

## Preface

The UJNR (The U.S.-Japan Cooperative Program in Natural Resources) Aquaculture Panel was established in 1968, and the business meeting and symposium have been held every year since 1971. Through the long history of UJNR, Aquaculture Panel has contributed to the development of aquaculture researches of both countries by means of various cooperative activities, such as the exchange of scientists and literatures, and the promotion of joint research projects. The Aquaculture Panel is highly appraised as one of the most active UJNR panels in both countries.

The 52nd Business Meeting of the UJNR Aquaculture Panel was conducted at the Sinfonia Technology Hibiki Hall Ise, Mie Prefecture, Japan on November 5, 2024, and the Scientific Mini-Symposium was held at the same venue from November 5 to 6. The symposium theme was "Next Step for Sustainable and Resilient Aquaculture", which was under the 12th Three-Year Plan, "A New Era for Sustainable Aquaculture – The Next 50 years of Research, Education and Collaborations", commenced in 2024. Nineteen oral presentations were made on topics such as alternative feed, genetics/selective breeding, health management, seaweed culture, and ecosystem management during the two-day symposium.

The proceedings of the 52nd UJNR Aquaculture Panel Scientific Mini Symposium "Next Step for Sustainable and Resilient Aquaculture" is published as the special issue of the Bulletin of Japan Fisheries Research and Education Agency. With great pleasure, this UJNR proceedings containing high quality papers authored by selected American and Japanese aquaculture scientists will hopefully help improve the aquaculture environment programs, which is expected to contribute to the development of the aquaculture industry in both the United States and Japan.

Finally, I would like to express my sincere gratitude to the colleagues involved in the UJNR Aquaculture Panel for their efforts in the preparation and organization of the symposium. I would also like to deeply thank the editorial board members for publishing the proceedings.

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