



Minutes of the 42nd UJNR Aquaculture Panel Business Meeting



9:00-12:00, Tuesday September 30, 2014

Pacific Room, NMFS - Southwest Fisheries Science Center
8901 La Jolla Shores Drive; La Jolla, CA 92037-1508

The 42nd Joint Meeting of the United States - Japan Natural Resources Panel on Aquaculture (UJNR) was conducted from September 29 – October 03, 2014 in La Jolla and Long Beach, California. The Business Meeting was held in the Pacific Room of the Southwest Fisheries Science Center (SWFSC) in La Jolla on September 30th. The Scientific Mini-Symposium was held in the Pacific Room of SWFSC on October 1st. The Scientific Mini-Symposium was held under the auspices of the NOAA Office of Aquaculture and the symposium theme was *Genetics & Breeding in Aquaculture & Stock Enhancement*. The theme of the 9th Three-Year Plan which commenced in 2014 is "Genetics and Breeding Studies in Aquaculture Industry". The field trip began on the afternoon of September 30th with a trip to Hubbs Sea World Research Institute (HSWRI) on Mission Bay where research is underway on hatchery technology for California yellowtail (*Seriola dorsalis*, formerly *S. lalandi*). On the morning of October 2nd the Panel toured the SWFSC and Scripps Institution of Oceanography. On the morning of October 3rd, the group toured the HSWRI white seabass hatchery on Agua Hedionda Lagoon in Carlsbad. The group then travelled to Long Beach to view the facilities at the Long Beach Aquarium of the Pacific and attend the closing banquet at the Aquarium in the evening. The Japanese delegation returned home on October 4th, 2014.

1. Opening Remarks

United States Panel Chair: Dr. Michael Rust

Dr. Rust welcomed Dr. Ito and the Japanese delegation to California and congratulated Dr. Ito on becoming the new Chairman for Japan. He looks forward to getting to know Dr. Ito over the next few years. Dr. Rust was also pleased to see so many old friends on the Japanese delegation from past UJNR meetings.

Dr. Rust also acknowledged the hard work of Deputy Secretary General, Dr. Junya Higano and Vice-Chairman, Olin for their pre-meeting leadership to get this panel meeting put together and making the business of UJNR move forward all year long. Dr. Rust also acknowledged Dr. Emily Trentacoste who led the logistical planning for the current meeting, mini- symposia and field trip.

Dr. Rust explained that the Southwest Fisheries Science Center has just been built and will be developing over the next few years to add aquaculture to its research portfolio. NOAA is

excited to showcase this new lab because it is only the fourth laboratory in the NOAA system to have aquaculture as a research theme, joining sister labs in Manchester (Seattle) Washington, Milford Connecticut and Beaufort, North Carolina.

Dr. Rust was also pleased to be focused on the topic of genetics and breeding for three years, starting with the mini-symposia tomorrow. Dr. Rust hoped that some specific collaborative projects would result. Dr. Rust remarked that genetics and breeding is one of the few topics that has the potential to improve almost all areas of aquaculture including fish health, feed efficiency, environmental impacts and production efficiency among other areas. However, he cautioned that progress in genetics and breeding takes time due to the generation time of the organisms being cultured.

Japan Panel Chair: Dr. Fuminari Ito

Dr. Fuminari Ito expressed his pleasure in becoming the new Chairman of Japan Panel and in having the opportunity to visit La Jolla with the famous institutes of NOAA Southwest Fisheries Science Center and Scripps Institution of Oceanography. Dr. Ito expressed his gratitude to the Chairman of U.S. Panel Dr. Michael Rust, Vice-Chair Dr. Paul Olin and the U.S. delegation for hosting and organizing the 42nd UJNR Aquaculture Panel meeting in La Jolla.

He described the reconstruction of many fishing villages and the recovery of fishery production from the damages caused by the Great East Japan Earthquake and the Tsunami disasters on May 11, 2011 that is still underway, and the FRA continues to put effort into the recoveries. He emphasized that the Japanese people remember with gratitude the support from U.S. people following these disasters. He took an opportunity to express his gratitude again.

He expressed the importance of long-term continuity for the Panel meeting and of continuing collaborations, scientist exchange programs and symposiums. He also emphasized the importance of maintaining a sense of stability between U.S. and Japan and to help lead to productive and more prosperous times for aquaculture in future.

He stated that the 42nd Joint Meeting would be the first year in the 9th Three-Year Plan. He thanked the U.S. Panel for discussing the new Three-Years Plan "Genetics and Breeding Studies in Aquaculture Industry". He expressed a wish to make clear the present status in breeding studies in aquaculture in the U.S. and Japan at the first year mini-symposium and to make a contribution to the next year's theme.

Finally, he stated that he is looking forward to having very productive meeting, symposium and field trips.

