

International EMECS Center Announces New Vice-Chair, Board of Directors

We are pleased to announce that Prof. Osamu Matsuda (Professor Emeritus, Hiroshima University) was inaugurated as the new Vice-Chair, Board of Directors of International EMECS Center in June, 2015. On this occasion, we would like to extend our heartfelt appreciation to Prof. Tomotoshi Okaichi, the former Vice-Chair, Board of Directors, for his great contribution to International EMECS Center so far.

Inaugural Address

Osamu Matsuda

My Involvement with EMECS Activities

I have been fortunate to have been involved with EMECS activities for a very long time. Looking back, I realize that I have attended every one of the EMECS Conferences, from the first one that was held in Kobe in 1990 through the 10th one that was held in Marmaris, Turkey in 2013. I have been involved in both the EMECS Conferences and the running of the organization, first as a conference attendee, then as a conference presenter, and then gradually as a member of the Scientific & Policy Committee (SPC) and a director of the International EMECS Center. For the training activities, in which the International EMECS Center was contracted by the Japan International Cooperation Agency (JICA) to provide personnel training in developing countries, I served for many years as a course leader for the training course. In August of this year, I plan to attend EMECS 11, which will be held in St. Petersburg in the Russian Federation. Thus, I have spent nearly a quarter of a century being involved in and learning about the world's enclosed coastal seas.



I am profoundly grateful for the friendship of the people at the International EMECS Center and the SPC whom I have encountered during this time. With the well-earned retirement of Professor Tomotoshi

Okaichi, former Vice-Chair of the Board of Directors, I have unexpectedly been appointed to take his place as the new Vice-Chair of the Board of Directors. I would like to take this opportunity to share my thoughts about EMECS and efforts to preserve enclosed coastal seas.

The ten International EMECS Conferences themselves have been extremely valuable, but the field trips planned to coincide with the conferences and the personal exchanges with others at the venue locations have also been very memorable. Wandering back through my memories of the field trips, I recall EMECS 3 (held in 1997 in Stockholm, Sweden), a conference that was also noteworthy for the Stockholm Declaration that was adopted at the close of the conference. The field trip for this conference was a visit to the Asko Laboratory, a waterfront facility of Stockholm University located on the Baltic Sea, where we were given a tour by the late Dr. Bengt-Owe Jansson. I remember the Baltic Sea, which freezes over in the winter, and the research vessel with ice-breaking capability, as well as Dr. Jansson, who shared his outstanding insights with EMECS for so many years.

During the field trip for EMECS 4, held in 1999 in Antalya, Turkey, we set out on the ocean abroad a cruise ship. The sea was transparent and extremely clear, and we could see all the way to the ocean floor even at a considerable depth. But this beautiful ocean was still, and for some reason there seemed to be no activity. There was no trace of small fish swimming around, or shellfish or starfish, and not

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even any seabirds flying above. There was no sign of life at all. This was my first impression of an oligotrophic ocean region in the eastern Mediterranean.

At EMECS 7, held in Caen, France in 2006, I reported on Japan's Sato-umi together with Professor Tetsuo Yanagi. At the closing discussion on the final day, we received a very upbeat assessment from Professor Erdal Ozhan of Turkey, who was a major presence at the EMECS conferences. In the concluding slides that Professor Ozhan himself prepared, he wrote that Sato-umi is a "symbiosis among human communities and coastal areas - a more rational vision of coexistence." This was the catalyst for Sato-umi coming to be frequently raised at subsequent International EMECS Conferences.

EMECS 9, held in 2011 in the city of Baltimore in the United States, was the second time that the International EMECS Conference had been held in Baltimore. I recall that for the field trip we visited a farm operated by the Chesapeake Bay Foundation. It seemed a bit strange that an ocean foundation would operate a farm, but this example of Community Supported Agriculture in which both citizens and consumers collaborate could also be called a social experiment linking the ocean and agriculture, and it proved to be a very valuable reference for the subsequent creation of Sato-umi in Japan and so on.



