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# Marine Litter News

From East Asia Civil Forum on Marine Litter

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## East Asia Civil Forum on Marine Litter

The East Asia Civil Forum on Marine Litter was established in October 2009 at the Marine Litter Summit in Shimonoseki, Japan. The Forum is composed of NGOs from Japan, South Korea, China. We welcome more participation from other NGOs from east asian countries.

# Preface

**Dear readers from around the world concerned with marine litter,**



Recently Pr. Jamback and other scientists estimated the quantity of plastic entering the world ocean from land. The result clearly shows southeastern asian countries significantly contribute to the production of mismanaged plastic waste. The scientists also predicted continuous accumulation of plastic wastes in the ocean.

In the context this volume delivers interesting news on the civil societies' actions and researches against plastic marine litter in the east Asia. Our Sea of

East Asia Network of South Korea has been involved in the GESAMP working group to addressing microplastics as an expert. Governmental response on plastic marine litter has been begun in South Korea.

Transportation of marine litter from one country to other countries may cause conflicts among governments in local or national level. However, here are good examples to overcome uncomfortable relationships. Local governments of Japan and Taiwan have had a joint program to exchange ideas and strategies to struggle this issue. And Canada and Japan have been connected by tsunami debris caused by the big earthquake in NE Japan, March 2011. Solution of specific litter items should be sought continuously like in Taiwan. Civil societies' conservation activity in South Korea could significantly reduce the impact of plastic litter on an endangered species' nesting (Black-faced spoonbill). You can encout the Russian report on long-term efforts in the Far East Russia for the first time in this volume.

From this issue, Shanghai Rendu, a non-profit organization in the mainland of China has become a member of East Asia Civil Forum on Marine Litter. The organization was founded at June 2007. Its mission is "No Trash Ocean". It is expected to be a professional NGO which is devoted to empower citizens to participate in the action of ocean conservation. Please welcome its involvement.

Green Fins Association (GFA) which has been a crucial member of the Forum, however, gets no longer with us. I would like to give special thanks to our partner, Ms. Kanyarat Kosavisutte of GFA who has devoted herself to promote communities engagement and to raise awareness of marine litter issue for long time in Thailand. Please check her contribution in the previous issue of the Newsletter.

Though the marine litter problem seems to become more serious year by year, I have become confident from this news that we, the humans, have the willingness and ability to cope with this problem.

With love,  
May 2015,

Sunwook Hong (Ph.D., President of OSEAN)

## SAVE THE DATES

### ■ 2015 Cross-Straits Clean Ocean Movement, Taiwan

- Date: September 12~14, 2015
- Venue: Keelung, Taiwan
- For more information, please contact Mr. Jason Hu ([jason@wilderness.tw](mailto:jason@wilderness.tw))

### ■ 13th Marine Litter Summit in Japan

- Date: October 23~25, 2015
- Venue: Fukue Island in Goto City, Nagasaki Prefecture, Japan
- Contents: Field observation and cleanup at the beach and an exchange workshop
- Theme of discussion:
  1. For progress of the international cooperation in counterplans to marine litter
  2. Remote islands' promotion as the marine litter problem
- Guest from Overseas (planned): OSEAN from the Republic of Korea, Kuroshio Ocean Education Foundation from Taiwan, and Shanghai Rendu from People's Republic of China.

# ACTIVITIES

## 1. Participation in experts' workshop on microplastics

By Sunwook Hong, Korea Marine Litter Institute, president of OSEAN,  
oceanook@gmail.com

### Recommended Citation:

Hong, Sunwook. (2015). Participation in experts' workshop on microplastics in marine environment. *Marine Litter News from East Asia Civil Forum on Marine Litter*, Vol. 6(1): 4-5.



Scientists participating the workshop on microplastics in the marine environment (Rome, April 20~22)

How can scientists contribute to the solution of the global plastic marine debris issue? An experts' workshop for "Global assessment of microplastics" was held at the FAO headquarters in Rome, Italy from 20 to 22 April, which has been supported by UNEP, IMO, UNESCO-IOC, and FAO. There were over thirty scientists, members of GESAMP working group invited to kick off the actions recommended in the 1st phase (2012~2014). They were to make a comprehensive report on a global assessment of microplastic pollution status for UNEP for the 2nd phase (2015~2017).

In the first phase, nineteen experts contributed to the report entitled "Sources, fate and effects of microplastics in the marine environment: a global assessment" released earlier this year. In the report, they concluded that microplastics are increasing in abundance, ingested by a large variety of organisms, can cause physical harm, and cannot be removed from the environment in significant quantities. Additives and absorbed organic contaminants may have an ecotoxicological effect. And They recommended identifying the main sources and categories of plastics and microplastics entering the ocean, utilising end-of life plastic as a valuable resource rather than a waste product, and promoting greater awareness of the negative impacts of plastics and microplastics of society and the environment.

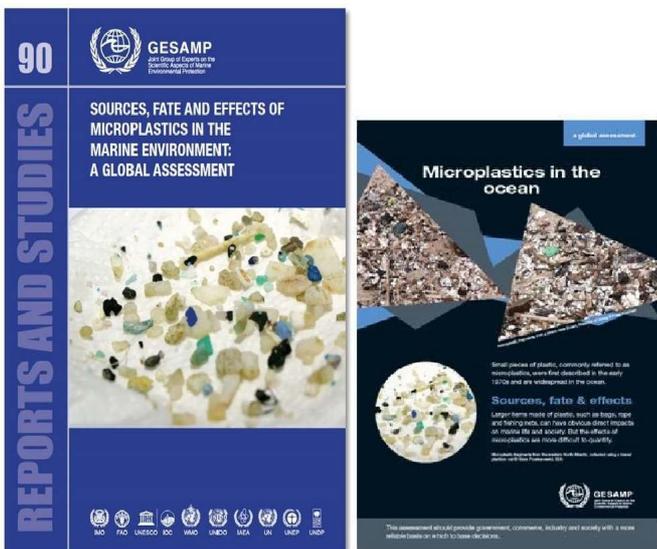
In the second phase, a comprehensive assessment of the topic with input from a wide range of disciplines will be carried out. The workshop participants will provide input to the 2nd United Nations Environment Assembly (May 2016) on topics such as sources, distribution, fate, and hot spots of microplastics, ecological impacts, commercial fish and shellfish (in terms of fish and human health), socio-economic aspects, and harmonization of research methods.

