



## Overall Salmon Recommendation = Some Concerns

Last updated: May 29, 2007

### BC Pacific salmon (wild)—Yellow

SeaChoice is planning to have comprehensive base assessments with regional recommendations for all five species of BC Pacific salmon completed in Fall 2007. Until then all five salmon species have been given a yellow ranking. This is based on SeaChoice evaluation methodology that combines the existing data about the fisheries with yellow scores for information that is currently unknown. In essence, missing data is weighted towards precaution.

In the meantime, we have provided a synopsis of current BC Pacific salmon status and management. In general, all species have some conservation concerns surrounding habitat issues and endangered runs, but there are not any obvious reasons for a species to be fully avoided making a yellow recommendation suitably precautionary. We have given an indication of two “better choice” and two “worse choice” Pacific salmon fisheries for 2007, within the overall yellow ranking.

### 2007 BC Pacific salmon: Better and worse alternatives

Although the interim SeaChoice ranking for BC Pacific salmon is “yellow,” there is a diversity of fisheries and salmon populations within this category. Nass River sockeye salmon and seine-caught pink salmon are two “better choices” and Fraser River sockeye salmon and Chinook salmon are two “poor choices”. Although information necessary to determine whether sockeye salmon are from the Nass River, or whether BC pink salmon were caught in seine fisheries will not appear directly on product labels, consumers, retailers and chefs can ask where their salmon has come from and request that this information become available.

Commercial buyers, in particular, should be able to get fairly reliable information on the origin of the salmon they buy from brokers or distributors.

Please contact us at [info@seachoice.org](mailto:info@seachoice.org) for assistance in obtaining this information.

## Better Alternatives:

### **Nass River sockeye salmon**

Returns of Nass River sockeye salmon in 2007 are expected to be relatively good. The different populations contributing to this aggregate return are relatively well known, although the status for the smaller populations could be improved. In-season assessment methods are relatively strong.

### **Seine-caught pink salmon**

Pink salmon returns across much of the BC coast are expected to be strong in 2007. Although assessment of pink salmon is often weak, this fishery commonly targets strong aggregates using relatively selective gear.

## Worse Alternatives:

### **Fraser River sockeye salmon**

Returns for Fraser River sockeye salmon in 2007 are generally below target abundance levels and forecasts in recent years have been overly optimistic. Fisheries targeting Fraser River sockeye have direct impacts on endangered salmon populations, including Interior Fraser Coho, Cultus Lake sockeye, and Sakinaw Lake sockeye. In recent years high freshwater temperatures and abnormal return timing of many Fraser sockeye have contributed to very high mortality in sockeye before they spawn.

### **Southern BC Chinook salmon**

Many BC Chinook fisheries will capture endangered salmon stocks, including Okanagan Chinook and numerous United States Chinook salmon listed under the US Endangered Species Act. Some BC Chinook stocks, including Lower Georgia Strait, spring Fraser, and West Coast Vancouver Island, are well below target abundance and further conservation measures are needed for their recovery.

## 2007 Synopsis

Forecasted returns for BC salmon for 2007 are mixed, with strong returns of pink, chum, and sockeye salmon expected in some areas but a range of serious concerns remaining for many populations, particularly Coho, sockeye, and Chinook. Although ocean conditions for salmon have improved slightly over the past year, many salmon returning in 2007 have spent part of their life in very warm waters with reduced food availability and higher predation. Due to a 2006 court decision (the Larocque decision) Fisheries and Oceans Canada is unable to sell a portion of the allowable catch of salmon to fund fisheries assessment work. As a result, the government has reduced some stock assessment and test fishing programs. This reduction in scientific assessment weakens the overall management system and unless fishing is significantly reduced in areas with reduced assessment, the SeaChoice ranking for fisheries management could be reduced.

The availability of 2007 BC salmon in the marketplace will likely be biased to sockeye and pink salmon. Wild Pacific salmon are available for purchase as fresh or processed product. Pacific salmon products available in Canada may be from another nations' fisheries. For further information on the status of United States Pacific salmon fisheries please refer to [www.seachoice.org](http://www.seachoice.org).

**Sockeye salmon:** Of the 28 different sockeye management units in the 2007 fishing plan 20 are below target with 17 identified as "low" or "stock of concern." Two sockeye stocks (Sakinaw Lake and Cultus Lake) have been officially listed as endangered by a federal scientific body, but are not given legal protection under Canada's Species At Risk Act. Under the federal Pacific Wild Salmon Policy the current draft number of "conservation units" of sockeye salmon that the government has committed to protecting is 268, which is considerably more than the 28 management units considered in the fishing plan.

