



Subject: **LOWER FRASER RIVER RECREATIONAL HOOK AND RELEASE SOCKEYE MORTALITY PILOT STUDY 2008: SUMMARY FOR WEEK 2 – AUGUST 19 TO 23, 2008**

The study restarted on Tuesday August 19 with the setup and organization of the Grassy Bar study site and the net pen site.

The following is a brief summary of results from the second study week:

- The study averaged 10 anglers per day. Daily angler counts from Tuesday to Saturday were 13, 8, 7, 15 and 8, respectively. The largest daily catch of sockeye (21) occurred on August 19. Few fish were encountered thereafter, coinciding with declines of migrating sockeye. If the study can maintain 15 to 20 anglers per day, it should be able to acquire sufficient fish for the study. The key component will be in-river sockeye abundance.
- The study captured and held 39 angler-caught sockeye for 24-hour observation. Daily catches from Tuesday to Saturday were 21, 1, 8, 9 and 0 (zero), respectively. There were zero (0) mortalities observed during the week. A total of 162 angler-caught sockeye have now been held for 24-hour observation with two (2) observed mortalities (1.2%).
- Results of hooking locations were as follows:

Hooking Location	Frequency
Maxillary bone	72%
Chin - exterior	13%
Ventral snag	3%
Corner of mouth - Inside	0%
Lower jaw - Inside	0%
Upper jaw - Inside	3%
Floor of mouth	0%
Dorsal snag	3%
Unknown (hook displaced)	0%
Roof of mouth	3%
Head - exterior	0%
Eye	0%
Other - (tail)	0%
Gills	3%
Total	100%

- Leader length ranged from 8 to 16 feet, with lengths of 12 to 14 feet predominant.
- Angling observations recorded data on hooking location, degree of bleeding, scale loss, hook size, leader length, playing time, method of landing, and air exposure.
- Beach seining was conducted on Wednesday August 20 and Thursday August 21 to acquire study control fish. A total of 77 sockeye were caught; 68 held in the pens, and 9



sacrificed for physiological sampling. No mortalities (zero) have been encountered to date on the 83 control group sockeye observed from the net pen holding over the two study periods.

In addition to sockeye, the beach seine caught and released a total of 225 jack chinook and 35 adult chinook. Three (3) sturgeon were caught and immediately released; one (1) adult approximately 1.5m in length, and two (2) juveniles less than 20 cm each in length. All of the adult and jack chinook were wild, as indicated by intact adipose fins.

- Data collection during the week included a full spectrum of environmental data including air/water temperatures, current flow, and dissolved oxygen levels. Distinct environmental data was collected at the angling site as well as the net pen site. Significant rainfall during the week resulted in elevated river levels and a modest decline in water temperature.
- Net pen sampling included the application of numbered Floy tags to all sockeye. The tags will allow all angling, beach seine, and release variables to be assessed for individual sockeye.

Sincerely,
Jim Thomas
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