

May 15, 2007

Pacific Salmon Commission Invited Workshops:
Current and Future Applications of Genetic Stock Identification (GSI)
to Ocean Salmon Management – Workshop I
Portland, OR
May 15-17, 2007

**Charge to the GSI Workshop:
Why We Are Here, and What Is Expected of Us**

Larry Rutter

U.S. Federal Commissioner, Pacific Salmon Commission
Senior Policy Assistant, Sustainable Fisheries Division, NOAA Fisheries

Greetings! On behalf of the Pacific Salmon Commission and its Committee on Scientific Cooperation who are sponsoring this workshop, the Steering Committee who designed it, and the Northern and Southern Fund Committees who agreed to pay for it, I want to welcome you to the opening day of our workshop. I am honored – and a bit humbled – to have been asked to give the opening “charge” to the workshop. I’m not sure that I am the most qualified to do this, but I’ll do the best I can.

First, I want to thank all of you for taking the time to attend this event. Our audience today includes a truly impressive group of fishery managers, scientists, stakeholders and policy decision makers; in short, exactly the group we needed to make this a success. We need all of you to become actively engaged in, and supportive of this process, and appreciate your attendance today and your continuing attention to this matter when the workshop concludes.

I want especially to thank those of you who agreed to participate in the four workgroups we have convened to focus on specific tasks and to develop specific solutions to the issues we have framed. I hope that when you accepted our invitation, you fully appreciated the distinction we were making between a workshop and a symposium. You are not here simply to hear the latest findings of some interesting scientific studies, and you certainly are not here just to mingle with colleagues over wine and cheese, only to go home and forget about it all. No, that is not why you are here. This is very much a *working* meeting, part of a focused, results-oriented process designed to bring together your collective wisdom to produce a very tangible and much-needed product. Your active participation and thoughtful contributions are critical to our collective success.

What is this product I’m talking about? Before getting into that, let me first back up a bit to provide some historical and topical context. A lot has happened over the last several years to affect the salmon resource and the fisheries that depend on it. For reasons largely unassociated with harvest – or so we fishery managers want to believe – many populations of salmon are in serious trouble. The primary focus of management for many ocean salmon fisheries has trended away from the relatively happier task of maximizing and allocating the harvest of healthy natural and hatchery stocks. Today, and probably for the foreseeable future, the main focus of ocean salmon fishery management in many areas is how best to provide opportunity to catch fish from

stocks with harvestable surpluses, while constraining to specific levels their aggregate impact on troubled populations, some of which are listed or being considered for listing under the U.S. Endangered Species Act (ESA) or Canada's Species at Risk Act (SARA).

Coincident with the general decline in the status of the salmon resource and the change in management focus in many areas, the information systems utilized for managing many salmon fisheries were being challenged and degraded. For several decades, we have relied primarily on the coded wire tagging (CWT) program to provide the data necessary to manage Chinook and coho salmon stocks and fisheries. Indeed, many of our management regimes for those species are premised on the analysis of that data. Yet the CWT system is not capable of providing us with some kinds of information, such as the stock composition of unlanded fish in catch and release fisheries. And, as many ocean fisheries became more constrained and catch reduced, the number of CWT recoveries declined, leading to an increase in the uncertainty surrounding CWT-based statistics. Some marking and sampling programs were reduced for budgetary reasons. At the same time, we demanded even greater time and area resolution in our fishing plans to provide harvest opportunity while meeting conservation requirements for weak natural stocks. During roughly this same period, mass marking and mark selective fisheries started to emerge, first with coho, then with Chinook. This development has had serious implications for management systems reliant on the coastwide CWT program.

Given the convergence of these developments, the Pacific Salmon Commission convened an Expert Panel in early 2004 to look into and report on the future of the CWT program and other potential sources of data to manage the fisheries. A fundamental conclusion of their report, issued in November of 2005, is that we would have to rely on the CWT program to provide the data necessary to manage Chinook and coho fisheries at least for the next several years. No alternative technology can readily and practically provide the data necessary to implement the kinds of ocean fishing regimes embodied in many current domestic plans and bilateral agreements. The Panel made a number of recommendations relative to improving the quality of data provided by the CWT program. The Pacific Salmon Commission responded to their recommendations by tasking a representative group of agency scientists to develop the details of their implementation; we expect to see the results of their work in the very near future.

You'll hear more about the Expert Panel's report later; the main point I want to make now is that this GSI workshop is, in large part, a logical outgrowth of the Expert Panel's report. That is why the principle focus of this workshop will be on the management of ocean Chinook and coho salmon fisheries, though we also hope our work here will further the usefulness of GSI for sockeye management. GSI has and certainly will continue to make an important contribution to the management of all salmon species. And, GSI will help us address many critical scientific questions relating to the management of salmon, such as the relative fitness of hatchery and natural origin spawners. But those issues are not the central purpose of this workshop. Rather, we are here to further the application of GSI to the management of ocean salmon fisheries, and to describe the specific steps necessary for that to occur.

