

**Open Ocean Aquaculture '97
Program**

SECOND INTERNATIONAL CONFERENCE ON OPEN OCEAN AQUACULTURE

APRIL 23-25, 1997
MAUI, HAWAII

WEDNESDAY, APRIL 23

- 7:30 - 8:30 a.m. Continental Breakfast and Registration
(*Plumeria Room*)
- 8:30 - 9:00 a.m. OPENING SESSION (*Maile Room*)
Charles E. Helsley: Overview &
Introduction
Senator Daniel Akaka: Welcoming
address
- 9:00 - 9:30 a.m. **Governor Benjamin Cayetano:**
Proclamation of Open Ocean Aquaculture
Day
Mayor Linda Lingle, Maui County:
Welcome
Remarks by Sponsors
- 9:30 - 10:00 a.m. **James McVey:** Overview and Future
Directions for the National Sea Grant
Aquaculture Program
- 10:00 - 10:15 a.m. Morning Break
- 10:15 a.m. - 12:15 p.m. SESSION 1 (Moderator - **James
Sullivan**)
Michael Champ: Global Review of
Ocean Technologies for Open Ocean
Aquaculture
Michael Markels, Jr.: Farming the
Ocean

- 10:15 a.m. - 12:15 p.m. **Clyde Tamaru** and **C. Carlstrom-Trick**:
Aquaculture in Hawaii - Lessons from the Past
- Paul Jokiel, D. Sarver, and N. Sims**:
Open Ocean Culture of Hawaiian Black Lip Pearl Oyster (*Pinctada margaritifera*)
- 12:15 - 1:30 p.m. Luncheon Speaker - **John Craven**: The Open Ocean Aquaculture of Humans as Marine Mammals
- 1:30 - 3:00 p.m. SESSION 2 (Moderator - **James McVey**)
Michael De Alessi: Marine Tenure
Peter Petrusevics and **S. Clarke**: Optimization of Southern Bluefin Tuna Resource in Semi-Open Ocean Farming, Boston Bay, S. Australia, Using Numerical Simulation
Gary Loverich, N. Best, C. Goudey, and N. Hahn: Discussions of the Predicted Performance of the Ocean Spar Sea Station Based Upon Large Model Tests in a Sea Keeping Basin
- 3:00 - 3:30 p.m. Afternoon Break
- 3:30 - 6:00 p.m. SESSION 3 (Moderator - **William Rickards**)
Mark Drawbridge: The White Seabass (*Atractoscion nobilis*) as a Candidate Species for Open Ocean Culture: a Review Based on Four Years of Culture in Nearshore Cages
Daniel Margulies, V. Scholey, A. Nakazawa, R. Olson, J. Wexler, and J. Suter: Development of a Spawning Population of Yellowfin Tuna (*Thunnus albacares*) in Landbased Tanks in Panama

3:30 - 6:00 p.m.

David Condron and E. Powell: A Deep-Water Mooring Concept for Open-Ocean Aquaculture

Godfrey Savage, J. Howell, B. Celikkol, and R. Barnaby: Results of 18 Month Open Ocean Codfish Aquaculture Demonstration Project

6:00 - 8:00 p.m.

POSTER SESSION AND BEER & PUPUS (that's Hawaiian for appetizers) (*Jade and Plumeria Rooms*)

German Merino: Considerations for Culture Design Systems for Scallop Production

Peter Petrusевичs: Ocean Cage Tuna Farming in Spencer Gulf, South Australia

Daniel Margulies: Video of Spawning Population of Yellowfin Tuna (*Thunnus albacares*) in Land Based Tanks in Panama

THURSDAY, APRIL 24

7:30 - 8:00 a.m.

Continental Breakfast (*Plumeria Room*)

8:00 - 10:00 a.m.