Three scientists (Drs. Hideshige Takada of Tokyo University of Agriculture and Technology, Won Joon Shim of Korea Institute of Ocean Science and Technology, and Sunwook Hong of Our Sea of East Asia Network) including me from Asia participated and will take on a role in their specialized areas. I, a unique participant from the NGO sector presented the practices to find solutions to the marine debris problem in Korea in the socio-economic point of view.

Marine microplastic debris has been acknowledged as an important environmental issue. Based on compiling of up-to-date information and knowledge, the scientists will provide implications on how we should respond to this issue.



Group discussion to agree terms of references on each specific topic of microplastics



The 1st report on microplastics by GESAMP experts recently released



Scientists participating the workshop on microplastics in the marine environment (Rome, April 20)

# ACTIVITIES

## 2. Research for countermeasure framework against marine plastic litter in Korea

By Sujin Kim, Korean Marine Environment Management Corporation  
sellybob@koem.or.kr

### Recommended Citation:

Kim, Sujin. (2015). Research for countermeasure framework against marine plastic litter in Korea. *Marine Litter News from East Asia Civil Forum on Marine Litter*, Vol. 6(1): 6-7.



**First meeting for research for countermeasure framework against marine plastic litter in Korea**

Marine litter has been drawing much attention recently because of its ubiquitousness, durability and adverse impact on marine organisms. Researchers, policy makers, and citizen groups around the world have been doing their best to reduce, mitigate and prevent problems caused by marine litter. However, these problems, particularly the marine plastic litter problem has worsened in recent decades and many countries have struggled with the matter. Recently Science published a paper reporting plastic debris inputs from land to ocean around the world and United Nations Environment Program is in preparation to deal with the problem caused by marine plastic litter.

In this context Korea has to prepare for an international regime on the marine plastic debris and subsequent regulations. First, we have to know how much plastic debris is generated and how much the debris enters into the ocean in Korea. In particular, the Korean

plastic industry has to prepare for the international regulations on its industry in the future.

On this demand, Ministry of Oceans and Fisheries (MOF) and Korean Marine Environment Management Corporation (KOEM) asked the Korea Institute of Ocean Science & Technology and Our Sea of East Asia Network (OSEAN) to develop a countermeasure framework against marine plastic litter. For the research, scientists from KIOST and researchers from OSEAN gathered on the 29th of January and discussed research priorities and created a list for the research contents. During this meeting a government official from the MOF pointed out that the marine plastic litter problem is involved in the various fields and has many stakeholders. He added that it is important for the policy makers to listen to their opinions and reflect them in their policies.

He continued that once plastic litter enters into the ocean it causes serious problems, so the Ministry of Environment (MOE) as well as MOF have to play an important role to prevent plastic litter from entering into the ocean.

He suggested that people from the plastic industry and fisheries attend the meeting and express their opinions and experiences. The attendants agreed that they would gather the suggestions from the professionals and filter them in order to make a road map for the research. The second meeting for the research was held in Seoul on 6th of Spring. Between the days of the first and second meeting the researchers gathered in a small group and expressed and polished their suggestions. They also exchanged their opinions and progress on the project by e-mail frequently.

The second meeting was the final meeting. During the meeting, the speaker summarized the research contexts and introduced the brochure and video for publicizing the marine plastic debris problem. The research consists of five fields - governance, management of the sources, improving public awareness, collecting and treatment, research projects- and each field includes countermeasures which should be conducted in the upcoming 10 years. The research also suggests the period in which the work should done and the way in which the work can be done. They hope that the framework will be a preparation for international regulations and countermeasures against the marine plastic litter. The chapters of the framework are as follows.



**Second meeting for research for countermeasure framework against marine plastic litter in Korea**

1. The overview of the framework
2. Potential problems of the marine plastic litter and analysis of the current countermeasures of Korea and other countries
3. Current state of production, consumption, and recycling for the plastics
4. Reduction program of the marine plastic litter
5. Programs for reduction of its impacts, collection, treatment, and recycling of marine plastic debris
6. Direction for the international cooperation against marine plastic litter
7. Governance for the integrated management for the marine plastic litter

# ACTIVITIES

## 3. Suggestions for pollution caused by oyster farming along Tainan coast, Taiwan

By Mr. Chao Rui Guang, researcher in Tainan Community University  
c7720831@gmail.com

### Recommended Citation:

Guang, Chao Rui. (2015). Suggestions for pollution caused by oyster farming along Tainan coast, Taiwan. *Marine Litter News from East Asia Civil Forum on Marine Litter*, Vol. 6(1): 8-9.

Bamboo racks are used as fishery gears for oyster aquaculture in Taiwan. Oyster cultivation usually starts in October each year, and they are harvested in March the year after. There are approximately 10,000 racks for each year. Before every June, the typhoon season, the harvest is completed. Much debris is found from March every year.

From May 2010, tens of thousands of huge pieces of Styrofoam were washed offshore. The city government started to have meetings with NGOs and fishermen to find solutions. Different floating gears, made by different materials, and recycling incentives were implemented. However, the problem is still serious. The following are the suggestions after one decade of monitoring:

1. Recycling of Styrofoam and bamboo racks should be separated. Styrofoam should be collected manually.
2. The oyster racks maintain biodiversity by providing shelters for many marine organisms. Recycled racks could be collected to a certain area offshore, providing artificial reef spaces and an opportunity for tourism. Further scientific research and experiments should be conducted to testify its feasibility.
3. Replace EPS foams with other materials for floating buoys, as they do not break down into small fragments as easily.

