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Marine Litter News

Volume 7 • Issue 2 • December 2016

In this volume

Upcoming event

1st Korea Marine Debris Conference

- Date: 16 Feb, 2017
- Venue: South Sea Research Institute of Korea Institute of Ocean Science and Technology (KIOST) (Geoje, South Korea)
- Organizer: Our Sea of East Asia Network & KIOST
- Participants: Researchers, NGOs, industry sector, policy makers, artists, etc
- For more information, contact Dr. Sunwook Hong (loveseakorea@empas.com)

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Preface

Marine Litter News
Vol. 7(2), December 2016
Asia Pacific Civil Forum on Marine Litter

Dear readers,

I am very pleased to deliver wonderful news from the Asia Pacific region regarding tackling marine plastic debris in this issue.

First of all, Ocean Conservancy of America brings you the first International Coastal Cleanup (ICC) Asia Pacific Regional Meeting held in Hong Kong. Surely it could be a recognizable event when it comes to strong collaboration among ICC coordinators in the region. Japan Environmental Action Network successfully convened its annual Marine Litter Summit. This event was the most international summit that I have ever taken part in. Taiwan Watch Institute and Greenpeace Korea report the fantastic news regarding the ban on microbeads in consumer products. I would like to admire their effort to make it through.

Shanghai Rendu Ocean provides a directory which includes overall information on 176 marine conservation organizations in China. We can enjoy a participant's report on Japan-Korea workshop for exchanging and discussing issues about marine litter with interesting figures. Vancouver aquarium in Canada, a non-profit organization, introduces their role and activities to engage people for clean Canadian shorelines. Global Ghost Gear Initiative starts to collect data on lost or abandoned fishing gear worldwide, which have imposed serious harmful impacts on ecosystem and fishing industries. We, Our Sea of East Asia Network (OSEAN), continue to research Styrofoam buoy issue and published an academic paper. We also have been hosting monthly webinars for capacity building of NGOs in the Asian region. I am pleased to deliver this amazing news that the webinar has been continuously held 60 times over the last 6 years and beginning next month, 7 new participants from a variety of NGOs in China will be joining.

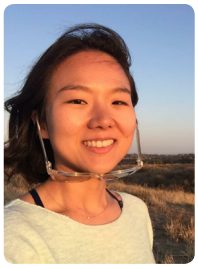
Our efforts to address marine debris in the Asia Pacific region are very cooperative and practical. I believe integration of shoreline cleanup, education and raising awareness, capacity building, policy change, and research will result in a cleaner and better ocean.

I would like to sincerely thank all of our members' unflagging and indefatigable efforts toward solvinge this problem.

Any wonderful news from all over the world are more than welcome.

With love,
December 2016,

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



Assistant editor, **Hyunjung Kim**
(*Volunteer of OSEAN*)

∗ *Ms. Hyunjung Kim voluntarily assists to edit Marine Litter News, working for Greenpeace East Asia Seoul Office as a researcher.*

Marine Litter News
Vol. 7(2): 4-7, December 2016
Asia Pacific Civil Forum on Marine Litter

Convening in Hong Kong for Global Impact: the International Coastal Cleanup Asia Pacific Regional Meeting

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Introductory presentation by N. Mallos of Ocean Conservancy on the first day

November 2016 marked the first time that local, regional and national thought leaders from throughout Asia Pacific convened to discuss a concerted strategy to address marine debris, specifically plastics. This meeting was the first time in over 5 years that Ocean Conservancy's International Coastal Cleanup partners came together to discuss the Cleanup, emerging science and opportunities to achieve policy wins through greater collaboration. Hong Kong served as the ideal meeting venue given the significant leadership Asia Pacific countries have shown during the Cleanup, increased scrutiny Asia Pacific countries have received following the publication of Jambeck et al. 2015 [1] . The event also marked the first International Coastal Cleanup Coordinators meeting to take place in Asia, which would not have been possible without the tremendous partnership from our Hong Kong Cleanup partners, Ecozine. As co-hosts of the event, Lisa Christensen and Nissa Marion (Ecozine) provided an unparalleled perspec-

1. J. R. Jambeck, R. Geyer, C. Wilcox, T. R. Siegler, M. Perryman, A. Andrady, R. Narayan, and K. L. Law, "Plastic waste inputs from land into the ocean," Science, 2015, Volume 347, Number 6223.

tive into the plastic debris challenge plaguing Hong Kong and its many islands.

National and State Coordinators from 18 countries and states throughout Asia Pacific attended the meeting, including representatives from academia, government and civil society as well as a leading delegate from UNEP's Coordinating Body on the Seas of East Asia (COBSEA) Regional Seas Programme. Combined, the countries represented in the room accounted for 67% of all Cleanup volunteers and 74% of all debris collected during the 30th Anniversary Cleanup (2015).

Hong Kong Under Secretary of Environment, Christine Loh, provided keynote remarks at the meeting's opening reception, and she specifically acknowledged the meaningful impact that Ecozine and the Hong Kong Cleanup have had on mitigating the threat of plastic debris to Hong Kong's islands. Still, much work remains to be done to address Hong Kong's plastic debris at its source, including a collaborative strategy among government, industry and civil society.

The three day meeting kicked off with a beach cleanup along Cape D'Aquilar in the Shek O region of Hong Kong Island. The specific beach was called Lap Sap Wan, Cantonese meaning "rubbish bay." The beach is a more remote region of Hong Kong Island, not easily accessed by foot or boat, and is located just past the main recreational beaches of Shek O. Due to the remoteness, the currents and the protected nature of Lap Sap Wan the shoreline acts as a sink capturing significant amounts of trash. The plastic debris conditions on this beach were abhorrent, and solid wrack lines of plastic waste were visible with each wave that washed onto shore. Access to the beach requires a steep descent down the side of a mountain, therefore trash collected during Cleanups is stored above the high tide line until seas are calm enough for government vessels to navigate onshore and remove the collected trash. In addition to the hundreds on kilograms of plastics collected by meeting participants, the group specifically targeted collection of high-density polyethylene (HDPE) plastic. These materials will be recycled, and the quality of the plastics tested, to create a limited edition "2017 International Coastal Cleanup" line of sunglasses manufactured by Ocean Conservancy's partner, Norton Point.

Over the course of the meeting, dialogue focused on developing a more integrated strategy among Cleanup partners throughout the region. This was especially seen related to communications, both within the network and via external communications from the International Coastal Cleanup network to the public. There was a consistent call to explore the creation of a digital management platform such as BaseCamp that could enable better information sharing and communications among the regional and international Coordinator network. There was also a strong theme of developing common language and terms to ensure Cleanup partners around the world communicate using a unified voice.

