

FINAL REPORT

Pacific Salmon Commission (PSC) Project No. NP8, “North Coast Chum DNA Baseline Improvement”, 2004.

Funding Allocation:

The PSC financial allocation to Project No. NP8 is \$15,000.00 CDN.

Project Description:

Streams located in Statistical Areas 3 (Nass) and 4 (Skeena) watersheds will be sampled to obtain genetic tissue samples of chum salmon. Samples obtained would be submitted for laboratory analysis at the Fisheries & Oceans Canada’s Molecular Genetics Laboratory and consequently added to the Pacific Region’s chum baseline database.

Statement of Work.

Chum salmon tissue samples for genetic baseline analysis will be obtained from the Area 3 (Nass) and Area 4 (Skeena) watersheds. Collection of samples will be conducted by the Nisga’a First Nation, Skeena Fisheries Commission and the Terrace Salmonid Enhancement Society.

Collection of tissue samples represents the activity funded under PSC Project No. NP8.

The organization, collating, shipment and baseline analysis of these tissue samples represent in-kind work contributed by Fisheries & Oceans Canada (DFO).

Project Deliverables:

Objective # 1 :	Obtain genetic samples of chum salmon from streams located in Area 3 (Nass) and Area 4 (Skeena) watersheds.
Objective # 2 :	Laboratory analysis of genetic samples of chum salmon obtained from streams located in Area 3 (Nass) and Area 4 (Skeena) watersheds
Objective # 3 :	Inclusion of results from genetic analysis of samples into the Pacific Region’s genetic baseline database for chum salmon.

Project Results:

Objective # 1 :	Genetic baseline tissue samples of chum salmon were obtained from streams located in Area 3 (Nass) and Area 4 (Skeena) watersheds by Nisga'a First Nation, Skeena Fisheries Commission and Terrace Salmonid Enhancement Society field staff. Appendix 1. List of streams and numbers of chum baseline tissue samples obtained.
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Objective # 2 :	Laboratory analyses of genetic baseline samples of chum salmon obtained from streams located in Area 3 (Nass) and Area 4 (Skeena) watersheds were conducted by the DFO Molecular Genetics Laboratory. Appendix 2. Pacific Region chum baseline dendrogram.
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Objective # 3 :	Inclusion of results from genetic analysis of samples into the Pacific Region's genetic baseline database for chum salmon. Please refer to Appendix 2. Pacific Region chum baseline dendrogram.
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Conclusions:

<p>Chum salmon baseline samples were collected from Statistical Areas 3 (Nass) and 4 (Skeena) watersheds, analyzed and added to the Pacific Region's baseline database. These samples have improved the knowledge of genetic diversity between chum salmon populations.</p> <p>Improved baseline information from this project (NP8) have made it possible to conduct the first chum stock separation work on commercial salmon fisheries located in Statistical Area 3. The stock separation study was a separately funded PSC project in 2004 (NP9).</p> <p>Results from this study will provide important stock management information in support of chum conservation and Canadian domestic harvest plans and will stimulate further discussion in the Northern Boundary Technical Committee and the Northern Panel on the prospect for further Northern Boundary applications. In particular there is a need to develop a coastal standard for the markers used to allow for consistent evaluation of the stock separation capacity, and allow for transferable evaluations of mixed fishery samples. There are now enough samples and analysis for Northern BC to initiate this process.</p> <p>These results fulfill contract deliverables for PSC Project No. NP8</p>

Appendix 1. List of Streams and Numbers of Chum Baseline tissue samples obtained.

Statistical Area	Stream Name	Number of Samples
3	Tseax River	11
3	Zolzap Creek	3
3	Illiance River	70
3	Wilauks Creek	55
3	Kitsault River	200
3	Khutzemateen River	34
3	Kateen River	100
3	Ensheshese River	150
3	Dak River	200
4	Ecstall River	200
4	Kispiox R. Mainstem	13
4	Date Creek	13
4	Nangeese River	102
4	Kitsumkalum River	48
4	Andesite Creek	21
4	Dog-tag Creek	34
4	Kleanza Creek	15
4	Whitebottom Creek	200
4	Fiddler Creek	6
4	Skeena R. slough (Halliday Ranch)	5

Appendix 2. Pacific Region Chum Baseline Dendrogram.

December 8/04
198 populations
Chum

