

**QUESTIONS FROM THE PARTICIPANT
THE SOUTHERN AREA E GILLNETTERS ASSOCIATION
AND THE BC FISHERIES SURVIVAL COALITION
ON TECHNICAL REPORT 7**

April 20, 2011

(Responses from Karl K. English)

I. CATCH REPORTING

1a. The independent surveys referred to in our report are interviews of fishers at landing sites where catches can be observed (see text and Table 8 on Page 31 for First Nation fisheries in the Mission to Sawmill area and Table 9 and Appendix Table C-2 for fisheries above Sawmill).

1c. The aboriginal monitors or observers hired to conduct interviews of First Nation fishers are generally not enforcement officers and are too busy conducting interviews or boat counts and not permitted to engage in fishing on days when they are conducting their monitoring activities. I suspect that most First Nations provide their catch monitoring staff with some days off during FSC fisheries so they can harvest fish for their families. Some First Nations hire non-members to conduct catch monitoring and these individuals may not be eligible to participate in any fisheries conducted by those First Nations.

1d. In most instances, it is advantageous to hire observers and monitors that are members of the First Nation (aboriginal organization) that is conducting the fishery. These individuals know the members of their First Nation and their vessels and are more likely to get a cooperative response from the fishers than any non-member.

2. DFO contracts and most other contracts that I have reviewed over the past 30 years contain provisions related to "Conflict of Interest". However, I don't recall seeing any provisions in contracts that would exclude a commercial fisher from being hired to monitor a commercial fishery or exclude a recreational fisher from monitoring a recreational fishery or exclude a First Nation fisher from being hired to monitor a First Nation fishery.

3. I can not speak for all aboriginal catch monitoring programs but all of the First Nation catch monitoring programs with which I am familiar would meet the provisions related to conflict of interest set out in contracts that I have reviewed related to catch monitoring programs.

II. FISHING-INDUCED MORTALITY

4a. I did not review the observations and recommendations of the 2004 Parliamentary Standing Committee on Fisheries but I am aware of the concern that some fish do drop

out of “set nets left unattended in the water for 24 hours”. However, it should be noted that a gillnet checked and cleaned 12 times during a 24 hour period (i.e. every 2 hours) should catch substantial more fish than a net left unchecked and not cleaned for 24 hours, even if no fish dropped out of the net. It would not be scientifically defensible to claim that the difference in the number of fish caught using these two different fishing approaches is equal to the number of fish that fall out of the net, regardless of whether these fish die and drift down stream or survive and swim upstream.

4 b. I did not review the analysis by Robert Gould.

4c. I am aware of a lot of research since 2004. Some of this research is specifically related to the in-river survival of sockeye salmon migrating between Mission and their spawning areas and the effect of stress associated with fisheries and elevated water temperature sockeye survival. Several of these studies have been referenced in our report on Page 61 and our Recommendation No. 2 was directly associated with the findings from these studies.

4e. Our Recommendation No. 7 calls for the annual estimation of en-route losses for major stocks and incorporation of these estimates into run reconstruction models. En-route loss can be estimated, and has been estimated, without estimates of net drop-out rate (e.g. Robichaud et al. 2010). Estimate of net drop-out rate for set net fisheries would be useful in the evaluation of the impact of in-river fisheries but it is not essential for the estimation of en-route loss.

5b. The radio-telemetry studies conducted between 2005 and 2010 have identified locations where the combination of river currents, high water temperatures and in-river fisheries have resulted in higher en-route losses for specific sockeye stocks. I am very familiar with these studies because they were conducted by LGL Limited. All of these studies were referenced in our report and Recommendations 2 and 7 were largely the direct result of these studies and related research.

5d. Answered above.

5f. i) There are a number of factors that need to be taken into consideration for effective fisheries management and minimizing en-route loss. Set nets can be an effective harvesting method with minimal drop outs and associated en-route loss in the Fraser canyon if these nets are continuously tended by the fishers, appropriate mesh sizes and hang ratio are used, and nets are not fished during periods when water temperatures are high. The increase use of dip nets and fishwheels would likely reduce fishery related impacts during periods with elevated water temperatures but these gear types are not suitable for all locations and fishwheels require at least 2-3 people and at least \$500/day in funding to be operated safely.

