



COSEWIC
Committee on the Status of
Endangered Wildlife in Canada

COSEPAC
Comité sur la situation des
espèces en péril au Canada

February 13, 2018

The Honourable Catherine McKenna
Minister of the Environment and Climate Change
200 Sacré-Coeur Boulevard
GATINEAU, QUÉBEC, K1A 0H3

Dear Minister McKenna,

Further to my letter of December 7th, 2017, I am writing to inform you that on January 10th, 2018, COSEWIC's Emergency Assessment Subcommittee conducted an emergency assessment of the Thompson River and Chilcotin River Steelhead Trout (*Oncorhynchus mykiss*, TRS and CRS, respectively). The Subcommittee assessed both designatable units as Endangered and recommends that an Emergency Order be issued placing these wildlife species on Schedule 1 of the *Species at Risk Act* in accordance with Section 29(1).

The Subcommittee concluded that the unprecedented decline of TRS and CRS owing to bycatch in commercial fisheries for Pacific salmon and poor ocean survival poses a serious and imminent threat to their survival. The high levels of fisheries bycatch mortality are of particular concern in the context of persistently poor ocean survival. Below, I provide the rationale for an Emergency Order for each designatable unit.

The Subcommittee concluded that there is an imminent threat to the survival of TRS for several reasons. First, as of November 23rd, 2017 (the final survey for 2017), the estimated number of fish that will spawn in the Thompson River population in the spring of 2018 is only **177**. This in a population that numbered several thousand in the early 2000s. The population has declined by 79% over the last three generations. If this trend, which began in the early 2000s, continues it is estimated that the population will be at only 2.0% of pre-decline levels in as short a time as 15 years (three generations) and likely be unable to sustain itself. Second, the causes of these declines are only partially understood. There is an estimated minimum 15-25% mortality that occurs annually from bycatch in commercial Pacific salmon fisheries. Unfortunately, these Steelhead Trout overlap considerably in space and time with Pacific salmon that are the targets of various commercial fisheries. Although retention of Steelhead Trout is not allowed, compliance with this regulation is poorly monitored and even when fish are released, post-release mortality is estimated to be between 15 and 25%. Third, there has been a persistent downward trend in marine survival for Steelhead Trout coastwide (as well as for several species of Pacific salmon) owing to changing ocean conditions. Although the understanding of mechanisms is incomplete, it is suspected that warming ocean temperatures play a key role. This uncertainty, as well as the lack of obvious mitigation for changes in conditions in the open ocean, increases the significance of the bycatch mortality. Predictions of ongoing increases in ocean temperature in the North Pacific suggest that these problems will continue.

The Subcommittee considered there to be an imminent threat to the survival of Chilcotin River population for the same reasons as for the TRS, but here, abundance and decline trends are even more dire. The most recent estimate of abundance of spawning adults for the CRS is only **58** individuals, again, from a population that numbered in the thousands in the mid-1980s. The population has declined by 81% over the last three generations. If this trend persists, it is estimated that the population will reach only 0.9% of pre-decline levels in as few as 18 years (three generations) and be unlikely to sustain itself.

Furthermore, the estimated numbers of breeding adults in the TRS and CRS are distributed over several tributary streams (four in the Thompson system, three known in the Chilcotin system). Consequently, the numbers of fish in any **one** spawning tributary are necessarily much lower than the total in each designatable unit. Although we do not know what the effect of such “diluted” spawning efforts will be, sudden declines in the quality of freshwater habitat and changes to fish behaviour affecting breeding success take on new significance at low abundances.

In summary, bycatch in commercial Pacific salmon fisheries and poor ocean conditions are causing high mortality for both designatable units of Steelhead Trout resulting in steep past, and projected future, declines. Projections of continuing declines in ocean habitat quality indicate that the precipitous declines in Steelhead Trout will continue unless bycatch mortality in commercial Pacific salmon fisheries is eliminated.

Today, COSEWIC will issue a press release informing the public of the emergency assessments of these designatable units of Steelhead Trout and our request for an emergency listing.

Please do not hesitate to contact me, if you require additional information.

Yours sincerely,

A handwritten signature in black ink, consisting of a stylized 'E' and 'T' followed by a horizontal line extending to the right.

Eric B. (Rick) Taylor
Chair, COSEWIC

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c.c. – Robert McLean, Director General, Assessment & Regulatory Affairs Canadian Wildlife Service

c.c. - CESSC