

# 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, Thailand and Taiwan. We welcome more participation from other NGOs from east asian countries.

# ACTIVITIES

## 1. Publishing an activity book for young children in Korea

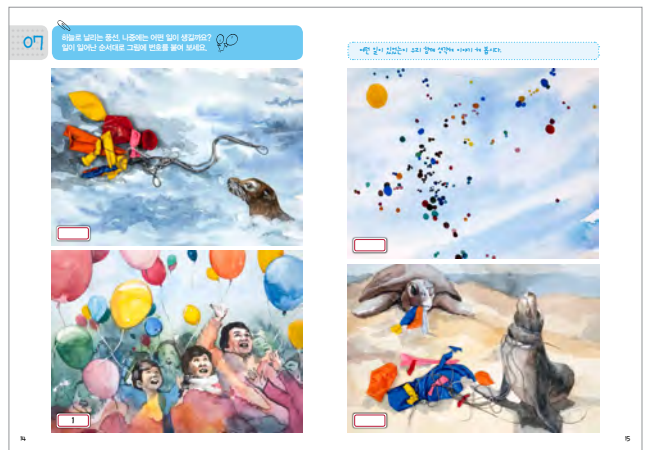
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### Recommended Citation:

Hong, Sunwook. (2012). Publishing an activity book for young children in Korea, Marine Litter News from East Asia Civil Forum on Marine Litter, Vol 3(2): 2.

An activity book for young children on marine debris was published in December 2012 in South Korea. The book under the subject, "Let us listen to the sea", was made with the artworks by Professor Jeong-Ah Kim, a member of OSEAN, with cooperative work with OSEAN. The book, 20pages, is composed of nine activities

with which young students can feel the pain of the wildlife damaged from marine debris, and understand the importance of our daily life behaviors. OSEAN will distribute it to any school teachers who are interested in marine environment.



\* Activity book for children about marine debris impact on wildlife



\* Students using the activity book at school (Dec. 21, 2012)

## 2. Workshop on debris from EPS floats held

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### Recommended Citation:

Jang, Yong Chang. (2012). Workshop on debris from EPS floats held, Marine Litter News from East Asia Civil Forum on Marine Litter, Vol 3(2): 3-4.

Expanded polystyrene (Styrofoam) float is massively used for aquaculture in the coastal area of Korea. According to Korea National Marine Debris Monitoring Program, under which the beached debris in 20 sites round the nation is monitored every two months, the EPS float debris is the most abundant item (MLTM, 2009).

OSEAN (Our Sea of East Asia Network), an NGO in Korea, has devoted itself to solving the Styrofoam debris problem from its establishment in 2009. Here is the procedure of three-year activities on solving the problem. The result of the workshop on EPS float held on October 25, 2012 in Geoje Island in Korea is summarized.



\* The EPS float debris in a Korean island

### \* Procedures of the workshop from 2010 to 2012

Year	2010	2011	2012
Date	Dec 7	Nov 1	October 25
Number of participants	15	55	90
participants from	EPS Association, Researchers	Local government officials, Researchers	Local government officials, Researchers, Manufacturers
Main activities	Knowledge sharing and problem definition	Brainstorming and discussion	Conceptual model and Analytic Hierarchy Process
Main outcomes	Understanding the problem	Finding the alternatives of policy measures	Evaluating the priority of the policy measures

OSEAN began to find the stakeholders of the EPS float issues in 2009. The Korea Foam-Styrene Recycling Association (<http://www.eps.or.kr/>) agreed with us that EPS debris is a serious problem. From 2010, the Association has been financially supporting OSEAN to hold the workshop on EPS debris and recycling every year.



\* At the workshop in 2011, the participants polled with marks for the best policy measures.