EMECS Activities and the Seto Inland Sea

EMECS activities were originally born out of a desire to resolve the environmental problems faced by the Seto Inland Sea. For this reason, there is an inseparable relationship between EMECS and the Seto Inland Sea. This is clear from the organizational aspects as well. As many of you know, the International EMECS Center, The Association for the Environmental Conservation of The Seto Inland Sea and the Secretariat for the Research Institute for Seto Inland Sea all share the same office in Kobe, Japan. They are what could be called organizations

with a single heart and mind. The International EMECS Center is an international organization, but this triangle of three organizations also serves as the base for the International EMECS Center in Japan. Moreover, Governor Toshizo Ido of Hyogo Prefecture, the Chair of the Board of Directors for the International EMECS Center, also serves as the Chair of the Governors and Mayors' Conference on the Environmental Conservation of the Seto Inland Sea. This also strengthens the relationship between EMECS activities and the Seto Inland Sea.

Even just considering the time since EMECS activities began, there have been tremendous changes in the Seto Inland Sea. There is a long history of management of the Seto Inland Sea, but in recent years 2013 saw the 40th anniversary of the enactment of the Law Concerning Special Measures for Conservation of the Environment of the Seto Inland Sea, and 2014 saw the 80th anniversary of the designation of the Setonaikai National Park. Moreover, 2015 became the year for a particularly important change of direction for the Seto Inland Sea. At the end of February 2015, a major revision of the national government's Basic Program for the Conservation of the Environment of the Seto Inland Sea was approved by the Cabinet. In addition, at the end of September, a revised version of the Law Concerning Special Measures for Conservation of the Environment of the Seto Inland Sea was enacted to support the content of these major revisions. The combination of unparalleled major revisions to both the law and the Basic Program resulted in a major change to the management system for the Seto Inland Sea.

If you wanted to sum up the changes to the system in a single phrase, it would be the major shift from working to achieve a "clean ocean" to working to achieve an "abundant ocean." The Law Concerning Special Measures for Conservation of the Environment of the Seto Inland Sea was enacted in the days of significant environmental pollution. Since that time, efforts over many years have been dedicated to cleaning up the polluted ocean. As a result, the total pollutant load from land-based sources has been reduced, which, to a significant degree, achieved the goal of creating a "clean ocean" in terms of water quality. Meanwhile, however, the natural beaches, seaweed beds and tidal flats have decreased, and the fishing catch has also declined, and so the loss of the original abundance of the Seto Inland Sea remains unchanged. These revisions mark a major pivotal change from the previous focus on preserving water quality through restrictions to an active effort to secure fishery resources - and not only preserve but also restore the environment. This approach is clearly stated in the basic philosophy of the revised law: to turn the Seto Inland Sea into "a sea of abund-

ance whose multifaceted value and functions are maximized."

Most of the ocean regions in the Seto Inland Sea have already achieved their water quality environmental standards, and it is entering a "post-total pollutant load control age." The Seto Inland Sea has also been called an "experimental ocean" for ocean environmental management in Japan. From now on, it also needs to play the role of experimental ocean for the entire world as it deepens its exchanges with other enclosed coastal seas around the world.

The Future of EMECS Activities

In the previous section, I discussed the changes in the Seto Inland Sea. But in recent years, enclosed coastal seas throughout the world have experienced dramatic changes. Some aspects of the enclosed coastal seas around the world have improved, but the situation has grown more serious in the case of many others. The perspective of "enclosed coastal seas" of the International EMECS Center and the International EMECS Conferences is a very unique one, and the original mission of EMECS is still an extremely valuable one. Yet it is also important for an organization or conference to adapt a flexible approach to the changing times. It is essential for EMECS to further deepen its international network and the quality and quantity of its topics to make them more effective.

In 2015, the East Asian Seas (EAS) Congress sponsored by the Partnerships in Environmental Management for the Seas of East Asia (PEMSEA) was held in Danang, Vietnam. The International Workshop on Land-Ocean Interactions in the Coastal Zone and Sustainable Development (LOICZ) was held in Yantai, China. The Pacific-Asian Marginal Seas

Meeting was held in Naha, Okinawa, and a symposium was held in Changwon, South Korea to commemorate the 10th anniversary of the introduction of Total Pollution Load Management. In this way, there were many opportunities to participate in conferences with a deep connection to EMECS during the year. At these events, I learned that activities relating to EMECS and Sato-umi have come to be very well known internationally, and I felt strongly that there is a need to further deepen collaboration with other groups and organizations that are dealing with similar topics.

