

Minutes of the  
W-1004 Fisheries & Aquaculture Resources Marketing and Management (FARMM)  
University of British Columbia, Vancouver, BC  
May 25, 2005

**Meeting called to order at 5:00pm**

**Attending:** Jim Anderson (University of Rhode Island, W1004 Chair), Sherry Larkin (University of Florida, W1004 Co-Chair), Richard Kazmierczak (Louisiana State University, W1004 Secretary), Susan Hanna (Oregon State University), Walter Keithly (Louisiana State University), Chuck Adams (University of Florida), Kwamena Quagraine (University of Arkansas), Lew Quierolo (NOAA Fisheries), Ping-Sun Leung (University of Hawaii), Scott Matulich (Washington State University), Henry Bahn (USDA, representing CSREES liaison Fen Hunt), Cathy Roheim (University of Rhode Island), Keith Criddle (Utah State University), Gil Sylvia (Oregon State University), Chris Anderson (University of Rhode Island), Gunnar Knapp (University of Alaska), Jim Wilen (University of California, Davis)

**Welcome and Introduction (Anderson)**

Anderson discussed the origin of the current multistate project in WCC109, which in addition to W1004 also led to the establishment of the North American Association of Fisheries Economists (NAAFE) at the first biennial conference in New Orleans, 2001. In addition, Anderson detailed the theme areas that were covered in the original W1004 proposal that was subsequently approved, and pointed out that the normal presentations of research that would be part of the W1004 annual meeting were embedded in the current NAAFE meeting (and, in fact, made up approximately one-third of the papers presented at this years NAAFE meeting). Anderson also noted that the post-NAAFE conference workshop on experimental economics was generated and sponsored by W1004 and its members.

**Website Update (Kazmierczak)**

Kazmierczak noted that a website and listserv for the group had been established and, following some hardware and software transitions this summer, would be fully operational and allow for the archiving and dissemination of all W1004 efforts. He also encouraged anyone who might be interested in formally or informally participating in W1004 to let him know so that he can include them on the website and in the listserv.

**Summary of Ongoing Activities (Informal Group Presentations)**

**Keithly and Kazmierczak** – Currently updating a large scale simultaneous equation shrimp import/export model that will be used to assess factors influencing trade, including issues such as those associated with the trade dumping case. They will be taking this trade model and combining it with an econometric model of the domestic

shrimp processing industry in order to examine the influence of increased imports on the processing sector (which has undergone tremendous consolidation in recent years). As an example, they will be investigating whether imports have concurrently led to increased processing activities by individual firms but an overall stagnation in the size of the industry.

**Sylvia** – Working on issues concerning the traceability of albacore tuna and the cost of digital bar coding including doing market research with producers and consumers concerning bar code use and its association with product quality. This information is ultimately going to be web based. In addition, he is researching rights based management schemes in New Zealand that may work for cooperative arrangements in the U.S. scallop industry. Another of Sylvia's projects is the development of a shrimp bioeconomic model that focuses on size and quality and how that should be related to effort. He recently finished a cold storage study, how it should be designed, how it should be operated, and its links it to overall industry costs and management. This model allows the industry to design storage virtually in order to get a feel for whether they would like to actually pursue the investment. For the future, Sylvia has proposed a study that will look at a market analysis of half shell oyster and the characteristics that are desired, ultimately linking this information to genetic breeding.

**Hanna** – Primary efforts focused on fishery management themes, including looking at market based allocations. She has also been doing extension related work on ITQ systems, providing economic input to the industry as they (Pacific Council) designs their system. This spills over to the state fisheries (especially sardines) where the industry is interested in controlling fishing effort. There has been a lot of demand for this work generated at the community level. A second area of work is ecosystem based management, looking to nest the fishery management process within the broader ocean management context. She is also currently looking at the Oregon groundfish situation, which has included spatially dynamic set-asides (MPA) in the context of overcapacity and buybacks. In addition, a graduate student is looking at the implications of alternate arrangements for by-catch control, including economic incentives, compliance, and penalties.

**Adams** – They are working on production related themes concerning hard clam aquaculture, especially triploid production to increase summertime production. In addition, they are still interested in inland shrimp production as diversification for citrus producers. In conjunction with personnel at the University of Connecticut, they have a project on biofouling, a marine baitfish project in ponds, and various other proposed projects in the general area of marine aquaculture. They are currently seeking funding for looking at the effects of red tide in Florida, and they are in the middle of a project studying a buyback program for shark in the gulf. Lastly, they have been cooperating with NMFSS on an implan model for measuring the impact of the fishing sector on the economy.

**Baum** – Described the proposed changes to Hatch program funding, which he predicted would fail this year but perhaps indicates that within a decade the formula funding would

probably disappear. Not clear what the replacement would be, but perhaps an increase in special projects and increases in the competitive funding approach. He noted that the NRI proposal review and evaluation process has become a group decision process that makes decisions much more transparent than previously. He suggested that the NRI (and other USDA programs) may be moving towards awarding fewer but larger grants, especially to secure primary data. He encouraged the group to get more involved in the grant review process, and do it broadly so as to provide expertise to the USDA and the contribution that economics can make to the broad topic of production agriculture. He distributed a couple of handouts, and indicated that he is interested in emerging topics and how they can mesh with USDA goals (a side-comment by Roheim brought out the fact that economists are too hard on economic proposals in the review process, and that when we participate we need to temper our comments in order to compete with the biophysical sciences. The market and trade component of the NRI will know be accepting proposals every other year. If you are going to focus on primary data collection, remember that the panels are extremely skeptical of experimental economics. Also CVs need to be a very darn good proposal).