# ACTIVITIES

The main activities at the workshop in 2012 were conceptual modeling and evaluating the priority of the measures by Analytic Hierarchy Process (AHP). A conceptual model is a tool for visually depicting the context within which a project is operating (Margoluis et al., 2009). By displaying the factors influencing the problematic situation, we can find the appropriate actions to be taken to solve the problem. And, Analytic Hierarchy Process is a way of evaluating priority of alternatives in hierarchy (Saaty, 2008). All the participants from local and central governments, industry, research institutes, and NGOs participated in improving the conceptual model and evaluating

the priority of the measures. In the AHP, 16 policy measures, developed from the ideas collected at the workshop in 2011, were evaluated. The participants assessed the effectiveness, efficiency, acceptability, and implementability of the each policy measure.

We are planning to make a full-length report on the result of the workshop. From the report, the best policy measures on EPS float will be developed. We will spread the report to the participants and to the policy decision makers so that they can use the information. We will continue our activities until the EPS float marine debris problem is solved clearly.



\* About 90 stakeholders participated to the workshop in 2012

## Acknowledgement

We thank the Korea Foam-Styrene Recycling Association and Young-nam Sea Grant for the financial support. We thank Ministry of Land, Transportation and Marine Affairs, Gyeongnam Provincial Government, Jeonnam Provincial Government, and Geoje Municipal Government for the administrative support.

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- Saaty, Thomas L. (2008). *Decision Making for Leaders: The Analytic Hierarchy Process for Decision in a Complex World*, RWS Publications, Pittsburgh, PA, 343p.

### 3. Response to the Flotsam at the West Coast of North America that Originated from the Tsunami Caused by the 3.11 Great East Japan Earthquake – Further Responses and Future Plans

By Ms. Kojima Azusa, Director of JEAN & Ms. Yoshiko Ohkura, International Liaison and Information Manager of JEAN  
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#### Recommended Citation:

Azusa, Kojima, Yoshiko Ohkura. (2012). Response to the Flotsam at the West Coast of North America that Originated from the Tsunami Caused by the 3.11 Great East Japan Earthquake – Further Responses and Future Plans, *Marine Litter News from East Asia Civil Forum on Marine Litter*, Vol 3(2): 5-6.

In August of this year, JEAN received a commission from the Japanese Ministry of the Environment (MOE) to conduct a meeting with US non-governmental organizations (NGOs) and exchange opinions regarding the flotsam and response. Apart from JEAN and Japanese researchers, the attendees were members from Ocean Conservancy (OC), International Coastal Cleanup (ICC) coordinators from Alaska, Washington, Oregon, California and Hawaii, as well as MOE officers and members from US governmental offices and organizations, such as the National Oceanic Atmospheric Administration (NOAA). We had a field inspection at Cannon Beach near Portland, Oregon, followed by a two-day meeting.

At the meeting, NGO representatives introduced their regular actions and the appearance of the coasts of each state before and after the tsunami disaster. Then, we discussed whether they found any flotsam seemingly related to the tsunami, concerns over such flotsam, and expected support from Japan or other sources at the international level. A broad array of topics were covered including methods to dispose the collected trash, technology of trash recycling, and invasive foreign species that could be adhered to such flotsam and enter the US West Coast area.

Although at Cannon Beach, we did not find any articles that might be related to the tsunami, in Alaska, there had been quite a large amount of polystyrene foam floats among other things washed up on the shores, according to the ICC coordinator of the state. Boats and portions of huge objects were reported as landed on shores or floating near the coast as many of you might have heard. Concerns were

raised about how to collect such flotsam landed on shores which have limited access.

After the August visit to Portland, in order to share the information we gained from the visit, JEAN set up a brief meeting with organizations with which we have communicated through cleanups, and also those that have continued supporting the disaster affected areas in Japan. According to the MOE prediction model, soon, wooden housing materials may reach close to the US West Coast area and part of such driftage (about 40,000 tons) could wash ashore. As of October 2012, however, mass driftage has not yet been recognized. We need to watch the possible driftage with care. We consider that it is important to continue our actions of collecting trash on beaches, to support those groups and people who have worked for the existing problem of marine litter or conservation of the marine environment, and to have dialogues and information sharing among NGOs. In parallel work, to apply for grant funding or raise funds from the private sector, we will bring forward such collaborative efforts by working together with other organizations in Japan.

