Hybrid Multi-state Hatch project WDC51 (temporary renewal number: WDC\_TEMP\_1197).

Date: February 23, 2022

Location: Newport, OR – Hallmark Inn

Format: Hybrid (in person and virtual)

**Call to Order: 1:00 pm**

The first annual meeting of multi-state Hatch project WDC51: Advancing Aquatic Food Product Sustainability: Improving Quality, Utilization, and Safety was held immediately following the 72nd Annual Pacific Fisheries Technologist Meeting.

**Attendees**

**In Person:** Christina DeWitt (Oregon State University, Director Seafood Research and Education Center, Agriculture Experiment Station), Michael Ciaramella (Cornell University, Seafood Safety Specialist, Sea Grant), Denise Skonberg (University of Maine, Food Chemist, Agriculture Experiment Station), Evelyn Watts (Louisiana State University, Seafood Safety Specialist, Sea Grant and Agriculture Experiment Station), Keith Cox (Certified Quality Foods, Founder, University of Alaska-Juneau Adjunct Professor Fisheries Science), Pat Glaab (Silver Bay Seafoods, Director).

**Virtual:** Jung Kwon (Oregon State University, Nutritional Pharmacology, Agriculture Experiment Station/Extension), Cathy Lui (University of Maryland, Seafood Technology Specialist, Extension), Michael Qian (Oregon State University, Flavor Chemist, Agriculture Experiment Station), Hongda Chen (National Program Leader, NIFA Nanotechnology and Processing), Sam Chang (Mississippi State University, Director Mississippi Center for Food Safety and Post-Harvest Technology, Agriculture Experiment Station), Jacek Jazynski (West Virginia, Muscle Foods Safety, Agriculture Experiment Station), Jonathan Van Senten (Virginia Tech, Applied Economist, Agriculture Experiment Station), Quentin Fong (University of Alaska-Fairbanks, Seafood Marketing Specialist, Sea Grant), Razieh Farzad (University of Florida, Agriculture Experiment Station and Extension).

**Note from virtual group: Q**uestion concerning Scope of Project.

Clarification: The project includes Aquatic Foods from either marine of freshwater, wild harvest or farm. Note this project is focused on farm production practices that are directly linked to their impacts on food quality, safety or sustainable resource utilization (ie preventing food waste). For example, by-catch reduction techniques are strictly related to conservation goals. Bio-mass estimation in the wild is strictly related to sustainable harvest conservation goals. However, changes in harvest techniques that improve food quality, safety or extend shelf-life would be relevant to project goals. The ability to trace food from source of origin is directly linked to food safety and would be relevant to food safety goals. Sustainable utilization in the context of this project is linked to not wasting the resource once it is harvested.

**Group Breakout to discuss potential project objectives.**

**Group 1: Virtual Participants**

* **Economic Considerations:** Discussing economic aspects to be added to the project, including marketing and consumer perception/preferences.
* **Workforce Development:** Emphasis on technical efficiency, financial literacy, and leadership training. Highlighting the need for processing technology development for seaweed products.
* **Alternative Protein:** Exploring plant-based seafood. Concerns about the quality of fillets in aquaculture.
* **Byproduct Utilization:** Addressing the need to improve the utilization of byproducts in aquaculture, focusing on sustainability and developing new products.
* **Traceability and Safety:** Emphasizing the importance of traceability and safety in aquatic food.
* **Research on Human Nutrition:** Discussing the need for research on the health benefits of seafood products and effective communication to consumers.
* **Consumer Education:** Focusing on educating consumers about food safety and other topics.
* **Heavy Metal Contamination:** Investigating the knowledge gap between actual risk and consumer perception of heavy metal contamination in aquatic food.
* **Workforce Shortage:** Recognizing the urgent issue of workforce shortage in the aquaculture industry.

**Group 2: In-person Participants**

* **Seaweed as an Emerging Industry:** Discussing the potential of seaweed as a growing sector.
* **Food Safety and Processing Best Practices:** Highlighting best practices in food safety and processing.
* **Product Development:** Emphasizing the importance of diversification through secondary processing to enhance industry resilience.
* **Harvest Practices:** Examining the impacts of harvest practices on food quality, safety, and waste, both wild and farmed.
* **Climate Change:** Discussing the effects of climate change on production, processing, and its impact on quality, safety, and waste.
* **Automation and Data Handling:** Addressing the need for higher automation and improved data handling in the industry.
* **Technological Advancements:** Noting the lag in technological advancements in the aquatic food industry compared to other proteins.
* **Packaging Challenges:** Highlighting challenges in packaging for aquatic foods, particularly related to pathogen control.
* **Waste Issues:** Discussing regulatory compliance with effluent release and challenges in waste management.
* **By-product Recovery:** Exploring green methods for the production of chitosan from shell waste.
* **Sanitation, Micro-plastics, Fraud:** Addressing concerns related to sanitation, micro-plastics, and fraud in the industry.
* **Trim-loss Challenges:** Recognizing challenges in trim-loss, with a higher percentage of shrink compared to other proteins.

**Project Objectives:**

* **Group 1:** Focused on sustainable seafood production practices, new technology development for safety and quality, and education and training.
* **Group 2:** Outlined objectives related to resilience, technological advance, training, eco-friendly practices, and engagement with local knowledge.

**Outreach Plan:** Deferred discussion until objectives are selected.

**Undergraduate Education:**

* **Group 1:** Highlighted challenges in creating a new class but suggested incorporating project knowledge into existing classes, providing internships, and creating online content.
* **Group 2:** Identified limited curriculum on aquatic food harvest and processing and suggested collaborative efforts to develop programs and labs.

**Organization/Governance:**

* Discussed a preliminary structure with Past-Chair, Chair, and Incoming Chair. The chair is responsible for organizing and running meetings.

**The meeting adjourned at 5 pm.**