**Quagraine** – working in the area of catfish aquaculture. First project (funded by USDA) is looking at sensory evaluations of different species, and also looking at the economic impact of imports through an implan model. Also incorporating the issues of quality and how that can be managed, along with examining the market between processors and farmers and how risk allocation may have changed and will continue to change. In addition, is involved in the development of new catfish products and whether or not the products are marketable (funded primarily by ARS). He is also dabbling in the organic issues associated with aquaculture products.

**Leung** – Involved in researching ways to optimize systems for aquaculture production, where the industry has requested models to help schedule the operations of shrimp production so that they can try to capture seasonality issues both with respect to system biology and economics. The applications are large scale, so he is currently looking at a network approach to finding empirical solutions to specific field problems. He is currently testing the model and will eventually package it together for specific farms.

**Knapp** – Working on tracking Alaska salmon markets and how the industry can be formally and informally restructured. He will be starting a new project to describe the markets for a number of species, and also is working on aquaculture issues and their potential offshore impact in the U.S. Also working on the relative value of commercial and recreational fisheries and how to optimize the welfare gained, an agent based model of fishery participation and how that might be used to restructure the management of fisheries, and potentially in the use of distance education for extending work on fisheries and fisheries markets.

**Quereiro** – Just completed a project on the EFH and habitat of particular concern relative to the Aleutian Islands and Gulf of Alaska; an interesting body of work that should be mined by the academic community that could do concentrated examination of the issues associated with commercial fishing and non-consumptive problems. Also looking at the

evolutionary development of access management as it has evolved in Alaska from the pre-statehood times to now, where there are things like constitutional bans on certain activities (ITQs, cooperatives, etc.). Also has an interest in the councils revealed preference for overturning market based outcomes even though they originally supported such a system; this is done for social, cultural, and political strategic reasons. Would like to make a pitch for academics to support research on non-use and protected resources, and also wants to encourage people (for NMFS) to build market demand models for groundfish.

**C. Anderson** - He is trying to understand tradable allowance markets from an experimental economics perspective, where you look at specific issues of market design. Has recently looked at the RI lobster fishery and the most basic questions of whether the market functions and whether consolidation should occur. Another project deals with the spatially differentiated quota markets and how those might operated in an onshore/offshore context (herring fishery). He has also looked at different auction formats for extra quota for New Zealand, and is broadly interested in the governance structure for managing fisheries (lobbying, compliance, etc.). He is also looking at the possibility of improving CV with demonstrable changes that improve incentive compatible mechanisms. Lastly, he has an interest in the estimation of functions under heterogeneous circumstances.

**Matulich** – Crab rationalization is to be implemented this year, and in 18 months it has to be reviewed. Has been involved in developing a nonlinear programming model to look at fleet dynamics after the rationalization goes into effect, so will be testing the model with real data. He is also evaluating what has happened to vessel value since the 2002 passage of the rationalization, and it appears that the value has increase 3 fold in the 2-3 year period.

**Roheim** – Working on ecolabeling, including organic labeling and which one better conveys the ideas of sustainability to the consumer. She indicated that the TRAFFIC report will be coming out on the interaction between wild and farmed salmon in the international market. She has also been doing qualitative work in international trade and development related to seafood, including a chapter in a UN book. She has a new project with John Sutinen through the OECD for potential market-based approaches to preventing illegal high seas fishing and trade in those products.

**Criddle** – Just finished a project for the Pacific on halibut supply and demand coupled with a bioeconomic model. He is looking after the tradeoffs involved in bycatch estimation in the Bering Sea, invasive species issues on scenic rivers in the Southwest, and fisheries development in the Russian far-east. He also issued a request to help convince NMFS to resume collecting cold storage data on the Pacific halibut.

**Larkin** – Oyster project safety issues and the possibilities of shutting down the entire market due to health issues; looks like the industry is dominated by 4 heterogeneous buyers and will do a bioeconomic model to see what will happen with various closure scenarios. Issue for harvesters may be more on hired labor than losing their buyers due to

intermittent product. Also the use of liquid nitrogen to freeze the oysters (niche products) and they need to find out what the experiences has been at the second buyer level and how the product really needs to be handled. Will team up with the FDA on this processor issue. Other project is the red tide issue, part of which is a bioeconomic for hard clam culture and how you would open and close the fishery in the face of a red tide event.

**Wilen** – Continues work on spatial management and how these spatial processes, and the way they work, can be incorporated into spatial management. Continuing to look at the spatial behavior of fishermen, and how you optimally manage a spatial fishery, where the details are important. Still working on the MPA issues and how they pop out of the optimal management of spatial discrete systems. Also looking at the spatial issues that arise from cooperative management of coastal regions and how that affects the management of the fishery, including the institutional arrangements and how operating rules are decided on.

**J. Anderson** – Looking at shashimi markets and bluefin tuna, some of the information which was recently published. He is also involved in doing short term shrimp price forecasting. Looking at nonnative oyster production in the Chesapeake; will be looking at the differences between Maryland public system and the Virginia combined public/private system. The change in species will also change the product form at market to a half shell market. He is also looking at the economic potential of marine aquaculture in the U.S.

### **Discussion of Future W1004 Activities**

Next meeting proposed for Cedar Key Florida where the clam industry is centered. Adams and Larkin suggested a two day program, including onsite inspection of aquaculture and fishery operations, at approximately the same time of year. More information will follow over the listserv.

Future products – special issue of marine resource economics that is the best of our research in the theme areas of W1004 so that in Florida we can start to identify articles to be published. The group will be looking for funding sources to cover the page charges.

Other products/projects -- It was suggested that the group should discuss whether we should sponsor an activity at IIFET next year; other plans to do things at conferences in the next year or so needs to be advertised to the group.

All business having been conducted, Anderson adjourned the meeting at 7:30pm for a group dinner.