

Innovation Consortium of Fisheries and Marine Science and Technology

Innovation Officer Development Program

August 2017

**Tokyo University of Marine Science and Technology
Iwate University
Kitasato University**



Innovation Consortium of Fisheries and Marine Science and Technology (ICFM)

Innovation Officer Development Program

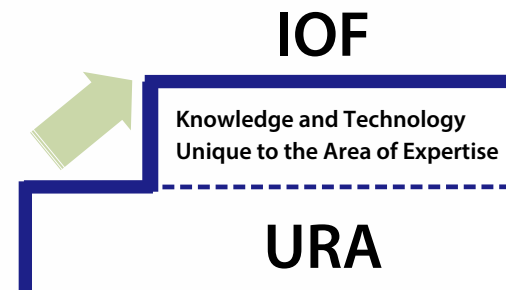
Principal Organization: Tokyo University of Marine Science and Technology (Office of Liaison and Cooperative Research)
Partner Organization: Iwate University (Organization for Revitalization of the Sanriku Region and Regional Development)
Kitasato University (School of Marine Biosciences)

Marine Fisheries Innovation Officers (IOFs)

refer to university research administrators (URAs)* that support research with their specialized knowledge in the field of marine fisheries, ranging from conservation of the environment and resources to distribution and consumption.

IOFs are human resources that support research by linking research organizations and fisheries-related cities nationwide to help develop new industries and provide solutions to ongoing issues.

*URA (University Research Administrator)
University Research Administrators refer to a group of human resources engaged in such activities as promoting researchers' research activities or supporting the reinforcement of R&D management at universities by planning and managing research activities or promoting the utilization of research results in cooperation with researchers (N.B.: the above is an excerpt from an open recruitment statement published by the Ministry of Education, Culture, Sports, Science and Technology).



Summary of Programs

The Innovation Officer (IOF) Development Program is aimed at recruiting university research administrators (URAs) serving as research support personnel and at developing them into advanced research support personnel (Marine Fisheries Innovation Officer (IOF)) specialized in the field of marine fisheries, while focusing on the Sanriku coastal region as a venue for the reconstruction and innovation of the marine fisheries industry.

[Establishment of the ICFM]

Tokyo University of Marine Science and Technology, Iwate University and Kitasato University entered into an agreement on cooperation in 2011. Since then, the three universities have jointly promoted research activities aimed at the reconstruction of the Sanriku fisheries industry and the development of the region in a sustainable manner. Through this project, the three universities aim to construct the Innovation Consortium of Fisheries and Marine Science and Technology (ICFM), strengthen cooperation in educational and research activities, and establish the system of developing Marine Fisheries IOFs. Through the construction of ICFM consisting of universities located in the Sanriku region, a university located in the Tokyo metropolitan area and public test and research institutes, appropriate as well as stable employment of URAs will be ensured. Furthermore, rotational placement of URAs in research organizations will provide them with opportunities to gain experience and training at various research organizations.

Background of the agreement on cooperation of the three universities

March 2011	Occurrence of the Tohoku Earthquake and Tsunami
October 2011	Conclusion of the basic agreement on the promotion of cooperation among the three universities for the reconstruction of the Sanriku fisheries industry and the development of the region in a sustainable manner
March 2012	Launch of the meeting as well as the committee for the promotion of cooperation among the three universities Launch of the SANRIKU Fisheries Research and Training Center Formation Project