5f. ii) As indicated above, the number of days fished per week for set nets should depend on the operational method, types of nets used, fishing location and water temperatures, in order to minimize losses due to net drop-out.

5f. iii) Any use of set nets in the Fraser Canyon during periods of high water temperature must take into account the potential for losses due to net drop out when permitting and assessing the impact of these fisheries.

III. SEPARATION OF FISHERIES

6a. The separation of FSC and EO fisheries improves catch monitoring when different methods are used to monitor each fishery (e.g. mandatory landing sites for short duration EO fisheries versus interviews and net counts for longer duration FSC fisheries). On page 23 we state that “separation of FSC and EO fisheries since 2004, have substantially improved the reliability of catch estimates for EO fisheries”. Prior to the separation of these fisheries, the First Nation allocations did not require the separation of fish sold versus those retained for FSC purposes. The separation of the two fisheries combined with the mandatory landing sites for EO fisheries resulted in more reliable estimates of the number of fish harvested and sold during EO fisheries. It should be noted that the reliability of the total catch estimates may not have substantially improved but the separation of FSC and EO harvests has certainly improved.

6b. FSC and EO fisheries conducted in a specific area are usually conducted on separate days. This is a common and effective approach for separating FSC fisheries from EO fisheries.

6c. The number of days required to separate the catches from FSC and EO fisheries depends on the fishery and concerns regarding the retention of fish from FSC fisheries for sale on subsequent EO fishery days (see examples below).

6d. In general, First Nation fisheries occur on weekend days in the lower Fraser River. Depending the magnitude of the FSC and EO fisheries for each species, DFO may permit FSC or EO fisheries for the entire weekend fishery thus resulting in separation of 4-5 days between FSC and EO fisheries. In some instances, a single weekend fishery may be split into FSC and EO fishing days, thus resulting in only a few hours of separation between these two fisheries. However, the presence of buyers and mandatory landing sites on the EO one day and the absence of buyers on the other day help distinguish between these fisheries.

6e. I can not speak for the buyers ability to distinguish between these fish. If you stop buying fish from a 12 hr EO fishery at 18:00 on Saturday and open the FSC fishery at 18:01 on Saturday, you have distinguished between the two fisheries just by the purchase time for the fish. I would expect that a fish buyer could distinguish between a fish caught in a Sunday FSC fishery and those caught and sold in an EO fishery on the following Saturday.

6f. I am not an expert on the practices or policies of fish buyers. Catch estimates for First Nation EO fisheries are generated from interviews of fishers and enumerations at the mandatory landing sites.

6g. Each commercial landing should be associated with a specific individual's licence or permit. Thus an aboriginal fisher would need the appropriate licence to deliver their catch into the public commercial fishery. In most areas, there is at least 1 day of separation between First Nations FSC fisheries in tidal waters and the "public commercial fisheries" in tidal waters.

6h. The importance of the separation between these fisheries depends on the goals of the fisheries and how catch allocations are defined. In the Nisga'a example, the Treaty only requires reliable estimates of the total catch of each salmon species with a defined allocation. In years when non-Nisga'a fisheries are permitted to sell Nass Area salmon of a specific species, there is no Treaty requirement to distinguish between Nisga'a FSC and commercial harvest of that species. However, Nisga'a Lisims Government has established a limit on the number of sockeye that each licenced Nisga'a fisher can sell from their catches in Nisga'a commercial fisheries. This individual limit combined with grading of fish quality at the landing sites, reduces the incentive and potential for catching fish in an FSC fishery and landing these fish in a Nisga'a commercial fishery. In the Lower Fraser example: the FSC fisheries, commercial First Nation fisheries and public commercial fisheries are all separated in time or location or both time and location. Under the Tsawwassen Treaty, there is a requirement to keep separate catch estimates for FSC and EO fisheries.