JEAN applied for and successfully was entrusted with the publicly offered project, “Work of Japan-US NGOs Coalition Promotion, Inquest and Addressing Information in Japan in Relation to Floating Objects Associated with the Great East Japan Earthquake, Term in Fiscal Year 2012” posted by the Environmental Restoration and Conservation Agency. JEAN started implementation of the project with several Japanese and American NGOs.

# ACTIVITIES

## 1. Objectives and Actions

(1) On-site investigations will be conducted so that NGOs and other organizations from the U.S. and Japan can respond collaboratively, and (2) results of on-site investigations will be reported to relevant parties in Japan, and preparations will be made for response after spring of next year. In addition, the issue of “marine litter” that existed from before will also be publicized widely to the Japanese society.

## 2. Outline of Project

### (1) Establishment of Exploratory Committee

Establish a committee consisting of Japanese NGOs, NPOs and foundations, and researchers on the marine litter problem.

### (2) Implementation of on-site investigations

(a) Oahu and Hawaii Islands of the state of Hawaii: Conduct recovery and survey, and hold opinion exchange meeting with local NGOs and other organizations of the coasts.

(b) Portland suburbs, Oregon State: Hold a small-scale forum with local residents, relevant NGOs and relevant local governments. Report on state of the areas (coast) stricken by the Great East Japan Earthquake.

### (3) Hold forums in Japan

In two locations, Tokyo and Sendai (area stricken by Great East Japan Earthquake), report results of on-site investigations as well as deepen understanding of marine litter issue that has existed from the past. Toward holding these forums in March 2013, conduct scheduling with relevant parties from disaster-stricken area.

Members of the Exploratory Committee consist of organizations such as an organization conducting continuous support to the area stricken by the earthquake, an ICC site captain who does underwater cleanups, an NGO dedicated to the support of people in turmoil, an NPO working for the problem of marine debris at Midway Atoll, and academic researchers on the issue.

We will start from Hawaii in January 2013. An inspection team of about 10 people from the above mentioned groups, as well as a few government officials will carry out on-site inspections and surveys on beaches of Hawaiian islands, and a cleanup and trash survey, followed by a one-day workshop with help from the Hawaii State ICC coordinator. Island coordinators, academic researchers, state government officials and NOAA in Hawaii will be invited.

Coincidentally, during our visit, there will be a community cleanup at Kamilo Point, a ragged beach on Hawaii Island, so we will arrange our schedule to join the cleanup. Kamilo is known as a beach that attracts much marine litter because of its geographical location. We are wondering if we will find any objects washed ashore from the tsunami after the earthquake; and if we do, what kinds of items will they be?



\* A scene at Canon Beach—Local people were quite surprised with group including foreigners who were followed by many media crews with cameras and microphones.



\* The Hawaii State ICC coordinator's presentation.



## 4. First Kansai “Marine Litter Summit” Ended on a High Note

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### Recommended Citation:

Azusa, Kojima, Yoshiko Ohkura, (2012). First Kansai “Marine Litter Summit” Ended on a High Note, Marine Litter News from East Asia Civil Forum on Marine Litter, Vol 3(2): 7.

The 10th Marine Litter Summit was held in Kameoka City, Kyoto, in August 2012. On the first day was fieldwork in which participants observed trash on the river banks or caught in the trees, while enjoying each boatman’s watermanship. There was a stop at one river bank to get off from the boats, and we did a cleanup and trash survey. During the integral discussion program held on the second and third days, lively exchange of opinions took place on topics such as deposit systems for waste disposal and means of preventing trash generation with cooperation among river basin communities.

After closing the summit, we also conducted wrap up lessons at four municipal elementary schools, which also participated in the preliminary event. It seemed to be a good opportunity to learn about the problem of marine litter afresh, through the trash entanglement simulation experience and by hands-on experience on a real and interesting driftage other than trash.



\* 71 people participated for the ICC survey. We retrieved 68 30-liter bags of trash totaling 220kg, including many plastic beverage bottles (PET bottles).



\* A scene at Canon Beach--Local people were quite surprised with group including foreigners who were followed by many media crews with cameras and microphones.