**Pink salmon:** Of the 9 different pink management units in the 2007 fishing plan 5 are below target with 3 identified as "low" or "stock of concern" and 3 with insufficient data. Pink salmon usually live for 2 years and the populations that return in odd years are separated from those that return in even years. Under the federal Pacific Wild Salmon Policy the current draft number of "conservation units" of odd-year pink salmon that the government has committed to protecting is 10, which is similar to the 9 management units considered in the fishing plan. These 10 CUs include over 850 separate pink spawning systems.

**Chum salmon:** Of the 11 different chum management units in the 2007 fishing plan 10 are below target with 5 identified as "low" or "stock of concern." Under the federal Pacific Wild Salmon Policy the current draft number of "conservation units" of chum salmon that the government has committed to protecting is 15, which is similar to the 11 management units considered in the fishing plan. These 15 CUs include over 1200 separate chum spawning systems.

**Coho salmon:** Of the 19 different Coho management units in the 2007 fishing plan 17 are below target with 12 identified as "low" or "stock of concern" and 1 with insufficient data. One Coho stock (Interior Fraser) has been officially listed as endangered by a federal scientific body, but are not given legal protection under Canada's Species At Risk Act. Under the federal Pacific Wild Salmon Policy the current draft number of "conservation units" of Coho salmon that the government has committed to protecting is 27, which is more than the 19 management units considered in the fishing plan. These 27 CUs include over 1400 separate Coho spawning systems.

**Chinook salmon:** Of the 25 different Chinook management units in the 2007 fishing plan 21 are below target with 12 identified as "low" or "stock of concern." One Chinook stock (Okanagan) has been officially listed as endangered by a federal scientific body, but not given legal protection under Canada's Species At Risk Act. Under the federal Pacific Wild Salmon Policy the current draft number of "conservation units" of Chinook salmon that the government has committed to protecting is 33, which is more than the 25

management units considered in the fishing plan. These 33 CUs include over 500 separate Chinook spawning systems.

## Background for Yearly Salmon Recommendations

There are five species of Pacific salmon consisting of several thousand unique spawning populations found in British Columbia waters. The marketplace usually identifies Pacific salmon by species (e.g., pink, sockeye) and sometimes country of origin but does not recognize the various small spawning populations. While it is not possible to give a seafood recommendation for all the possible runs of salmon, SeaChoice does intend to provide general species-based recommendations.

SeaChoice evaluates all fisheries based on five main criteria: inherent vulnerability, stock status, bycatch, habitat/ecosystem impacts, and management regime.

**Inherent vulnerability:** Pacific salmon are inherently resilient to exploitation because they are relatively short-lived, fast growing and have high reproductive potential.

**Stock status:** Individual stocks and populations of Pacific salmon vary considerably year to year. Of 5358 assessed Pacific salmon stocks in BC and the Yukon, 5.1% are of special concern, 11.4% are at high risk of extinction and 2.1% are extinct (Slaney et al. 1996).

**Bycatch:** The capture of birds and weak stocks of salmon along with stronger stocks are the main bycatch concern surrounding Pacific salmon fisheries in Canadian waters. There is a general management failure to take initiatives to control this problem. Consequently several smaller endangered stocks are at risk of further decline due to commercial fisheries. It is estimated that each year the salmon gillnet fishery captures approximately 12,000 seabirds based on extrapolations from observed test fisheries. The most commonly caught bird species are common murrelets, rhinoceros auklets, and marbled murrelets. Less than 5% of the birds caught are returned alive. The marbled murrelet is a 'threatened' species under the federal Species At Risk Act.

**Habitat/ecosystem considerations:** Salmon are caught commercially by seine (~50%), gillnet (~25%) and trolling (~25%). These gears operate in mid-water, so habitat damage from fishing practices is considered minimal. Spawning Pacific salmon provide far ranging ecosystem values resulting from the transfer of nutrients to marine and terrestrial plants and animals. Salmon fisheries management has not yet accounted for the broader ecosystem values of salmon. Many freshwater habitats have been degraded or lost through forestry, agriculture, or development which, when combined with narrow geographic areas for unique stocks, is cause for concern.

**Management regime:** Commercial salmon fisheries are managed using restricted area, gear, and time openings. Harvest is generally regulated to manage impacts to stock aggregates. Enforcement and in-season management adjustments are used to ensure different management measures are met. However, many of these management measures

do not yet protect weak stocks or consider the ecosystem role of returning salmon to other organisms. The recreational fishery for salmon is substantial in many areas and is inadequately monitored. Although Fisheries and Oceans Canada has a “Wild Salmon Policy” intended to protect salmon diversity and support ecosystem values, it has not yet been effectively implemented. Maintaining genetic diversity is considered necessary to allow salmon to adapt to predicted environmental changes associated with climate change (e.g., increased stream temperatures). Intensive fisheries present an unknown threat to this diversity.