

**Update Coho FRAM Base Period for Mark-Selective Fishing Years (1998-2009), Year 1: Phase I
(NWIFC Component)**

Final Report

December 2011

Submitted by:

**Northwest Indian Fisheries Commission
6730 Martin Way E.
Olympia, Washington 98516-5540**

For work conducted pursuant to:

Pacific Salmon Commission award number SF-2010-I-20

Summary

The NWIFC component of Year 1 of this project has mainly involved the development of coho terminal run reconstruction (RRTERM) inputs for the expanded base period (1998-2009) through inter-agency consultation with tribal regional biologists from each terminal area. Specifically, tribal catch data was collected and collated from all available data sources, and split into marked and unmarked components. In some cases this data did not exist or was incomplete and therefore required various alternative methods of estimation.

Methods

Initially, summarized fishery catch data were queried from the Regional Mark Processing Center's Regional Mark Information System (RMIS) database. Upon evaluation of this RMIS data, it was found that these data often did not include complete estimates of catch by mark status or sample size. This was particularly the case for Washington coastal tribal fisheries, some of which operate their own CWT-reading labs and submit CWT-recovery data to RMIS independently from WDFW. As a result, an effort was undertaken to obtain raw fishery-sampling data from various tribal fisheries management agencies, with varying degrees of success. Often, the data that was kept by these agencies did not easily conform to our needs and therefore required extensive re-configuration to align with the fisheries definitions and time-steps that RRTERM requires. In a few cases, our requests for these data could not be fulfilled within the project's time schedule, which necessitated the development of alternative methods for estimating the marked and unmarked catch proportions for several fisheries. In other cases, fishery catch data by mark status existed in RMIS but did not match fishery catch data from other sources (such as the Treaty Fish-Ticket database), suggesting that the RMIS data was incomplete. Each situation was unique and required individual attention to evaluate the data problem and to find a customized solution.

Results

There are 205 fisheries defined in RRTerm, 58 of which are Washington Treaty fisheries. For each fishery, catches were divided into five time steps: January through June, July, August, September, and October through December. Expanded catch estimates by mark status were sought for each fishery and time step for the years 1998-2008, although not every fishery was conducted in every year or time step. The RMIS database query provided data that was, at times, incomplete or inconsistent with other records of treaty fishery catch, specifically the Treaty Fish-Ticket database maintained by the Northwest Indian Fisheries Commission. A considerable amount of time was spent determining precisely where the RMIS data gaps existed, based on such inconsistencies. Frequently the RMIS data failed to distinguish mark status (in such cases, all of the catch was lumped together as either marked or unmarked in one or more of the time steps). An additional problematic data gap in the RMIS data occurred where the number of fish sampled was missing.

In those cases where sampled catch data have proven to be persistently unavailable, alternative methods for estimating the marked/unmarked proportions of the catch are currently under development. For marine tribal fisheries, these methods include applying the mark status proportions that were observed from

sampling data in corresponding non-treaty fisheries. The volume of the data involved in this project is larger than can be easily presented here. Table 1 shows a small sample of the fishery catch data that were procured under this contract.

Table 1. A sample of some of the tribal fisheries catch data (by mark-status) that were collected during Phase I. Shown are data for tribal fisheries that occurred during 2008. Non-highlighted cells indicate data that were retrieved from PSMFC Regional Mark Information System (RMIS) database. Yellow-highlighted cells indicate data that were collected from raw catch-sampling data provided by tribal fisheries managers. Red-highlighted cells indicate data that proved to be simply unavailable and may require various “workarounds” during Phase II of the project.

2008 RMIS Catch/Sample Data								
FisheryName	MarkType	Jan-June	July	August	September	Oct-Dec	Total	#Sampled
Area2TrlTR	Marked	-	-	-	-	-	-	-
	UnMark	-	-	445	42	-	487	
Area3TrlTR	Marked	-	78	76	-	-	154	159
	UnMark	2	246	515	128	-	891	
A4/4BTrlTR	Marked	-	-	2	273	-	-	-
	UnMark	-	-	7	60	-	-	
WlpaBT Net	Marked	-	-	-	4,453	958	5,411	3,861
	UnMark	-	-	-	3,013	8,268	11,281	
GryHbr Net	Marked	-	-	-	-	2,434	2,434	5,461
	UnMark	3	-	-	-	15,277	15,280	
LwCheh Net	Marked	-	-	-	-	1,798	1,798	-
	UnMark	-	-	-	-	3,720	3,720	
Hump R Net	Marked	-	-	-	298	3,026	3,324	-
	UnMark	-	-	-	271	1,091	1,362	
Quin R Net	Marked	-	-	1,012	9,194	2,869	13,075	7,528
	UnMark	-	-	357	2,980	8,793	12,130	
Queets Net	Marked	-	-	-	1,895	358	2,253	2,113
	UnMark	-	-	-	877	1,475	2,352	
Quilly Net	Marked	-	64	785	4,753	4,278	9,880	6,078
	UnMark	-	1	116	3,275	3,762	7,154	
Hoh R Net	Marked	-	-	-	-	-	-	-
	UnMark	-	-	-	-	-	-	
Mak FW Net	Marked	-	-	-	-	-	-	-
	UnMark	-	2	33	1,093	234	1,362	
A4B6CNetTR	Marked	-	-	-	-	-	-	-
	UnMark	-	-	-	-	-	-	
Ar6D NetTR	Marked	-	-	-	-	-	-	-
	UnMark	-	-	-	-	-	-	
Elwha Net	Marked	-	-	-	-	43	43	68
	UnMark	1	-	-	6	99	106	