4. Make new regulations to improve marine litter pollution, assigning a specific governmental organization to be in charge.

### References:

1. Preliminary study on the effect of oyster cultivation on water purification and carbon sequestration. (National Cheng Kung University, Taiwan).  
→ One study shows that an individual oyster shell has a growth rate of 0.3g/day. It is roughly estimated that a surface area of 1m<sup>2</sup> can store 0.78kg of carbon dioxide per day.  
<http://www.tsoe.org.tw/downloads/thesis/2010D9.pdf>  
Ecosystem services of oysters (Fisheries Research Institute, COA, Taiwan)  
<http://www.tfrin.gov.tw/friweb/frinews/enews0065/s1.html>
2. Oyster racks provide shelters for marine organisms (Miyajima Public Aquarium, Japan)  
[http://cgi4.nhk.or.jp/eco-channel/jp/movie/play.cgi?did=D0013772472\\_00000](http://cgi4.nhk.or.jp/eco-channel/jp/movie/play.cgi?did=D0013772472_00000)



Fig 1. EPS pollution (1)



Fig 2. EPS pollution (2)



**Fig 3. EPS pollution (3)**



**Fig 6. Oysters racks provide shelters for marine organisms (1)**



**Fig 4. EPS foams are used as floating gears offshore**



**Fig 7. Oysters racks provide shelters for marine organisms (2)**



**Fig 5. EPS foams recycling**



**Fig 8. Oysters racks provide shelters for marine organisms (3)**

# ACTIVITIES

## 4. Guard China's Coastline - Coastal Clean-up and Monitoring Project in China

By Yonglong Liu, Shanghai Rendu Ocean NPO Development Center  
liuyonglun@163.com

### Recommended Citation:

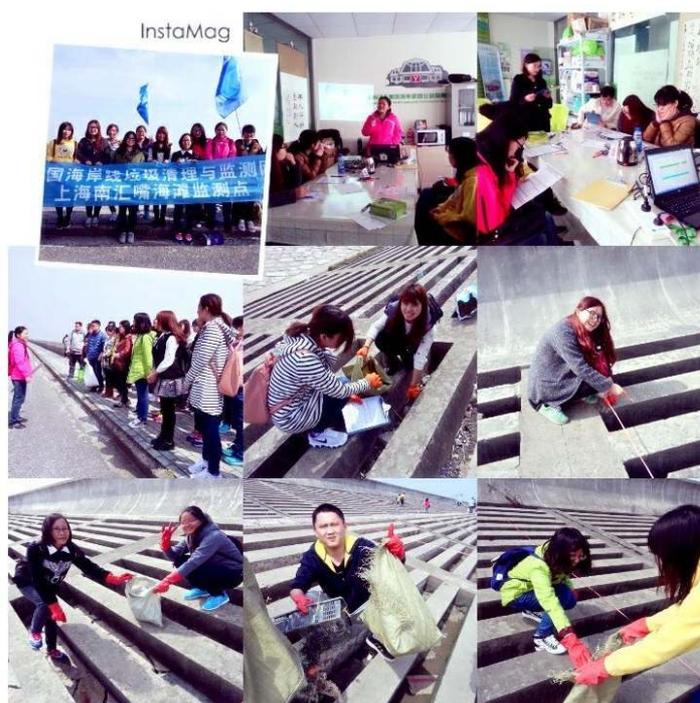
Liu, Yonglong. (2015). Guard China's Coastline - Coastal Clean-up and Monitoring Project in China. *Marine Litter News from East Asia Civil Forum on Marine Litter*, Vol. 6(1): 10-11.

A 'Coastal clean-up and monitoring project' in China was launched jointly by Shenzhen Mangrove Wetlands Conservation Foundation and Shanghai Rendu Ocean NPO Development Center. The project was officially started on November 1st, 2014. Besides Shanghai Rendu, the project also involved joint participants, which are professional institutions and volunteer communities dedicated to marine protection in 11 different cities.

The project aims to unite social forces, to mobilize the public to participate in the coastline cleanup and monitoring, to coordinate social organizations and research institutions to carry out research on monitoring of coastline garbage, to provide support for

government departments at all levels of the coastline of waste management policy, and to become an open and cooperative platform with the participation of social force in the coastline garbage problem in Mainland China.

The project is composed of four parts: scientific monitoring activity, a public version of the coastal cleanup, a national coastline garbage clean-up and monitoring website, and annual marine waste report. At present the national coastline garbage clean-up and monitoring website has been completed, and was formally launched on April 22nd.



Coastal clean-up and monitoring project in China

National monitoring activities have been able to complete the first and second monitoring. In each monitoring activity, Shanghai Rendu and the other 11 area monitoring institutions uniformly proceeded scientific research and monitoring activities on the coastline of garbage by the end of each single month. After monitoring the activities, they upload monitoring activities record, data spreadsheet and ICC card photos.

We uniformly trained all the monitoring institutions in advance, participated in the on-site activities of individual institutions and supervised them, in the first and second monitoring activities, there are still some problems.

——The localization and use - ICC card

Most monitoring organizations are generally reflected in the process of the specific garbage classification, there is garbage that cannot be defined and they do not know into which category they should divide it, while there is garbage beyond the range of ICC card classification. In the use of the number of statistics, the Chinese people are more accustomed to painting words with the Chinese character “正” as a method of counting. Therefore, we have a slight modification to the ICC card to facilitate the use of local China.

——Inaccuracy of garbage weighing

Garbage such as cigarette butts and bottle caps have the advantages of small volume, light weight, so they are more difficult to be weighed. General weighing tools are difficult to accurately weigh the quality, but precise tools do not fit in outdoor weighing. So how to solve the problem properly is still in discussion.

