

Side event of the COP12 of Convention of Biological Diversity
THE IMPORTANCE OF PROTECTING COASTAL ENVIRONMENT
GRADIENTS
~ HOW CAN WE ATTAIN MARINE AICHI TARGETS ~

Hosted by

Marine and Coastal Biodiversity network-Japan , Nakatsu Waterfront Conservation Association,

NPO Omotehama network, Kaimin Network, NACS-J

Date & Time : October 10th 18:15-19:45 Room : Hall B, Room 1 - NGOs meeting room

Schedule: 18:15 ~ 19:15 Each presentation will be 12-13min

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|--|----------------------------|
| (1) Opening remarks : | Mariko Abe (Dr.) (NACS-J) |
| (2) World Heritage in Marine areas (tentative) | By Masahito Yoshida(Prof.) |
| (3) The possibility and what to learn from EBSA | By Yuji Tanaka |
| (4) The way how Marine Protected Area in Japan should be | By Mariko Abe (Dr.) |
| (5) Highly Artificialized Coasts, Huge Sea Wall Construction Plan
and Amendment of the Sea Coast Act in Japan | By Satoquo Seino (Dr.) |
| (6) To maintain Nakatsu Tidal Flat which makes all the creatures,
children and fishermen happy 100 years from now | By Yukiko Ashikaga |
| (7) Saemangeum Reclamation and changes in environments (temp) | By Ju Yung Ki |
| (8) Conclusion | By Masahito Yoshida(Prof.) |

* Program director : Mariko Abe



日本自然保護協会
THE NATURE CONSERVATION SOCIETY OF JAPAN

The Nature Conservation Society of Japan(NACS-J) was established in 1951, and have 21,000 supporters. The aims of our activities are to survey the principle of Nature and to explore a strategic perspective how to prevent the wildlife crisis and to ensure the sustainability of natural resources.

We have been very much interested in promoting the conservation movement.

Our recent outcome focuses on three main programs, which include promoting scientific study of the environment, providing scientific knowledge to public with emphasis on the importance of the conservation concept, and presenting recommendations to the relevant sectors to establish the healthy relation between people and nature.



Nakatsu Waterfront
Conservation
Association

Marine and Coastal
Biodiversity
network-Japan

Kaimin
Network

SPEAKERS

Satoquo SEINO, Ph.D

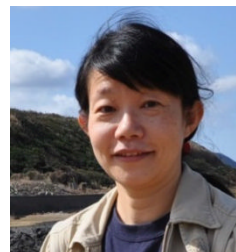
Associate Professor, Ecological Engineering Laboratory, Graduate School of Engineering, Kyushu University, Japan.

Educated in Dept. Fisheries, Fac. Agr., (B, M), Dept. Systems Sciences (D), The University of Tokyo. Master of Agricultural Sciences (Fishery Sciences), Doctor of Philosophy (Civil Engineering)

Research subjects: Consensus building and citizen participation in coastal zone management.

Ecological engineering of aquatic biodiversity and habitats conservation, and restoration in coastal and river waters.

Endangered species protection. Sustainable use of marine resources based on local ecological knowledge and integration with scientific one. Joined many coastal environmental planning and legal system amendments (especially of the Sea Coast Law in 1999 and 2014) in Japan.



Yukiko ASHIKAGA

Born in Nagano. Volunteered for nature conservation activities while studying marine invertebrates in college. Established the NPO Nakatsu Waterfront Conservation Association in 1999 with like-minded colleagues and serves as its director. Participates in a variety of activities to bring the sea and the people closer together, and is an Environmental Counselor and an Endangered Species Conservation Promoter.



Yuzi TANAKA

NPO Omotehama network CEO, Japan Sea Turtle Association director

Coast Design Laboratory CEO

We participate in the Omotehama network from 2001 and establish NPO corporation Omotehama network in 2006 and take office as Director representative. We perform the maintenance activity of the shore as a symbol of the sandy beach Coast mainly at the list beach shore (Enshu Nada Beach, Pacific coast of the Atsumi Peninsula). We are attention the loggerhead turtle as an index animal and investigate it to convey the environment of a particularly dynamic sandy beach and carry out protection enlightenment activity. The sandy beach is important for the environment of the difference as a buffer. It is dynamic and taking of the theme called the ocean mosaic as activity to keep the specific environment.