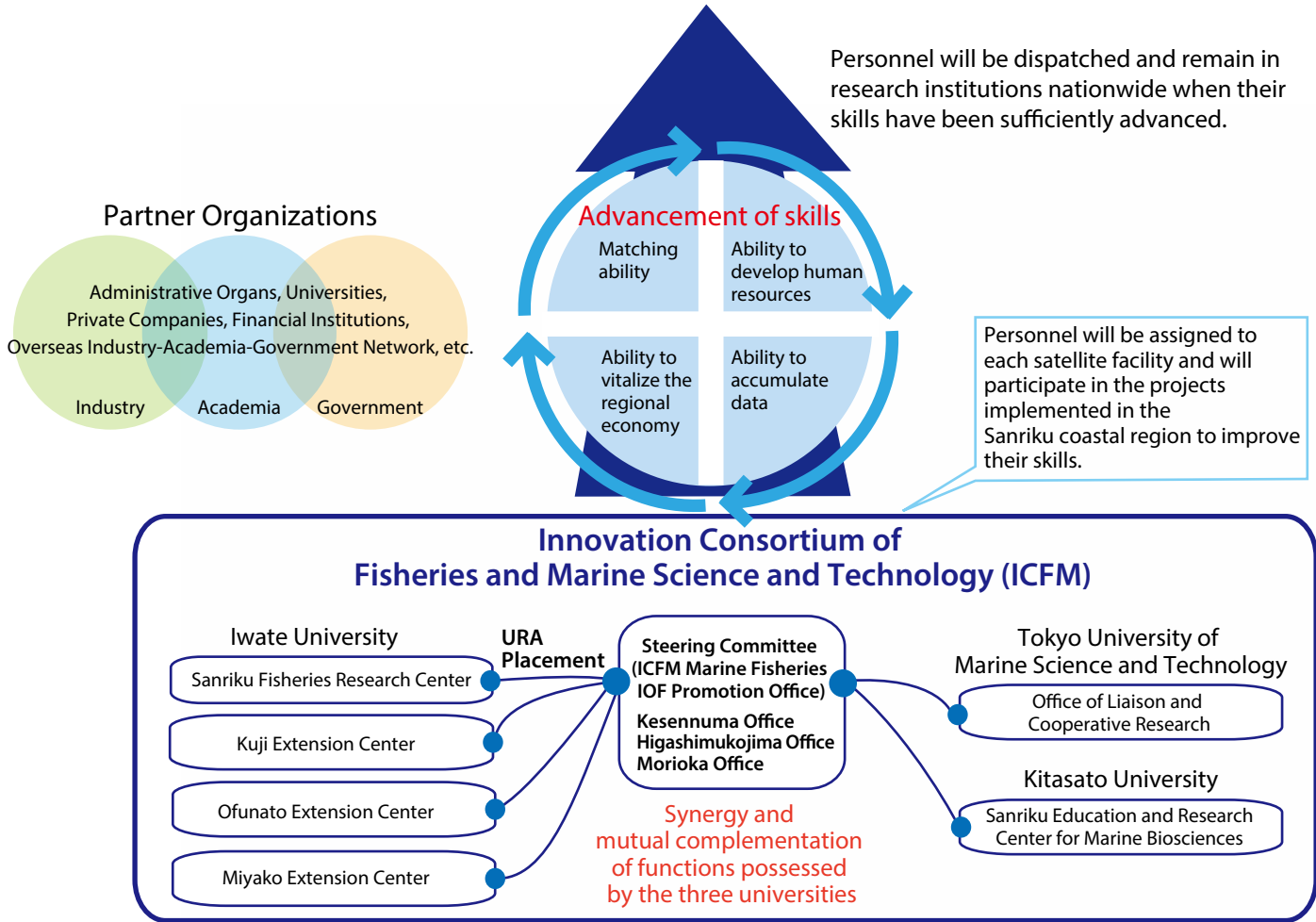


[Development of Marine Fisheries IOFs]

The employed URAs will be engaged in cutting-edge R&D projects covering fields from cultivation, conservation and management of resources, production, and distribution to consumption. The URAs will seek to enhance their high levels of expertise as Marine Fisheries IOFs as well as advancing their careers with flexibility in close cooperation with other research institutions and regional business associations. To develop research support personnel specialized in the field of marine fisheries, the program will also provide training programs for Marine Fisheries IOFs including existing standard-skilled URAs, thereby developing human resources in a continuous manner.

