

## ALIEN INVASIVE SPECIES

Submitted by Dean Allan, DFO

### What are Alien Invasive Species in Fisheries?

Alien invasives are species of fish that are not native to a water body. On their introduction into a system they may successfully establish self sustaining populations and impact an entire ecosystem by out-competing the native species for both food and habitat. Several invasive species have been identified within the Fraser watershed; these include spiny rayed fishes such as Yellow Perch, Pumpkinseed Sunfish, and Small and Largemouth Bass. While not widespread at this time they are unfortunately fairly common in some locations. Where they have become established they have dramatically changed the existing fish community. You can easily identify these species by their sharp, spiny rayed dorsal fins.

### What is the concern?

The recent spread of these fish and their establishment of viable self sustaining populations where they were introduced are the main concerns. When these species establish viable breeding populations they can expand their range and may eventually spread into adjacent systems, affecting all fish communities as they invade new areas.

Currently, illegal spiny ray introductions (Yellow Perch) have been identified in nine small lakes in the Thompson River watershed. Three of these lakes are directly connected to the vast Adams and Shuswap lake systems including: Forest Lake – a tributary to Adams Lake, connected by Sinmax Creek; Skmana/Little Skmana lakes– tributary to the Adams River connected by Huihill Creek; and Gardom Lake – tributary to the Shuswap River connected by Gardom Creek.

Smallmouth Bass have been recorded in numerous Fraser waterways. They were recently identified in: Beaver Creek, a tributary to the Quesnel River watershed; Salmon River (Fort Langley), which drains directly into the mainstem of Fraser River.

All of these systems support native trout, char and salmon populations which are vulnerable to impacts from these invaders. Any further invasive spread, be it through natural downstream movement or additional illegal transplanting, into these important fish producing habitats may result in impacts to entire watersheds. If spiny-ray species establish in the larger lakes within these drainages, impacts will be irreversible.

Stay tuned to the next Watershed Talk to find out what action has been taken, and what you can do to protect the native fish communities in the Fraser

**For more info contact DFO in Kamloops,  
250-851-4950**

## CSTC UPDATE - Submitted by Christina Ciesielski

### EXCERPT FROM JUNE ISSUE OF LHO DUSTL'US NEWSLETTER (CARRIER SEKANI TRIBAL COUNCIL PUBLICATION)

The CSTC's fisheries program is preparing for another busy field season, which is already in full swing. Activities related to the second year of the pilot Nechako White Sturgeon Conservation Hatchery began in early May. The collection of brood stock for the hatchery went well and eggs were collected and fertilized May 28-29. The CSTC will continue to be heavily involved in hatchery operations and other Nechako sturgeon recovery activities throughout the year. Planned activities include continued assessment of hatchery-reared and wild juvenile sturgeon survival rates, and additional adult sampling in the Stuart system and Fraser Lake. A large public event is being planned for early October. Approximately 3000 juvenile sturgeon will be released by local school kids into the Nechako River by Vanderhoof. For more information email Christina at cciesielski@cstc.bc.ca

Other activities planned by the fisheries program include a continuation of the white sturgeon harm reduction and community reporting protocol, public meetings in each community, and the completion of a selective sockeye harvest to assist in meeting the CSTC member community's food needs. Assessment programs will include the enumeration of the Early Stuart and Nadina sockeye stocks, and the Endako chinook stock. Monitoring of stream temperature conditions in select streams will also continue. The CSTC will also continue to support the collection of member community's food fishing information. A variety of training and capacity development opportunities are planned for all of the program's staff. Some have already begun.