——Even within professional institutions and societies, there are also some operational problems.

Before the start of the project, Shanghai Rendu has conducted strict check and selection of monitoring institutions. It can be said that the selected monitoring institutions are relatively professional and veteran professional organizations and voluntary associations are highly reliable. However, after the training, there were still many problems in the actual operation, such as dividing the sample area, ICC card filling, garbage classification, weighing and so on.

——Thus it can be seen that the development of the marine industry protection is still very slow, marine protection in China has to be developed, not only the public, but also more and more organizations should accept public education and professional training of marine protection. While the goal of involving more institutions to participate in the marine protection will not be easy to achieve, at least we can let them know what we are doing, and the meaning, importance and significance of marine conservation.

Although there are problems, there are many highlights of the activities.

——Because every monitoring institution is located in a different city and the on-site environment and many factors are different, they adjust measures to local conditions. After two scientific research and monitoring activities, each monitoring institution has some experience suitable for its own region, and summarizes some methods of operation which can help its own regional monitoring activities to be carried out more smoothly.

——Combine the public version of beach clean-up activities with scientific research and monitoring activities, develop natural education of junior high school students and college students.

——The project received more attention. Some activities carried out by individual institution were reported by local media. And we believe that with the project's official website, more and more people will be able to have access to Coastal clean-up and monitoring project in China.

In addition, all research and monitoring activities carried out by the Coastal clean-up and monitoring project in China are open source and shared. If you want to check the monitoring data or consult related issues, you can visit the official website of Coastal clean-up and monitoring project at [www.ccmc.org.cn](http://www.ccmc.org.cn).

We hope to promote marine environmental protection under our joint efforts, and return a clean sea.

# ACTIVITIES

## 5. Distant Shorelines Offer Help

By Kate Le Souef, Tsunami debris cleanup coordinator for Vancouver Aquarium and WWF's Great Canadian Shoreline Cleanup  
Kate.LeSouef@vanaqua.org

### Recommended Citation:

Le Souef, Kate. (2015). Distant Shorelines Offer Help. *Marine Litter News from East Asia Civil Forum on Marine Litter*, Vol. 6(1): 12-13.



Attendants and staffs of the symposium at Yuriage Maple Pavilion, Yuriage City, Sendai Prefecture, Japan

As the tsunami debris cleanup coordinator at the Vancouver Aquarium Marine Science Centre, I have spoken a great deal about the 2011 Japanese tsunami. I have hosted lectures and events explaining why we find Japanese items on the beaches of British Columbia and discussed when scientists predicted driftage from the tsunami to arrive.

However, it wasn't until I actually visited Japan, on a recent trip supported by the Japanese non-profit JEAN, that the importance of shoreline cleanups in B.C. really hit me. I was speaking about our remote beach cleanups at a public event in Yuriage, a small fishing

town in Japan that was almost completely destroyed by the tsunami. Survivors and residents from surrounding areas came to the event to hear about our cleanups.

The Government of Japan donated millions to the U.S. and Canada to support the cleanup of tsunami driftage on our western coastlines. Even though the majority of debris on our shorelines comes from everyday litter and not tsunamis, one resident from Yuriage apologized to the attendants from North America, saying: "We were embarrassed that our debris was washing ashore in North America."

As I spoke about our cleanups, I saw children, elderly people and government representatives in the audience, and I realized the donation to North America was much more than just generosity. Thousands of Japanese people lost loved ones and all their possessions to the tsunami. One man we met had lost 14 family members along with all of his belongings. Looking at the faces in the crowd, I saw a glimmer of hope that a memento from their loved ones might have survived the journey across the ocean to our shores. Personal items can provide a link to the past, a connection with someone who did not survive this disaster.

On our remote shoreline cleanups numerous items have been identified as coming from Japan, although not many with ID markings. The donation from the Japanese government helps to fund these cleanups and provides a way for Canadians to collect and return personal items to survivors who already lost so much. After seeing the faces in the crowd, I now appreciate the immense power in returning items from a lost loved one.

*Kate Le Souef, tsunami debris cleanup coordinator for Vancouver Aquarium and WWF's Great Canadian Shoreline Cleanup, presented by Loblaw Companies Limited, travelled to Japan to learn more about the impact of tsunami debris. This trip was generously provided by the Japanese Environmental Action Network. Visit [www.shorelinecleanup.ca/tsunami](http://www.shorelinecleanup.ca/tsunami) to learn more.*