In recent years, there has been a great deal of discussion about the future vision for EMECS and what kind of organization it should be, and organized study is underway. I hope there will be a variety of opportunities at which we can pursue discussion of these issues, primarily at the Scientific & Policy Committee. In this process, it is important to not try to do anything and everything but rather to focus on making sure that the special characteristics and strengths of EMECS are fully realized, based on the achievements of EMECS activities up to now. The special characteristics and strengths of EMECS include the fact that it is unparalleled as an international organization whose watchword is "enclosed coastal seas," that its Scientific & Policy Committee brings together people from places around the world to work in a congenial atmosphere, and that it frequently raises the topic of Sato-umi and continues to communicate this concept internationally. I think an effective EMECS of the future would be one that moves forward by using both its past achievements and its originality to maximum effect. As a novice Vice-Chair, I plan to use my poor abilities to do everything I can, and I ask for your continued assistance and cooperation in this effort

EMECS11 – Sea Coasts XXVI Joint Conference

Managing risks to coastal regions and communities in a changing world



Dates: August 22 (Mon) – 27 (Sat), 2016

Venue: Azimut Hotel, Saint Petersburg, Russian Federation

Organizers International EMECS Center, "Sea Coasts" Working Group of the RAS Council on World Ocean

Official Website: www.emecs-sc2016.com

The 11th International Conference on The Environmental Management of Enclosed Coastal Seas (EMECS 11), sponsored by the International EMECS Center, will be held in St. Petersburg, Russia in August 2016. EMECS 11 will be a joint conference with the "Sea Coasts" Working Group of the Council of the Russian Academy of Sciences on World Ocean.

In recent years, global climate change, changes to populations and economies, and the human-induced environmental problems resulting from development have had a tremendous impact on coastal zone environments, including ecosystems, giving rise to a variety of issues and risks.

The theme of the EMECS 11 – Sea Coasts XXVI

Joint Conference is "Managing risks to coastal regions and communities in a changing world." The conference will be an opportunity to share knowledge of efforts to preserve coastal zone environments around the world, and to find new and improved approaches to the management of coastal zone environments in the future.

We invite researchers, coastal zone administrators and planners, policymakers, government officials, and people involved in resource development and environmental preservation activities to attend the conference.



● **Main Organizers**

International EMECS Center
 "Sea Coasts" Working Group of the RAS Council on World Ocean

● **Local Organizers**

Russian State Hydrometeorological University (RSHU)
 P.P. Shirshov Institute of Oceanology of the Russian Academy of Sciences (IO RAS)
 A.P. Karpinsky Russian Geological Research Institute (VSEGEI)

● **St. Petersburg**

The conference will be held in St. Petersburg, located on the Baltic Sea (an enclosed coastal sea). The city is built on a lowland marsh and has experienced major flooding due to storm surges from the Baltic Sea on numerous occasions. For this reason, a combined expressway and flood barrier dam (total length 25 km) has been constructed between the city and the sea. In this way, the city has faced issues relating to both disaster prevention and environmental protection.



(The Saint Petersburg Flood Prevention Facility Complex)

● **Conference Venue**

Azimut Hotel, St. Petersburg



This hotel was built in St. Petersburg during the Soviet era. It was completely renovated in 2014. The nearest station is Baltiyskaya Station on the subway line.

● **Registration fees**

Regular participant	Fee
By 15 June, 2016	EUR 350
Young participant (Under 30 year-old on the first day of conference)	Fee
By 15 June, 2016	EUR 200

※For further detailed information about registration, please visit the official website.
 (<http://www.emecs-sc2016.com>)

● **Key dates**

Visa support request	1 June, 2016
Deadline for registration fee payment	15 June, 2016
Third conference announcement	June, 2016
Publication of preliminary conference program	June, 2016
Final conference program	June, 2016