### STURGEON BROOD COLLECTION, JUVENILE INCUBATION AND REARING, AND JUVENILE MONITORING

The collection of sturgeon for breeding went extremely well this year. Eight adults were transported to the Prince George hatchery in May. Four females and four males were bred by removing the eggs and milt and combining them. The fertilized eggs were transported to Vanderhoof, where incubation took place. As of June 11 eggs started hatching and larvae emerged. CSTC technicians (Jako Prince, Cora McIntosh and Albert Raphael) are on a 24 hr watch, feeding and tending to these larvae. They will be reared at the Vanderhoof facility until they are ready to be released in the Fall. The only glitch might be a move required to cope with the Nechako's flood stage flows. The Nechako river rose to flood stage and the three Sturgeon families were transported to Prince George on June 29, 2007. The larvae had used up their yolk sac at this time and were feeding on their own. It is estimated that the three families will stay in Prince George for at least a month until the flood watch is over and the river has subsided.

A 300lb female was released in to the Nechako River on June 1 with a large crowd of school children, government officials, hatchery volunteers and interested community members present. A video clip of the events can be seen at [www.pgvtv.com](http://www.pgvtv.com) under news archives May 29th.

During May and June there was monitoring being done of radio tagged sturgeon using telemetry via helicopter and boat. The high water levels hampered our efforts. Egg mats were laid out in June to monitor the wild spawning activity in the Nechako River. The mats had to be pulled due to the flooding of the Nechako River.

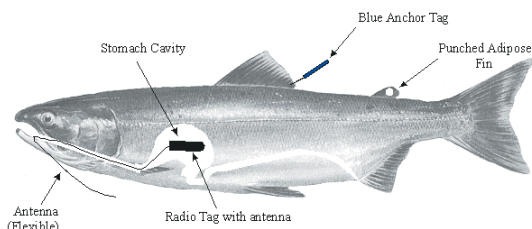
Christina Ciesielski has been updating and adding to the CSTC website since she started in May. There are plenty of photos of recent sturgeon work. We would love to see any fisheries-related historical photos or stories if anyone has some they wish to share. The entire June issue of Lho Dustl'us can be seen on our website. The Carrier Sekani Tribal Council's website can be viewed at [www.cstc.bc.ca](http://www.cstc.bc.ca). You can reach the Fisheries Program Manager, Bill Shepert, or Senior Program Technician, Christina Ciesielski at (250) 562-6279.

A weekly Aboriginal fisheries newsletter for fisheries representatives and their organizations

## ATTENTION FISHERS: REWARD FOR RETURNED RADIO TAGS

If you catch and keep a Fraser sockeye or Chinook with a blue anchor tag and with a hole in the adipose fin, remember to look for an antenna coming out of the mouth. Remove the internal transmitter and the blue anchor tag and contact LGL at once at the **TOLL FREE** phone number listed below.

Individuals returning transmitters to LGL along with information on time and place of capture will be sent the complete tracking history of the fish and their name will be entered into a **\$1000 lottery** once for each transmitter returned.



**TOLL FREE: 1-866-221-3444**

OR, you can enter your tag recovery information online at [www.lgl.com/tag](http://www.lgl.com/tag)

The tagging study is being conducted by the Pacific Salmon Commission, in conjunction with Fisheries and Oceans Canada and LGL, from June-November 2007. Approximately 70 Chinook and 500 sockeye will be radio-tagged in the Lower Fraser River to assess migration rates and the losses between Mission and the spawning grounds. Detailed temperature data will be obtained from each transmitter recovered from fisheries or spawning areas. Information obtained through your cooperation will directly contribute to improved management and conservation of Fraser River sockeye and Chinook.

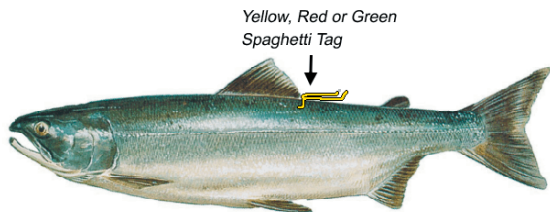
If you have any questions related to this study, please call the following phone number: 1-866-221-3444.

Thank you for your interest and cooperation!

## TAGGED SOCKEYE, CHINOOK, PINK AND COHO SALMON, 2007

If you catch a fish with a coloured spaghetti tag, please give the tag to the monitor when you land your fish. The monitor will ask you how many fish you caught, and how many tags you found, by species.

