11th International Conference on the Environmental Management of Enclosed Coastal Seas (EMECS 11)

1. Introduction

The 11th International Conference on the Environmental Management of Enclosed Coastal Seas (EMECS 11) was held for six days from Monday, August 22, 2016 to Saturday August 27, 2016 in the city of St. Petersburg in the Russian Federation. The conference was held as a joint conference with the "Sea Coasts" Working Group of the Russian Academy of Sciences, under the title

EMECS 11 Sea Coasts XXVI.

The main theme of the joint conference was "Managing risks to coastal regions and communities in a changing world." The conference was attended by 365 enclosed coastal sea researchers and other persons from 21 countries around the world. The joint conference featured an ICM & Satoumi Special Session, a Students and Schools Partnership Session (SSP Session) and individual sessions held at three venues. In addition to the 130 oral presentations, there was also a poster session in which 116 posters



Main venue: Azimut Hotel, St. Petersburg



View from the 18th floor of the Azimut Hotel

At the closing ceremony on Friday, August 26, the St.

Petersburg Declaration and The Students and Schools Partnership Declaration (SSP Declaration) were adopted as the achievements of the conference. It was announced at the closing ceremony that the next EMECS conference, EMECS 12, will be held in 2018 in Pattaya, Thailand. In addition, a city tour of St. Petersburg was held on the afternoon of Thursday, August 25. On the final day of the conference, Saturday, August 27, a technical excursion was held in which participants visited the Flood Protection Barrier and the city of Kronshtadt.

2. Opening Ceremony

were exhibited.

The Opening Ceremony started at 9:30 a. m. on Tuesday, August 23, and was held in the Azimut Hall on the second floor of the Azimut Hotel, the main conference venue. George Gogoberidze of the Russian State Hydrometeorological University, who served as vice chair of the local organizing committee, was the master of ceremonies for the opening ceremony.



Opening Ceremony (Azimut Hall)

The opening ceremony featured words of welcome from seven representatives of both Russia and Japan, including Ivan Serebritsky (Deputy Chairman of the St. Petersburg Committee for Use of Natural Resources, Environmental Protection and Ecological Safety), Kazuo Kanazawa (Vice Governor, Hyogo Prefecture, Japan), Leonid Zhindarev (Head, Sea Coasts Working Group, Russian Academy of Sciences) and Valery Mikheev (Acting Rector, Russian State Hydrometeorological University).

Finally, Alexandra Ershova (Russian State Hydrometeorological University) of the local conference secretariat provided an overview of the conference.

3. Opening Session

Following a coffee break, the opening ceremony began at 10:20 a.m. This was followed by the plenary session, with Masataka Watanabe (Chair, Scientific & Policy Committee, International EMECS Center) serving as chair.

The plenary session featured keynote addresses by Andrey Zatsepin (P.P. Shirshov Institute of Oceanology), Motoyuki Suzuki (International EMECS Center) and Evangelos Papathanasio (Hellenic Centre for Marine Research). Following the keynote addresses, a photo session with all of the participants was held in order to take commemorative photographs.



Chair: Masataka Watanabe (International EMECS Center)

[Keynote addresses]

- 1. Andrey Zatsepin, P.P. Shirshov Institute of Oceanology RAS, Russia Short-term variability of coastal zone hydrodynamics under an external forcing: observations at the Black Sea research site of SIO RAS
- 2. Motoyuki Suzuki, President, International EMECS Center, Japan Human Activities and Coastal Seas
- 3. Evangelos Papathanasiou, Hellenic Center for Marine Research, Greece
 Tools and specific recommendations for policy makers based on the results of the
 PERSEUS EU Project

4. ICM & Satoumi Special Session

The ICM & Satoumi Special Session began at 2:00 p. m. on Tuesday, August 23, in Room Berlin on the 18th floor of the Azimut Hotel. Tetsuo Yanagi (International EMECS Center) served as chair.

The special session began with a greeting from Kazuo Kanazawa (Vice Governor, Hyogo Prefecture, Japan).