Beyond coordinating Cleanups, the National Cleanup Coordinators represent the leading thought leaders on the issue of ocean plastics and debris in their respective countries and abroad, and the collective knowledge of the Coordinator network in attendance was impressive. There was also a resounding call for continued and expanded collaboration across the region. Ocean Conservancy was encouraged by this energy and is committed to to better connecting the incredible efforts across the region together under a common call to action.

There was consensus among Coordinators that a commitment to collective action by all sectors—industry, government and civil society organizations, is needed to stop plastic from entering the ocean, and a meeting statement will outline the priority actions the Network is resolved to pursue. The three day meeting was a resounding success and Ocean Conservancy remains humbled and inspired by the combined impact of this extraordinary Network. At the meeting's end there was an immediate call for a follow-up convening, and Ocean Conservancy looks forward to bringing together our global Network of partners in 2018 to to spur even greater engagement and collaboration.

International Coastal Cleanup-Asia Pacific Regional Conference Agenda
November 16-18, 2016
The Cityview Hotel, Hong Kong, SAR

November 16 - Day 1	
11:30 - 12:00	Informal Welcome(Hotel Lobby)
12:00	Shuttle Departs For Beach Cleanup
13:00 - 16:00	Coordinator Beach Cleanup + Plastics Collect
16:00	Shuttle Returns To Hotel
18:00 - 20:00	Welcome Reception and Cocktail Party (Crystal Ballroom)
20:00 - 21:30	Official Coordinator Welcome Dinner (The Balcony)
November 17 - Day 2 (Diamond Room)	
09:00 - 09:15	Welcome and Meeting Goals
09:15 - 10:30	Introductions
10:30 - 10:45	Coffee Break
10:45 - 11:30	The Global Perspective : Celebrating Our Past, Shaping Our Future
11:30 - 11:50	Hong Kong Perspective

11:50 - 13:00	Spotlights On Network Expertise
	• Session 1 :
	  • Mr. Jaime Paredes - Mar Y Ambiente Consultores
	  • Dr. Jingmyoung Lee - Our Sea Of East Asia Network(OSEAN)
	  • Mr. Niphon Phongsuwan - Depertment Of Marine And Coastal Resources, Thailand
	• Session 2 :
	  • Mr. Eben Schwartz, California Coastal Commission:
	  • Ms. Hanako Yokota, Japan Environmental Action Network (JEAN)
	  • Mr. Reynaldo Molina, United Nations Environment Programme (UNEP)

13:00 - 14:00	Lunch
	• Lunch Panel : Putting Zero Waste Into Practice
	  • Mr. Richard Anthony, Zero Waste International Alliance(ZWIA)
	  • Ms. Ruth Abbe, Zero Waste UAS
	  • Mr. Pal Martensson, ZWIA

14:00 - 15:30	Rapid Breakouts : Increasing Impact Globally • How can we, as a global network, create more impact and awareness of the issue in our respective geographies? • Data collection - small and large group discussion
15:30 - 15:45	Coffee Break
14:45 - 16:45	Rapid Breakout : Educating Ourselves and Our Constituencies • Education Materials - What's available? What's needed? What's can be a improved? • Crafting Our Collective Vision - key points to include in coordinator consensus statement / meeting outcome document
16:45 - 17:00	Day 1 Closing
18:15	Board Coach to Dinner
19:00	Dinner at Linguini Fini
20:30	Board Coach for Hotel
21:00	Day 1 Official End • Conversations & Cocktails At Hotel Bar (Optional)

November 18 - Day 3 (Diamond Room)	
09:00 - 09:15	Recap Day 1 Outcomes, Key Themes, Questions
09:15 - 10:00	Group Discussion : Fundraising Strategies and Best Practices

10:00 - 11:00	Panel Discussion : Tools for Increased Impact
	• Volunteer Recruitment
	  • Ms. Hannah Pragnell-Raasch, Project AWARE
	  • Ms. Joy Hawkins, Stop Oregon Littering And Vandalism (SOLVE)
	• Effective Communications And Digital Strategies
	  • Dr. Sunwook Hong, Our Sea Of Asia Network (OSEAN)
	  • Ms. Emi Koch, Coast 2 Coast

11:00 - 11:15	Coffee Break

11:15 - 12:15	Panel Discussions Continued
	• Turning Data Into Policy
	  • Mr. Sivasothi N., National Unversity Of Singapore
	  • Mr. Eben Schwartz, Californis Coastal Comission
	  • Mr. Tommy Cutt, Loggerhead Marinelife Center

12:15 - 13:30	Lunch
13:30 - 14:45	Moving Beyond the Beach and Landfill - Cleanup Innovation • Ms. Heidi Taylor, Tangaroa Blue • Ms. Hazel Panes, Net-Works Pholippines, Zoological Society Of London • Ms. Allison Schutes, Ocean Conservancy
14:45 - 16:00	Blue Sky Cleanup "Free Flow" Session
16:00 - 16:30	Closing Session
16:30	Conference Concludes

Snapshots of the International Coastal Cleanup Asia Pacific Regional Meeting in Hong Kong

Marine Litter News
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Asia Pacific Civil Forum on Marine Litter

14th Annual Marine Litter Summit 2016 – Mie Conference

Ise City, Mie Prefecture, Japan

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Introduction

Japan's annual Marine Litter Summit hosted by Japan Environmental Action Network (JEAN) locates itself in different areas of the country each year, with 2 full-day presentations and discussions followed by a 3rd day for a beach clean activity. This year, the 14th Marine Litter Summit 2016 Mie Conference was held from Friday October 28th to Sunday October 30th in Ise city, Mie Prefecture.

Mie is blessed with fertile mountains and sea, with historical shrine known as Ise Jingu, Thousands of Japanese and foreign tourists pay visits every year for this Shintoism shrine, dating back to 690AD. Mie's beautiful coastline faces the pacific with multiple peninsulas including Ise Bay and Ise-Shima National Park. Its complex geography also accumulates a large amount of marine litter floating in and out of the bay.

Some of the summit members' visit to Ise Jingu

Aerial view of part of Ise Bay

Background and Objectives

In 2010, pursuant to decision IX/35, the tenth meeting of the Conference of the Parties (COP 10) was held in Nagoya. Objectives were set for both “Aichi Objective” by 2020 and “National Biodiversity Strategy 2012-2020”, however the issue of marine litter was not recognized as a bigger task.

Marine pollution with microplastic litter was noted in Leaders’ Declaration as a nation wide problem during the G7 Summit in EllMau, Germany in 2015. Action Plan was included to commence against the problem. The commitment from previous year was also carried on in this year’s G7 Ise Shima Summit’s declaration to “reaffirm our commitment to address marine litter, recognizing that our efforts on resource efficiency and the 3Rs also contribute to the prevention and reduction of marine litter, particularly plastic, from land-based sources. Furthermore, we support scientific work to enhance global ocean observation and assessment for the science-based management, conservation and sustainable use of marine resources.”*1

This year, discussions were divided into 3 main themes;

1. Biodiversity and Marine Litter
2. Reducing and Preventing Plastic Litter Entry to the Ocean
3. Northern Pacific International Relations & “Toba Appeal”

Relative research and activity reports were presented by 15 foreign guest presenters and 16 Japanese presenters, followed by group discussions and editing of “Toba Appeal” draft based on the 3 themes.