Mariko ABE

Chief, Conservation Unit, Conservation and Research Division, The Nature Conservation Society of Japan. Doctorate in Science (marine science)

ABE Mariko is a marine officer of The Nature Conservation Society of Japan (NACS-J) since April 2010. She has been working on coral reef conservation of Okinawa and coastal management of Japanese marine areas. After completion of Master's of Science in Life Science from Tokyo Institute of Technology (1992), she worked for WWF Japan (World Wide Fund for Nature) as an education officer and a marine officer for eight years. She had been to Australia to study about coral reefs and received her Masters of Applied Science in Marine Biology from James Cook University (2003). Subsequently she received her Doctorate in Science from University of the Ryukyus (2008). She also has been ReefCheck coordinator of Japan since 1997. She is a councilor of Japanese Coral Reef Society, and member of the board of directors of Okinawa Coral Reef Conservation council, and a president of Okinawa ReefCheck and Research Group.



Ju Yung Ki (朱鏞鎰)

Special researcher of Chonbuk National University , Saemangeum Protection Movement Activist(NGO), Chairman of Committee of Korea Shorebird Network

He is work to Migratory Birds monitoring, and the conservation and wise use of Saemangeum Tidal flat, Geum River Estuary(include Yubu island), Gomso Bay, Sinan Jeong island, Hampyeong bay of Muan County, and other wetland(coastal, river, reservoir). He is advise to efficient management plan and share information with local people and officer of local/central government. Sometimes, He is research life-history and local eco or traditional knowledge of local people. He is co-focal point person of Waterbird and Shorebird in MoU of CWSS(Common Wadden Sea Secretariat) and Ministry of Oceans and Fisheries. And He is want to effort for the conservation and wise use of Yellow Sea with stakeholder of China, North Korea, and South Korea.



Masahito YOSHIDA

Professor of Tsukuba University teaching World Heritage Studies in graduate school of Comprehensive Human Science. He has been working for The Nature Conservation Society of Japan (NACSJ) more than 20 years and currently serving as Executive Director of NACS-J and Chairperson of Japan National Committee for IUCN. He is also a member of World Commission on Protected Areas (WCPA) and Species Survival Commission (SSC). Since 2012 he has been Senior Managing Director of the Nature Conservation Society of Japan.



Highly Artificialized Coasts, Huge Sea Wall Construction Plan and Amendment of the Sea Coast Act in Japan

Satoquo SEINO Ph.D.

<fwid6176@mb.infoweb.ne.jp>

KAIMIN NETWORK / Associate Professor, Ecological Engineering Laboratory, Kyushu University

In 2011, Great East Japan Earthquake (GEJE) occurred and huge tsunamis destroyed coastal human territories and ecosystems. Natural process for recovery has progressed along geological history. But coastal communities have not recovered yet. Legal scheme of Japanese infrastructure was formed the basis in modernization of the late 19th century and developed at the recovery from war and highly economic growth. Prediction of sea level rise and increase of huge natural disaster forced global society think of revision of land use and management system. Setting back the sea walls is one of the methodologies to adapt these spatio-temporal large-scale changes.

But Japan could not change the traditional legal scheme on coastal management laws and acts for three years even after tsunamis. While the suffered areas were in confusion, huge sea wall construction plans was formed and began partly. 'The shore line' before GEJE is strictly followed and coastal structures were scaling up depending on tsunami dynamics prediction calculations. Objections from coastal communities and conflict between disaster prevention constructors and conservational peoples arose.

The way of thinking of Ecosystem-based Disaster Risk Reduction may be the third solution to overcome this conflict theoretically. But introduction of Eco-DRR demands alternation of land ownership system including tax calculation for all. Lands hardly lined with concrete structure came to be default. Sank coastal properties are the hottest issue. Sandy beaches, dunes, vegetation are dynamic and changeable depending on conditions. Ordinary beach administrators hate this dynamism under the land protection system.

In January 2014, Japanese government proposed the amendment of the sea coast act to prepare policy receptor to respect natural geomorphology and community-based infrastructure.

