

Enhanced Chum Data from 1980 to 2018 Return Years

Final Report to the Pacific Salmon Commission's Southern Endowment Fund Committee

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Introduction

The Salmonid Enhancement Program (SEP) maintained a Chum and Pink database of mark (fin clips and coded wire tags) recapture information until 2009, at which point reduced capacity and changing priorities in the program resulted in chum sampling data not being compiled in the database for regional analysis.

The Chum and Pink database reported annual contributions to catch and escapement for marked chum and pink stocks, and estimation of survival and exploitation rate metrics, used to adaptively manage annual chum production. Currently historical biostandards for marine survival are used to estimate production levels needed to meet fishery and rebuilding objectives.

Data files for missing years (2010 to present), including chum fin clipped release data, clip observations in fisheries from J.O. Thomas sampling, and clip observations in escapement from hatchery sampling programs were compiled. Catch data from DFO databases was obtained, reviewed and incorporated into the database tables. Data reports were run, reviewed, and data gaps and errors were addressed. Final tables and figures were generated and formatted in the data report, with a summary of the data presented in a Results section. The compilation methodology was documented in a Methods section, with historical methods from an unpublished report included in an appendix.

Project Objectives

Specifically, this proposed work was intended to improve chum escapement and exploitation rate assessments by publishing historical data for enhanced contribution estimates in fisheries and escapement, based on mark rates observed in catch and escapement sampling. This should aid chum run reconstruction analyses by providing estimates of marine survival and exploitation for Vancouver Island and Fraser River marked enhanced stocks. Hatchery release and adult observation data by mark status of Canadian stocks was included.

Reports from the Chum and Pink database were formatted into tables, summarizing all years and stocks. Excel files with raw data were generated and will be provided to the Government of Canada Open Data portal.

<https://open.canada.ca/en/open-data>

Project Schedule

Due to changes in staffing assignments in SEP, the three month term for a biologist to do the data compilation, reporting and publishing work was not secured. The programmer (and retired expert) completed the upgrade of the Chum and Pink database, then spent another several weeks working with the Project Authority and the project team to review and update the compilation methods and data tables for the report, then document the methods and results.

As of March 31, the data compilation is near complete, the tables and figures have been prepared, but require further formatting. The methods and results documentation is in progress. A review of the report by staff and contractors familiar with the data and methods will be undertaken once a final draft is complete, hopefully during the first week of April. When edits from that review are complete, the report will be submitted to PSC and the publishing process will be initiated. This will include translation, which will require resources, which at this time are not committed. Posting data files to Open Data site will also require translation resources. There is no timeline at this point for these two final stages to the project.

Date	Milestones/Accomplished	Days	Responsible Party
October-December	Data review and requests as needed. Data stored in project folder	5	Project Authority
October - March	Database updates, testing	25	Programmer
November - March	Data compilation/QA	25	Programmer
February - March	Data analysis and summarization	10	Project Authority, SPA Biologist
January	Data report drafted / reviewed	20+ (in progress)	Project Authority, Others
March	Submission of final project report and financial summary to the PSC	0.5	Project Authority
April	Final chum data report submitted to PSC (prior to publishing)		Project Authority

Deliverables

The Deliverables of the Project are as follows:

1. Data tables were produced from the database for all years, and are intended to be published in a DFO technical report, summarizing the following: weekly mark and sampling rates in fisheries by stock, age, sex and statistical area; annual mark rates in escapement by stock; and exploitation rates and survival rates by brood year and stock.
2. The final datasets will be made available in the Open Data portal.
3. Submission of final data report (prior to publication) to the Pacific Salmon Commission (PSC).
4. Submission of the final report and financial summary to PSC.

APPENDIX I. 2019 Financial Expenditures Summary

Details of expenditures registered in the DFO financial system at fiscal year-end.

Funding Total	\$ 21,431.00
No Expenditures	0
Balance (refunded to PSC)	\$ 21,431.00