Biodiversity and Marine Litter

During this first discussion theme, sub themes were focused on current Microplastic marine pollution, marine debris and protection of ecosystem, and coastlines and oceanic areas’ efforts. Dr. Eriksen

Main hall of the Summit

from 5 Gyres Institute referred back to 1950s where ‘single-use’ was an encouraged lifestyle with an emerging plastic industry and a throw-away economy. Plastics and Microplastics are not only floating in the ocean, but also reaching to the bottom of the sea, entering and affecting the marine ecosystem. It was strongly addressed that the society needs to get away from the “linear economy”*2 and move on to a “circular economy”*3 to solve this growing problem from the core.

Reducing and Preventing Plastic Litter Entry to the Ocean

This theme was discussed on the 2nd day of the summit, which kicked off with 2 documentary films; “Debris” featuring a marine litter artist Peter Clarkson and “Akaska Barge Project” featuring GoAK(Gulf of Alaska Keepers).*4

On the 2nd theme, points were discussed on reducing plastic usage, preventing land-based litter entering waterways, and beach clean and international cooperation.

Councilor Hayamizu from the Ministry of Environment Japan addressed the urgency to react on reduction and prevention during his opening speech. Business perspectives were given from presenters such as Patagonia Japan and The Yokohama Rubber, addressing their commitment to reduce and

Group photo of invited speakers and organizers

prevent as a leading example in each industry. Jon Schmidt of Washington Coast Savers closed the day as a World Ocean Collective representative, which the group itself formed during past marine litter conference, stating that above all scientific researches and data, and the amount of time and effort needed to protect the marine environment on a global scale, we must remember that "the world is one, and the ocean connects all of us".

At the end of the day, participants spread into groups of 8-10 to discuss and edit the draft of Toba Appeal ** based on the 3 themes of this summit.
In order to shift the entire consumerism on single-use plastics and plastics in general, we not only need to shift to alternatives in many choices we make on daily bases, but also to stronger approach from several directions and to several targets. Product design, especially on fishery tools, must be reevaluated upon EPR (Extended Producer Responsibility) to design each product with a circular, cradle to cradle, type of a product life. Policies need to be more particular, specifying products and what needs to be done to it in order to decrease/ban from the root. Education for children, the most hopeful approach of all, can be applied by educational NPOs to lecture inside and outside of classrooms. Involving and engaging students in local environmental activities can raise their awareness. Textbooks should also be edited/re-written/added with more focus on environmental issues to provide knowledge on how to live responsibly and sustainably, knowing that each person living on earth is responsible for contribution of a carbon footprint. Feeling hopeful that those children will eventually educate the adults and become the next generation or environmentalists.

Nasanohama (Nasa Beach) Cleanup
Northern Pacific International Relations & "Toba Appeal"

On the last day of Mie Summit, the participants took a boat ride to Toshi Island in Toba City to join a beach-cleaning event hosted by the local 22nd Century Nasanohama Project members. Within an hour, over 860kgs (1,892lbs) of marine litter was removed by over 150 participants. Results are very visible in the photos, however the countless numbers of small plastic pieces still remained.

Nasanohama beach before cleanup (left above and left) and after cleanup (right above and right)

Following the beach clean, panel discussion was held with 8 representatives, including Mie Prefectural Governor Suzuki and Ise City Mayor Kida, at the gym of local Momotori Elementary School. Toba Appeal draft was then handed over to Mie Prefectural Governor Eikei Suzuki for an official press release.

Students of Momotori Elementary also participated in the clean up event to collect marine litter. They were introduced to marine debris artists Peter Clarkson from Canada and Kim Ji Hwan from Korea to create a collaborative artwork with collected debris

During Panel Discussion

Students Marine Litter Artwork with
Peter Clarkson and Kim Ji Hwan

Conclusion

With more than 100 participants in total during a 3-day long summit, studies, researches and experiences were exchanged by people from the United States including Alaska and Hawai'i, Canada, China, Taiwan, Korea and multiple prefectures of Japan.

The more we discussed about marine litter, the more it became apparent the urgency to act now. Marine pollution is a growing and on-going global problem, which is solely and entirely caused by humans. Today more than ever, we need to work in collaboration, effectively, quickly and farther together.

"Alone we go fast, together we go far", and so we keep moving forward.

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Official Facebook Page: www.facebook.com/worldoceancollective
Official Website: http://www.jean.jp/en
Instagram: @worldoceancollecitve,

#mdsummitjapan, #worldoceancollecitve, #tothebeachforthebeach

References

*1 - G7 2016 Ise-Shima Leaders' Declaration
http://www.env.go.jp/water/marine_litter/conf/c01-07/ref04_1-1-1.pdf

*2 – Economy that moves materials from extraction to the eventual landfill, incinerator or the environment as pollution. (5 Gyres Journey Across the Arctic Final Report)

*3 – Economy where all materials extracted and consumed are returned to the biosphere or manufacturer, leaving nothing to persist outside these natural and manmade cycles. (5 Gyres Journey Across the Arctic Final Report)
https://static1.squarespace.com/static/5522e85be4b0b65a7c78ac96/t/57d7536dc534a5e4e6e0658c/1473729392061/5+Gyres+2016+Arctic+Expedition+Summary+Report.pdf

*4 - Cleaning Marine Debris from Alaska Beaches | INDIE AKASKA,
GoAK & Alaska Barge Project can be watched via this link: https://www.youtube.com/watch?v=XScR5Khp8MU

** – Toba Appeal: a statement written/edited/drafted by summit participants regarding the future countermeasure on marine litter. It is categorized in 3 themes discussed during the summit; Biodiversity and Marine Littter, Reducing and Preventing Marine Litter entering the Ocean, and Northern Pacific International Relations. The Appeal was then handed over to Mie Prefectural governor and to be officially released by Toshi Island.

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Asia Pacific Civil Forum on Marine Litter

Taiwan EPA Will Ban All Microbeads -Containing Rinse-Off Cosmetics

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1. Taiwan Watch Institute's involvement

Since 2014, the researcher of Taiwan Watch Institute (TWI) have been surveying plastic microbead-containing rinse-off personal care cosmetic products (PCCPs) in the market, and made microbead samples with coffee filters.

