

# **Speaking Notes**

**for**

**A Member of Parliament**

**For a debate on  
Low returns of sockeye salmon to the Fraser River**

**House of Commons  
September 17, 2009**

**CHECK AGAINST DELIVERY**

## Introduction

Mr. Speaker,

I welcome the opportunity to address concerns about low returns of sockeye salmon to the Fraser River of British Columbia, and to inform the House what the Government of Canada is doing about it.

It's fair to say that many Canadians take more than a passing interest in the epic journey of the sockeye salmon back to its native streams. On the commercial side, a healthy sockeye run helps sustain many livelihoods on the west coast. In the recreational fishery, the thrill of landing sockeye salmon is a highlight of any summer. And for First Nations, who depend on this fish for food, social activities and ceremonies, the sockeye is a vital part of cultural practices that extend back thousands of years.

So when the Department of Fisheries and Oceans forecast that returns of sockeye to the Fraser River could reach upwards of 9 million over the summer, there was much excitement and anticipation. And when those numbers fell far below expectations, there was understandably much disappointment and frustration. This was compounded by media reports that suggested millions of fish had somehow gone missing, as if the sockeye had stumbled into a kind of Bermuda Triangle for fish off the west coast.

As you know, the sockeye salmon fishery was closed in August for the third year in a row. In response, some journalists blamed sea lice from fish farms for lower than expected returns. Others suggested that overfishing had led to a collapse of Pacific salmon stocks.

Mr. Speaker, it would be useful to step back from the hyperbole, and take a cold hard look at how the salmon fishery on the west coast is managed... the potential causes for the small sockeye run this year... and how the Government of Canada is responding.

## **A sound management process**

Through the Pacific Salmon Treaty, Canada and the United States jointly manage the fishery via mechanisms such as the Pacific Salmon Commission and its Fraser River Panel. For its part, given the various players with a stake in the outcome of the salmon fishery in Canada, the Department of Fisheries and Oceans created a representative advisory committee to help plan the harvest and assess results at the end of each season. As a result of this inclusive process, there are few surprises when the department releases its plan each autumn.

Despite the forecasts for a good harvest this year, however, it was clear by mid August that the sockeye were not just late—they weren't coming at all. The Fraser River Panel ultimately approved a summer-run of only 700,000 sockeye. This figure was not just below expectations, it was also well short of the surplus needed to permit fishing.

The Department of Fisheries and Oceans took the difficult decision to close or curtail the sockeye fishery again this year, just as it had done in the previous two years and in 2005. While the department tries to forecast the potential harvest before the season begins, it must manage the salmon fisheries based on estimates taken during the actual salmon run. And it opens the fisheries only when in-season estimates suggest a surplus of salmon.

We know that closure disrupts livelihoods and interferes with traditions. But we also know the Government's first priority is conservation, followed by providing First Nations with opportunities to pursue food, social and ceremonial fisheries.

This year's closing of the fishery to both the commercial and recreational industries, and the curtailing of fishing activities of First Nations, were prudent and responsible decisions. And they have produced the expected results: there will be enough sockeye spawning this year in the Fraser to allow populations to rebound. This is good news for everyone, and an indication of our sound management practices.

## **Understanding forecasts**

Mr. Speaker, when faced with the idea that 9 million fish have gone missing, it's important to appreciate the nature of a pre-season forecast.

Through testing, sampling and acoustic monitoring, scientists estimate the number of juvenile fish going out to the ocean, and the number of adults coming back. They look at historical trends and patterns. Putting all these indicators together, they come up with a forecast.

In other words, this is very much an inexact science.

That's why there is never a single figure given for the estimated size of the sockeye run. When the media report that 9 million fish are missing, for example, they rarely mention the forecast for the summer sockeye run had a range of anywhere from 31.8 million to 2.8 million fish.

The impact of climate change is yet another factor affecting the accuracy of forecasts. By the end of this century, for example, streams, lakes and rivers will have higher temperatures, which may undermine the success of sockeye spawning. Global warming may also reduce habitat for sockeye in the Pacific Ocean.

All this means that the baseline for our predictions is in flux. We can no longer depend on the future to follow historical patterns. And so it will become an even greater struggle to produce accurate forecasts of salmon runs.

## **Causes of Decline**

Mr. Speaker, the Government can appreciate the disappointment of Canadians with a stake in the sockeye salmon run. Despite the unpredictability of forecasts, all indications suggested a good year in 2009 after two lean seasons. And so the poor returns were that much more of a shock.

If it overstates the case to claim there are 9 million missing fish, there is clearly still a problem. This year's returns are at an all-time low. And all the people with a stake in the sockeye are rightfully asking questions about what's happened and what can be done. Some people, for example, are concerned about the impact of fish farms on the wild salmon population.

It's worth recalling that the Government of Canada is committed to the sustainable development of aquaculture, the protection of marine ecosystems, and the conservation of wild salmon. Properly managed, both the farmed and wild fish populations can co-exist successfully.