\* Integral discussion program on Aug. 25, 2012

## 5. The Exchange of Beach Cleanup Experience in Macau

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### Recommended Citation:

Lai, Wyland. (2012). The Exchange of Beach Cleanup Experience in Macau, *Marine Litter News from East Asia Civil Forum on Marine Litter*, Vol 3(2): 8-9.

Kuroshio Ocean Education Foundation of Taiwan was invited to participate in the “Farewell—Marine Culture Exchange Program” of the “12th Macau City Fringe Festival” in November, 2012. During the almost month-long marathon of events, the Kuroshio Foundation contributed indoor artistic and environmental events as well as a cleanup activity along the local coast, which revealed an untold story of the marine debris of Macau.

Hualien City, where Kuroshio Foundation is located, is similar in area to Macau, although the population of Macau is 5 times higher. Casinos and tourism are major contributors to the growing economy in this most densely populated region in the world, and as a consequence the volume of garbage is continually increasing. According to the local studies, a tourist generates 3 times more waste than a citizen. With the expanding popularity and prosperity of tourism, how would the Macau government face the challenge? And how does the marine debris of Macau differ from that of Taiwan?

The Kuroshio Foundation has conducted coastal cleanups of marine debris around Taiwan for more than 10 years, and so a similar approach was taken in Macau. Thirty volunteers spent more than 2 hours picking up garbage under the Taipa end of the Sai Van Bridge. The volunteers worked hard but because of the large volume of garbage present on the shoreline only about three-fourths could be picked up at this time. One week later we went back to the same site and saw that the amount of marine debris had increased by visual estimation to 40% of the original amount before the first cleanup. This site had very few neighboring residents and visitors, therefore; it was assumed that most of the garbage was brought there by the waves rather than directly littered by on-site persons. Curiously, the percentage of recyclable waste in this marine debris was higher than that found around Taiwan.

Our friends in Macau expressed that, due to the intermixing of residential and commercial buildings, it was difficult to separate household garbage and commercial waste. Secondly, lacking supportive industries and agriculture, recyclable waste could not be processed and remade into other products in Macau. Therefore, the incentive to classify garbage for recycling was low. Incineration is the only method of waste treatment in Macau. Since 1998, the Macau government began promoting separation of garbage for recycling into 3 categories: paper, metal containers, and plastic bottles. Glass, kitchen waste, and disposable tableware were not collected. Without a comprehensive recycling program, however, it is worrisome that the current incinerator might shorten its life span, and thus pollution of the environment would continue uncontrolled.

During our visit, the 12th Macau Food Festival was held at the nearby Sai Van Lake Square on the 9th to the 25th of November. Visitors filled the plaza where they sampled foreign and local foods and enjoyed various shows and events. A large billboard exclaimed “If 1 person uses 2 pairs of disposable chopsticks, 500,000 people will consume 250 trees. The total height of all the chopsticks used will be equal to the height of 577 Macau Tower.” Even though the intention of environmental protection was obvious, few visitors brought their own tableware. Most booths provided disposable food containers and plastic bags. Disposable plastic ware covered the tables and filled the trash bins. The Environmental Protection Service of Macau government released the news of “Program of reducing garbage in the food festival” on Nov. 24th. Questionnaires collected during the festival revealed that 20.5% of the interviewees said that they were willing to bring their own food utensils but that only 8% actually brought them to the festival. Clearly, there is still much to do to reduce waste in Macau.



The Macau government seems quite confident on their incineration of waste program, combustion, which might be the result of few options in this small place. The incinerator has expanded its facilities and optimized the processing capacity to 1,728 tons per day, which is twice the amount of garbage produced per day. Perhaps this high-capacity incineration may have dampened government motivation for recycling efforts. The incinerator is capable of reducing the solid mass of the original waste by 90%. However, all un-sorted garbage sent to the incinerator would result in more complex gaseous and solid effluent with increased potential health risk for the citizens. The bottom ash is often used as landfill in coastal reclamation and definitely would pose threats to the health of both people and the marine environment.