**Audiences listening to the speaker at the symposium**



**Container from Japan washed up on a beach, Canada**

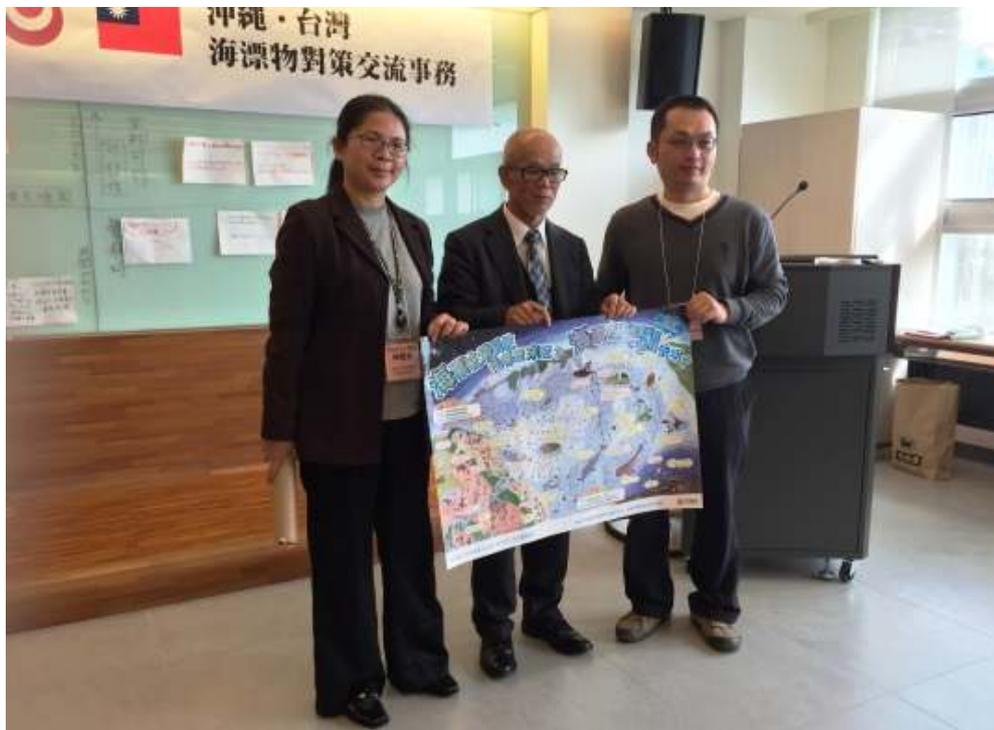
# ACTIVITIES

## 6. Okinawa organizations visited Taiwan and helped out with beach clean-up

By Joint reporters of Taiwan Environmental Information Center  
linlittle@e-info.org.tw

### Recommended Citation:

Taiwan Environmental Information Center. (2015). Okinawa organizations visited Taiwan and helped out with beach clean-up. *Marine Litter News from East Asia Civil Forum on Marine Litter*, Vol. 6(1): 14-15.



Joint event of Okinawa County of Japan and New Taipei City of Taiwan

The “Okinawa - Taiwan Marine debris Strategies Exchange” workshop was held in Taiwan this year. Last year, several Taiwanese official and civil organizations visited Okinawa, Japan. In return, organizations from Okinawa were invited to Taiwan in January to hear about how marine debris issues are dealt with here, and to participate in a beach cleaning activity.

Okinawa County and New Taipei City announced their cooperation agreement on the 25th of January, with the slogan "Okinawa - Taiwan; No Distance in Loving Our Ocean". With the joint efforts from both cities, they hope to make the Kuroshio Current clean again.

### [Marine debris drifting from other countries causes trouble in Okinawa](#)

The workshop brought together both government officials and civil representatives. Both the Department of Environmental and Community Affairs of Okinawa Prefecture and Environmental Protection Department of New Taipei City had representatives presented. Eleven Japanese non-governmental organizations attended the meeting; along with many Taiwanese groups, such as National Museum of Marine Science and Technology; Taiwan Environmental Information Association, The Society of Wilderness,

and Kuroshio Ocean Education Foundation. The representatives shared and discussed their experiences during the three-day long workshop.



**Workshop held in Okinawa County**

One of the biggest problems Okinawa is facing is “marine debris drifting from other countries” . The local survey showed that majority of this waste came from countries including China, South Korea and Taiwan.

The majority of marine debris drifting to Taiwan is plastic; however, this waste seems to come from different countries shown in the Okinawa survey. Japanese groups suggested to exchange information about these marine debris for further studies.

Regarding how to improve ocean health and to tackle the marine debris issues, representatives from both countries agreed that environmental education rooted from childhood is essential. Hidefumi Toma , head of Okinawa Prefectural Department of Environmental Affair, suggested establishing a platform for teaching material exchange. There is information available on the New Taipei City Environmental Protection Department website, for both teachers and students.

#### [Clean up the beach and bring people together](#)

Taiwan Environmental Information Association also arranged a

beach clean up activity for the Japanese representatives to witness the marine debris problem in Taiwan. There were also around 50 student volunteers participating in this activity.

New Taipei City has collaborated with eight companies, asked them to adopt certain parts of the north coast and clean it up 3-4 times a year. The chief secretary of the Environmental Protection Department also mentioned that people usually collected plastic bottles for sale but not the lids. If the manufacturer can develop a plastic bottle that is all in one piece, it should greatly reduce the recycling problem.

Hiroki Aragaki from Division of Environment Waste, Okinawa Prefectural Department of Environmental Affair, pointed out that there are no significant differences between the types of marine debris in Taiwan and Japan. However he was particularly impressed with the interaction between participants and how people enjoyed cleaning beaches.

#### [No Distance in Loving Our Ocean, Taiwan and Japan will work together in hope to bring back the clean Kuroshio Current](#)

Officials from both Okinawa Prefecture and New Taipei City announced the collaboration agreement on the last day of the workshop. Non-governmental organizations also suggested many practical action plans. The participants also worked together to create a slogan "Okinawa - Taiwan; No Distance in Loving Our Ocean".

Hidefumi Toma, head of Okinawa Prefectural Department of Environmental Affair, said that marine debris will not disappear in just a few days. Therefore, the two cities should carry on communicating and collaborating with each other. In response to Mr Toma’ s comment, Li-shu Chen, Director of Education, National Museum of Marine Science and Technology also said that the Taiwanese organizations look forward to more cooperation to reduce marine debris, enhance ocean education and to bring back the clean Kuroshio current.

# ACTIVITIES

## 7. NGO activities to deal with marine litter in the Russian Far East

By Yana Blinovskaya, Head of environmental protection department Maritime State University, Vladivostok, Russia  
Blinovskaya@hotmail.com

### Recommended Citation:

Blinovskaya, Yana. (2015). NGO activities to deal with marine litter in the Russian Far East. *Marine Litter News from East Asia Civil Forum on Marine Litter*, Vol. 6(1): 16-19.

Relation of men to nature during development of the civilization was characterized by unilateral, consumptive nature. Finally, it resulted in a global environmental crisis. Only by the end of the last century did caring for nature become a priority in the global community development. An important mechanism of formation of environmentally oriented personality is its active involvement into nature protection activities and environmental education. In this relation, importance and desirability of social environmental communities is increasing, among other initiatives implementing the tasks of environmental education and cooperation with governmental authorities and scientific and industrial structures.

