

ISET-R NEWS LETTER

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Fukushima Ocean Impacts Symposium:

Exploring the impacts of the Fukushima Dai-ichi Nuclear Power Plant on the Ocean



Fukushima Ocean Impacts Symposium Date: 2012 / 11 / 12-13 Place: University of Tokyo-Ito Internatinal Hall

Public Colloquium "Fukushima and the Ocean" Date: 2012 / 11 / 14 Place: University of Tokyo-Ito Internatinal Hall "Fukushima Ocean Impacts Symposium: Exploring the Impacts of the Fukushima Daiichi Nuclear Power Plant on the Ocean", which was cohosted by Science Council of Japan, was held at Ito International hall, University of Tokyo on Nov/12-13/2012.

Many experts, politicians, and media from in and out of Japan gathered in Symposium. There were lectures, panel discussion and poster session by invited participants.

Since the Fukushima NPP accident, in order to understand the safety of outsea, coastal area of the Western North Pacific Ocean, and the causal relationship to the marine products and ecosystem, research and analysis has been promoted by international experts and Japanese Laboratories.

A number of investigations are carried out so far and the findings have become increasingly apparent; however, people in Japan still remain a lot of basic questions and concerns.

- ■How long will the ocean pollution go on?
- Is it safe to eat fish?
- ■How much is the effect on the health?

This symposium became an important meeting to consider measures for recognizing the problems of the known and unknown in order to solve these basic questions of people and give the information to them so that it can relieve their anxiety.

We had a heated discussion about the sea safety and the impact on the marine ecosystems and human body of the radioactive materials which has been released by Fukushima Daiichi NPP accident.

In the discussion, we made reports based on scientific verification and confirmed the importance of giving people easy-to-understand information on what we do know or what we do not recognize yet.

Exchange of views of various subjects regarding significant tasks such as risk assessment, economic influence and policy agreement have been made by the invited participants.

In the public colloquium "Fukushima and the Ocean, which was held on the following day, the Panel of Experts made reports of what was discussed at this symposium. Additionally, there was also discussion of the question-and-answer with media and participants by following "Morss Colloquium Style" of Woods Hole Oceanographic Institution.

The program of public colloquium on 14th are as follows.

Public Colloquium "Fukushima and the Ocean" Program

- 16:00 16:10 Opening remarks
 Hiroshi NIINO (Ocean Research Institute, University of Tokyo)
- 16:10 16:20 Radionuclides in the Ocean Ken BUESSELER, Woods Hole Oceanographic Institution
- 16:20 16:30 Radionuclides in Marine Biota Jota KANDA, Tokyo University of Marine Science and Technology
- 16:40 16:50 Seafood Safety and Policy Hiroyuki MATSUDA, Yokohama National University
- 16:50 17:00 Impacts on Human Health
 James SEWARD, Lawrence Livermore National Laboratory
- 17:10 17:20 The Role of the Media Geoff BRUMFIEL, Nature
- 17:30 19:00 Questions from the audience to panelists
 Moderator: Hideaki SHIROYAMA, University of Tokyo
- 19:00 19:10 Closing remarks Ken BUESSELER Woods Hole Oceanographic Institution

Following the colloquium in Japan this time, we are planning to hold the second public colloquium at Woods Hole Oceanographic Institution, Massachusetts in 2013.

While information about the Fukushima Daiichi NPP accident is complicated, this symposium became a valuable opportunity to remind us of the importance of making the survey result and information comprehensible to people as our responsibility.

The recording of symposium and colloquium will be available on the internet sometime later.

《Related URL》

The Oceanographic Society of Japan: The Great East Japan earthquake Special Site
The Colloquium "Fukushima and the Ocean" The information about Open Lecture
http://www.kaiyo-gakkai.jp/sinsai/2012/10/the-colloquium-fukushima-and-the-ocean.html

Woods Hole Oceanographic Institution

The Accidents at Fukushima Dai-Ichi Exploring the Impacts of Radiation on the Ocean

http://www.whoi.edu/page.do?pid=108096

Fukushima Ocean Impacts Symposium: Highlight contributions of ISET-R study

Jian Zheng National Institute of Radiological Sciences

To address the basic scientific questions and public concerns on the radionuclides released from the Fukushima Daiichi Nuclear Power Plant (PDNPP) accident, such as their fate in the ocean, and their potential to impact marine ecosystems and human health, a science symposium entitled "Fukushima Ocean Impacts Symposium: exploring the impacts of Fukushima Daiichi Nuclear Power Plants on the Ocean" was held on November 12-13, 2012 in Tokyo University, Tokyo, Japan (http://www.whoi.edu/website/fukushima-symposium/overview). Through talks by invited speakers, panel discussions, poster session, and ample open discussion, an invited group of ca. 100 international participants, including scientists, policy makers and media/communications experts, discussed risk assessments, economic impacts, policy implications, and importantly, how to effectively communicate to the public. Prof. Yuichi Onda (Head Investigator of ISET-R), Prof. Masatoshi Yamada (Principal Investigator of ISET-R), Prof. Jota Kanda (Principal Investigator of ISET-R), and another 9 scientists from the ISET-R (Interdisciplinary study on environmental transfer of radionuclides from the Fukushima Daiichi DPP accident) attended this scientific symposium. The followed invited talk and posters were presented:

1.

- J. Kanda, Long-term sources: to what extent are marine sediments, coastal groundwater, and rivers a source of ongoing contamination?

 2.
- M. Yamada, M. Aoyama, Y. Hamajima, M. Honda, Y. Kato, H. Kawakami, Y. Kumamoto, M. Kusakabe, H. Nagai, H. Tazoe, D. Tsumune, M. Uematsu, J. Zheng, Interdisciplinary study on environmental transfer of radionuclides from the Fukushima Daiichi DPP accident: Theme 3, Fate of radionuclides in the ocean.

3.

M. Kusakabe, Distributions of Fukushima-derived radionuclides in seawater and sediments in the waters off Miyagi, Fukushima, and Ibaraki Prefectures, Japan-Results from the MEXT monitoring program.

4.

O. Evrard, Y. Onda, C. Chartin, J. Patin, I. Lefevre, S. Ayrault, P. Bonte, Tracking the origin of contaminated sediment transported by rivers draining Fukushima radioactive pollution plume from measurements of Ag-110m/Cs-137 ratio.

5.

S. Nagao, Pulse input of Cs-134 and Cs-137 from land to ocean in Fukushima area by heavy rain events.

6.

Y. Onda, H. Kato, Project overview of ISET-R: Interdisciplinary study on environmental transfer of radionuclides from the Fukushima Daiichi DPP accident.

These presentations covered a wide range of studies on Fukushima impacts in ocean, including the current status of radionuclides contamination in seawater, sediments and marine organisms, the long-term sources and fate of radionuclides in the ocean, and the possible transport of radionuclides from land to ocean by the river runoff. More than one year after the FDNPP accident, many studies found the levels of radioactivity in the sea around the plant remain stable rather than continuous falling as expected. Contributions from the ISET-R project provided solid scientific basis for understanding the radioactive contamination in the ocean. Through the field monitoring and model simulation, it was suggested that different sources, such as the transport of radionuclides from land to ocean by river runoff and coastal groundwater discharge, deposited highly contaminated sediments (ca. 95 TBq radiocesium deposited in the sandy floor near the plant) functioning as a secondary source, and the possible continuous leaking of radioactivity from the plant, could be responsible for the long-term radioactive contamination in the ocean.