Report of EMECS International Seminar

As the world's population continues to increase, industry, agriculture, urban development and other human activities are placing a major burden on various natural ecosystems, and coastal zone environments are also being affected. In order to share new knowledge and experience regarding efforts to determine the current status and preserve coastal zone environments in Japan, China and Europe and deepen the discussion of ways to ensure the future coexistence of human activities and natural environments, the International EMECS Center held an EMECS International Seminar on Friday, June 19, 2015 at the large



conference room in the Hyogo House in Kobe Japan. The theme of the seminar was "Enclosed Coastal Seas in the World - Sustainable Relationship between Natural Ecosystems and Human Activities"

Motoyuki Suzuki, president of the International EMECS Center, gave the keynote address for the seminar. Subsequently, Osamu Matsuda, vice chair of the Board of Directors (and Professor Emeritus of Hiroshima University) served as chair for three presentations and a panel discussion. Information on the upcoming EMECS 11 conference was also provided.

Seminar Abstracts

●Keynote Address

Environmental Management policy of Enclosed Coastal Seas

Lecturer: Motoyuki Suzuki

President, International EMECS Center

Former Chairman, Central Environmental

Council (Japan)

The oceans that were the origin of human life are the fundamental presence creating the climatic conditions that enable the survival of all life on land and in the sea.

In the past half-century, the world's population has more than doubled, and there has been an explosive increase in human activities. The effects can be seen in coastal zones, and in enclosed coastal seas in particular. Population is concentrated in many coastal areas and river basins, and efforts are needed to assess the extent of human activities that affect ocean regions through the diverse environmental load produced by the economic activities and lifestyle patterns of the people in these areas, and to calculate that environmental load. The sphere of human activities and the mountains and forests function to discharge rainwater into rivers in a stable manner, which then flows downstream and provides nutrient and polymeric organic matter and so on to the oceans. However, this mechanism is undergoing great changes as a result of climate change and the enormous scale of development.

There has been significant deterioration of fishery operations and environments in coastal zones resulting from changes to coastal zones beginning in the period of economic growth that followed the end of the Second World War. In the Seto Inland Sea, "red tides" and other damage to fishery operations occurred frequently as a result of the high-level growth of the 1960s. For this reason, thorough effluent regulations and the like began to appear around 1970 as a result of the enactment of the Water Pollution Prevention Law. Attention focused on the inflow of nutrient from land areas, which was the principal cause of the "red tides," and total emissions regulations for nitrogen, phosphorus and other substances were put into



effect. Although "red tides" have decreased, however, the fishing catch in the Seto Inland Sea has been declining. The intricate coastline of the Seto Inland Sea also makes the tidal flows complex. Substance circulation is not easy to predict, and much of the traditional knowledge that has been accumulated over time is thought to have been lost.

Various efforts will be needed to ensure the health of the many diverse enclosed coastal seas throughout the world.

●Presentations

1. Review of Coastal Management Policy and Future in Japan

Lecturer: Keizo Negi

Director, Office for Environment Management Enclosed Coastal Seas, Environmental Management Bureau, Ministry of the Environment (Japan)

In the 1960s, Japan experienced serious water pollution during the country's period of advanced economic growth. Moreover, the concentration of population and industry resulted in the inflow of chemical substances, organic matter, nutrient and other pollutants into the ocean from land areas, and this had an adverse effect on living environments and fishery operations, resulting in health problems and the occurrence of "red tides." One of the measures instituted to resolve this situation was the Total Pollutant Load Control System, which was based on the Water Pollution Prevention Law and the Law Concerning Special Measures for Conservation of the Environment of the Seto Inland Sea. This system was designed to reduce the total load from Chemical Oxygen Demand (COD), total nitrogen and total phosphorus flowing into the ocean areas of Tokyo Bay, Ise Bay and the Seto Inland Sea. This presentation focuses on the mechanism of the Total Pollutant Load Control System that has been in place in Japan for many years in the Seto Inland Sea and other areas, as well as the results of these efforts and the current state of study of the system.



For the first time in approximately 14 years, the government has revised the Basic Plan for Conservation of the Environment of the Seto Inland Sea, which was enacted based on the Law Concerning Special Measures for Conservation of the Environment of the Seto Inland Sea. The Basic Plan was last changed in December 2000, more than ten years ago, and following a review and airing of opinions regarding how to enable the plan to accommodate new issues such as improving biodiversity, the changes were approved by the Cabinet in 2015. Study and research on securing "a beautiful and abundant ocean" were also initiated in FY 2015. The presentation also discusses the latest efforts of the Ministry of the Environment to promote and embody the new goals of "preserving, restoring and creating coastal zone environments" "preserving and managing water quality" and so on that are introduced in the summary of the basic plan and the main plan.