Environmental pollution with industrial and consumption wastes is impending during nature management process. This problem is clearly displayed in border areas characterized by high population, industry and biological community density.

It is evident that the marine litter issue is a reality for all maritime countries. During the events organized by Regional Activity Center, Northwest Pacific Action Plan (NOWPAP RCU) we discussed this issue, shared our experience, decisions were made on various administrative and social levels, and now we can see some results of these activities.



Fig 1. Vladivostok coastal area

It is evident that marine litter has a considerable negative impact on social-economic and environmental spheres. Experts in various sectors developed guidelines on collection and recycling of marine litter, as well as assessment of losses from its impact.

As marine litter has a broad impact, these were public environmental organizations that first drew society's attention to the problem. One of the most illustrative decisions in the solving of marine litter problem is organization of coastal cleanup campaigns. As of now, the campaigns have become international, inspiring more than 9 million volunteers from over 150 countries annually.

The problem of marine litter pollution is apparent for the Far East of Russian Federation as well (Fig. 1). But on the contrary to neighboring countries, the basic source of pollution is recreational activity. Coastal cleanups carried out by public environmental organizations became the tradition as well. Thus, in the International Cleanup Day in early June, divers of Primorye open the season with bottom cleanup in several sites around Vladivostok (traditionally these are Fedorova Bay, Muravinnaya Bay, Zmeinika, and Russky island). During 10 years of such activities the increase of public activity and decrease of litter is observed.

Since 2001, Far Eastern Department of World Wild Fond carried out 'Clean Seashore' activities. The main goals of these activities are to unite people worrying about environmental protection and to clarify to the tourists the principle 'don't hurt the nature'.

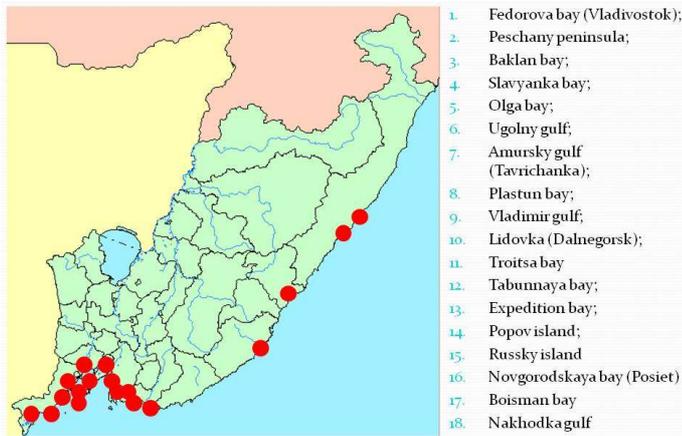
Supporting environmental actions and involving the students of the region, large companies such as the 'Coca-cola', 'Baltica', 'Coolmart' and 'Exxon Neftgaz Ltd' show ecological-oriented approach to their activity. They consider that it is impossible to stand aside the problem of environmental protection and give a lead of responsible treatment of coastal area.

During the past 7 years, the students and staff of the Institute of Sea Protection and Shelf Development, Maritime State University named after adm. G.I. Nevelskoy take their part in coastal area cleaning (Fig 2). The geography of these actions expands significantly (Fig. 3). They cover most popular recreation sites in Vladivostok, Hasansky, Nadezhdinsky, Shkotovsky, Partizansky, Olginskly, Terneisky and other districts. Students, social organizations, and authorities are always involved in these activities.



Fig 2. Institute of sea protection and shelf development practical research

# ACTIVITIES



**Fig 3. Monitoring sites in Primorsky region (Russian Far East)**

The main goals of these activities are coastal cleanups, environmental education and scientific research of the pollution. Thus, gathered wastes are divided into categories according to their qualitative composition and analyzed by type and groups, that determine the pollution source, trace the dynamic of pollution in order to propose preventive measures.

In consideration of modern informatization and popularity of social networks, the using of Internet resources provide prompt communication between various social and age groups.

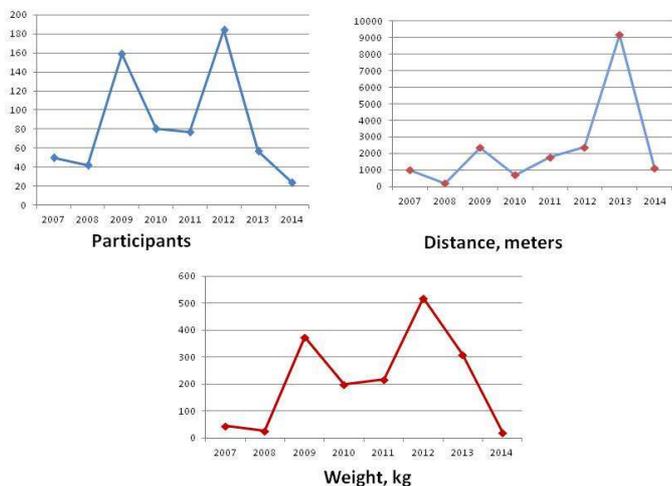
Thus, in 2011 bloggers initiated action 'Bloggers are against garbage'. Due to prompt actions of internet community more than 16,000 people from 120 cities of Russia took part in the event. This number is more than double higher than planned. Bloggers cleaned the Russian Island coastal area from tires, plastics and glass. It's noticeable that many participants met there for the first time. The action united people of different age, occupation, and political sights just because of a common idea to make the coastal area cleaner.

The event was successful and it was decided to be repeated in 2012 and 2013. On 14 September 2013 the bloggers joined the all-Russian cleanup campaign again. The event united 50,000 people from 200 Russian cities who collected over 500 tons of litter. In Vladivostok Patroclus Bay, Vtoraya Rechka Bay and Russky Island were cleaned.