Understanding of the beach process and dynamics is truly essential to receive Eco-DRR.

Changes of coastal policies of Japan linking to the case of Koizumi Beach, Miyagi are discussed.

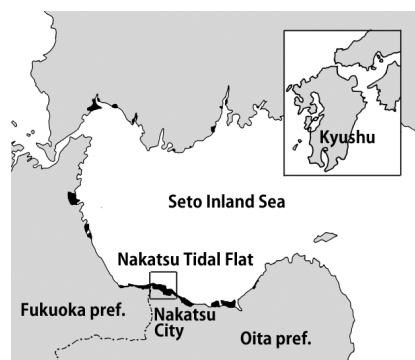
To maintain Nakatsu Tidal Flat which makes all the creatures, children and fishermen happy 100 years from now.

Yukiko ASHIKAGA <mizube1999@yahoo.co.jp>

Nakatsu Waterfront Conservation Association

Nakatsu Tidal Flat spreads along the coast of a city named Nakatsu in Oita prefecture which locates the north of Kyushu Island and is one of the best preserved, largest, and richest tidal flats in Japan. In addition to tidelands of silty sand and sandy soil, distinctive features of its environment include reed beds, salt marshes, sand bars and sand spits, all found at the mouths of the Yamakuni River delta.

Nakatsu Tidal Flat is a type of rich environment that we have been losing throughout Japan, and many kinds of creatures live there. Nakatsu Tidal Flat is a place where biodiversity thrives. Our research showed that about 30% of the creatures which identified at Nakatsu Tidal Flat are rare species. Also, it is an important place as a stopover for migratory birds.



The Nakatsu Waterfront Conservation Association (NWCA) has been conducting various activities to conserve its rich sea environment.

1. Monitoring and Environmental education
2. Surveys and research / Historical research
3. Cleaning up and studying marine litter
4. Cooperation with local fishermen
5. Providing assistance and proposals for environmental projects

The issues and challenges the Nakatsu Tidal Flat has

The activities of NWCA such as organizing investigation researches or educational activities by the citizens, providing experience of fishery, conducting coastal projects with the administrative organization of civil engineering, are highly evaluated. At the COP10, we received World Wetland Awards which is awarded for the best wetland conservation activities.

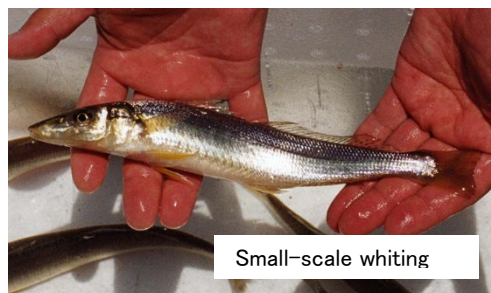
However still we have several issues for the environmental conservation of Nakatsu Tidal Flat.

The issues are as follows:

- Nakatsu Tidal Flat has not been designated as a marine reserve or as registered wetlands under the Ramsar convention.
- The policy measures for the wetland conservation by the local administration have not been implemented.
- For the stagnation of the coastal fishery, it is difficult to gain fishermen's understandings for the appropriate fishery resource management and the environmental conservation.

To solve those issues, we will challenge the things below:

- Conducting proper evaluations of the potential the natural environment of Nakatsu Tidal Flat has and leading to the policy measures.
- Clarifying the mechanism of the material cycle of the whole drainage system and seeking to its potential.



The number of the creatures recorded in and around Nakatsu Tidal Flat.

		Historical species richness*	(RDB)	Number of species	(RDB)
Animalia	Polyfera	4	0	4	0
	Cnidaria	13	2	12	2
	Arthropoda	142	32	142	32
	Bryozoa	1	0	1	0
	Plathelminthes	8	1	8	1
	Nemertea	1	0	1	0
	Brachiopoda	2	0	2	0
	Sipuncula	3	2	3	2
	Annelida	35	5	35	5
	Echiura	1	1	1	1
	Mollusca	286	112	178	71
	Hemichordata	1	1	1	1
	Echinodermata	12	0	12	0
	Chordata	241	61	239	59
Plantae	Rhondophyta	14	3	14	3
	Chlorophyta	7	0	7	0
	Magnoliophyta	4	0	4	0
	Spermatophyta	39	11	39	11
TOTAL		814	231	703	188

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(*)Number of species confirmed at the site so far, Including those no longer present.