Chair: Tetsuo Yanagi (International EMECS Center)

This was followed by ten oral presentations, divided into two parts. Part 1 introduced special projects relating to coastal zone management in Japan. Part 2 focused on case studies of ICM and Satoumi. Part 1 featured presentations by five individual topic leaders on the content of research being conducted in Japan in the area of S-13 "Development of Coastal Management Method to Realize the Sustainable Coastal Sea," for which Tetsuo Yanagi serves as Head Researcher. (The research is being conducted under the Environmental Research and Technology Development Fund of the Ministry of the Environment, Japan) The five presentations were given by the following:

- 1. Tetsuo Yanagi (International EMECS Center)
- 2. Tetsuji Okuda (Ryukoku University)
- 3. Teruhisa Komatsu (The University of Tokyo)
- 4. Takafumi Yoshida (Northwest Pacific Region Environmental Cooperation Center)
- 5. Kenichi Nakagami (Ritsumeikan University)

Part 2 focused on reports from persons involved in research relating to ICM and Satoumi in Japan, the United States, the Philippines, Indonesia and Russia:

- 1. Keizo Negi (Ministry of the Environment, Japan
- 2. Robert Summers (former Secretary of the Environment, State of Maryland), U. S. A.
- 3. David Nemazie (University of Maryland), Philippines
- 4. Suhendar Sachoemar (Agency for the Assessment and Application of Technology), Indonesia
- 5. Ruben Kosyan (P. P. Shirshov Institute of Oceanology), Russia

5. The Students and Schools Partnership Session (SSP Session)

The Students and Schools Partnership Session (SSP Session) has been held since EMECS 6 in 2003, which was held in Bangkok, Thailand. The purpose of the session is to help to promote environmental education for the students who will become the leaders of environmental preservation activities in the next generation. At EMECS 11, a total of 13 students — nine from Russia, two from the United States and two from Japan —participated in the SSP Session.

The initial session (Perspectives on Climate Change and Coastal Environments") was held beginning at 10:30 a. m. on Wednesday, August 24, at the A.P. Karpinsky Russian Geological Research Institute (VSEGEI). Daria Ryabchuk (VSEGEI) spoke about the Baltic Sea, Michael Hardesty (Washington College) spoke about



A.P.Karpinsky Russian Geological Research Institute Museum

Chesapeake Bay, Tetsuo Yanagi (International EMECS Center) spoke about the Seto Inland Sea, and Jean-Paul Ducrotoy (The University of Hull) spoke about the North Sea. In the afternoon, the

students toured the museum at VSEGEI, and at 4:00 p. m. they participated in the poster session that was held at the Azimut Hotel.

On Thursday and Friday, August 25 and 26, Wayne Bell and Daria Ryabchuk served as co-chairs for sessions at the Russian State Hydrometeorological University. The sessions consisted of oral presentations and a question and answer session.

At the closing session held on the afternoon of Friday, August 26, three groups consisting of four students — Yuma Hayashi (Japan), Sergey Krylenko (Russia), Kirstin Webb (U. S. A.) and Erika Koontz (U. S. A.) received awards at the Best Poster awards presentation. In addition, the SSP Declaration prepared by the students through discussions was read aloud by six students in turn.



Discussion by SSP session participants

The students also broadened their knowledge by participating in the city tour that was held on the afternoon of Tuesday, August 23 and the technical excursion that was held on Saturday, August 27.

6. Oral Presentations (Sessions)

From Tuesday, August 23 through Friday, August 26, 130 oral presentations were given in parallel sessions at three venues each at the Azimut Hotel and Russian State Hydrometeorological University. The topics of the oral presentations were as follows.

- ICM and Satoumi
- Coastal erosion and dynamical processes in the nearshore zone
- · Coastal and marine ecosystems: monitoring
- and modelling
- Coastal forecast of Russian tideless seas development



Session at the Russian State Hydrometeorological University

- Sustainable use and development of coastal resources: Effective management and approaches
- Coastal systems and their dynamics (From coast to water and from water to coast)
- Climate change in the changing world. Coastal adaptation to climate change
- Prevention and Mitigation of Natural Disasters Risks in Coastal Regions Special session of BRICS countries representatives

7. Poster Session

The poster session was held from 4:00 to 6:00 p. m. on Wednesday, August 24 in Azimut Hall at the Azimut Hotel. A total of 116 posters (101 general and 15 SSP) were presented. At the venue, there were spirited questions and answers, and exchange of views between participants and

presenters.

