

## **Fisheries and Oceans Canada 2022**

### **Chinook Mass Marking/Mark Selective Fisheries Update**

April 19, 2022

New chinook recreational fishery opportunities for the 2021 fishing season in portions of Areas 12, 13, 15, 16, and Subarea 20-5. Data generated from these opportunities will be used to support post-season evaluation and future decision-making.

We are currently reviewing information to support decision-making on whether to expand the use of fishery regulations that permit retention of hatchery-origin marked chinook—also known as Mark Selective Fisheries (MSF)—and/or mass-marking of hatchery chinook production. There are a number of issues to consider; work is underway to develop the information required to support decisions on the use of mass marking and/or MSF in Canada.

These issues include:

- Ensuring stock assessment information is not compromised: Mass-marking of all hatchery fish would require Canada to significantly adapt the fishery monitoring and stock assessment programs necessary to maintain information on wild chinook and to meet Canada's Pacific Salmon Treaty obligations. Changes to the stock assessment program would take considerable time and resources, and could not be developed without further consulting with the US to ensure we meet our commitments under the Pacific Salmon Treaty.
- Cost: Marking significant numbers of hatchery-origin chinook would incur substantial costs and in some areas may be logistically challenging.
- Effects on ecosystems: Producing additional hatchery-origin chinook to support fisheries must be carefully planned in order to manage ecosystem effects (e.g., carrying capacity of natural systems to support salmon); control potential competitive interactions between hatchery and wild salmon; ensure that the genetic diversity of wild origin salmon is maintained; and, ensure MSF fisheries do not adversely impact wild unmarked stocks of conservation concern.
- Mortality: There would still be many times and areas where the proportion of marked fish encounters would likely remain too low to support MSF without incurring substantial release mortality on unmarked fish.

Significant concerns regarding specific Fraser River Chinook stocks and specific strategies for avoidance of those salmon, other healthy and more abundant stocks and species were identified for harvest. To address conservation concerns for at-risk Fraser River Chinook stocks, DFO continued precautionary reductions in commercial, recreational and First Nation's fisheries. In 2020, DFO introduced pilot Chinook recreational fishery management measures outside the migratory path of at-risk Fraser River Chinook stocks in portions of Area Areas 12, 13, 15, and 20-5.