Through this program, the establishment of a framework for developing highly specialized research support personnel who will lead the innovation and sustainable development of the fisheries industry in Japan will be achieved.

**“Highly Practical Research Support Personnel”
for Supporting the Development of
Fisheries Industries Nationwide**



Main Activities

The employed URAs (candidates for Marine Fisheries IOFs) will be assigned to each satellite facility of the three universities and will take part in such projects as the Sanriku Fisheries Research and Training Center Formation Project, implemented mainly in the Sanriku coastal region. Through the project, the URAs will learn the methods of management for the system of industry encompassing the cultivation, conservation and management of resources to production, distribution and consumption, in close cooperation with other research institutions and regional business associations.

Furthermore, this program establishes and provides a training program to equip URAs with standard skills as well as specialized skills required in the field of marine fisheries, in order to develop URAs who will lead the innovation and sustainable development of the fisheries industry. The future objective of the program to produce, in a continuous manner, advanced-level research support personnel (Marine Fisheries IOFs) specialized in Japan’s fisheries industry.





Members of the “ Innovation Officer (IOF) Development Program”



**SUSUMU
YAMASHITA**

Associate Professor (URA)
Organization for Revitalization of the Sanriku Region
and Regional Development

Iwate University



**KEIKO
SHIMIZU**

Research Officer (URA), Sanriku Education
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Kitasato University, Kitasato Institute



**YOSHICHIKA
IKEDA**

Liaison & Research Officer (URA), Office of Liaison
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**HIROKO
ITO**

Postdoctoral Fellow (URA), Office of Liaison
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**AIKO
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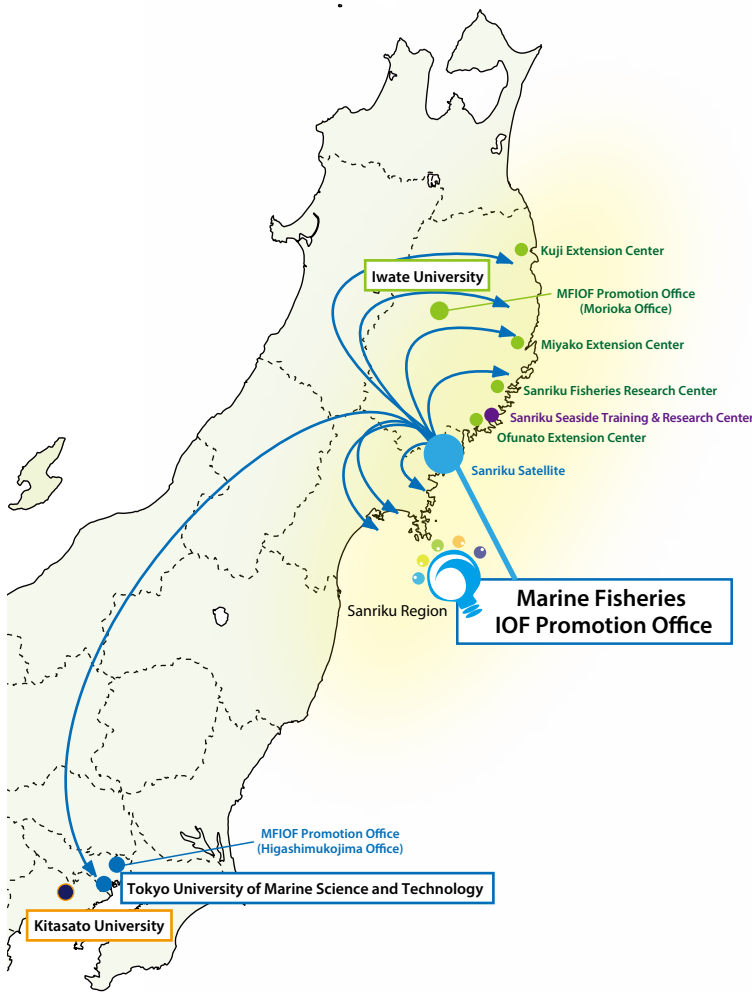
[Ability Required of Marine Fisheries IOFs]