Plastic microbead-containing PCCPs (along with their environmental impacts) had been addressed by Taiwanese public media before 2012, however the issue has never been taken seriously despite the alarming fact that these PCCPs can easily pass most water treatment facility, absorb persistent organic pollutants, and get eaten by marine animals. Therefore beginning in 2014, TWI started to buy PCCPs containing polyethylene (PE), nylon, polymethyl methacrylate (PMMA), polypropylene (PP) and polyethylene terephthalate (PET)-containing PCCPs, and use durable coffee filters to gather these microplastic particles to demonstrate them in our social media and press conferences. When people actually saw the amount of microbeads in PCCPs (for example in Figure 1, the 200 mL product contains at least 70 mL PE microbeads), many people became aware that they were actually washing their faces and bodies with plastics, while also polluting our oceans at the same time. Beginning 2015, the media started reporting on the issue non-stop, and lots of TWI's Facebook readers started sending their microbead-containing PCCPs to our institute for sample preparation. Currently TWI has dozens of microbead samples and their corresponding products.

2. Major microbead materials in Taiwan PCCP products

TWI had surveyed more than 500 PCCPs, and about 200 of them contain microbeads. We have found that in Taiwanese market, most microbeads are made of polyethylene (>95%), and only a few use nylon or polymethyl methacrylate as microbead materials [Table and Figure 2].

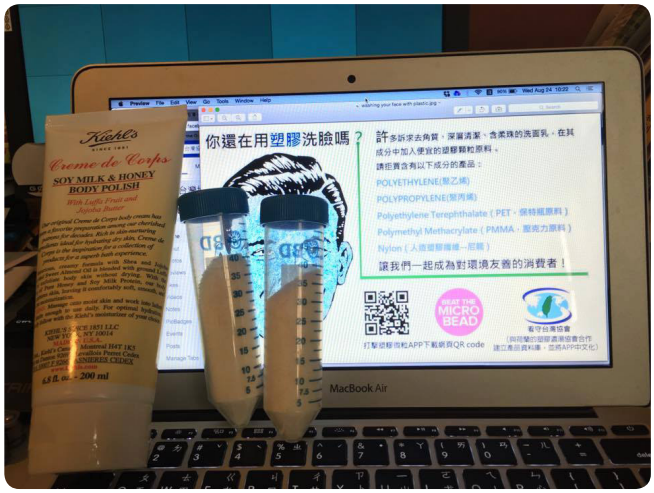

Figure 1. This product contained 70 mL of dried PE microbeads out of a total content of 200mL ©Xavier Sun

MICROBEAD INGREDIENTS	NUMBERS OF PRODUCTS
Polyethylene	203
Polymethyl Methacrylate	7
Nylon	6
Total MB-containing PCCPs	213

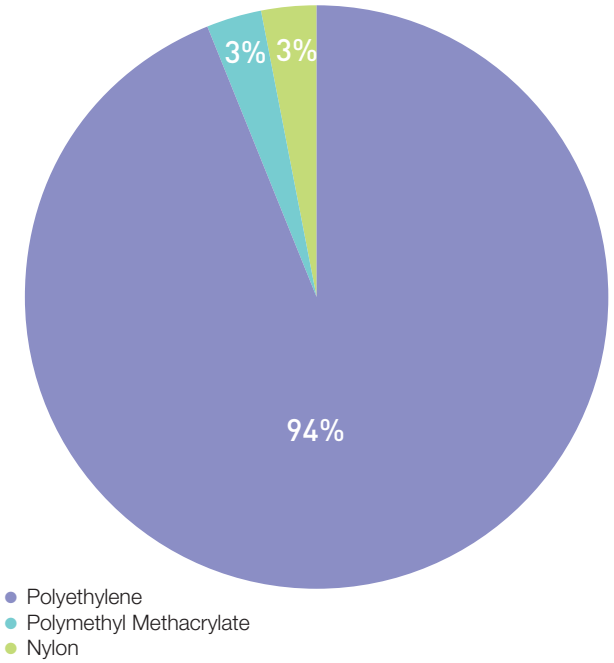

Figure 2. Major microbead ingredients in PCCPs on Taiwan Market ©Xavier Sun

3. Cooperation with the "Plastic Soup Foundation"

Beginning 2015, TWI has been cooperating with an NGO in the Netherlands—"Plastic Soup Foundation, PSF". Apart from adding a Traditional Chinese version to the website [2], we are also constructing a microbead-containing PCCPs' database in Taiwan and helping to expand the global database and the "Beat the Microbead" smartphone app ([3], Figure 3). However since new related products keep coming up, and therefore limit database-building ability and the app's product coverage, TWI decided to persuade the Taiwan EPA to put a ban on these polluting products once and for all. (Figure 3)[3].

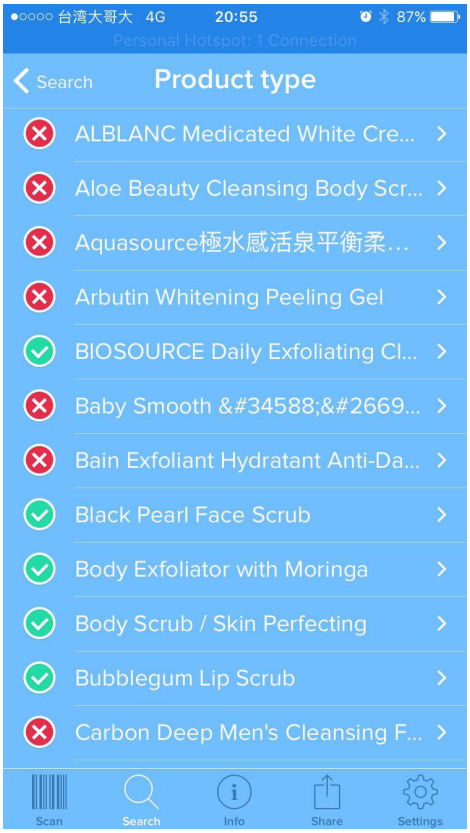

Figure 3. The "Beat the Microbeads App" ©Xavier Sun

However new related products keep coming up, and therefore by limited database-building ability and App's product coverage, TWI at the same time decide to persuade the Taiwan EPA to put a ban on these polluting products once and for all.

4. The current policy of Taiwan EPA

Since September 2015, TWI had arranged several meetings with Taiwan FDA and EPA. After such efforts, in a press conference held on June 8th, 2016 (Figure 4), the Taiwan EPA finally decided to put a ban on these "worst-designed products in human history". The amended draft suggested a ban on the production and import of microbead-containing PC-

Figure 4. The Press Conference on June 8th, 2016 ©Xavier Sun

CPs on July 1st, 2018, and the total ban on the sales and usage on early 2020 [4].

Compared to the Microbead-Free Water Act enacted in the United States, the current proposed schedule by Taiwan EPA is, of course, not satisfactory. Therefore TWI and Greenpeace East Asia will attend the following public hearing on the draft on November 4th, 2016. We will urge our EPA to amend the draft's schedule as the same as the U.S. and South Korea, which is to ban the production and import by July 1st, 2017, and to eliminate them from the market by July 1st, 2018.