2. Sustainable management of estuaries in North Western Europe in response to climate change

Lecturer: Jean-Paul Ducrotoy
Reading Professor Emeritus, University of Hull (France)

Estuaries are regions that are essential to the ecological functioning of coastal zone environments. The benefits of the biogeochemical cycles and biological processes in these ecosystems are used widely by the people who receive these benefits, helping to develop many types of economic activities. Today, however, coastal zone environments are under increasing pressure from the development of economic activities, and this is affecting biological environments. Estuary management must be understood by all stakeholders, and a global vision accompanied by acceptable ecosystem goals is needed. This suggests that it is important for scientists to have an understanding of hydrological and topographical conditions that relate to the ecological functions of estuaries. It is also becoming clear that temporary productivity and the structure of fishing communities are an indicator of the health of the environment.



This presentation compares the means that have been developed to restore damaged biological environments and the methods used to restore lost estuary ecosystem functions in five rivers that include the Seine River in France and the Humber River in England. It also looks back on the morphological changes and ecosystem changes that occurred in these estuaries during the previous century and discusses activities that were useful in improving these ecosystem functions.

3. South to North Water Diversion Project of China : Feasibility and Challenge

Lecturer: Zhongyuan Chen
Professor, East China Normal University (China)

In comparison to the south of China, which has abundant water resources, the north has insufficient water, and social and economic development in the north has lagged significantly. In comparison to the annual flow of the Yangtze River that flows through the south, and the proportion of that flow that



is used for farmland irrigation, the entire annual flow of the major rivers that flow through the north (Yellow River, Huai River, Hai River) is much lower. Despite this fact, 62% of all of the farmland in China is irrigated. In addition, droughts occur frequently in the north, and over-irrigation is conducted in the upper reaches of the Yellow River. For these reasons, it is practical to transport water to the north from the Yangtze in the south via three routes (west, central and east).

The water diverted to the western route is sent from the upper reaches of the Yangtze River to the upper reaches of the Yellow River and is supplied to six provinces in the northwest of China. The objective is to make up for water insufficiency in the Yellow River basin that is the result of over-irrigation. The water sent along the central route is diverted primary from the Danjiangkou Reservoir and is sent to major cities along the canal. The purpose is to relieve the pressure of the use of water for daily living by people in more than 20 cities including Beijing and Tianjin, and to ensure the eco-friendly use of water. The eastern route is intended to meet the demand on the east coast in northern China, and to resolve problems caused by insufficient water in the lower reaches of the Yellow River.

However, there are problems with the diversion of water. For example, the amount of water diverted from the middle reaches of the Yangtze River amounts to approximately 24% of the annual inflow of water to the river from the headwaters, and this threatens the water resources of the local population in the dry season. The diversion of water also exacerbates the intrusion of salt water into the Yangtze Estuary. Diverting the water eases the water shortage in the north, but it produces numerous side effects from an environmental preservation standpoint. For this reason, there is an urgent need to conduct integrated water research.

After these three presentations, a panel discussion that featured spirited discussion was coordinated by Vice Chair Matsuda.

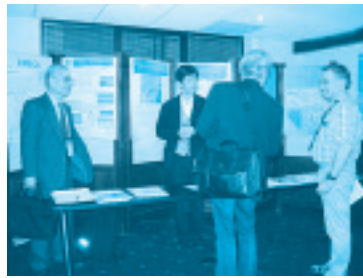
This was followed by a series of announcements regarding the 11th International Conference on The Environmental Management of Enclosed Coastal Seas (EMECS 11) that will be held in August of this year in St. Petersburg, Russia. Masatake Watanabe, chair of the International EMECS Center Scientific & Policy Committee (and professor at the Research and Development Initiative (RDI) of Chuo University) talked about the flood prevention dam in St. Petersburg (to which conference attendees will make a field trip), and Scientific & Policy Committee member Ruben Kosyan (Russian Academy of Sciences) provided information on the conference. Finally, Tetsuo Yanagi, principal researcher at the International EMECS Center (and Professor Emeritus, Kyushu University) spoke on the status of execution of the "Development of Coastal Management Method to Realize the Sustainable Coastal Seas" project being conducted under the Environment Research and Technology Development Fund.