In conclusion, we would like to emphasize the “3Rs” for everyday life for people everywhere, including Macau. First R is Reduce – reduce the amount of garbage from the source, we can choose environmental friendly products with minimal and eco-safe packaging. Second R is Reuse – repeatedly re-use most materials, for example we can bring our own food utensils, water bottles, and shopping bags. Third R is Recycle – classify and recycle the garbage. These 3Rs are the beginning to reduce garbage and to make our community environmentally safe.



## 6. Marine debris monitoring, a tough challenge for both Taiwan and China

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### Recommended Citation:

Sun, Hsiu-ju. (2012). Marine debris monitoring, a tough challenge for both Taiwan and China, *Marine Litter News from East Asia Civil Forum on Marine Litter*, Vol 3(2): 10-11.

Though politically divided, Mainland China and Taiwan are physically separated merely by the narrow Taiwan Strait, hence environmental issues affecting both places are profoundly interrelated. Upon realizing this interconnectedness, Taiwan Environmental Information Association began launching exchange programs between environmental groups of Mainland China and Taiwan since 2006 in order to foster discussion and share best practices. In November 2012, nine representatives from Mainland Chinese NGOs came to Taiwan for a 10-day program. Apart from field visits and workshops, these representatives also partook in a conservation working holiday in which they gained new perspectives and experiences in marine conservation and helped remove marine debris on the coast of Taiwan.

The “Marine Debris Removal and Monitoring Working Holiday” was hosted by Tainan Community College, a leading institution that has been involved in long term marine conservation in the local area. The Chinese representatives were first briefed by lecturer Reiguang Zhou on their experiences in marine debris removal and monitoring conducted previously, and were shown picture slides of damages caused by marine debris, including death of wildlife.

After the debriefing, the Mainland Chinese representatives were brought to the estuary of Yenshui river, picked up sacks and gloves and started the cleanup. From afar, the landscape of the estuary looks beautiful; under close scrutiny though, unsightly eye sores were revealed: countless plastic bags, styrofoam, and enormous amount of marine debris generated by all kinds of human activities imaginable scattered across the beach. Xiaohong Yi, the owner and protector of “Crocodile Island” of Fujen province of China stated that styrofoam pollution is also a serious problem on his island. The case gets even worse when the styrofoam disintegrates overtime into tiny pieces, which makes

removing them all the more impossible!

Yonglong Chen, a marine conservationist in China, observed the many shattered glass bottles and glass pieces on the beach. He wondered why there were so many relatively new glass bottles of a variety of colors on a mere 50m long stretch of beach? Reiguang Zhou explained that many of these bottles have drifted here from upstream, and many were left behind by sports fisherman, along with plastic containers for bait and fishing nylons.

Removing marine debris from the shore was no easy feat, but it did not just end there. Documentation of these debris was also a consuming task. Categories for items were detailed and meticulous. “We count each piece of garbage as one unit, because one unit represents one act of picking up the garbage. If one bottle breaks into three pieces, it becomes 3 pieces of garbage. This counting method is adopted in order to emphasize the fact that if we treated the waste properly before it is disposed of carelessly, we could reduce all the extra work involved in cleaning it up afterwards” explained Zhou. Within half an hour, 15 participants collected 135 glass bottles on the 50m long stretch of beach, needless to say, this figure has not taken into account the countless pieces of broken glass also collected.

Yonlong Liu compared the marine debris monitoring method of Taiwan and Shanghai. In the marine debris removal projects he heads in Shanghai, participants are generally broken into groups of 3-4 people to collect waste and report the numbers on behalf of their respective groups. The total numbers of debris are generally not tallied up. The method adopted by Tainan Community College has been modified and improved over time: participants dispersed to collect debris, and gathered all the debris in one place for categorization and documentation. Liu thinks that to pile up all the debris collected in one place produces a graphic



visual presentation of marine pollution, and can be very powerful and educational. Liu was inspired by the different methods of data collection and categorization used during the conservation working holiday in Tainan. He believes that these are invaluable practices to bring back to China as he conducts marine debris removal and marine conservation education in the future.