Although the degree of our optimism – or skepticism – may vary somewhat depending on particular points of view, I believe that most of us here are convinced that a properly designed GSI program can make an important contribution to ocean salmon fishery management. On the other hand, if the application of GSI is allowed to develop on an *ad hoc* basis, without the proper scientific design, planning and implementation, and in the absence of clear coordination between

the needs of fishery managers and the capabilities of the science, its advancement will be fraught with confusion and dissension, some of which we've already seen. Opportunities to produce information useful to all of us will be lost, and the full realization of the potential of GSI will be delayed. This is what we cannot afford, and what we hope to avoid. So this, in a nutshell, frames the scope and purpose of this workshop. The GSI Workshop Steering Committee stated our objective as follows:

To develop recommendations for integration of GSI information into a coordinated coast-wide management system to improve the ability of ocean fisheries to access abundant stocks within impact constraints established for other specific stocks and, to the extent possible, to identify and quantify the costs, implementation steps and timeframes to implement these recommendations.

That's a tall order, for sure. However, I believe that the Steering Committee has correctly focused the scope and structured the process of this workshop to pull it off. This workshop brings together the right mix of people and provided them with the right kind of support, to enable it to succeed.

We spent a lot of time considering what it would take to design and implement a coastwide GSI information system, and organized the tasks into four major topics, each of which has a specific workgroup assigned to it. They each have been asked to produce practical and detailed recommendations. Recognizing that even this focused mission could not possibly be accomplished at a one-event workshop, and that these kinds of efforts sometimes fail because they rely entirely on the voluntary efforts of people who are already over-worked, we have provided paid coordinators – experts in their own right – to assist each of the workgroups in accomplishing their assigned tasks.

We have attempted to ensure that each workgroup is “cross-fertilized” with participants who possess expertise on matters that are the primary focus of other workgroups. We have provided time prior to the second workshop for each workgroup to continue, with the assistance of their respective coordinators, to further develop their recommendations or options. These will be refined and integrated into the larger report at a second three day workshop next September. We have also provided for a peer review step to help ensure the scientific credibility of the product of our effort.

A lot of experience and expertise is embodied in these workgroups. By bringing together this multidisciplinary group of geneticists, modelers, managers and other specialists, we hope to facilitate the kind of communication that is absolutely essential to developing and applying the full potential of this exciting technology. Meeting in your respective workgroups for the next couple days, interacting with your workgroup coordinators over the next few months, and meeting again next September, you'll be identifying and considering specific issues and devising and justifying specific recommendations that will become part of the workshop report. Our intent is that this report will lead to the creation of a coastwide GSI information system that can contribute to the management of ocean fisheries, particularly for Chinook and coho salmon.

Nominally, this report will be given to the Pacific Salmon Commission. But in actuality, our intent is that it will be received, endorsed, and appropriately implemented by all the agencies,

tribes, and organizations who are collectively responsible for the management of ocean salmon fisheries from California to Alaska.

For that to happen, and for this workshop to prove as consequential as we hope, the recommendations in our report must be scientifically sound and broadly supported. They must reflect a coastwide consensus among management agencies, scientists and affected stakeholders about how best to collect, analyze, and apply GSI information to salmon fishery management. Where ambiguities remain, we need to identify the necessary steps to address them.

We are seeking your best advice on how GSI might most effectively be used to improve our ability to manage ocean fisheries. A high degree of interagency and inter-jurisdictional cooperation must occur. There must be general acceptance of the scientific analyses and conclusion derived from it. And, of course, there must be a close alignment between the information GSI provides and what the managers need to know. None of these will occur by accident; we have to get organized and manage toward those results. Thus, we have convened a *management workgroup* to focus on identifying what managers need from GSI information to improve our collective capacity to manage the fisheries. The *genetics workgroup* will tell us what kinds of information can be provided. The *modeling workgroup* will focus on the kinds and quality of data needed to plan and monitor the fisheries. The *logistics workgroup* will advise us how best to bring this all together into a coastwide infrastructure, one that operates a program in a multi-jurisdictional context, incorporates standardized protocols for data collection, analysis and reporting, and begins to identify the relevant costs and timelines to make it happen.

This obviously is a very ambitious undertaking. Indeed, we are aiming very high. Our intent is that this workshop will produce a report that charts the course for the collection and application of GSI information in ocean salmon fisheries management for many years to come.

With these objectives in front of us, and with the quality of people we have assembled here today, I'm confident that we will succeed. Someday, we will look back on this event and feel good about having played a part in making it a success. So now, let's roll up our sleeves, boot up our laptops, and get to work.

Thank you, and good luck!