

Professor Plum in the Dining Room with a Knife

by Stewart (Skip) McKinnell

In the fall of 1924, a small group of fisheries biologists from the west coast of North America came together to plan a first meeting of the *International Pacific Salmon Investigation Federation* (IPSIF) to be held in March of 1925 in Seattle, USA. Salmon biologists from California to Alaska (or at least their interests spanned that domain) met to identify priority areas of salmon research and to plan coordinated coast-wide research across political jurisdictions. It was the first self-assembly of salmon scientists on the west coast and by the end of 1925, novel insights into chinook salmon migration and abundance in coastal waters had been obtained from their tagging study. Although it occurred one week later in March (March 23–24) than in 1925, the 2011 workshop on “*Salmon ocean ecology*” in Seattle marked the 86th anniversary of that first IPSIF meeting.

It is comforting to know that most of the key questions of 1925 have been answered during the intervening 85 years. Yet some remain and foremost among these are questions about the causes of variable mortality, especially in the sea. Three years of low returns of sockeye salmon to the Fraser River from 2007–2009 was enough to trigger a federal judicial inquiry (Cohen Commission) to discover the cause. Unexpectedly high returns and high survival of sockeye salmon occurred in the adjacent Columbia River. Then in 2010, the largest return of sockeye salmon to the Fraser River since 1913 set the stage at the 2011 Seattle workshop for a special session focusing on the nature of this variability. Presentations at this part of the meeting were made by an august list of contributors: Dick Beamish, Kim Hyatt, Kristi Miller, Randall Peterman and David Welch (all Canada), and Greg Ruggerone, Kate Myers and John Williams (all USA). Topics included migration and abundance, viral infections, competition with pink salmon, survival of radio-tagged sockeye postsmolts, and patterns of co-variation. A lack of conclusive evidence for any one cause of mortality added considerably to the mystery...and motivated the title of this article, based on the 1949 board game *Clue* where the winning player must be first to correctly identify the murderer, scene of the crime, and murder weapon. The PICES role in the mystery has yet to play out.

In April of 2010, PICES was invited by the Cohen Commission to produce a report on “*The decline of Fraser River sockeye salmon in relation to marine ecology*”. A team consisting of Drs. Kees Groot (Canada), Kate Myers (USA), Masahide Kaeriyama (Japan), Enrique Curchitser (USA) and Skip McKinnell (PICES) undertook the task

during the summer and fall of 2010. Unfortunately, these results could not be presented at the workshop or even discussed because of the Cohen Commission’s need for confidentiality until the report is presented to the court in July of 2011. A summary of the findings will appear in PICES Press after the report has been released.

Without knowing anything of IPSIF, the main organizers of the very successful 2011 workshop, Drs. Brian Beckman and Laurie Weitkamp, noted at the outset that “*Salmon biology can become myopic, constrained by physical and political boundaries. The comparative method has a long and fruitful history of helping to illustrate biological mechanisms and might be usefully employed with these [sockeye] data.*”

A Salmon Forecasting Forum has been held at each annual “*Salmon ocean ecology*” workshop since 2007 to allow salmon biologists to produce forecasts of future returns and survival from observations of juvenile salmon and the coastal ocean, and occasionally, to evaluate their performance. It did not feature prominently in Seattle, but perhaps an improved variant of it will be resurrected at the 2012 meeting that is scheduled for Oregon, the site of the most recent resurrection of the spirit of IPSIF in 1999.



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