6i. see answer to 6d above.

7. Yes

7b. Catch monitoring programs for FSC fisheries are designed to estimate the total FSC harvest regardless of whether it is eaten the individual that harvested the fish, given or traded to their immediate or extended family, or traded to an individual from another First Nation.

IV. TSAWWASSEN FISHERIES

12. There have been a number of significant changes in the catch monitoring systems used by the Tsawwassen First Nation since the implementation of the Tsawwassen Treaty on 3 April 2009 (the Treaty Effective Date). The catch monitoring method and results are clearly documented in their annual fisheries reports (e.g. Tsawwassen First Nation Post-Season Fisheries Report, 2009; Blakley et al. 2010). I have worked extensively with the Tsawwassen catch monitoring team both before and after the Treaty Effective Date. The current catch monitoring approach is based on a complete census of the harvest by each Tsawwassen fisher and a catch verification goal of 20% of the landings through visual observation and enumeration of the catch during on-water or shore-based interviews. The additional resources provided through the Tsawwassen Treaty have increased monitoring efforts over pre-Treaty years and made it possible for the Tsawwassen Fisheries catch monitoring crew to obtain catch and effort information from all Tsawwassen fishers after each fishery and exceed their catch verification goal for

sockeye in 2009 and 2010. Chief Baird's comments are specifically related to the long standing Tsawwassen position that once allocations are defined in a comprehensive Treaty, the Tsawwassen First Nation should be able to decide what to do with their fish. Fisheries management do not need to know what people do with the fish they harvest, they need reliable estimates of the number of each species harvested. A harvested fish is a dead fish whether it is eaten by a First Nation person or sold to someone else. The fact that Chief Baird finds the requirement for separate estimates for FSC and sales harvest to be "paternalistic" does not mean that the catch estimates have not improved. The Tsawwassen Treaty requires these estimates and Tsawwassen has implemented programs which currently produce some of the most reliable catch estimates available for any of the Fraser sockeye fisheries.

V. AREA E GILLNET FISHERY

16. I was given specific names of people within DFO that I was permitted to contract for each of the fisheries being reviewed. The contact for the Area E fishery did not indicate anything regarding proposals made to DFO by the Area E Gillnetters Association.

17. No, as described for #16 above.

22. The incentives for fishers to under-report their catch are usually related to the fear of fishery closures once harvest shares are exceeded or catch rates are higher than expected.

VI. COST OF MONITORING PROGRAM

24ab. Generally, the funding for First Nation catch monitoring programs for FSC and EO fisheries is provided to First Nations through AFS Agreements for individual First Nations or AAROM Agreements for groups of First Nations.

25. For those public commercial fisheries where fishing effort is estimated from aerial or on-water gear counts, catch per effort is obtained from charter patrol hauls and the data is entered into the FOS database by DFO staff, DFO is likely paying for the majority of the catch monitoring costs. For those fisheries with 100% dockside monitoring or electronic log books, the fishers are likely paying for the majority of the catch monitoring costs.

30a. Compliance with catch reporting requirement should improve if DFO does not renew licences for fishers that do not comply with the requirements for complete, accurate and timely catch reporting for all species.

VII. ALLOCATIONS

VIII. EFFECTIVENESS OF DOCKSIDE MONITORING PROGRAMS

34a. Yes

34b. Yes

34c. Yes

35 The DFO contacts provided for First Nation commercial fisheries indicated that there was good compliance with the mandatory landing site requirement for First Nation commercial fisheries in recent years.

36. No

IX. BRISTOL BAY FISHERIES

39. No. Any consultations with subsistence fishers in Alaska would be substantially less than those in British Columbia.

40a. No

40b. No

42. No

NEW CITATIONS

Blakley, A.C., K.K. English and L. Cassidy. 2010. Tsawwassen First Nation Post-season Fisheries Report, 2009. Report prepared for the Joint Fisheries Committee tasks with facilitating the implementation of the fisheries component of the Tsawwassen Final Agreement. 46 p.