SESSION 4 (Moderator - **Michael Hightower**) (*Maile Room*)

John Corbin and L. Young: Ocean Leasing in Hawaii: Origins, Status and Future Prospects

John Bonardelli and M. Levesque: Economics of Longline Technology in Offshore and Drift-Ice Environments: How to Make or Lose Money

Henri Gignoux, L.D. Thompson, and R.H. Messier: Computational Model of Aquaculture Finfish Net-Pens

- 8:00 - 10:00 a.m. **Tohru Morikawa:** Current Development of Open Ocean Aquaculture in Japan
- 10:00 - 10:30 a.m. Morning Break
- 10:30 a.m. - 12:30 p.m. **SESSION 5 (Moderator - **John Corbin**)**
Leonid Bugrov: Biological and Engineering Aspects of Underwater Fish Farming Technology in Open Sea Areas
Michael Gosz, K. Kestler, R. Swift, and B. Celikkol: Finite Element Modeling of Aquaculture Net-Pen Systems
Anne Hayden: Aquaculture on the High Seas: Who Will Be Watching?
Neville Thomson: The Australasian Offshore Shellfish Longline Experience
- 12:30 - 1:30 p.m. Luncheon (no luncheon speaker)
- 1:30 - 3:00 p.m. **SESSION 6 (Moderator - **Neville Thomson**)**
Ljudmila Bougrova, S. Matveev, and L. Bugrov: Pelagic and Bottom Versions of SADCO Underwater Cages - Experiences and Latest Developments
Michael Chambers: Potential Offshore Cage Culture Utilizing Oil and Gas Platforms in the Gulf of Mexico
Takashi Kano, K. Torii, and H. Kawamoto: A Design of Flexible Submerging Artificial Fishing Reef
- 3:00 - 3:30 p.m. Afternoon Break
- 3:30 - 5:00 p.m. **SESSION 7 (Moderator - **Anthony Ostrowski**)**
John Ericsson: Permitting Difficulties and Procedures for Establishing Open Water Mariculture in U.S. Federal Waters

- 3:30 - 5:00 p.m. **Leonard Young and J. Corbin:** Selecting Nearshore and Open Ocean Mariculture Technologies for the Hawaii Environment
Richard Taylor: Early Sea Scallop Growout Studies in the Gulf of Maine
John Ericsson: Sea Star Oyster Relay Systems: a Solution for Pollution of Oysters
- 5:00 - 8:00 p.m. Hawaiian Style Luau and Polynesian Entertainment

FRIDAY, APRIL 25

- 7:30 - 8:00 a.m. Continental Breakfast (*Plumeria Room*)
- 8:00 - 10:00 a.m. SESSION 8 (Moderator - **Rollie Barnaby**) (*Maile Room*)
Gary Loverich and L.R. Gace: The Effect of Currents and Waves on Several Design Classes of Offshore Sea Farming Cage
Takashi Kano, H. Yamakawa, K. Torii, and T. Abe: A Field Study on Artificial Reef for Exploitation of Algae Plantation
Joseph McElwee: Practical Experiences in Rearing Fish in Offshore Cages in Ireland, The Good, The Bad and the Ugly!
Clark Liu: Open Ocean Aquaculture with Nutrient-Rich Deep Ocean Water
- 10:00 - 10:30 a.m. Morning Break

10:30 a.m. - 12:30 p.m. SESSION 9 (Moderator - **Anne Hayden**)

Apostolos Mihelakakis and A.S. Tzoumas: Integrated Fish Farm in Mediterranean: Case Study of NIREUS, Chios Aquaculture S.A. in Greece

Anthony Ostrowski: Candidate Species of the Pacific: the Hawaiian Fisheries Development Project

I Chiu Liao, Ya-Ke Hsu, and W. Lee: Marine Aquaculture in Taiwan

Daniel Curran, P. Hoagland, and D. Jin: An Access System for Ocean Mariculture: Influences of Current United States and International Law

12:30 - 1:30 p.m.

Luncheon (no luncheon speaker)

1:30 - 3:30 p.m.

SESSION 10 (Moderator - **Joseph McElwee**)

Sergey Matveev and L. Bugrov: Automation of Fish Farming Processes for Offshore Cages

Patrick Takahashi: The Ultimate Ocean Ranch

Kenji Hotta: Artificial Upwelling and Algae Structure for Open Ocean Aquaculture

Syd Kraul: Mahimahi Aquaculture – Pros and Cons of Cage Trials to Date

3:30 - 4:00 p.m.

Afternoon Break

4:00 - 5:30 p.m.

CLOSING SESSION (Moderator - **Charles Helsley**)

Round Table Discussion: Where To From Here? (Panel - **Neville Thompson, James McVey, Gary Loverich, Michael De Alessi, Joseph McElwee**)

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