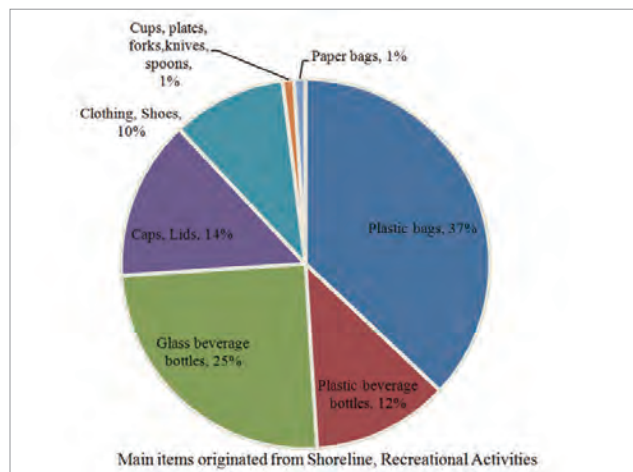
## 7. From the beach cleanup to changing mindset

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Kosavisutte, Kanyarat. (2012). From the beach cleanup to changing mindset, Marine Litter News from East Asia Civil Forum on Marine Litter, Vol 3(2): 12-13.

The recent ICC, on Sunday 16 September 2012, I organized a beach clean up with the seashore community whom I continued to work with through the workshop of making use of the marine debris found during the clean up. The beach located not far from Koh Lanta where I established Loy Lay Art and Gallery in 2011. Thank you for several small funding I have been granted, one of which was from OSEAN fundraising program (<http://happylog.naver.com/osean.do>) and another was from The Missing Shoes Project year II. The method was as simple as usual starting from cleaning up the beach, collecting



the data and submitting the data to ICC. We have separated whatever recyclable and reusable out of whatever not reusable and not worth recycle. That good stuff has been used as material in the workshop while the bad stuff has been gone to the dumpsite.

The results shown that plastic bags were out numbers of everything else, 865 pieces and 114 sags. I later found out that the cleanup site was the market where they sold the jelly fish caught during the season. Everyday a large no. of bags and sags have been

used to carry sodium in order to keep the jelly fish fresh.

About the workshop, I separated it into two theme: first using technology to create useful product and second using the local skill and art to make craft product from flip-flop and collected items.

In my first workshop, I invited the Professor from Rubber & Polymer Science Technology of Prince of Songkla University, Pattani campus situated at the further southern part of Thailand who took sample of the flip flops from “The Missing Shoes” project found during the beach clean up last year and studied how we could play with the material. His experiment came into our first workshop, the flip flops shredded into smaller pieces, blended



in with the mixer of Polyol and Isocyanate which were the bonding agent. The stuff was put in a mold compressed with weight until dry, sounded very easy.

The second workshop was into art. This workshop was led by a



friend who used to work for the National Park and has been collecting Marine Debris as I do.

The third workshop I conducted myself. The flip flop has been transformed to the beads and later were sewn to make basket, bag, placemat and so on.

The fourth workshop I introduced new material from trash which can be easily found and collected from everyday life, it's the packaging of aluminum foil. I have always been interested and would like to deal with the material that cannot be recycle and only ended up in the dumpsite. Aluminum can take up to 400 years to decomposed. We played with the material by weaving and sewing them, at the end after many trials and errors we found the method from the internet said just fold them and interlock. The instruction was made for the



workshop and it was very clear.

From the beach clean up to the workshop, I hope I find some people who are interested in the whole process we introduced. I hope they really understood the cause and impact of Marine Debris and can finally manage trash responsibly and really practice in their everyday life.





## 8. Research result on the impacts of marine debris on wildlife in Korea

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### Recommended Citation:

Jang, Yong Chang. (2012). Marine debris impacts on wildlife, *Marine Litter News from East Asia Civil Forum on Marine Litter*, Vol 3(2): 14-15.

Marine debris impacts on wildlife is regarded as one of the most important damages that is brought about by the marine debris (Derraik, 2002). OSEAN began to pay attention to this issue from its establishment in 2009. In this year 2012, a book on marine debris impacts on wildlife and a scientific journal paper was published, as the outcomes of our activities.