5. Beyond "intentionally-made" microplastics

We know that, these "intentionally-made microplastics in PCCPs" perhaps occupy only a fraction of all the microplastics in our ocean. However the ban on microbead-containing products has not just practical results, it is also a manifesto that we will not tolerate such stupid products anymore. If a government cannot immediately put a ban on these intentionally-made microplastics, how can they take the marine plastic debris seriously? There is no time for us to hesitate regarding the ban, for bow down to the pressure of Cosmetics Industries. We, representing the Taiwan Watch Institute, urge the government to take aggressive measures against these products and work hard on solving existing marine plastic waste problems in the long run.

[1] The common materials used as micromeads in Taiwan market: http://www.taiwanwatch.org.tw/node/1161 (the attached excel file is at the bottom of the page)

[2] https://www.beatthemicrobead.org/tw/

[3] http://get.beatthemicrobead.org/

[4] The Taiwan EPA's draft on the ban (in Chinese only) http://enews.epa.gov.tw/enews/fact_index.asp

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An overview of Marine Environmental Protection Organizations in China

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More and more environmental organizations are coming into focus on marine conservation with progressive deterioration of marine ecosystem health. Nevertheless, people are still unaware of the number and the contribution of marine conservation organizations despite the ever- developing environmental protection organizations. Hence, Shanghai Rendu NPO Development Center has decided to sort out all information of marine conservation organizations and delve into resources. We released the List of marine public service organizations of china in 2014 and 2015 and this report presents the analysis and summary of the information collected in the year of 2015.

Scope and Methodology

The Directory collects all available information and categorizes organizations working on marine conservation, including social organizations (i.e. foundations, social groups and private organizations), domestic institutions and student groups, aiming to provide a general introduction of current marine conservation organizations in China and even across the globe. However, the Directory still needs to be further improved and updated due to the present communication failure and lack of information.

As to the scope of the Directory, we adopt the concept of "Grand Ocean" that covers organizations working on ocean-land fields such as coastal wetlands, seabird conservation and opposition to reclaim land from the sea. Based on activities/projects and missions of those organizations, we categorize them into two: marine conservation organizations and marine conservation relevant organizations. We first searched all available information on the Internet and attempted to establish the contact with all organizations to obtain their information. As the human resources and other resources were quite limited, we were unable to have a full access to all organizations and their information, so still some organizations still need further review.

Categorization Criteria

The Directory categorizes social organizations whose projects focus on marine conservation as 'marine conservation social organizations', student groups with projects focused on marine conservation in mainland China as 'marine conservation student groups', foundations supporting marine conservation in mainland China as 'domestic marine conservation related foundations', international foundations with projects supporting marine con-

servation in mainland China as 'international marine conservation related foundations', social organizations with projects partly concerned with marine conservation in mainland China as 'domestic marine conservation related social organizations' , student groups with projects partly concerned with marine conservation in mainland China as 'domestic marine conservation related student groups', social organizations providing resources and support for marine conservation organizations in mainland China as 'domestic supporting social organizations', state-run institutions, and agencies providing resources and support for marine conservation organizations in mainland China as 'domestic supporting institutions'. Last but not least, the international marine conservation organizations with no projects in mainland China are categorized as 'international marine conservation organizations'.

Statistics Analysis

This year, the Directory includes 176 Marine environmental protection organizations in total; 34 domestic marine conservation social organizations, 18 domestic marine conservation student groups, 7 domestic marine conservation related foundations and 13 international marine conservation related social organizations, 54 domestic marine conservation related social organizations, 14 domestic marine conservation related student groups, 4 domestic supporting social organizations, 30 domestic supporting institutions and 2 international marine conservation organization(currently with no projects in mainland China). However, the information of 75 organizations in the Directory are not verified, and among them 29 are domestic marine conservation supporting institutions.

Collected information of Marine environmental protection organizations is presented by geographical distribution, founding time and registration classification as the following.

Geographical Distribution

Object of Analysis: 161 marine Marine environmental protection organizations, including 34 domestic marine conservation social organizations, 18 domestic marine conservation student groups, 7 domestic marine conservation related foundations, 54 domestic marine conservation related social organizations, 14 domestic marine conservation related student groups, 4 domestic supporting social organizations, 30 domestic supporting institutions, and excluding international marine conservation related social organizations and international marine conservation social organizations.

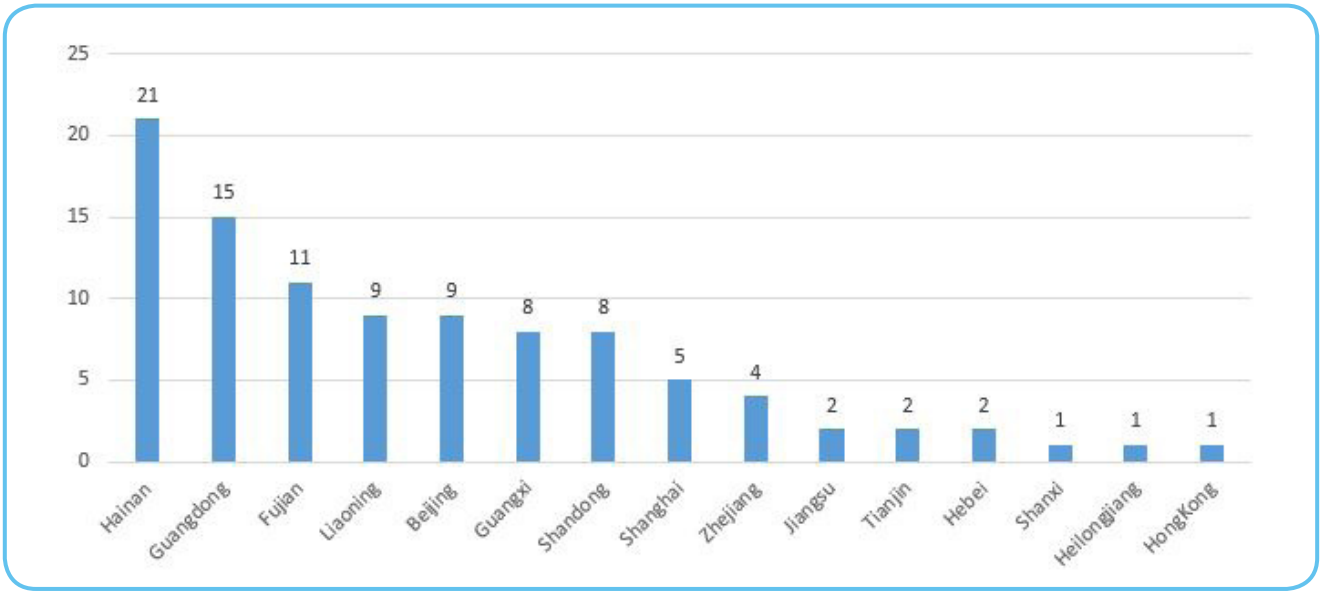

Figure 1: Geographical Distribution of Marine environmental protection organizations (The Directory of 2014)