Individuals who provide their tags and catch data to the monitoring program will have their names entered into a lottery for one of **two \$500 prizes** (one entry per daily interview form).



The tagging study is being conducted by the Pacific Salmon Commission, in conjunction with Fisheries and Oceans Canada and LGL, from June-September 2007. Up to 23,000 salmon will be marked with spaghetti tags this summer to evaluate the capture efficiencies for the Mission fishwheels. Information obtained through your cooperation will directly contribute to improved management and conservation of Fraser River sockeye, Chinook, pink and coho salmon.

If you have any questions related to this study, please call the following phone number: 1-866-221-3444.

Thank you for your interest and cooperation!

## PSC ISSUES ADDRESSED AT TIER 1

Submitted by Aimee Arsenault, FRAFS Communications Coordinator

A tier 1 meeting was held on July 9, 2007 in Kamloops to discuss various Fraser First Nations issues, key among them the lack of First Nations representation on the Southern Panel and Fraser Panel of the Pacific Salmon Commission (PSC). These panels provide technical and regulatory advice to the Commission, and the membership is meant to reflect a full range of governmental and fishing interests. They provide recommendations and comment on the management of the fisheries in their area of responsibility by reviewing technical data. They also provide the Commission with specific recommendations for the development of fisheries plans.

The Southern Panel is responsible for salmon originating in rivers with mouths south of Cape Caution, with the exception of Fraser River sockeye and pink salmon. There is currently no representation on the Southern Panel for Fraser First Nations to speak on pressing BC Interior issues such as endangered Fraser River coho, etc. The BC Interior First Nations perspective has not been represented since Ko'waintco Michel resigned over a year ago, and one of the panel's alternate seats remains vacant.

Marcel Shepert remains on the Fraser Panel but his focus has changed to concentrate on issues affecting the upper Fraser, which means this panel currently has no First Nations representation from the middle Fraser. The Fraser Panel has a special responsibility for in-season regulation of Fraser River origin sockeye and pink salmon fisheries in southern BC, and proper representation for all Fraser First Nations is very important. Currently, only two First Nations people from the Fraser (Ken Malloway and Marcel Shepert) are allowed by DFO to sit on the Panel. These two voices do their best, but they are out-numbered significantly by commercial and recreational representatives.

Another issue is funding. It is difficult for First Nations representatives who do not live in or near Vancouver to generate sufficient financial resources to participate in this process. If a panel member does not work for a First Nations organization that will cover the necessary time, travel and communications, there are significant costs assumed by the participant that might not be reimbursed in a timely fashion.

At the recent Fraser Watershed technical meetings it was noted that choosing First Nations representatives for these panels is a Tier 1 issue. At the Tier 1 meeting it was emphasized that political leaders – particularly those from the BC Interior – need to immediately write letters to support a name in order to have someone appointed as soon as possible to the Southern Panel. In addition, pressure needs to be put on DFO to expand the number of First Nations seats on the Fraser Panel to include a person from the central Interior. It was emphasized at the Tier 1 meeting that these issues should be dealt with by all political leadership as quickly as possible.

Also, clarification is needed about a rightful appointment process for both commissioners and panel members. The decisions made at this table have a serious impact on the fishery, so legitimate representation is essential to the PSC process.

## A Rolling Discussion Paper on the Implementation of Pacific Fisheries Reform

Summary of a full paper submitted by Dave Moore

There is currently a draft document called "Beyond the Fraser Mixed Stock Fishery: Exploring Options for Voluntary Implementation" being circulated (from the visioning forums hosted by the lower Fraser First Nations). It was designed to find a way forward into Pacific Fisheries Reform. It is now accepted in principal by the Commercial Salmon Advisory Board and is being reviewed by larger audiences – both upstream and in the approach fisheries and among sectors. It remains a rolling draft and folks hope to continue to advance the concept over the next year or so. The following is a brief summary of this document.