- Ability to acquire appropriate industrial information
- Ability to gather a variety of information such as information on general intellectual property, competing technologies, scientific papers, etc.
- Coordination and communication skills and the ability to build consensus with local parties, etc. (liaison skills)
- A variety of skills involved in obtaining external funds (procurement skills)

“Innovation Consortium of Fisheries and Marine Science and Technology (ICFM)” Steering Committee Marine Fisheries Innovation Officer (IOF) Development Program Promotion Office

A steering committee has been established to launch the Innovation Officer (IOF) Development Program. The committee has located a promotion office in Kesennuma City, Miyagi Prefecture to support activities of the program. The office has been named the Marine Fisheries Innovation Officer Developing Program promotion office (Marine Fisheries IOF Promotion Office).

With its particularly large fish catches and the large number of fish processing companies in the Sanriku coastal region where the fisheries industry flourishes, Kesennuma City, Miyagi Prefecture, is ideal for promoting the so-called sextiary sector of industry ((i.e., the primary sector of industry (raw materials) that also encompasses the secondary sector (manufacturing) and the tertiary sector (services) elements). Kesennuma City also has good access to each satellite facility of the three universities, so it is an ideal location for establishing the steering committee to launch the program for developing Marine Fisheries IOFs through activities according to the value chain based in the Sanriku region.



▲ Appearance of *Umi-no-ichi*, Kesennuma City, where the Marine Fisheries IOF Promotion Office is located



▲ Higashimukojima Office



▲ Iwate Office

ICFM Marine Fisheries IOF Promotion Office

The Marine Fisheries IOF Promotion Office will serve as a base for URAs that are candidates for the Marine Fisheries IOFs in implementing the project of the IOF Development Program. The office will also serve as a hub for connecting fisheries-related companies, organizations, administrative organs and private companies with the Marine Fisheries IOFs.

At the each Promotion Office, the staffs receive visitors.

Shinagawa Office

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Kesennuma Office

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Activity Report of the 2014 IOF Development Program

Three specialists invited from France



Ms. Mathilde COUELLE
(AQUIMER, France)



Dr. Bernard PICOCHÉ
(ACTALIA, France)

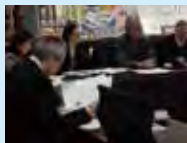


Dr. Marc DANJON
(CEVA, France)

Kesennuma Municipal Office



▲ Meeting with Mayor Sugawara



At Kesennuma Municipal Office, we met with Mayor Sugawara and members of the Department of Fisheries. Mayor Sugawara talked about the situation of reconstruction of the fisheries industry in Kesennuma City. We promised that this project of developing Marine Fisheries IOFs would contribute to the development of the fisheries industry in the Sanriku region including Kesennuma City.

Kesennuma Fish Market



▲ At the Fish Market



▲ Lecture on the Systemized Bidding Process

At Kesennuma fish market, we visited the market facilities and watched the bidding system. We were also given a lecture on fish species caught around Kesennuma, as well as on how to handle fish by species. At the direct sales market (*umi-no-ichi*) established as an annex to the market, we discussed the situation of food sanitation control and quality labeling in Japan with Dr. Picoche, an expert with ACTALIA, France, which is a specialized institution for food quality control engineering.

KK Ashikaga Honten



▲ Fish Processing

We watched the shipping process of swordfish, salmon shark and Pacific saury, and visited the freezer room for storing fish. Mr. Munehiro Ashikaga, representative director, talked about the nutritional value and the export condition of shark meat, a specialty of Kesennuma. We discussed future prospects.



▲ Lecture on Shark and Swordfish



▲ Freezer Room at -60°C

Ishiwata Shoten



▲ Tour of the Processing Procedures

We made a tour of the production facilities and processing procedures of shark fin products. Mr. Hisashi Ishiwata, executive director, talked about his efforts and determination for reconstructing Kesennuma. We exchanged opinions regarding the possibilities of launching products in international markets upon the advice of Ms. Coquelle, an expert with AQUIMER, a fisheries cluster in France.