Report of International Conferences

(For detailed reports, see the International EMECS Center website: <http://www.emecs.or.jp/en>)

MEDCOAST 2015 Conference in Varna, Bulgaria

The 12th International Conference on the Mediterranean Coastal Environment (MEDCOAST 2015) was held October 6 - 10, 2015 in Varna, Bulgaria. The conference was sponsored by the Mediterranean Coastal Foundation (Republic of Turkey), which jointly sponsored EMECS 10.



MEDCOAST 2015 featured various sessions on coastal zone management. Professor Ken'ichi Nakagami of Ritsumeikan University gave a presentation on the current state of coastal zone management in Japan, the "Sato-umi" concept, and research projects and ecosystem assessment using the Environment Research and Technology Development Fund S-13 (Development of Coastal Management Method to Realize the Sustainable Coastal Sea) of the Ministry of the Environment.

The exhibition booth of the International EMECS Center, which was visited by many conference attendees, displayed posters and distributed pamphlets and leaflets on EMECS activities including PR for the upcoming EMECS 11 conference to be held in August 2016 in Russia, as well as projects relating to Sato-umi, S-13 environmental research project, the environment of the Seto Inland Sea and so on.

MEDCOAST 2015 was attended by some 120 persons from countries in many parts of the world, including Europe, the United States, the Middle East, Africa and Asia. The conference featured presentations on activities, policies, issues and so on relating to coastal zone environments in various countries, as well as spirited discussion of future approaches to coastal zone management.

[MEDCOAST conference website:
<https://www.conference.medcoast.net/>]

3rd International Workshop on Satoumi in Jakarta, Indonesia

On October 7 and 8, 2015, the 3rd International Workshop on Sato Umi was held in Jakarta, Indonesia. The workshop was sponsored by the Indonesian Agency for the Assessment and Application of Technology (BPPT) and co-sponsored by the International EMECS Center and two other international organizations.



On the first day, Tetsuo Yanagi, Professor Emeritus of Kyushu University and special researcher at the International EMECS Center, gave a keynote speech in which he defined Sato-umi and discussed its relationship to ecosystem-based management, community-based management and integrated coastal zone management. He also discussed the research and development project under the Environment Research

and Technology Development Fund S-13 (Development of Coastal Management Method to Realize the Sustainable Coastal Sea) of the Ministry of the Environment, of which he is the head researcher. Attendees from Indonesia, France, the United States and other countries also presented various reports of coastal zone management in which the Sato-umi concept was introduced, including presentations on sustainable aquaculture activities in Indonesia based on the Sato-umi concept, the role of policies related to Sato-umi within science and technology policy, and Sato-umi related research at the EU.

The second day featured a field trip to the Seribu Islands approximately 50 km north of Jakarta. Participants visited shrimp and fish aquaculture facilities, environmental learning facilities and so on.

[Website for International Workshops on Sato Umi Website:
<http://satoumiworkshops.org/>]

East Asian Seas Congress 2015 in Danang, Vietnam

The East Asian Seas Congress 2015 was held November 16 - 21, 2015 in Danang, Vietnam. The Congress was sponsored by the Regional Programme on Partnerships in Environmental Management for the Seas of East Asia (PEMSEA), in which the International EMECS Center participates as a non-governmental partner.



Sessions on various topics were held during the Congress. The session on "Good Practices, Innovation and Impacts in ICM Applications in Japan" was jointly sponsored by the International EMECS Center and the Ocean Policy Research Institute of the Sasakawa Peace Foundation. The session was co-chaired by Keita Furukawa, Director of Marine Research and Development at the Ocean Policy Research Institute (and member of the International EMECS Center Scientific & Policy Committee) and Osamu Matsuda, vice chair of the Board of Directors of the International EMECS Center, and featured various presentations on the environmental management of coastal zones in Japan.