Significant conflict in the fishery has arisen as a result of weakened stocks and conservation concerns. This concept paper explores ways of voluntarily moving Canadian commercial TAC to areas where conservation problems can be addressed, while improving fishing opportunities for commercial fishermen remaining in traditional commercial fishing areas and/or FSC fisheries in the Fraser. The innovative options discussed in this paper could potentially lead to greater spawning escapements and a greater sharing of fisheries benefits. One of the most effective options would require a voluntary reshaping of the fishery using cooperative terminal and selective fisheries to harvest stronger stocks while avoiding stocks of concern.

Currently there are options being tried to effect the transfer of commercial salmon licenses including: 1) Transfer of FSC fish to economic fish – short term outcomes (single-season); 2) Compensation to the commercial sector by buying or leasing TAC – medium term outcomes (multi-season); 3) Compensation to the commercial sector via DFO's Allocation Transfer Program (ATP) – long term outcomes. Calculating the amount of fish to transfer from the sale of a license is problematic. In the past DFO has used average catches to convert various salmon species into a common currency (e.g. seven pinks equal one sockeye). A more fair and equitable transfer mechanism is needed, and is currently being worked on by the CSAB.

A new approach is emerging from discussions about Cultus Sockeye between tidal industry fishing interests and First Nations in the lower Fraser: trading immediate benefits to First Nations for compensation to the commercial sector through new conservation-based arrangements ("conservation credits"). Changing the timing and location of target fisheries may increase the allocation and value of a fishery while contributing to faster stock recovery and the interests of another participant in the fishery, opening the potential for trade-offs between interests. Conservation credits could operate much like the Kyoto Protocol's use and exchange of carbon credits. The Fraser River Salmon Table is increasingly confident that the trade-offs may work a season at a time, while the longer-term process of Pacific Fisheries Reform are worked out.

The solution arises from the shift of fishing effort away from mixed sockeye fisheries that put weak stocks at further risk. Lost fishing opportunities in approach waters might be swapped to provide localized fishing opportunities on Fraser salmon stocks that are anticipated to be available in commercially harvestable quantities. Under this process, total impacts on stocks or aggregates of concern remain within limits set for conservation, but more of the surplus from stronger stocks and aggregates can be harvested. Examples: 1) Shifting Fraser River Late-

run Sockeye harvest effort up-stream of Vedder Canal; 2) Shift Late Sockeye harvest effort to tributaries to avoid stocks of concern; 3) Shift Early Sockeye harvest effort to tributaries to avoid early Stuart and Summer Sockeye stocks of concern.

While trade-offs are being considered, the priority for coastal FSC fisheries needs to be considered. Depending on the effects, renewed consultation on the IFMP may be required. The use of conservation credits should take into account the constitutional rights and interests of the up-stream First Nations, as well as the interests of the recreational fishery.

To this end, reshaping should continue to embrace the management of sufficient quantities of escapement not only for conservation and FSC purposes, but recognize the likelihood of annual commercial quantities of Sockeye in the upper Fraser, and provide sufficient access to licenses for the continued investment in research to ascertain the viability of commercial fishery enterprises.

For a complete version of this paper please email Dave Moore at [davemoore@telus.net](mailto:davemoore@telus.net).

### Discussion paper co-authors :

**Dave Barrett**, Exec Director CSAB/Fraser River Salmon Table (FRST) rep: [davlinpacific@telus.net](mailto:davlinpacific@telus.net)

**Dave Moore**, facilitator of "Beyond the Mixed Stock Fishery" in Lower Fraser and FRST rep: [davemoore@telus.net](mailto:davemoore@telus.net)

**Ken Wilson**, Biologist, Sto:lo Tribal Council and FRST rep: [wilsonkh@telus.net](mailto:wilsonkh@telus.net)

**Craig Orr**, Marine Conservation Caucus and FRST rep: [corr@telus.net](mailto:corr@telus.net)

## Fraser Watershed Technical CONFERENCE CALLS

Fraser Panel Liaison Mike Staley will share up-to-date technical fisheries information from the Fraser Panel via teleconference on  
**Tuesday, July 17 at 4:00 pm &  
Thursday July 26, 2007 at 4:00 pm  
(and every Thursday thereafter at 4:00 pm)**