▲ Product Samples

Acknowledgment



Kesennuma Municipal Office
1-1-1 Yoka-machi,
Kesennuma City,
Miyagi Prefecture 988-0084



Kesennuma Fisheries Cooperative Association
8-25 Uoichiba-mae,
Kesennuma City,
Miyagi Prefecture 988-0037



Tour of the Current Situation of Fisheries in Kesennuma City

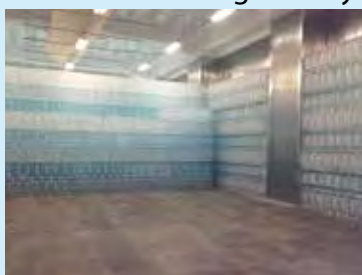
21–22 February, 2015

As part of the activities of the 2014 IOF Development Program, we made a tour of the fish market, fish processing companies, and various fish farms in Kesennuma City. Three experts from France were invited to join the tour as guest speakers. Based on the international perspective provided by the guest speakers, five URAs as well as advisors and coordinators from each university exchanged lively views regarding the issues and possibilities of the Sanriku region.

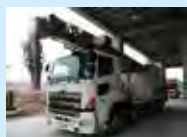
As we proceeded on our tour of farms and processing companies producing edible seaweed, oysters, and scallops, which are major farming produce of Kesennuma City, witnessed the current situations of fisheries and listened to the candid opinions of the people in the actual setting, we reconfirmed that such candid opinions should form the core of research in the field of marine fisheries. This visit to the actual setting provided an opportunity to review how to identify new research projects, how to achieve collaboration between universities and communities or private companies, and how to incorporate research findings in the project.

The research projects identified as a result of this tour will be positioned as a project for research support activities from 2015 onward. Information about this project will be released to researchers with universities and specialized institutions, and we will support the acquisition of research funds.

Kesennuma Fisheries Cooperative Association Ice Manufacturing Factory



▲ Storeroom of Plate Ice



▲ Ice Breaker

We visited the new ice manufacturing factory, which was established after the Tohoku earthquake and tsunami. Learning from the damage caused by the tsunami triggered by the earthquake, the ice compartment was located on the fifth floor. The facility is able to manufacture 110 tons of ice per day and store 3,700 tons of ice. The ice is utilized to maintain the freshness of fish and shellfish.

Kawamura



▲ Tour of the Manufacturing Facility of Edible Seaweed ▲ No.2 Refrigerator of the Head Office



We made a tour of the salted seaweed manufacturing plant and shared information on the actual situation of seaweed farming. We discussed seaweed farming methods and manufacturing methods of salted seaweed of superior quality in a lively manner with Dr. Danjon, Center for the Study and Promotion of Algae (CEVA), France.

Tour of Farms



Thanks to the cooperation of farmers in Kesennuma City, we were able to make a tour of farms of oysters, scallops, edible seaweed and ascidians. The tour provided us with an opportunity to realize the significance of listening to the farmers' candid opinions about their ongoing challenges as well as their difficulty in providing solutions to these challenges.



▲ Harvest of Seaweed



▲ Process of Removing Matters Attached to Young Scallops



▲ Farming of Japanese Oysters ("Magaki")



Processing and Manufacturing of Seaweed, Kelp and Marine Products

Kawamura

125 Takaishihama, Karakuwa-cho Kesennuma City, Miyagi Prefecture 988-0531



Marine Product Processing in General

KK Ashikaga Honten

5-1 Minato-machi, Kesennuma City, Miyagi Prefecture 988-0021



Specialty Shop of Shark Fins (Manufacture & Sales)

Ishiwata Shoten

228-107 Matsuzaki-yanagisawa, Kesennuma City, Miyagi Prefecture 988-0141



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