2. Introduction of Panel Members, Participants and Observers

Dr. Michael Rust and Dr. Fuminari Ito

Dr. Michael Rust introduced U.S. Panel Vice-Chair Dr. Paul Olin and asked the U.S. members and participants to introduce themselves as follows:

Dr. Jeff Silverstein (panel member and organizing committee), National Program Leader for Aquaculture for the U.S. Department of Agriculture's Agriculture Research Service.

Dr. Emily Trentacoste (organizing committee), who is serving in the NOAA Office of Aquaculture as a Sea Grant Fellow.

Mr. Robert Jones, Program Coordinator for the NOAA Office of Aquaculture

Dr. Russ Vetter (organizing committee), Senior Scientist for NOAA's Southwest Fisheries Science Center

Dr. Ito introduced Japan Panel new Deputy Secretary General Dr. Junya Higano, and asked the Japan panel members to introduce themselves as follows:

Dr. Masayuki Minakawa, Manager for National Research Institute of Aquaculture (NRIA), Fisheries Research Agency (FRA), UJNR Secretariat of the Japan panel.

Dr. Satoshi Watanabe, Group leader for NRIA, FRA, UJNR Secretariat of the Japan panel.

Dr. Akiyuki Ozaki, senior researcher for NRIA, FRA, A member of the Japan UJNR Panel.

Dr. Yukinori Shimada, tenure-track researcher for NRIA, FRA, A member of the Japan UJNR Panel.

Dr. Hiroyuki Okamoto, senior researcher for NRIA, FRA

D. Toshiya Yamaguchi, researcher for NRIA, FRA

Dr. Yasuji Sakai, UJNR Fellow and former Chair

3. Review and Adoption of Business Meeting and Symposium Agenda: Dr. Paul Olin

Dr. Olin reviewed the 42nd UJNR Business Meeting and Scientific Mini-Symposium Agendas,

and field trip tour itinerary and asked the assembled delegates for their approval. The agendas and itinerary were approved and adopted by all parties.

4. Reports on the U. S. Japan Aquaculture Scientist and Literature Exchange:

Dr. Masayuki Minakawa and Dr. Mike Rust

Dr. Masayuki Minakawa, who is a secretariat member of the Japan panel, reported that three research collaborations started in 2013 and 2014 and two collaborations in long-term research exchanges led by the Japan Panel had occurred in 2013 and 2014. Dr. Minakawa also observed that 31 scientists traveled to the U.S. for collaborative research, symposia and workshops. Dr. Minakawa then provided the U.S. Panel with new technical reports published by the Japanese Prefectural Fisheries Research Institutes and mentioned that the annotated bibliography was available at the symposium and will be included in the proceedings.

Dr. Rust thanked Dr. Minakawa for the information. He mentioned that this information is difficult for the U.S. to collect because they do not have any central system for documenting collaborations. They are aware that as a result of last year's UJNR meeting in Hokkaido, a student of Dr. Dana Morse from the University of Maine, Sea Grant program will be traveling to Japan to study seaweed culture. The student's name is Mr. Brian Kennedy-Watson, and he has contacted Dr. Machiguchi and Dr. Hasegawa.

Dr. Olin and Mark Drawbridge of HSWRI are also seeking funding to collaborate with Dr. Shinya Mizuno and conduct studies on the effectiveness of aromatic oil feed supplements to control ectoparasites in California yellowtail (*Seriola dorsalis*)

5. Annual Reports on National Aquaculture:

Dr. Junya Higano and Mr. Robert Jones

Dr. Higano expressed his sincere gratitude to U.S. Panel for accepting the proposal to exchange annual reports by Japan Panel. It is useful for Japanese side to promote the aquaculture study. Dr. Higano reported on the 2014 Annual Report on Aquaculture in Japan. He provided the U.S. Panel with the new report cited from White Paper of the Fisheries Agency of Japan and indicated more detailed information is available on the website. He particularly noted on page two of the white paper information on production and unit pricing which is low for yellowtail and red seabream and stated that there is a desire through selective breeding to increase growth, quality and price. He also included the report on current research programs of aquaculture funded by Agriculture, Forestry and Fisheries Research Council.

Mr. Jones submitted an annual report on Aquaculture in the United States summarizing production statistics, general trends and future directions. He mentioned important policy developments related to offshore aquaculture in the Gulf of Mexico and other regions and the National Shellfish Initiative. New production information recently became available for

2013 reflecting increases in production of salmon and oysters and provided the following link for additional information:

http://www.agcensus.usda.gov/Publications/2012/Online_Resources/Aquaculture/aquacen.pdf

6. Publication of Proceedings of 41st UJNR in Sapporo: Dr. Junya Higano

Dr. Junya Higano reported that the proceeding of the 41st UJNR have been under editing and will be published by March, 2015 as the Bulletin of Fisheries Research Agency. Dr. Higano has 11 papers by Japanese authors on a CD for review and expressed his thanks to Dr. Okuzawa for his help in compiling them. Dr. Minakawa then handed in the CD to Dr. Olin. Dr. Higano also expressed special thanks for the provision of proceeding manuscripts from U.S. members and for English editing of papers.