- Promoting of the fishery and changing in the consciousness of the fishermen based on resource management fisheries.

The way how Marine Protected Area in Japan should be ~ to promote biodiversity conservation ~

Mariko ABE <abe@nacsj.or.jp>

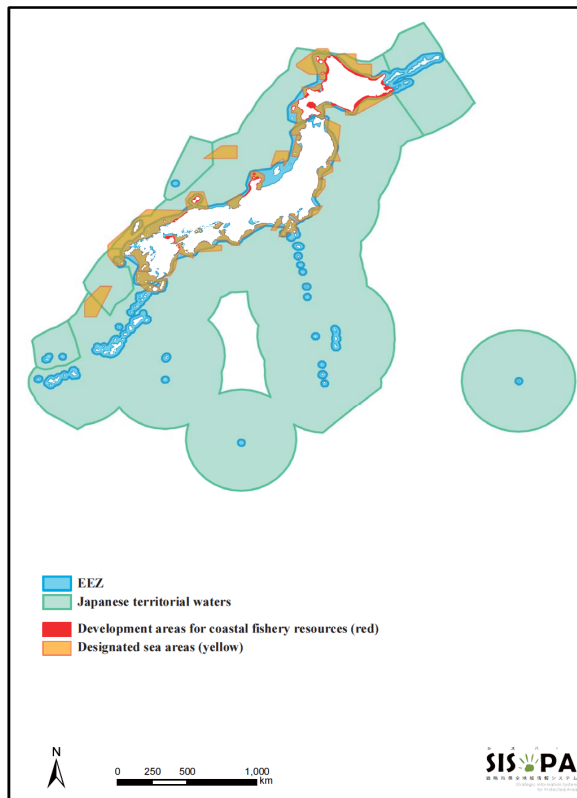
Conservation and Research Division ,The Nature Conservation Society of Japan (NACS-J)

The discussion on Marine Protected Area (MPA) has recently drawn growing attention worldwide. Behind this development is, “Target 11” of the “Aichi Targets” (Strategic Plan 2011–2020), adopted in 2010 by the 10th Conference of the Parties of the UN Convention on Biodiversity (CBD–COP10). This COP took place in Aichi, and thus Japan chaired the meeting. Target 11 states, “By 2020, at least 17 per cent of terrestrial and inland water areas and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscape and seascape.”

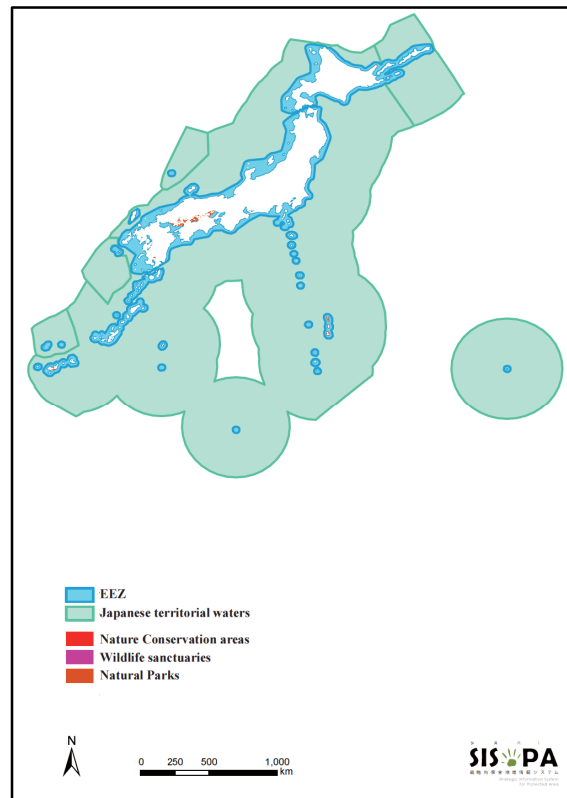
In response to this, the Japanese government announced that “8.3 % of Japan’s marine areas are designated as MPAs” (Headquarters for Ocean Policy 2011). Yet, many issues remain as to whether the area the government is calling MPA truly functions to conserve biodiversity and the natural ecosystem and allow sustainable marine resource uses. The Nature Conservation Society of Japan (NACS–J) set up a Panel on Coastal Conservation and Management to discuss these issues. As a result, two proposals were drawn up, Proposal 1 on reconstructing the MPA system and, as a result of an examination of necessary conditions for MPAs, Proposal 2 on prerequisites for MPA designation that would be desirable in future.