The International EMECS Center had an exhibition booth as well. Representatives also attended the partnership meeting together with Vice Chair Osamu Matsuda, and also attended the Ministerial Forum as observers.

The Congress was attended by more than 500 persons from Japan, Vietnam, China, South Korea, Singapore, Indonesia and other East Asian countries.

[East Asian Seas Congress website: <http://eascongress.pemsea.org/>]

Promoting EMECS Science Outcomes

Professor Eric Wolanski, FTSE
James Cook University, Australia
Scientific and Policy Committee, International EMECS Center

International EMECS Center at ECSA55 Conference in London, UK

International EMECS Center (hereinafter referred to as "EMECS") sponsored a session at the Estuarine and Coastal Science Association (ECSA) conference "ECSA55" in London, September 6-9, 2015. The theme of the conference was "Unbounded boundaries and shifting baselines". The EMECS session was chaired by Professor Tetsuo Yanagi (EMECS, Japan) and Professor Eric Wolanski (Australia; and a member of EMECS Scientific and Policy Committee). The conference had about 360 registrations. The EMECS session was well attended. There were 8 oral presentations. These were:

1. Competition of *Zostera* marine and *Zostera japonica* in the eelgrass bed of eastern Yamaguchi in the Seto Inland Sea, Japan.
2. Benthic quality assessment using M-AMBI analysis in Seto Inland Sea, Japan
3. The fate of Phosphorus in the Yangtze (Changjiang) Estuary, China, under multi-stressors: hindsight and forecast
4. Sources, distribution and toxicity of organic pollutants in coastal and shelf sediments of developing southwest China
5. Mercury cycling in a hot spot of the Mediterranean basin
6. Assessing the effects of mussel and finfish aquaculture farming in Pelorus Sound, New Zealand: 18 years of monitoring data and a 3D biophysical model suggest that climatic influences outweigh aquaculture influences
7. Water column stability and quality in semi enclosed seas and basins
8. Acidic lagoonal waters have healthy coral communities thanks to poor flushing

All these talks were very specific to semi-enclosed systems (bays, fjords, slowly flushed estuaries, semi-enclosed seas and lagoons) and a commonality emerged between all the sites about problems and solutions. There were important lessons in how to manage and not to manage enclosed seas!

In addition, Professor Tetsuo Yanagi of EMECS gave a talk "Development of coastal management method to realize the sustainable coastal sea", and Professor Eric Wolanski gave a plenary lecture "Physics-biology links determining connectivity for fauna and flora at scales of m to 10,000 km" and with Professor Michael Elliott of the University of Hull, UK, launched his new book Wolanski, E., Elliott, M. "Estuarine

Ecohydrology. An Introduction", Elsevier, Amsterdam 322 pp. (<http://store.elsevier.com/Estuarine-Ecohydrology/Eric-Wolanski/isbn-9780444633989/>)

Professor Jean-Paul Ducrotoy (a member of EMECS SPC) chaired a session about his book series "Estuaries of the World".

Finally EMECS also sponsored the EMECS student prizes. This is becoming a new tradition that was started with 2 EMECS student prizes at the ECSA conference in Venice in 2012 and 3 EMECS student prizes at the ECSA conference in Shanghai in 2013. The EMECS jury comprised professors Tetsuo Yanagi, Eric Wolanski and Jean-Paul Ducrotoy. The awarding of the EMECS student prizes was done in a plenary session on the last day (thus in front all the attendees) and EMECS was very much thanked by ECSA and Elsevier for this initiative.



Professors Michael Elliott (left) and Eric Wolanski (right) at the launch of their new book.

This time they were four EMECS student prizes awarded: each winner received an estuarine marine science book from Elsevier and an EMECS-ECSA certificate. The winners were:

1. Youta Sugai, of Soka University, Japan
2. Luis Henriquez, of the University of Tasmania, Australia
3. Franziska Bitschofsky, of the University of Rostock, Germany
4. Ken Schoutens, of the University of Antwerp, Belgium



EMECS student prize winner Mr. Luis Henriquez (right) and the EMECS jury J.-P. Ducrotoy, E. Wolanski and T. Yanagi.

Call for Articles

Contributions from readers (reports of research on enclosed coastal seas, conference information, etc) would be greatly appreciated.

International EMECS Center

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