In order to participate you will need the following numbers:

**Toll Free: 1-877-385-4099**

**Vancouver Local: 604-899-2339**

**Participant Access Code: 3196930 #**

## FRAFS REORGANIZATION

Submitted by Neil Todd, FRAFS Operations Manager

The Fraser River Aboriginal Secretariat (FRAFS) is undergoing some structural changes to provide better support to Fraser First Nations. FRAFS' purpose, in brief, is to facilitate and support the development of capacity and relationships by First Nations throughout the watershed. From the outside, it might not look like anything has changed significantly; but internal changes resulting from the Executive Committee's recent strategic planning workshop include:

1. New position of Executive Committee (EC) Chairperson. This position will be the EC's representative in the Watershed, with a major focus of work being the building of inter-tribal relationships in the Watershed, in support of efforts to renew an inter-tribal fisheries agreement in the Watershed. Marcel Shepert has been appointed to this position.

2. New position of Operations Manager. This position will be responsible for overseeing day-to-day administrative and communication functions. Budget control, development of operational policies and procedures, logistical support to special events, and coordination of biological support workplans are also part of the duties. Neil Todd has been appointed to this position.

3. Communications Coordinator: duties have been expanded somewhat and budget allocation has been increased to provide for more time. Aimee Arsenaault remains in the position.

4. Expanded/re-defined position of Watershed Stock Management Coordinator. A major responsibility (among others) is to ensure that the Fraser Watershed Joint Technical Committee is operational, effective, and serves the needs of Fraser First Nations. Pete Nicklin is the incumbent.

5. Ongoing position of Senior Biologist, formerly referred to as Fraser Panel Liaison. The new title reflects more accurately the need to engage in a number of technical processes and issues in addition to those arising from the Fraser Panel Technical Committee, and bring those to Fraser First Nations. Mike Staley is the incumbent.

Marcel Shepert and Neil Todd were appointed to their positions for a three month period starting July 1. This will give the EC time to review the relevance of these new positions and consider how best to fill them in the long term. The EC will remain comprised of three DFO personnel and six First Nations representatives, but the issue of First Nation representatives and how they become appointed to the EC will be examined by the EC and by Tier 1 over the coming months.

## FRASER SALMON UPDATE

By Pete Nicklin, Stock Management Coordinator FRAFS

The Fraser River sockeye season is underway, and the in-season data is starting to flow. It is still very early in the season, but in the coming weeks the Fraser Salmon Update section of the Watershed Talk will get a lot bigger!

As has been the practice for the past couple of years, the Watershed Talk will be distributed on a weekly basis in order to keep up (or try to keep up!) with the new information.

For more information contact Pete Nicklin @ 250-392-5888 or by email [indiseaent@shaw.ca](mailto:indiseaent@shaw.ca).

**First Nations In-Season Technical Conference Calls**  
Tuesday July 17, 2007: 4:00pm Chairperson Mike Staley  
Thursday July 26, 2007: 4:00pm Chairperson Mike Staley

### General Information

With the sockeye approaching and in the Fraser, these links may be of interest to many.

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

### LGL Fishwheel Catch Updates:

[http://www.psc.org/info\\_lglfishwheelcatch.htm](http://www.psc.org/info_lglfishwheelcatch.htm)

### Upper/Mid/Lower Fraser Catch and Openings:

<http://www.pac.dfo-mpo.gc.ca/fraserriver/firstnations.htm>

### Pacific Salmon Commission Test Fisheries:

[http://www.psc.org/info\\_testfishing\\_summaries.htm](http://www.psc.org/info_testfishing_summaries.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 Program:

[http://www.sci.pac.dfo-mpo.gc.ca/fwh/index\\_e.htm](http://www.sci.pac.dfo-mpo.gc.ca/fwh/index_e.htm)

**The Watershed Talk is available for download at <[www.frafs.ca](http://www.frafs.ca)>**

**Next Issue: Friday, July 20, 2007**