Dr. Olin thanked Dr. Higano and others involved in preparing the proceedings and expressed an interest in providing any assistance that might be of help.

7. General Discussion and Other Items

1) Plans for 43rd UJNR Meeting: Dr. Fuminari Ito

The chairman of Japan Panel, Dr. Fuminari Ito, announced that the 43rd UJNR Panel Meeting would be held in northern part of Kyushu Island in fall 2015, late October or November. He stated that the Kyushu Island is an area where aquaculture fisheries are the most prosperous in Japan. Dr. Ito also described two new 20 meter diameter tanks recently installed to support research on bluefin tuna. The 43rd UJNR field tour will include a visit to the Kimura oyster hatchery and the labs where Drs. Okamoto, Yamaguchi and Shimada conduct their research. He expected participants to have a great experience and enjoy beautiful scenery.

The Chairman of the U.S. Panel, Dr. Michael Rust, thanked Dr. Fuminari Ito for taking the initiative to begin planning for the 43rd Panel meeting and emphasized the interest on the part of American researchers to continue sharing knowledge with their Japanese colleagues during the 43rd Panel meeting. Dr. Rust will try to make sure the U.S. government is not shut down this time. He also has not been to northern Kyushu so he is looking forward to it.

2) National Strategic Plan for Federal Aquaculture Research (2014-2019)

Dr. Jeff Silverstein

Dr. Jeff Silverstein announced the publication of the U.S. National Strategic Plan for Federal Aquaculture Research (2014-2019) by the U.S. Office of Science and Technology Policy of the White House. Printed copies were provided to the Japanese panel members and an electronic copy had already been provided prior to the business meeting. This plan will

guide U.S. federal research on aquaculture for the next five years.

Dr. Ito thanked Dr. Silverstein for providing the valuable publications. Dr. Ito reported that the FRA had already published "Strategy for Breeding Study of Fisheries Organisms" in 2013; however, it is available only in Japanese. Dr. Minagawa distributed five hard copies to the U.S. panel.

3) Reorganization at FRA: Dr. Fuminari Ito

Dr. Fuminari Ito gave an update on the reorganization of research agencies to begin April, 2015 with the combining of FRA with the National Fisheries University. He explained that combining of FRA with the National Fisheries University would be completed in April, 2016. The University has 80 instructors, 200 students per grade for the undergraduate school, as well as master's school. The University has two research vessels (2,700 and 1,000 tons), and this will give FRA a total of 11 vessels after the merger. Securing budget for maintenance of the vessels will be challenging for FRA. He stated that new FRA would carry out the role of education in addition to the research from 2016 on.

Dr. Rust thanked Dr. Ito for the report. As the time approaches he is interested in how the merging of FRA and the National Fisheries University might impact future UJNR administration. Dr. Ito expressed his hope that it would increase student involvement.

4) Information on Asari Clam Symposium: Dr. Satoshi Watanabe

Dr. Satoshi Watanabe, secretariat member of the Japan Panel, provided information about the Third International Symposium on the Asari Clam to be held June 1st and 2nd, 2015 in Mie Prefecture in Japan. The symposium follows the meeting of the World Aquaculture Society in Jeju.

Dr. Rust will make sure information on the symposium is distributed among the U.S. aquaculture research community.

5) Suggestion for the next UJNR meeting

Dr. Ito mentioned that although genetic improvement can enhance many traits important in the production of aquaculture species, it potentially contains risks. Genetically modified farmed aquatic animals and plants could for example interact with their wild counterparts and potential risks associated with this need to be identified and evaluated. He suggested U.S. and Japan members exchange information on policy making for regulation of the use of New Breeding Techniques (NBT) informally during the next UJNR meeting for sharing information and mutual understanding.

8. Concluding Remarks: Dr. Michael Rust, Dr. Fuminari Ito

Dr. Rust expressed his gratitude to the Panel members and observers involved in this meeting for their effort and contributions. He also thanked the interpreter, Ms. Michiko Sharp, for her contribution.

Dr. Ito also expressed his gratitude to the Panel members and observers for discussion and he appreciated interpreter's service.

Business was concluded and the 42nd UJNR business meeting adjourned. These Minutes were signed by the Chairs of the U.S. and Japan Panel on October 3rd, 2014 in Long Beach, CA U.S.



Dr. Michael Rust
United States Panel Chair



Dr. Fuminari Ito
Japan Panel Chair