NACS–J strongly hopes that these proposals will result in the designation of more effective MPAs, which are fundamental to ensure the conservation and sustainable use of biodiversity.

Japanese government tries to decide Marine Important Area (MIA) for MPA based on scientific data. This is going to be the base for establishing new MPAs.



Location of “Development areas for coastal fishery resources (red) and Designated sea areas (yellow)” (Marine Fishery Resources Development Promotion Law) in Japanese territorial waters (blue) and EEZ (green) areas



Location of “Nature Conservation areas (red), Wildlife sanctuaries (purple), and Natural Parks (brown)” in Japanese territorial waters (blue) and EEZ (green) sea areas

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The possibility and what to learn from EBSA
(Ecologically or Biologically Significant Marine Areas)
~ To make environments which support rare species ~

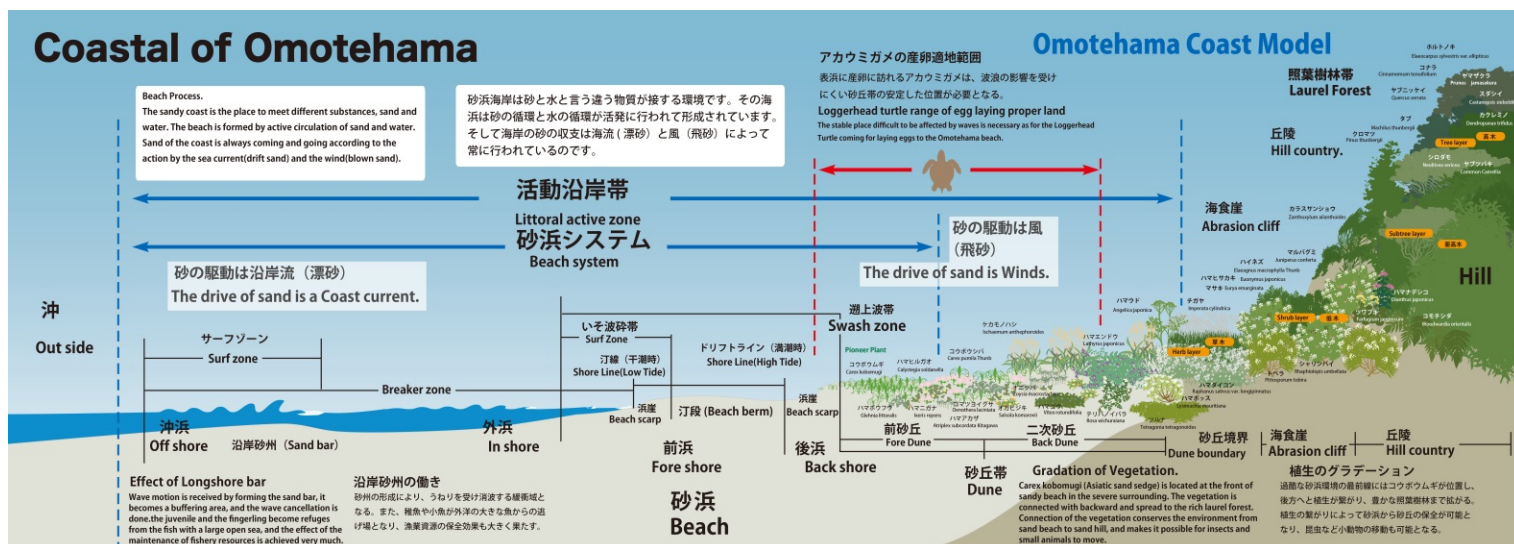
Yuzi TANAKA <info@omotehama.org>

NPO Omotehama network CEO, Japan Sea Turtle Association director, Coast Design Laboratory CEO

The sandy beaches of the Pacific coast of Japan supports loggerhead turtle group of the North Pacific area.

