

STATEMENT OF THE TWENTY-SIXTH JOINT MEETING OF THE UJNR AQUACULTURE PANEL

The Twenty-Sixth Joint Meeting of the UJNR Aquaculture Panel was held on September 16-18, 1997, at the University of New Hampshire, Durham, NH. A business meeting was held on the evening of September 17. The theme of the symposium was *Nutrition Metabolism and Technical Development in Aquaculture*.

Dr. James McVey, Chair of the U.S. delegation, opened the joint meeting by welcoming the new Chairman for the Japanese side, Dr. Yukio Uekita, and the new Secretary-General, Dr. Kunihiko Fukusho. He introduced the hosts for this meeting: Dr. Anne Bucklin, Sea Grant Director for the University of New Hampshire, Mr. Rollie Barnaby, Sea Grant Extension Educator, and Dr. Hunt Howell, Scientific Program Chairman.

The theme adopted for the 26th UJNR meeting attracted many scientists and administrators. The large number of scientific papers necessitated three days for the symposium. Dr. McVey indicated that both sides agreed to focus on flounder culture and stock enhancement, because of mutual interest in that topic and the opportunity that we have to continue collaborative studies on this group of fish. He noted that the papers presented were grouped under the topics of Nutrition, Genetics, Health Management, Marine Stock Enhancement, and Engineering for Open Ocean Aquaculture. He hoped that both sides can use these topics to highlight the activities of what is occurring in the Northeast part of the United States and what the Japanese delegation will see during the field trips that follow the symposium. He commented that the issue of sustainable aquaculture is becoming ever more important and that we have many examples around the world of unsustainable technologies that have led to environmental degradation, disease outbreaks that have devastated various aquaculture industries, and concerns about the impact of cultured fish on natural fish stocks. He emphasized that the United States is moving toward technologies such as offshore culture systems and recirculating systems to reduce the environmental impact of aquaculture. A round-table discussion was also built into the meeting in hopes that issues of common interest to both sides could be exchanged. Dr. McVey concluded that all of this year's symposium topics have application to the sustainable development theme, and he is looking forward to having many good discussions in order to gain better insights in obtaining our mutual goals.

Dr. Uekita, Chair of the Japanese delegation and Director General of the National Research Institute of Aquaculture (NRIA), thanked Dr. McVey, Dr. Bucklin, and her staff in accepting 27 Japanese delegates and the arrangements made in their behalf during attendance at the symposium and also during the field trips.

Dr. Uekita reported that through the activities of the UJNR Aquaculture Panel, which include the sponsorship of these annual symposia, the exchange of scientific literature and technical information, and the collaboration and exchange of researchers, both the United States and Japan have been able to contribute greatly to worldwide aquaculture and fisheries development, and these efforts have been highly praised. Through participation in the UJNR, we have been able to educate promising young researchers in this manner. In the near future, the world population will increase greatly, and it will be of utmost necessity to secure a stable

food supply and promote environmental preservation on a global scale. These are problems which will require the efforts and wisdom of all human beings. In the realm of fisheries and aquaculture as well, it will be necessary to promote a sustainable form of development in consideration of preservation of the environment and the biodiversity of aquatic living organisms, as well as the research activities necessary to achieve these ideals. At last year's 25th meeting, a plan for the next five years was put forth in context of this background, and we think our subsequent activities will be appropriate for addressing our goals. Furthermore, last year we were able to initiate cooperative research on artificial seed production and release for flounder, a very significant species of fish. We believe this to be an important new step in our history of collaboration between the United States and Japan, and we have expectations for the fruits of these efforts.

At this 26th Symposium on *Nutritional Metabolism and Technical Development in Aquaculture*, many wide-ranging papers were given on aspects of flounder aquaculture and current results of research activity. This is truly a topic of worldwide interest. There were also presentations on a diversity of other topics as well.