One theory making the rounds suggests that sea lice from fish farms latch onto juvenile salmon as they make their way into the Pacific. Sea lice are naturally occurring parasites, microscopic in size, that have existed for millions of years. They attach themselves to the skin and fins of wild and farmed marine fish, and feed on them.

The Department of Fisheries and Oceans recognizes that sea lice can affect the health of farmed fish. That's why, in collaboration with British Columbia, the department requires fish farms to develop management plans that include monitoring the level of sea lice. Indeed, salmon farm companies in the Broughton Archipelago developed a route for juvenile salmon this year that kept them away from wild salmon. All other fish farms used a spray approved by veterinarians to control sea lice.

Of course, these facts alone do not disprove the theory that sea lice are killing juvenile sockeye. The department was determined to shed light on this issue once and for all. In a study last year, scientists looked at the impact of sea lice on juvenile sockeye under controlled laboratory conditions.

Mr. Speaker, a typical juvenile sockeye will weigh between 5 to 10 grams when it migrates into the ocean. The scientists discovered that exposure to high concentrations of sea lice contributes to the mortality of only very small juvenile wild salmon. By very small, I mean 0.3 grams in weight. No larger fish died after exposure to sea lice.

It's also worth noting other evidence that counters the causal link between sea lice and the lack of wild sockeye.

In 2009, despite the presence of fish farms along the route, the returns of pink salmon to the Fraser and many other rivers in British Columbia have been exceptionally strong. It seems unlikely that sea lice would overlook the pink salmon just so they could attack the sockeye.

We also know that sea lice species found on juvenile sockeye in the Strait of Georgia are not the same species that typically infects farmed salmon.

Finally, we know that sockeye returns to the Skeena River in northern B.C. were also significantly lower than anticipated this year. The migration route of juvenile sockeye from this river system does not take them anywhere near fish farms. So unless those sea lice managed to hitchhike, they could not be responsible for the lower returns of sockeye in the Skeena.

Sea lice in fish farms are not the answer to the mystery of fewer sockeye in the wild. Nor should we blame commercial or recreational fishers, or First Nations. Clearly, the department's sound management practices, which have closed or curtailed the fishery several times in recent years, have prevented the possibility of overfishing.

What, then, is the answer? The evidence gathered over the past few years suggests that sockeye runs were lower than expected in 2009 because of poor marine survival. In other words, it's most likely that juvenile sockeye died when they entered the marine environment or perished at some point during the ocean phase of their lifecycle.

A number of factors could be the cause, including the impact of climate change. Or it may be a combination of factors. I can assure you, Mr. Speaker, the Government is bound and determined to find out.

### **The Government takes action**

Mr. Speaker, the Government of Canada is acting on several fronts to address the problem of declining sockeye in the Fraser River.

In addition to studying the dynamics of salmon survival, the Department of Fisheries and Oceans is adjusting its approach to salmon forecasting. In this way, it can lower expectations and avoid the misconception that juvenile fish have vanished or gone missing. In the process, it continues to keep all stakeholders informed and to seek their input into the management of the fishery.

The department's advisory committee meets at least three times per year. Given the serious shortfall in sockeye in 2009, however, the department convened a roundtable earlier this month with First Nations and other stakeholders, including conservation groups, environmental organizations, commercial harvesters and the recreational fishery.

The roundtable enabled the department to update its partners on sockeye returns for the year... to look at decisions made to conserve the sockeye... and to examine the gap between the forecast and actual results.

It also enabled the Minister to meet personally with those affected and to invite their views about what should be done. The Minister heard how the commercial fishery had anticipated a harvest of two to four million sockeye with a landed value of \$25 - \$50 million. She heard how the shortfall was also causing hardship to the recreational fishing industry. And she heard how First Nations had harvested only 30,000 sockeye this year—just three percent of their anticipated catch. The Minister will be reflecting on all this feedback as she considers next steps for action.

As I noted earlier, Mr. Speaker, the department has a legal obligation—after it meets its conservation targets—to enable First Nations to fish for salmon to meet their food, social and ceremonial needs. In light of this, the department allowed First Nations to harvest chinook for these three purposes so long as they minimized incidental catches of sockeye. In this way, the Government of Canada successfully balanced environmental priorities with the special needs of First Nations.

### **Conclusion**

Mr. Speaker, the epic journey of the salmon back to its spawning ground occupies a special place in the Canadian imagination, and the sockeye is part of this mythology. But the sockeye is also meaningful on many other levels as well, including those related to commerce, recreation and culture. And so when the sockeye run falls short of expectations, it naturally raises concerns across the board.

The Government of Canada is using the best available science to address these concerns. On the one hand, it is reviewing its forecast approaches so it can better manage expectations. On the other, it is narrowing down the factors affecting the sockeye population so we can better understand the causes for low salmon runs and respond appropriately. Through this process, it is engaging the commercial and recreational fishing industries, environmental groups and First Nations so that, ultimately, all Canadians can benefit from a viable and sustainable sockeye salmon fishery.

For all these reasons, I do not support the motion before the House.



Thank you, Mr. Speaker.