Moreover, Russian initiative groups and organizations joined in international project 'Let's Do It!', working by the principle 'community initiative'. Based on successful volunteers action experience which took place in Russia ('500 cleanups a day', 'Bloggers are against garbage') and abroad ('Let's Do It'), the activists of the movement, that 83 Federation Subject have joined to, will clean up different territories of Russia, including coastal areas.

The campaign «Let's Do It!» also unites millions of people. This project provides for better interaction among population, business and national authorities on all levels to form mutual understanding of waste treatment problem and further search of an efficient decision. In Vladivostok such an event was carried out for the first time on 15 September 2012 supported by the Institute of of Sea Protection and Shelf Development and Vladivostok city Administration. «Let's Do It!» campaign will be held on 15 September in all entities of the Russian Federation. «Let's do it» project in Russia was pursuing a colossal goal – to collect tons of illegally disposed garbage (to submit glass, plastic bottles and metal to recycling), to draw public attention to the problem of waste in the environment and to the issue of recycling, to promote cooperation between authorities and public organizations. Remaining dump sites should be considered illegal (<http://ecofront.ru>). Approximately 100 participants collected thousands tons of litter on shores of Russky Island and Vladivostok city.

Russian divers also became very active. Every International Cleanup Day for 5 years, participants of several Primorsky diving clubs join together to hold a marine litter pick. This year divers extended their pick area, traditionally cleaning Fedorova Bay and Patroclus Bay, as well as Paris Bay on Russky Island. This area is chosen by divers intentionally. In the past there was a naval destroyer base, and now Vladivostok aquarium and rehabilitation constrains for marine animals are installed there. The bottom of Paris Bay is heavily littered, and it might take several more cleanups to get rid of the problem. Every year an increasing number of volunteers join the cleanup campaigns. In 2012 only 14 divers took



**Fig 4. ICC dynamics: 2007 – 2014**

part in the event, and in 2013 their number was over 50. One more similar event took place in Novik Bay. Also around 50 volunteers joined the cleanup there.

Rusky Island coast is very popular after 2012 APEC summit, that is why a lot of environmental actions are held there. Under support by Vladivostok city administration divers from «DivePrim» club cleaned the bottom of Rancheskiy Bay. 70 divers collected several tons of litter; the most unusual object among the litter was a mouthpiece.

In late August 2013 all-Russian litter pick “Green Russia” was held. On the Coast of Morskoy Gorodok, one of districts of Vladivostok city, was cleaned by the citizens. As a result, 6,000 tons of litter was collected. In the pick, along with environmentally-oriented publicity and volunteers, participated workers of Primorsky HydroMetCenter, Rosprirodnadzor (Federal Service for Supervision of Natural Resource Usage), Vladivostok Administration and the Minister of Natural Resources and Ecology of Russian Federation Sergey Donskoy who arrived to Vladivostok on a business trip.

The litter pick also embraced a cleanup of the Golden Horn Bay. Owners of boats and yachts, students, and representatives of public organizations, equipped with necessary tools, carried out a cleanup

of the most polluted water area in the Far East. The event was supported by the head of Vladivostok city. The participants collected over 10 tons from the surface and bottom of the bay. All litter collected was transported to a waste recycling plant in Vladivostok. Plastic litter predominated among other litter items; car tires and bulky construction litter was also present.

Similar picks were organized in Nakhodka city district and many other inhabited localities of the Far East.

The Regular International Coastal Cleanup campaign was carried out in several sites of Russian Far East in the last weekend of September and in early October. As well as in 2012, the event was carried out synchronously with “Nature Without Border” an international environmental forum which was held for the seventh time in Vladivostok. Participants of the cleanup who cleaned Fedorova Bay and Muraviinaya Bay collected around 300 kg of litter. Schoolchildren of Primorsky Krai settlements (Tavrichanka, Possiet, and Olga) traditionally took part there. In the near future the obtained data will be processed and sent to Ocean Conservancy and RCU NOWPAP.

Since 2009, ICC geography in the Far East of Russia began to extend. The number of participants also increased. By now, ICC is regularly conducted on 18 coastal sites of Primorsky Krai. It is necessary to notice that a positive trend is marked in the condition of the beach areas actively used for recreation. The litter is removed by beach tenants, and garbage bins are located everywhere (Fig. 4).

In the areas removed from places of recreation the situation practically did not change. In remote and open areas the considerable quantity of litter is brought by the sea, and plastic prevails among it

Communities are different in targets and scale, there is no doubt that personal example of careful treatment to the environment is able to change someone’s mind about selfish treatment to nature and encourage development of civil consciousness.

# RESEARCHES

## 8. Human efforts have reduced wild birds' exposure to marine debris: A case in Korea

By Yong Chang Jang, Korea Marine Litter Institute, researcher of OSEAN,  
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### Recommended Citation:

Jang, Yong Chang. (2015). Human efforts have reduced wild birds' exposure to marine debris: A case in Korea. *Marine Litter News from East Asia Civil Forum on Marine Litter*, Vol. 6(1): 20-21.

It was found that human efforts have reduced wild birds' exposure to marine debris. Dr. Kisup Lee of Korea Water Birds Network and researchers at Our Sea of East Asia Network did the protective action, recorded the beneficial influence, and reported the result as a scientific journal paper.

Lee, K. Jang, Y.C., Hong, S., Lee, J., Kwon, I.K. (2015). Plastic Marine Debris Used as Nesting Materials of the Endangered Species Black-Faced Spoonbill *Platalea minor* Decreases by Conservation Activities. *Journal of the Korean Society for Marine Environment and Energy*, 18(1): 45-49.

The survey was accompanied by protective activities of providing

natural nest materials to breeding islet of Black-faced Spoonbills, a critically endangered species with its worldwide population of only around 3,000. The authors found out that such activities reduced significantly the ratio of nests with marine debris from 71% in 2010 to 37% in 2011 and 32% in 2012. The number of nests also increased during the same period from 28 to 38 and 43.