Dr. McVey introduced members of the U.S. Panel: Dr. J. Sullivan, Director, California Sea Grant College Program, San Diego (Scientist Exchange); Dr. W. Heard, National Marine Fisheries Service (NMFS), Auke Bay Laboratory; Dr. Ken Leber, Mote Marine Laboratory, Sarasota, FL; Dr. C. Helsley, Director, Hawaii Sea Grant College Program; Dr. P.K. Park, NMFS Oxford Laboratory (Cooperative Studies); Ms. J. Keller, NMFS Oxford Laboratory (Publications); Dr. A. Calabrese, NMFS Milford Laboratory; Dr. Anne Bucklin, Director, New Hampshire Sea Grant College Program; Ms. J. Beattie, NOAA Central Library (Literature Exchange); Dr. M. Rust, NMFS Northwest Fisheries Science Center; and Dr. R. Stickney, Director, Texas A&M University Sea Grant College Program.

Dr. Uekita introduced members of the Japanese Panel: Dr. K. Fukusho, NRIA Secretary-General; Dr. K. Takayanagi, NRIA Publications; Mr. N. Ohkubo, Hokkaido National Fisheries Research Institute; Dr. M. Yokoyama, National Research Institute of Fisheries Science; Dr. N. Uki, Japan Sea National Fisheries Research Institute; Mr. T. Nakasone, National Research Institute of Fisheries Engineering; Dr. Y. Koshiishi, Seikai National Fisheries Institute (SNFI); Dr. M. Wilder, Japan International Research Center for Agricultural Sciences; Dr. T. Murai, SNFI; Dr. M. Tanaka, Kyoto University; Dr. H. Fushimi, Japan Sea-Farming Association; and Dr. A. Furukawa and Dr. M. Azeta, former Panel Chairmen and presently senior advisors.

Dr. Uekita introduced the designated Japanese rapporteur, Dr. K. Takayanagi, and Dr. McVey introduced the designated U.S. rapporteur, Ms. J. Keller.

The agenda for the business meeting, symposium program, itinerary of the meeting and field trip, and list of members are attached (Appendices I-IV).

SCIENTIST EXCHANGE PROGRAM

Dr. Fukusho handed out a list of the 16 Japanese scientists who visited the United States to attend meetings pertaining to the UJNR aquaculture exchange program (Appendix V).

Dr. Sullivan reported that six U.S. scientists visited Japan (Appendix VI). He proposed that a subcommittee be formed to pursue implementation of better scientific exchange. He suggested that Dr. Fukusho and he begin work in this area.

Dr. Sullivan reported that Dr. Howard Bern, University of California at Berkeley, and Dr. Wallace Clark, University of Florida, send their regrets that they could not attend this year's meeting.

Dr. McVey also announced that Dr. John Miller, North Carolina State University, sends his regrets in not being able to attend the meeting.

LITERATURE EXCHANGE PROGRAM

Dr. Takayanagi indicated that 96 reprints were collected in the field of aquaculture from 11 research institutes (Appendix VII). Actual reprints will be sent to the NOAA Library by mail.

Ms. Beattie thanked the Panel for including the NOAA Library and for recognizing the importance of scientific literature exchange and its accessibility through the internet. She handed Dr. Uekita a list of 68 reprints from the U.S. Panel (Appendix VIII).

Ms. Beattie suggested that a discussion be held on the issue of copyright. Dr. Uekita stated that copyright of the UJNR Proceedings is under consideration by the Ministry of Agriculture, Forestry and Fisheries (MAFF). The Japanese delegation will try to have this issue clarified and will keep the Panel informed.

Ms. Beattie indicated that NOAA produces many home pages and that the NOAA Central Library tries to disseminate aquaculture information through its home page. A handout on the NOAA Library web site was made available.

Ms. Beattie commented that the NOAA Library would like an exchange of an informational specialist from Japan to visit the NOAA Library for the purpose of creating a home page reflective of Japan's fisheries.

Dr. McVey commented that over 30 years of publications (over 1000 references) dealing with Sea Grant aquaculture studies are available on the internet. He would like to make the maximum amount of information available electronically and the NOAA Library will work towards that goal. Dr. Takayanagi indicated that no one specific person in Japan is designated to perform this service.