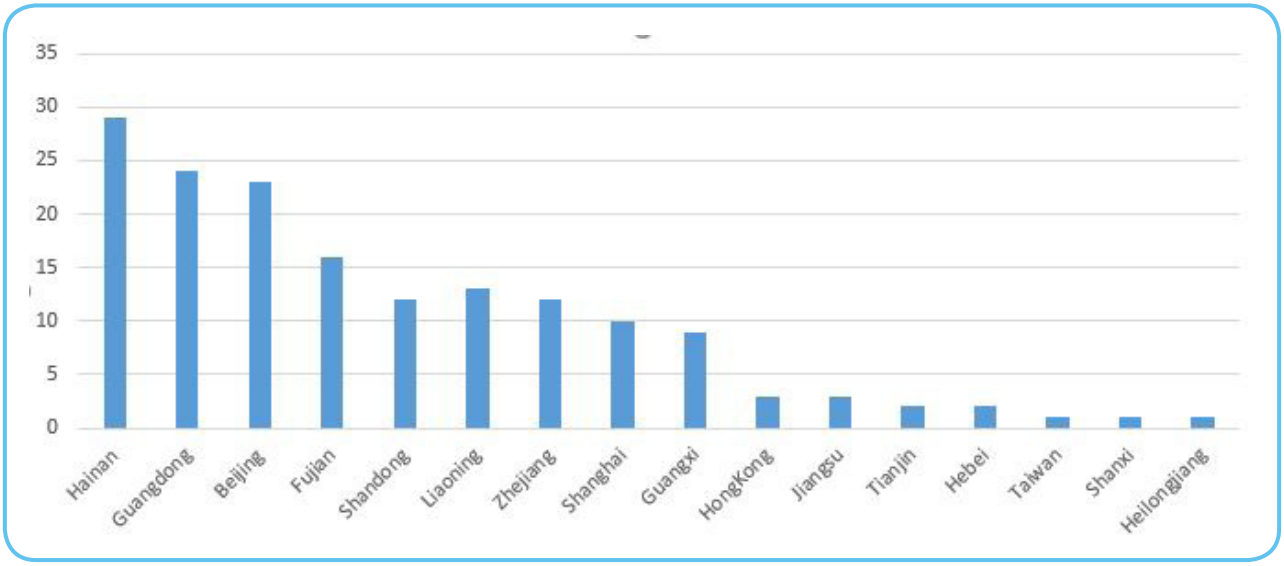

Figure 2: Geographical Distribution of Marine environmental protection organizations (The Directory of 2015)

It is indicated from the Directory that the marine conservation (related) organizations in China have a clear geographic distribution. All organizations are distributed in eastern coastal regions, especially the northeastern regions. In the Directory of 2014, the top three provinces with most organizations were Hainan Province, Guangdong Province and Fujian Province. In the Directory of 2015, the Top 3 provinces with most organizations are Hainan Province, Guangzhou Province and Beijing. Guangzhou and Hainan are coastal regions, which makes two out of three. It should be particularly addressed that the number of organizations is not equally proportionate to the region's economic development. For instance, despite its advanced economic development, Shanghai is not a place where there are a great number of organizations.

Distribution of Founding Time

Object of Analysis: 84 domestic marine conservation (related) organizations, excluding 13 international marine conservation related social organizations and 2 international marine conservation organizations, 30 domestic marine conservation supporting institutions and other 47 organizations that lack information.

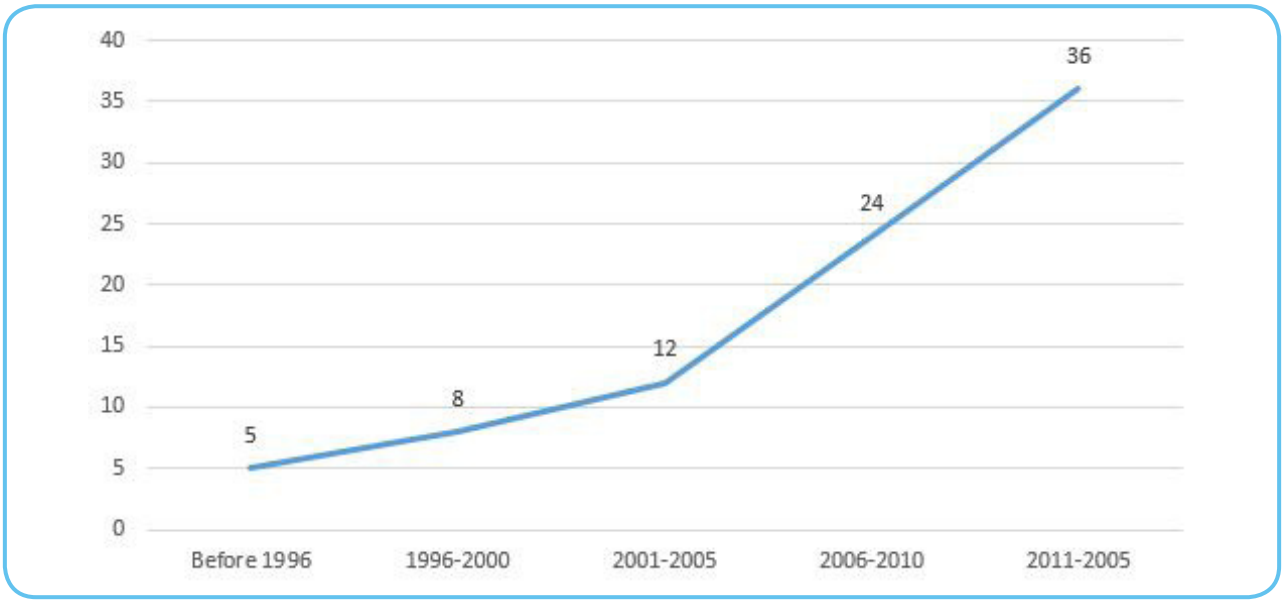

Figure 3: Distribution of Founding Time of Marine environmental protection organizations (The Directory of 2015)

According to the statistics, there were five marine conservation (related) organizations founded before 1995 with Chinese Society of Oceanography as the first founded in 1979. Within each five years that followed, the number of organizations featured an increasing rise, with 36 newly-founded organizations between 2011 and 2015 and seven newly-founded in 2015.

According to the founding timeline, there are 36 organizations that have been founded within recent five years, accounting for nearly half of the total number and there are 60 social organizations that have been founded within the past decade, indicating the overall early stage of development for all current marine conservation (related) organizations as well as increasing attention from social organizations on marine conservation.

