.

Fraser River Panel Schedule:

July 6, 10, 13, 17, 20, 24, 27 (Tuesdays and Fridays) 11am

July 31 (Tuesday), August 7, 14, 21 (all Tuesdays) 10:30am

August 3, 10, 17, 24, 31 (all Fridays) 11 am

September 4, 7, 11, 14 (Tuesdays and Fridays) 11am (TBC)

Canada dial-in: 1-888-299-2873

(USA dial-in: 1-888-585-9008)

Conference ID: 902-802-337

Links

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

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

Pacific Salmon Commission Website: www.psc.org

Pacific Salmon Commission Test Fisheries: http://www.psc.org/info_testfishing.htm

Pacific Salmon Commission News and Regulatory announcements: <http://www.psc.org/publications/fraser-panel-in-season-information/fraser-river-panel-regulatory-announcements/>

Fraser River Mission Escapement Reports: <http://www.psc.org/publications/fraser-panel-in-season-information/fish-passage-past-the-psc-hydroacoustic-counting-station-near-mission-bc/>

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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