Updated Program

The 41st Scientific Symposium of the UJNR Aquaculture Panel

Advanced Aquaculture Technologies

Wednesday, October 9th, 2013

Registration  13:00-17:00

Welcome and opening remarks (Masaaki Fukuda, Director, Hokkaido National Fisheries Research Institute, FRA)  13:30-13:45
Aim of the Symposium (Katsuma Hanafusa, Japan Panel Chair)  13:45-14:00

Session  I. Overview of Aquaculture in the US and Japan
(Moderators: P. Olin & Y. Machiguchi)
1. The Fisheries Agency’s policy directions for aquaculture
   Kazumasa Ikuta (Counselor, Resource Enhancement Promotion Department
   Japan Fisheries Agency, Ministry of Agriculture Forestry and Fisheries)  14:00-14:20
   Marie Fujitani (NOAA Office of Aquaculture)  14:20-14:40
3. The Challenge of Reconstructing Coho Salmon Aquaculture after the Great East Japan Earthquake and Tsunami in 2011
   Ikutaro Shimizu (National Research Institute of Fisheries Science, FRA)  14:40-15:00
Discussion  15:00-15:10

Break  15:10-15:20

Session  II. Fish Diet and Nutrition
(Moderators: K. Webb & K. Murashita)
4. Development of a new type of fish diet, non-fish meal extruded-pellet
   Noriko Ishida (National Research Institute of Fisheries Science, FRA)  15:20-15:40
5. The importance of taurine and n-3 fatty acids in cobia nutrition
   Aaron Watson (University of Maryland)  15:40-16:00
6. Availability of fisheries by-product materials with cadmium removal treatment as a feed ingredient for fingerling black rockfish *Sebastes schlegeli*
   Nobukazu Satoh (Fisheries Research Department Mariculture Fisheries Research Institute, Hokkaido Research Organization) 16:00-16:20

7. Development and characterization of several open formula reference diets for marine fish larvae
   Ken Webb (NOAA, Northwest Fisheries Science Center) 16:20-16:40

8. Effects of diets supplemented with herb essential oils on ectoparasitic protozoan infections on chum salmon (*Oncorhynchus keta*) fry
   Shinya Mizuno (Salmon and Freshwater Fisheries Research Institute, Hokkaido Research Organization) 16:40-17:00
   Discussion 17:00-17:20

**Thursday, October 10th, 2013**

**Session Ⅱ. Fish Diet and Nutrition; continued**
(Moderators: A. Watson & N. Satoh)

9. Effect of feed ingredients on digestive enzyme secretion in fish
   Koji Murashita (National Research Institute of Aquaculture, FRA) 9:20-9:40

10. Cholecystokinin and trypsin responses of larval red drum (*Sciaenops ocellatus*) in response to algae, live prey, and inert particles
    Michael B. Rust (NOAA) (Presented by Ken Webb) 9:40-10:00
    Discussion 10:00-10:10

**Session Ⅲ. Management, Social and Economic Issues of the Aquaculture Industry**
(Moderators: M. Fujitani & I. Shimizu)

11. An analysis of the causality between the market price of imported fishmeal and market price of marine farmed fish
    Yoshifumi Takahashi (Tohoku National Fisheries Research Institute, FRA) 10:10-10:30

12. Good Aquaculture Practices to Reduce the Use of Chemotherapeutic Agents, Minimize Bacterial Resistance, and Control Product Quality
    Stanley Serfling (Food and Drug Administration Office of Food Safety) (Presented by M. Fujitani) 10:30-10:50

13. Modeling intraspecific genetic effects for Management of Aquaculture Programs
    Jason Volk (ICF International) 10:50-11:10
    Discussion 11:10-11:20
Session IV. Techniques of Aquaculture Production
(Moderators: J. Volk & K. Okuzawa)
14. Specific monovalent and divalent ion supplementation for culture of marine species
   Chris Green (Louisiana State University Agricultural Center) ........................................ 13:00-13:20
15. Genetically modified salmon in aquaculture: well regulated and safe
   Paul G. Olin (UC SD/ Scripps Institution of Oceanography) ........................................ 13:20-13:40
16. Reproductive dysfunction in cultured sablefish (Anoplopoma fimbria)
   Jose Guzman (NOAA) ........................................................................................................ 13:40-14:00
Discussion ................................................................................................................................. 14:00-14:10

Session V. Invertebrate Aquaculture I: Echinoderm
(Moderators: S. Eddy & T. Unuma)
17. Induced spawning in the sea cucumber Apostichopus japonicus by neuropeptide, cubifrin
   Keisuke Yamano (National Research Institute of Aquaculture, FRA) ................................. 14:10-14:30
18. Mass production of artificial seed of the Japanese common sea cucumber (Apostichopus japonicus) in Hokkaido, Japan
   Yuichi Sakai (Fisheries Research Department Mariculture Fisheries Research Institute, Hokkaido Research Organization) ......................................................... 14:30-14:50
Break ........................................................................................................................................ 14:50-15:00

(Moderators: D. Morse & K. Yamano)
19. Fluorochrome marking of out-planted green sea urchins, Strongylocentrotus droebachiensis, for sea ranching and restocking programs in the Gulf of Maine, USA
   Stephen Eddy (University of Maine, Center for Cooperative Aquaculture Research) ........ 15:00-15:20
20. Improving the food quality of sea urchin gonads by suppressing gametogenesis
   Tatsuya Unuma (Hokkaido National Fisheries Research Institute, FRA) ............................. 15:20-15:40
21. Maturation control of the short-spined sea urchin, *Strongylocentrotus intermedius*, by low temperature rearing using deep-sea water, with the aim of extending the market season

   Takaaki Kayaba (Kushiro Fisheries Research Institute, Hokkaido Research Organization) 15:40-16:00

**Session VI. Invertebrate Aquaculture II: Mollusc**

(Moderators: C. Green & Y. Sakai)

22. Long-term outcomes in the tech transfer of scallop spat collection techniques, from Aomori Prefecture, Japan to Maine, USA

   Dana Morse (Maine Sea Grant) 16:00-16:20


   Katsuhisa Baba (Hakodate Fisheries Research Institute, Hokkaido Research Organization) 16:20-16:40

24. Oyster culture in Hokkaido, Japan

   Natsuki Hasegawa (National Research Institute of Aquaculture, FRA) 16:40-17:00

   Discussion 17:00-17:10

Closing remarks (Paul Olin, U.S.A. Panel Chair) 17:10-17:20