Distribution of Registration Classification

Object of Analysis: 129 Marine environmental protection organizations, excluding 13 international marine conservation related social organizations, 2 international marine conservation organizations, 18 domestic marine conservation student groups and 14 domestic marine conservation related student groups,

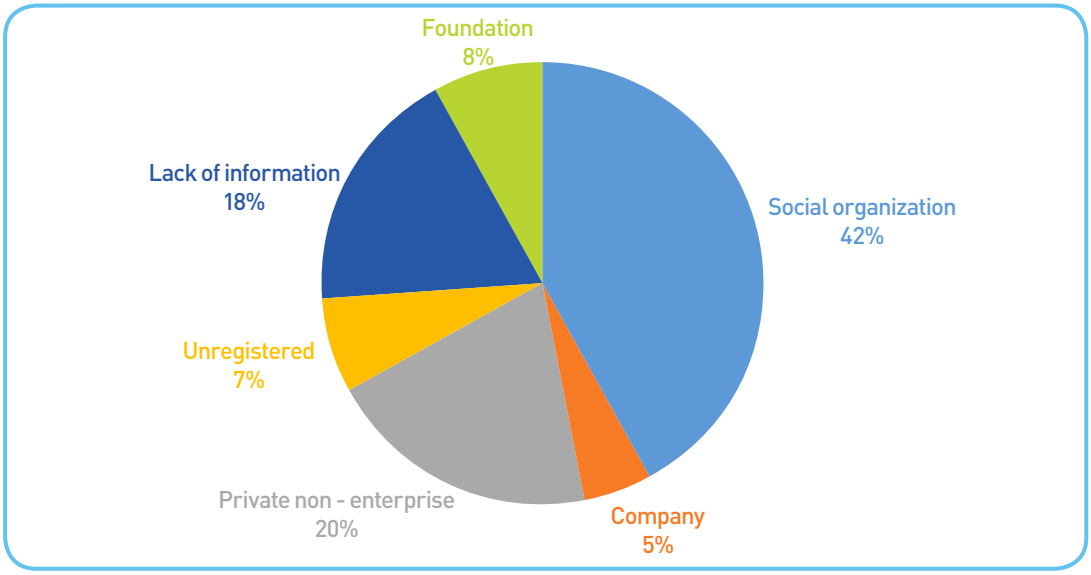

Figure 4: Distribution of Registration Classification of Marine environmental protection organizations (The Directory of 2014)

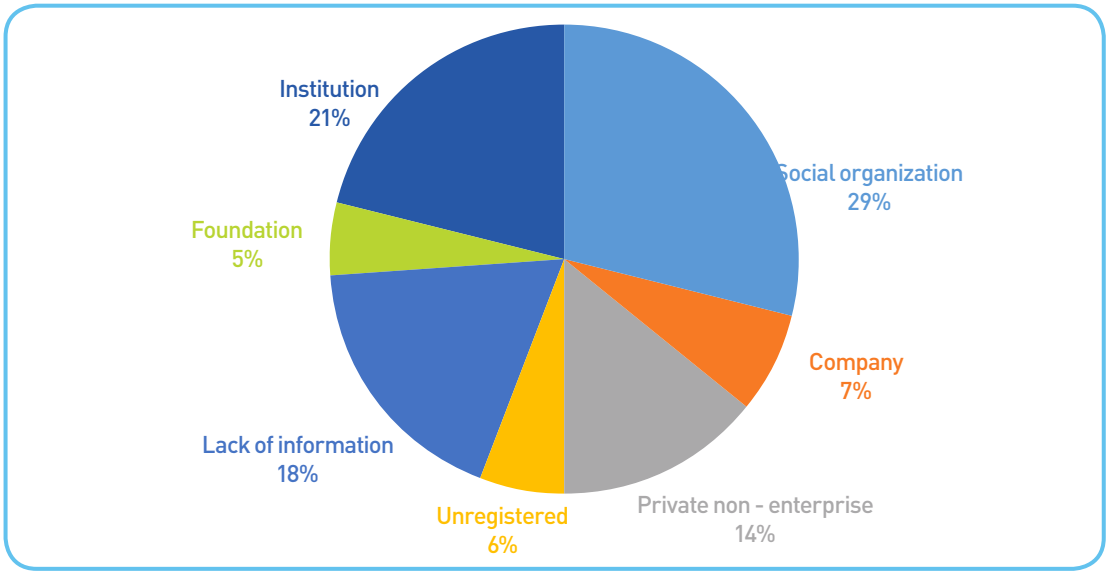

Figure 5: Distribution of Registration Classification of Marine environmental protection organizations (The Directory of 2015)

According to the statistics in The Directory of 2015, there are 37 registered marine environmental protection organizations social organizations, accounting for the largest group. The Directory of 2015 newly includes state-run institutions, including 27 state-run ones that support marine conservation social organizations. Due to the limited information, we were unable to define whether it was registered and the registration classification for 23 organizations. Thereby, it can be learnt that the majority of marine environmental protection organizations go to social organizations and private groups, while the minority go to foundations and companies.

Finally, the ultimate purpose of the Directory is not merely to determine the number of Marine environmental protection organizations. It is well-known that the issue of marine conservation cannot be solely under the charge of any single environmental protection organization. While the sea is too vast for one single organization to take charge ,of, any ideas that attempt to solve marine ecosystem health with one-side effort must end up futility. Therefore, all environmental protection organizations should collaborate with one another. By collecting all information of all Marine environmental protection organizations, Shanghai Rendu is looking forward to promoting exchange and advocates the shaping of marine conservation network that contribute to the field of marine conservation.

Marine Litter News
Vol. 7(2): 21-23, December 2016
Asia Pacific Civil Forum on Marine Litter

Greenpeace East Asia's effort to reduce microplastics problem in the ocean through banning microplastics use in consumer products.

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Plastic waste is becoming a bigger problem every day. Annually it is estimated that around 8 million tons of plastics enter our oceans (Jambeck et al., 2015) where they break into smaller and smaller particles, but never fully biodegrade, and therefore persisting as microplastics in our oceans. There are now up to 51 trillion microplastic particles estimated to be floating in the oceans (Van Sebille et al., 2015). Plastic pollution is a giant problem for all corners of the world. Eliminating the unnecessary plastics from their sourcees is important to tacklinge this issue, together with other various efforts such as clean-ups. The surest and most feasible place to start the conversation would be the plastics that are simply replaceable with alternatives; and microbeads in consumer products are exactly that- unnecessary and replaceable.

