

PICES MOE Project Science Team Meeting

March 16-18, 2015

Haleakala-Kilauea Room, Hawaii Prince Hotel Waikiki
Waikiki, Honolulu, Hawaii, USA

The second meeting of the research team for the PICES MoE project was held March 16-18, 2015 in Honolulu, Hawaii, USA. Twenty-eight researchers from three countries attended to present the results of their research activities during Year 1 and discuss priorities for research in Year 2.



Meeting Agenda

DAY 1: Monday March 16th

9:00 – 9:15 Welcome and Introductions

Research activities reports

09:15 – 09:45 Modeling studies in support of research on impact of alien species transported by marine debris from the 2011 Great Tōhoku Tsunami in Japan

PIs: Nikolai Maximenko, Amy MacFadyen, and Masafumi Kamachi

09:45 – 10:15 Webcam monitoring of marine debris at the Northwestern Pacific coast

PI: Atsuhiko Isobe

10:15 – 10:30 Coffee break

10:30 – 11:00 Surveillance and monitoring of marine debris associated with the 2011 Great Tōhoku Earthquake

PIs: Cathryn Clarke Murray and Nancy Wallace

11:00 – 11:30 Japanese Tsunami Marine Debris (JTMD) and alien species invasions: Invasive species biodiversity assessment

PIs: James Carlton, Jessica Miller, John Chapman, Jonathan Geller, Gregory Ruiz

11:30 – 12:00 Analysis of Bivalve Parasites and Pathogens Associated with JTMD and Early Detection of Japanese Endoparasitic Hydroid *Eutima*

PIs: Gregory Ruiz and Jonathan Geller

12:00 – 13:00 Lunch break

13:00 – 13:30 DNA Barcoding of JTMD Vouchers and Designs for Collection of eDNA

PIs: Jonathan Geller and Gregory Ruiz

13:30 – 14:00 Model System: Crustaceans and Marine Insects

PI: John Chapman

14:00 – 14:30 Model System: Japanese mussel *Mytilus galloprovincialis*

PI: Jessica Miller

14:30 – 14:45 Coffee Break

14:45 – 15:15 Marine Algae arriving on JTMD (Japanese Tsunami Marine Debris) and their invasion threat to Oregon and Washington

PIs: Gayle Hansen, Takeaki Hanyuda, and Hiroshi Kawai

15:15 – 15:45 Effects of mega-earthquake and tsunami on benthic communities in rocky shore ecosystems on Sanriku coast, northeastern Japan

PI: Hideki Takami

Discussion of progress in Year 1: synergies, gaps and uncertainties

Template for Year 1 final report

DAY 2: Tuesday March 17th

9:00 – 9:45 Status on knowledge of tsunami debris in Hawaii

Sonia Gorgula, State of Hawaii

9:45 – 10:30 Discussion of potential linkages between Hawaii and PICES Project

10:30 – 10:45 Coffee break

10:45 – 11:00 Introduction to project website and name

- 11:00 – 11:30 Year 2 project priorities from PIs
11:30 – 12:00 Introduction to Year 2 Budget and Timelines
12:00 – 13:00 Lunch break
13:00 – 14:30 Discussion of Year 2 project priorities (Modeling, Monitoring and Surveillance, Invasive Species)
14:30 – 14:45 Coffee Break
14:45 – 17:00 Continued discussion of research priorities, interest and budget estimates

DAY 3: Wednesday March 18th

- 9:00 – 12:00 Welcome and outline agenda for Day 3 (based on progress from Days 1 and 2)
Continued discussion of priorities, individual interest in priorities, collaboration possibilities, budget, action items and next steps
12:00 – 13:00 Lunch break
13:00 – 15:30 Continued discussion of priorities, individual interest in priorities, collaboration possibilities budget, action items and next steps
15:30 – 16:00 Finalization of Timelines for Year 2 Project Proposals and Review
16:00 Close of PST meeting

Year Two Research Priorities

- A. Characterize the distribution, timing and amount of JTMD influx
 - Work with Alaska removal teams to identify debris amounts/flux/biofouling
 - Enhance existing modeling for biological applications (survival of species)
 - Continue evaluating existing monitoring information (including trends)
 - Maintain OR webcam stations and expand to second webcam in Hawaii
 - Expand aerial surveys in BC, WA, and HI and complete associated image analysis
 - Compile debris meta-database
- B. Complete the biodiversity list of JTMD
 - Continue to identify and monitor new arrivals of JTMD and associated species
 - Identify the species pool in Japan through literature search, settlement plates and surveys
- C. Detail the biological characteristics of JTMD species
 - Collect life histories and biological characteristics of JTMD species (and those from species pool) and compile in database
- D. Monitor and detect JTMD species in North America and Hawaii
 - Surveys in North America to identify species that may have come from JTMD
 - Collector plates
- E. Complete a risk assessment of JTMD as a vector and identify high risk species
 - Review and choose risk assessment model, compare research activities to risk assessment needs

Meeting Participants

Name	Institution	Country
Patrick Cummins	Institute of Ocean Sciences, DFO	Canada
Thomas Therriault	Pacific Biological Station, DFO	Canada
Atsuhiko Isobe	Kyushu University	Japan
Hideki Takami	Tohoku Nat'l Fisheries Research Inst., FRA	Japan
Hirofumi Hinata	Ehime University	Japan
Hiroshi Kawai	Kobe University	Japan
Karin Baba	Japan NUS Co., Ltd.	Japan
Masafumi Kamachi	Meteorological Research Institute, JMA	Japan
Michio Otani	Osaka Museum of Natural History	Japan
Norihisa Usui	Meteorological Research Institute, JMA	Japan
Shin-Ichiro Kako	Kagoshima University	Japan
Tomoya Kataoka	Nat'l Inst. Land & Infrastructure Management	Japan
Yoichi Ishikawa	JAMSTEC	Japan
Amy MacFadyen	NOAA Office of Response and Restoration	USA
Barbara Lee	Hawaii Department of Land & Natural Resources	USA
Brian Nielsen	Hawaii Department of Land & Natural Resources	USA
Gayle Hansen	Oregon State University	USA
Greg Ruiz	Smithsonian Institution	USA
James Carlton	Williams College	USA
Jan Hepfner	University of Hawaii	USA
Jessica Miller	Oregon State University	USA
John Chapman	Oregon State University	USA
Jon Geller	Moss Landing Marine Lab.	USA
Nancy Wallace	NOAA Office of Response and Restoration	USA
Nikolai Maximenko	University of Hawaii	USA
Sonia Gorgula	State of Hawaii	USA
Alexander Bychkov	PICES	PICES
Cathryn Clarke Murray	PICES	PICES