COOPERATIVE STUDIES PROGRAM

Dr. Uki reported the flounder project became a cooperative study in 1995. He explained the progress made during the past two years. One of the projects both sides have been involved in was the release of flounder juveniles in May 1997 at Wada-hama Beach, Fukui Prefecture, which was done by Kyoto University, Fukui Prefecture University, and the Japan Sea Farming Association. Dr. Park was at Wada-hama Beach to collaborate. Dr. Uki indicated that we do not have research funds for the flounder release project, but we may be able to use this existing project to assist the Kyoto research group. Dr. Uki would like to host a workshop entitled *Innovation of the Coastal Fisheries by Means of Ecosystem Controls* under the Biocosmos project at MAFF. He would like to link the Biocosmos Workshop in 1998 with the UJNR Symposium to attract more participation from the U.S. side.

Dr. McVey indicated that expected funding did not materialize for flounder research and that he hoped this had not proved too disappointing to our colleagues. He explained how difficult it is to find adequate financial support for international collaborative studies. He feels that we have considerable investments on both sides with regard to this topic and our challenge is to see how we can bind our existing efforts and financial support into a collaborative program that will bring synergism to both sides. The U.S. Sea Grant Program and NMFS are spending about \$1 million on flounder culture and enhancement. He noted that a workshop was held in July 1996 on flounder enhancement. This workshop resulted in a working plan that could serve as a guide for UJNR cooperation.

Dr. McVey commented that he would like to bring our programs together with Professor Tanaka, Kyoto University, and Japan Government researchers will check with Sea Grant directors attending the meeting and NMFS participants to look at supporting a student in Japan as part of student academic training. He is confident that we can find support for such a student and will conduct a national search for the right candidate. He does not see any problem in getting that level of funding for student travel expenses, and expects some support from the Japanese side for student living expenses. We also need to think about a Japanese student visiting the United States.

Dr. McVey would like to explore how to tie in the 27th UJNR meeting with the workshop proposed by Dr. Uki on *Innovation of the Coastal Fisheries by Means of Ecosystem Controls*.

PUBLICATIONS

Ms. Keller reported that the 24th Proceedings has been published and that reprints have been distributed to each author.

Dr. Takayanagi stated that the 25th Proceedings has been published and copies will be made available to the authors.

GENERAL DISCUSSION

There were no further discussions.

NEW BUSINESS

Dr. McVey introduced Tom Tsurutani, President and CEO, Pacific International Center for High Technology Research (PICHTR), Professor Kenji Hotta, Nihon University, and James Szyper, University of Hawaii, consultant to PICHTR. They gave a brief presentation on Upwelling Mariculture 21. Dr. McVey felt that this type of futuristic project might be of interest to incorporate in our joint discussions pertaining to marine fish enhancement.

Dr. Uekita also feels that this is an interesting project, but that a further exchange of information is necessary on this issue.

FIVE-YEAR PLAN

This is the first year of the new five-year plan decided upon last year, and both panels agreed with the plan. Dr. Helsley proposed that open ocean aquaculture with a discussion on pelagic fish species production and culture be included under the 1999 agenda. The primary title agreed on in the five-year plan will remain the same.

PLANS FOR NEXT JOINT MEETING

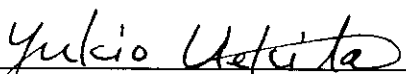
Dr. Uekita stated that the 27th UJNR meeting will be held at Ise City starting November 9, 1998. The field trips begin at Niigata and end in Kyoto on November 20th. Dr. Fushimi, Dr. Seikai, and Dr. Uki will host some part of the field trips. Field trips will include the joint UJNR Biocosmos meeting in Niigata. The theme for next year's meeting is *Goals and Strategies for Breeding in Fisheries*.

Dr. Helsley stated that his institution has endorsed plans for the 28th (1999) UJNR meeting in Hawaii, with field trips planned for three (and possibly four) of the islands.

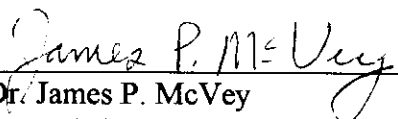
Dr. McVey expressed thanks to Dr. Marcy Wilder of Japan for her role as interpreter and scientific member of the Panel.

Dr. Uekita and Dr. McVey announced that all business had been concluded. The Twenty-Sixth Joint Meeting of the UJNR Aquaculture Panel was then adjourned.

September 19, 1997



Dr. Yukio Uekita
Japanese Chairman



Dr. James P. McVey
U.S. Chairman