However this kind of environments is decreasing.

We would like to think about the present conditions of the sandy beaches. We need to support the rare environment.



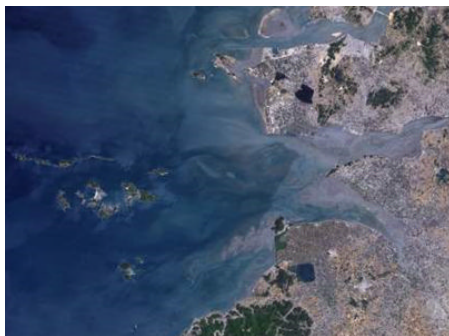
Saemangeum Reclamation and changes in environments(temp)

Ju Yung Ki <juyki@hanmail.net>

Special researcher, Chonbuk National University ,Saemangeum Protection Movement Activist,
Chairman of Committee, Korea Shorebird Network

The Saemangeum Tidal flat located on two river (Mankyeong and Dongjin) estuary in the southwest coast of the Korean peninsula. The Saemangeum Seawall is the world's longest man-made dyke, measuring 33 km and separates the Yellow Sea. In 1991, the South Korean government announced to create 401 km² of farmland(283 km²) and a freshwater reservoir(118 km²). This seawall closed in 21 April 2006.

Although before the Saemangeum Seawall closed, tide height of this area is big more than other coastal area of Korea and average 5.7m(maximum 7.4m – minimum 4m). According to impact of water flow quantity of river and power of wave small more than impact of tide height, area of sand-mud flat is many large scale. So, this tidal flat is good habitat of fish, shellfish, Shorebird, etc. Also, water and sediments of two river



Before the Saemangeum Seawall closed (1991)



After the Saemangeum Seawall closed (21 April 2006)

spread out south west area of Korea coastal outside the seawall, good condition place living many species.

After the Saemangeum Seawall closed, Sea water flow in and out dyke by water gate(length 540m). In the area inner dyke, according to average tide height inner dyke is decrease under 1m, about 90% of tidal flat area decrease and also the function of estuary decrease. Many species living the Saemangeum tidal flat died, and many shorebird died. And many fisherman lost fishing work. In the area outside dyke, according to the velocity and direction of seawater flow slow and change, sediments and organic materials of two river not spread out wide region. The habitat of species outside dyke not good condition and the fishing outside dyke decrease. And the beach sand outside dyke digging and go out, visitors swimming in summer season occur dangerous situation. But the Environmental Impact Assessment survey inner very small region outside dyke.

After the Saemangeum Seawall closed, Shorebird population stopover inner Saemangeum tidal flat rapidly decline 198,000 to about 5,000–10,000. As well as Spoon-billed Sandpiper(*Eurynorhynchus pygmeus*) including Endangered Species, mass population(86,000 number) of Great Knot (*Calidris tenuirostris*) decline under 1,000 number in Saemangeum tidal flat. This species dramatic decline approximately 20–30% of the global population on migration and this species designated as Endangered Vulnerable Species by the IUCN. Saemangeum tidal flat is very important region of Shorebird

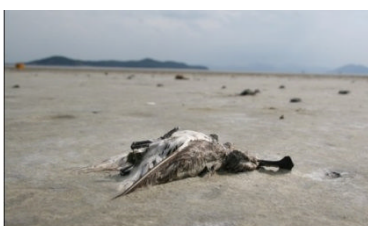


Shorebird Migratory situation in Geum river estuary at big high tide(more than 660cm) / roosting place

- : non-used saltfan of Yubu island and Daejuk island
- ◆: Sediment dumping place
- : Saemangeum tidal flat



Mass shellfish died



Spoon-billed Sandpiper died

Habitat Continuously. When Geum river estuary tidal flat including Yubu island tidal flat disappeared by seawater in big tide(more than 670cm), about 5,000–10,000 population of Shorebird move to Saemangeum tidal flat for the using as roosting place.

Central Korea government determine opening or closing water flow gate in 2015(next year). Although small Saemangeum tidal flat of two river (Mankyeong and Dongjin) estuary remain, I want to open the gate continuously. Should be life and peace in Saemangeum tidal flat !