

The migration of Fraser River sockeye through the Johnstone Strait and Juan de Fuca Strait approach areas declined considerably over the past week. Most Summer-run sockeye have migrated into the Fraser River and the majority of sockeye remaining in marine areas are from the Late-run timing-group. The estimated total run size of Fraser River sockeye has reached 14,369,000 fish, which is marginally higher than the forecast of 13,366,000 fish (50% probability level forecast). The catch of Fraser River sockeye to date now totals 3,932,000 fish, with Canadian and United States fishers harvesting 3,335,000 fish, and 450,000 fish, respectively.

The run size estimate for Summer-run sockeye is unchanged from last week (6,700,000 fish). The gross escapement of Summer-run sockeye into the Fraser River is considerably larger than the target escapement (2,965,000 fish) and now totals 4,937,000 fish. The large Summer-run escapement has resulted from conservation actions taken to protect co-migrating Late-run stocks.

Many Late-run sockeye continue to exhibit the detrimental behavior of migrating into the Fraser River much earlier than normal (late September), with the probable consequence that many of them will die prior to spawning successfully. Approximately, 2,652,000 Late-run sockeye, or about 49% of the potential escapement from the estimated 6,500,000 Late-run sockeye (excluding Birkenhead sockeye) returning this year have already migrated into the Fraser River, rather than delaying in marine areas. These early-migrating Late-run sockeye along with those that enter the Fraser River prior to about mid-September are expected to experience substantial en route and pre-spawning mortality, as has occurred in recent years. It is projected that approximately 2,400,000 Late-run sockeye are presently delaying in the lower Strait of Georgia. However, estimates using DNA analyses of sockeye stock composition at the lower Fraser River test fishing sites along with the estimates of total daily sockeye escapements, which have been increasing rapidly over recent days, indicate that over 200,000 Late-run sockeye per day are currently entering the Fraser River. At this rate of early migration into the Fraser River, along with their expected high mortality rate, the spawning escapement goal for Late-run sockeye may not be achieved this year despite a return run-size that is over twice the pre-season forecast level of abundance.

The Late-run tagging program ([www.psc.org/pubs/laterun/LaterunTagNotice2002.pdf](http://www.psc.org/pubs/laterun/LaterunTagNotice2002.pdf)) has completed the marine-area tagging of all three timing segments (early, middle, and late) of the Late-run sockeye migration (fishers are reminded to remove the radio tag and spaghetti tag from tagged fish upon their capture and contact appropriate personnel at the numbers noted in the website above). Monitoring of these radio-tagged sockeye is occurring at 17 receiver sites in the Fraser River watershed including sites in the lower Fraser River, the Fraser Canyon below and above Hells Gate and the confluence of the Fraser River with the Thompson River, Seton Creek, Chilcotin River, and Quesnel River. There was 212 "trackings" or recoveries in marine and river areas of radio-tagged Fraser River sockeye to the end of August. Information gained from this program will be used to develop fisheries management strategies and to help determine the cause(s) of the early-migratory behavior of Late-run sockeye.

Environmental conditions for the migration of sockeye in the Fraser River improved over the last week. Water temperatures in the Fraser River (at Qualark Creek) have declined over 2° C and are now at 16.8° C. It is unlikely that the brief period of elevated water temperatures in the Fraser River that occurred last week had a significant negative impact on migrating sockeye. The discharge level (measured at Hope) is presently about 2,400 cms, which is slightly lower than the average at this time (2,700 cms).

DFO's spawning ground enumeration programs are underway at various locations throughout the Fraser River watershed. The mark-recapture program of Early Summer-run sockeye in the Pitt River and the fence counts for Late-run Cultus Lake sockeye (over 700 sockeye to date) are ongoing. Over 97,000

Early Summer-run sockeye have been enumerated at the Scotch Creek fence thus far, which exceeds the previous record that was set in 1990 (83,000 fish).

The Fraser River Panel will relinquish regulatory control of the following areas on the dates specified below:

CANADIAN FRASER RIVER PANEL AREA WATERS:

Area 20: Relinquish regulatory control effective Saturday, September 7, 2002.

UNITED STATES FRASER RIVER PANEL AREA WATERS:

Areas 4B, 5 and 6C: Relinquish regulatory control effective Saturday, September 7, 2002.

All other Panel Area waters remain closed until further notice. The next scheduled meeting of the Panel is Monday, September 16.