In addition, on Thursday, August 25, a meeting of the committee to select the winners of the best poster award was held, with Ruben Kosyan (Russia) serving as chair. Six general posters and three SSP posters were selected to receive the awards for outstanding poster.

Best Poster Award (selected)

- No. 11 Ryo Sakamoto; Coastal alteration and changes in shoreline morphology due to artificial structures in Miiraku Town on Fukue Is. in the Goto Archipelago
- No. 45 Natalia Andrulionis; Site-Specific Equations of State for Coastal Waters and Inland Water Bodies
- No. 62, Sosuke Otani; Transfer efficiency from primary producers to Ruditapes philippinarum on an intertidal flat in Hiroshima Bay, Japan
- No. 81, Alexander Krek; Oil pollution of the sea surface of the Southeastern Baltic and possible directions of its propagation
- No. 90 Mari Maeda; Environmental Education for Schoolchildren in a Seawater Pond for Creating a Satoumi
- No. 97 Violeta Velikova; Identification and prioritization of Hot Spots in managing risks to Black Sea coastal regions

Best Poster of SSP (selected)

- No. 106 Kristin Webb; Viewpoints of the Chesapeake: Influencing Local and Global Citizenship in the Face of Climate Change
- No. 108 Yuma Hayashi; From Amagasaki to the Seto Inland Sea and the World: High School Student Environment Network
- No. 114 Sergey Krylenko; Characteristics of the cliff plant communities of the Tuapkhat massif

8. Closing Session

The closing session began at 2:00 p. m. on August 26. The plenary session to wrap up the conference was held in Azimut Hall in the Azimut Hotel, with Andrey Zatsepin (P.P. Shirshov Institute of Oceanology) serving as chair. Presentations were given by Vladimir Kudryavtsev (Russian State Hydrometeorological University), Zhongyuan Chen (East China Normal University) and Osamu Matsuda (International EMECS Center).



Andrey Zatsepin (P.P.Shirshov Institute of Oceanology)



Poster session

[Presentations]

1. Vladimir Kudryavtsev, Satellite Oceanography Laboratory, Russian State Hydrometeorological University, Russia

Observation of atmosphere-ocean system and its extremes using satellite sensor synergy and modelling

2. Zhongyuan Chen, State Key Lab. for Estuarine and Coastal Research, East China Normal University, China

Water diversion and sea-level rise: Potential threats to freshwater supplies in the Changjiang River estuary

3. Osamu Matsuda, Vice-chair, International EMECS Center, Japan
History of Total Pollution Load Control and Possible Future Coastal Management
in Japan

9. Closing Ceremony

Following a coffee break, the closing ceremony was held beginning at 4:30 p. m. Masataka Watanabe (International EMECS Center) gave a general overview of the achievements of the conference and expressed gratitude to all who had helped to make it a success. In addition, The Students and Schools Partnership Declaration (SSP Declaration) that had been prepared by the students participating in the SSP Session was read aloud by them and, with a standing ovation, they were praised by the conference attendees.

Next, David Nemazie (University of Maryland, U. S. A.) read the St. Petersburg Declaration, which was adopted by all of the attendees.



Best Poster awards

Ruben Kosyan (P.P. Shirshov Institute of Oceanology) announced the winners of the Best Poster Award (nine total, six general and three SSP) that had been selected by the Best Poster Award selection committee. The winners were introduced and presented with commemorative gifts. Finally, Piamsak Menasveta (Chulalongkorn University) announced that the next EMECS conference, EMECS 12, would be held in Pattaya, Thailand in 2018, and invited all of the

participants to attend.

After the closing ceremony, a gala dinner was held to celebrate the success of the conference and to facilitate the deepening of exchanges among the participants from various countries in anticipation of the next EMECS conference.



Gala dinner

City tour: August 25



St. Isaac's Cathedral



Neva river and Hermitage Museum

Technical excursion: August 27





Flood Protection Barrier





City of Kronshtadt