

## **Connecting Experiential Knowledge and Scientific Knowledge to Improve Stock Assessments**

A Brief Progress Report from a Port Liaison Project Sponsored Project  
February 2006

### Background and Rationale

Over the years discussions have occurred about how to increase the understanding of the commercial fishing community about stock assessments and the stock assessment process, and how to get more engagement and integration of fishermen's knowledge into the assessment process. An "ad hoc" group of West Coast fisheries scientists, managers, fishing community members, and educators got together and decided to encourage movement on this front. Staff at NOAA Fisheries Northwest Fisheries Science Center and Oregon Sea Grant put articles on the Heads Up! web site (Spring 2005). Others began promoting existing workshops (NOAA Fisheries "data workshops", "Stock Assessment for Fishers" workshops, etc.). And the Port Liaison Project<sup>1</sup> provided support for a project that focuses on this issue.

The Port Liaison Project (PLP) supported project has two goals:

1. to connect interested fishermen with stock assessment authors early in the process (b/4 STAR panels) to improve stock assessments (especially important for "first time" assessments), and
2. support the mentorship of 2-4 fishermen to participate in 2005 STAR panels.

Unfortunately, because of the timing of the project, we began with Goal #2 first, and are now moving toward focusing on Goal #1. Ideally, it will be the other way around; fishermen and stock assessment authors would regularly learn from each other to improve the creation of these stock assessments, and a few, committed fishermen would participate in the STAR panel process.

### What We Did

#### ***Getting Started***

Following standard PLP procedures, port liaisons identified potential industry cooperators to participate in the 2005 STAR panel process. However, the major challenge in executing this project was finding fishermen able and willing to commit to participate. Likely reasons for this were:

- 1) STAR panel meetings are five days long. This requires a lot of time for fishermen to spend away from their businesses.
- 2) The timing of the STAR panels is mid-fishing/good weather season.
- 3) Most fishermen feel ill-prepared to sit in a room full of scientist and listen to them talk.

---

<sup>1</sup> The Port Liaison Project is an innovative project funded by grant from NOAA Fisheries Northwest Fisheries Science Center, via the Cooperative Institute for Marine Resources Studies, and is administrated by Oregon Sea Grant. The project began in the spring of 2003, with funding for up to 3 years. The goal of the Port Liaison Project is to move towards truly collaborative research by supporting cooperative ocean or fisheries research.

### ***What Occurred***

Accompanied by a fishing community mentor, 3 different fishermen agreed to participate in the 2005 STAR panel process. Each were from a different state (WA, OR, and CA). Two of these were trawl vessel owner/operators and one was a charter boat owner/operator. Each of these fishermen attended a different STAR panel meeting.

At the time of the STAR panel meetings each of these fishermen found it difficult to sit through the week-long meeting and follow all of the discussion. At times they would also become frustrated when the discussion would focus on some piece of information that they felt was not reflective of what they see in the ocean.

Several months following the STAR panel meetings, each of these fishermen were interviewed (asked open-ended questions) about their experience with the STAR panel process. Enough time had elapsed so the discomfort and frustration of the meetings had passed and they could give more thoughtful evaluation of their experience. The goal of the interviews was to learn what they thought could/should be done to make fishing community participation more meaningful or to improve the system.

### What We Learned

There was a great amount of commonality in each of their replies. Although they did say things in their own way, they all had comments that fell into the following five thematic categories:

**1) Education is needed.**

Some form of stock assessment orientation or written primer that they could study prior to the meetings would have made the process more meaningful and better prepared them to provide helpful insights into the stock assessment process.

**2) Get fishermen and stock assessment authors together *before* modeling.**

They would like to have been able to have “pre-assessment discussions” with the assessment author about the fishery. Each was left with the impression that stock assessment authors knew little about the fishery and in some cases what the fish even looked like. Through such discussions they felt they could assist the process the most. The lack of this type of input was the source of much of their frustration.

**3) It is important to get materials *before* the STAR panel meetings.**

They would like to have received some of the draft assessment papers in advance of the meeting. The goal of the STAR panel arrangement was to have draft assessments available to reviewers two weeks prior to the meeting; the drafts were not widely available to others within that time frame. However, when drafts were available they were available only in an electronic format (which is difficult for people without high speed printers). Granted, all three of these fishermen operated their own boat, so the amount of time available to them to

spend reading draft assessments was limited, but they still commented that this would have been optimal.

**4) The STAR panel process is overloaded.**

Each fisherman commented that it was apparent that the panels had little time to work through all of the assessments and that critical species were receiving the same amount of attention that less constraining species were receiving. In their view, those species which are critical to the management process should be reviewed much more carefully and thoroughly than those that have little management implications.

**5) Fishermen want to play a role in collecting missing data.**

Part of the STAR Terms of Reference requires a discussion about data and research needs. Each fisherman commented that when missing or poor data was identified as a problem with an assessment, they would like to have had a discussion about how to help collect data that would improve the quality of the assessment. Fishermen are very interested in participating in collaborative research and data collection projects and they feel they have some insight into how missing information could be obtained.

### Next Steps / Recommendations

The PLP supported project will spend this spring focusing on goal #1, to connect interested fishermen with stock assessment authors earlier in the process (b/4 STAR panels) to improve stock assessments. Targeting three stocks and the authors for each, the PLP will engage in an effort to link knowledgeable, willing fishermen to meet with these authors to have pre-STAR panel dialogues about the stocks. The approach will be to discuss questions lingering from the most recent assessment experience (possibly from the research and data needs list), in an effort to find some answers to these questions or get something started that would eliminate problems / gaps in the future.

Although the PLP supported project is still “in progress,” the lessons learned could point to a few recommendations that should be considered:

- A basic primer on stock assessment needs to be made available to and used by interested members of the fishing community.
- Two lists could be created and used (one of stock assessment authors interested and willing to work with fishermen, and the other of fishermen interested and willing to work with stock assessment authors).
- Pre-assessment meetings or workshops would be helpful for both fishermen and stock assessment authors.
- Fishermen could help the most where there are anomalies in data or where data is missing.

For more information about this PLP supported project or others, visit the PLP web site at <http://www.heads-up.net/plp> or contact Flaxen Conway at 541-737-1418.