The result invites us to make more effort to protect these beautiful birds. As most of the Black-faced Spoonbills breed in the western coast of Korea, making a clean environment in this area is the key issue for this endangered species of birds. Our Sea of East Asia Network will continue these activities of protecting wildlife from marine debris.



Fig. 1. The Black-faced Spoonbills © Namjun Ji



**Fig. 2.** Black-faced Spoonbills in their breeding islet (a). The plastic marine debris in their habitat in 2010 (b) was reduced in 2011 by the human efforts of providing natural materials (c) (Lee et al., 2015).

## **Guidelines for Authors**

Dear authors of 'Marine Litter News from East Asia Civil Forum on Marine Litter,'

Thank you for preparing your valuable manuscript for our journal. We welcome articles regarding researches, education, policies, and any other activities on marine litter issues from the globe. To make your article more easily understandable to readers around the world, please pay attention to the following guidelines.

### **1. Composition of Articles**

#### (1) Title

- Please make it concise and understandable.
- Including the name of the relevant country is recommended.

#### (2) Name of the author

- The author should be natural persons even when writing articles representing organizations.
- Name of organization, author's position, and email address should be included

#### (3) Figure, Map, or Table

- Figures, maps, or tables are recommended to be included in articles.
- Especially maps showing the geographical context of the article is strongly recommended.
- Each figure, map, and table should have captions explaining the figures, maps, and tables.

#### (4) References

- Referencing other texts for explaining the situation is recommended.
- All the lists of documents referenced needs to be included.

### **2. Submission, Acceptance, and Edition**

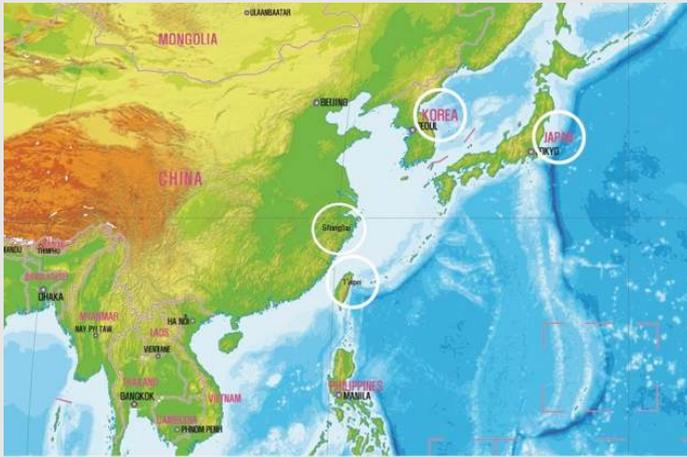
- Anybody from around the world can submit the articles via email (loveseakorea@empas.com).
- As the journal is published at the end of May and November, draft articles need to be submitted by the end of April and October.
- All the articles which have basic quality will be accepted.
- The editor may ask some revision of the draft to make the article more easily understandable to readers.

### **3. Publication fee**

- There is no publication fee to be paid by authors to us or by us to authors.

Thank you for your cooperation,

Sunwook Hong, the editor.



## What is East Asia Civil Forum on Marine Litter?

East Asia Civil Forum on Marine Litter is a network established in 2009, made of NGO groups dedicated to protection of marine environment from marine litter in east Asia countries.

Network member groups are:

Japan: Japan Environmental Action Network (JEAN)

South Korea: Our Sea of East Asia Network (OSEAN)

Taiwan: Taiwan Ocean Cleanup Alliance (TOCA)

Shanghai Rendu Ocean NPO Development Center

To the readers,

East Asian countries are connected to each other environmentally, geographically, historically, or culturally through shared regional seas. The East Asian region is one of the most dynamic economic centers with some of the busiest shipping lanes in the world. With the spread of mass production and consumption over the last decades came the huge increase in solid waste generation. There are, however, not enough waste treatment facilities and management measures, which makes the region vulnerable to marine debris pollution.

Entering the seas in large amounts, floating debris has become a source of concerns and conflicts among some neighboring countries. This transboundary environmental problem requires concerted efforts of all the relevant stakeholders beyond sectoral and political boundaries. In this regard, OSEAN (Our Sea of East Asia Network) and JEAN (Japan Environmental Action Network), the marine debris NGOs in Korea and Japan, have shared a vision in which people in the East Asia could act together as one community in protecting our precious marine ecosystems. We believe that NGOs in the East Asian countries have an important role in sharing experiences and acting together to address the marine debris issue in the region from the bottom up.

The city governments of Shimonoseki and Nagato, and JEAN co-organized '2009 Marine Litter Summit - Shimonoseki•Nagato Meeting' on October 16-18, 2009, in Shimonoseki, Japan. OSEAN suggested in the meeting to start

an 'East Asian Civil Forum on Marine Litter' through which relevant NGOs and organizations in the East Asia could share experiences and information and work together on the marine debris problems. OSEAN and JEAN have reached a consensus to launch the forum and publish biannual newsletters. So we have launched the East Asian Civil Forum on Marine Litter and we are delivering marine debris news from member countries via e-mail to people who are concerned with this problem on local, national, and regional levels. In late 2012 now, we have four members above. We hope that the forum could provide a venue for all of us to share our vision, experiences, and creative actions.

This is the first effort to link the East Asian people beyond geographical and language barriers to a common goal of protecting our seas from marine debris pollution. NGOs and organizations that have interests and passion to make our seas clean and healthy are more than welcome to join us. For more information, you can contact us at [loveaseakorea@empas.com](mailto:loveaseakorea@empas.com). Please let us know if you have any problem in receiving the newsletter. These articles are also available online at <http://cafe.naver.com/osean>.

Secretariat,

Sunwook Hong (OSEAN) and Kojima Azusa (JEAN)

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