\*A Black-faced Spoonbill found on July 8, 2011 by Mr. Namjun Jee in Incheon City

For the research of marine debris impacts on wildlife, we adopted the methods of citizen sciences. Citizen science is the process whereby citizens are involved in science as researchers (Kruger et al., 2000).

So, we have invited all the citizens to our activities. We have opened an website ([www.osean.net](http://www.osean.net)) for the research of the marine debris impacts on wildlife. Any citizen can access this website, share the information, and contribute to the research. We also held off-line seminars several times to share the knowledge, to strengthen the network, and to decide the way of research forward. In this year, when various examples of marine debris impacts on wildlife were collected,

we began to summarize the information.

We have summarized the cases in various viewpoints, and analyzed them. For example, leisure fishing explained more than 70% of the cases, which means we need to make effort to reduce marine debris from leisure fishing. As we thought we need to share the research process and result with more people, we published a book and a scientific journal paper. The pdf file of the book can be downloaded from our website. The scientific journal paper (hong et al., 2012) can be purchased from the journal website.



\* The seminar was held in Busan in 2011 with the financial support from Young Nam Sea Grant.



\* Types of debris impacting marine wildlife in Korea

Types of Debris		Entanglement	Ingestion	Total	
Commercial Fishing	Net	6	-	6	8 (20%)
	Hook	1	-	1	
	Rope	1	-	1	
Leisure Fishing	Line	3	-	3	29 (72.5%)
	Hook	5	15	20	
	Hook/Line	4	1	5	
	Lead Weight	-	1	1	
Daily Lives	Plastic Bands/Plastic Bags	3	-	3	3 (7.5%)
Total		23(57.5%)	17(42.5%)	40	40(100%)

We are planning to continue this activity. We will expand our research by inviting more citizens to participate in the research. And we will make public policy suggestion based on the research result.

## Acknowledgement

We thank all the citizen participant who share the valuable information on the marine debris impacts on wildlife. We thank the more than a thousand internet users who made donation for this project, and the Happy Bean Foundation who organized the donation project. We thank Young Nam Sea Grant for the financial support for the seminar held in 2011. We thank Korea Institute of Ocean Science & Technology for the support for the publishing the journal paper

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- Kruger, L. E., Shannon, M. A. (2000). Getting to know ourselves and our places through participation in civic social assessment, *Society and Natural Resources*, 13: 461-478

## 9. Plastics in the stomach of Tuna caught in Central North Pacific

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### Recommended Citation:

Fujieda, Shigeru. (2012). Plastics in the stomach of Tuna caught in Central North Pacific, Marine Litter News from East Asia Civil Forum on Marine Litter, Vol 3(2): 16.

I had an opportunity to go to Central North Pacific on board Kagoshima University training vessel “Kagoshima-Maru(Phot.1)” in this summer. Our subjects are visual observations of the drifting marine debris caused by Tsunami at last year. We found not only many drifting marine litter on the sea surface (Phot.2) but also much small plastic debris by a neuston net ( Phot.3). And we caught about one hundred tunas with students by long line fishing in the area of 31°N-32°N, 161°W-165°W. We found that a big eye tuna ingested the rope (60cm) and sort oyster pipe (1.5 cm) (Phot.4).

In the Pacific Ocean, a huge amount of plastic debris is floating. It

is difficult to separate these floating marine debris between Tsunami debris and general marine debris, because both are mainly the same plastic and general items. We are worried that the increasing plastic in the ocean would increase the number of accident by plastic. Of course, this tuna was deliciously eaten by us.



\* Kagoshima University training vessel “Kagoshima-Maru”



\* Drifting marine debris with gathering fishes



\* Sampling the small plastic debris by a neuston net



\* A plastic pipe and a rope found from a tuna stomach  
(Aug.28 2012, 32.2°N, 161°W)



## 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)  
 Thailand: Green Fins Association (GFA)  
 Taiwan: Taiwan Ocean Cleanup Alliance (TOCA)

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 [loveseakorea@empas.com](mailto:loveseakorea@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,  
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