Through various campaigns around the world, most notably Beat the Microbeads campaign, there has been some great effort to ban the unnecessary pollutants that are microbeads. Microbeads are small solid plastic particles less than 5mm that are intentionally made small. They are added to various consumer products including face wash, scrubs, toothpastes and even in kitchen cleaners. The problem with these innocent looking colourful bits in our products is that they are too small to be filtered by the waste- water treatment and therefore go straight from our sinks, down the drain and eventually to our rivers, lakes and oceans. Microplastics, due to their size, have become ubiquitous in the oceans; seabed, water colum, water surface and even in the Arctic ice (Van Sebille et al., 2015). Though the true extent and impact of the pollution of microplatics are still being worked out, the evidence we know so far is alarming.

The In order to join the effort to reduce plastic ocean waste, Greenpeace East Asia launched our campaign to ban the microbeads jointly in Korea, Taiwan and Hong Kong. Through our campaign "My Little Plastic", Greenpeace East Asia is asking the Korean government to ban microbeads in all consumer products. Our campaign launched with a science review report that exposed the shocking scientific evidence showing that microplastics are found in many species that we eat as seafood. Up to 170 species of marine animals have been found to ingest plastics

(Vegter et al., 2014) but microplastics research is a relatively new and ongoing research. However, current research efforts have shown that microplasics are being ingested by many species and can travel up the food chain. Given such evidence, more research is urgently needed to determine the effect to human consumption of microplastic ingested seafood. Through this expose, we elevated the microplastic problem from our everyday products from environmental impact to its cycle back to us, helping to raise awareness to the issue.

This campaign called for support from various sectors such as scientists, NGOs and industry alike to this pressing problem. 7 environmental NGOs signed the statement to call for ban on microplastics in Korea, joining our voices and forces against ocean pollution. Through the global corporate ranking of the top 30 global cosmetics and personal care product companies, consumers and retailers could see just how confusing it is to know which products contain microbeads. Through the pressure of the ranking, some of the biggest companies globally improved their transparency or commitment strength against microbeads use including P&G, LG Household & Health Care, Shisheido, Estee Lauder and Amore Pacific. This means more transparency for the public to know exactly which brands have phased out microbeads and what is the extent of their commitments.

Having the major companies change sends a strong message across the whole industry about their product quality and responsibility as well as transparency. The cosmetics and personal care product industry is moving towards the right direction, but it is a voluntary one. The only way to ensure the microbeads are out of our products, and for good is to ban them legally. The support came through via concerned members of the National Assembly who questioned the relevant ministries during the National Audit in September last year.

On 29 September, Korean Ministry of Food and Drugs Safety announced that microplastics are to be banned as ingredients in cosmetics products. This announcement was especially meaningful as the reason for revision was the environmental impact this ingredient would have, which was a first for any cosmetics legislation in Korea. After Taiwan's announcement, it was the first official progress towards a microplastics ban in East Asia. In turn, Korean government's amendment helped to bring forward the deadline for the ban in Taiwan by 2 years. Additionally, through the joint efforts of Greenpeace East Asia and Korean Women's Environmental Network(KWEN), one of the member of National Assembly (Kang Byungwon) submitted the "Microplastics banning Bill" which are actually 3 Bills to revise appropriate legislations to bring about a complete ban in microplastics as ingredients in cosmetics, pharmaceutical products (under which toothpaste is regulated) and general chemical products. If these Bills are passed, this would make it the strongest legal regulation across the globe against microplastics use in consumer products. This would set a good precedent for not only the neighboring nations, but for all governments that microplastics ban should be done to ensure clean oceans and safe seafood.

However, we still have a long way until the complete ban of microplastics in consumer products as the legislative processes Bill is passed and we enjoy the strengthened regulations against micoplastics use in consumer products. Nonetheless, this is an important step towards controlling the ocean plastic pollution. Since we started our campaign in Korea in June, Greenpeace has seen good and rapid progress in the plastics conversation in Korea, not only limited to microplastics. Greenpeace will continue to join the fight against ocean plastic pollution to make sure that our future generations

Byung Won Kang (Congress man), Women's network, Greenpeace East Asia Seoul Office requiring legal banning

Performance of campaigners of Greenpeace East Asia Seoul Office activists for banning microplastics

Marine Litter News
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Asia Pacific Civil Forum on Marine Litter

Participating Japan-Korea workshop for exchanging and discussing issues about marine litter

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A workshop for exchanging and discussing issues about marine litter was held in the island of Tsushima in Japan from 15th to 17th of July, 2016. The workshop was organized and sponsored by Nakasaki Prefecture of, Japan and was aimed (1) to address marine debris problems in Japan and Korea, (2) to develop policies and strategies against the matter, and (3) to find ways to promote awareness and develop outreaching program through case study and discussion. City officials from Busan, Korea and Nakasaki, Japan, college and high school students from both countries, and NGO members participated in the workshop.

Dr. Jongmyoung Lee, ICC country coordinator in Korea and Chief Scientist of Korea Marine Litter Institute of OSEAN, invited me to participate in the workshop for three days. I would like to share my experience in the workshop with OSEAN members.

On the first of the day of arriving, all participants gathered at Youth house of Iki, an small island near Tsushima, and greeted one another. Next morning, all participants went to the Village hall of Iki and started main workshop programs. First we went to the coast of Kisakazozen hama and looked around. The village in the coast was small and houses were built in a traditional way. We were told that villagers earned their living by drying seafood and selling them. Many litters were found on the coast and we could easily notice that some of them came from Korea and China by their Korean and Chinese labels. I was embarrassed because there were many kinds of Korean trashes including daily living like lighter, plastic bags for ramen or snacks, and beverage bottles. The trashes reminded me of the fact that marine litter is an international problem and that we need to cooperate to cope with it. After going back to Village assemblage hall of Iki, we heard the presentation about the present status of marine debris in Korea and Japan. First Dr. Jongmyoung Lee of OSEAN, presented the current status of marine debris problem in Korea. He told us the estimated amount and origin of marine debris in Korea. He also showed us the composition of top 10 ranked items in marine debris and the amount of foreign debris in Korean coast. After his lecture, he received many questions from students and answered them. In this process all of participants obtained much valuable information about the marine debris problem and shared guilty feeling for the nature. Next, Ms. Kojima Azusa of JEAN, Japan, presented the fact that Japan has similar marine debris problems to Korea and also showed the pictures of coast packed with marine

debris and real plastic items collected from the coast. From these two lectures we recognized how serious the marine debris problem is.

After lunch, students from Tongyeong High School introduced their activities for the reduction of marine debris on the beach. They picked up the marine litters from designated beach once a week and recorded these items. Based on data, they analyzed which items were the biggest contributors and where they came from. After analysis they visited the city office and village hall to persuade for countermeasure programs against marine debris. They also held photo exhibition with pictures taken during their activities. It was a huge success. We all sent warm applauses and encouraged them to continue their activities. Next presenter was Mr. Jongho Lee, an elementary school teacher in Korea introduced his activities against marine debris. He told us he started his activity with his hope to hand over beautiful nature to their children. He picked up trashes on the beach with his colleagues once a week. He developed educational materials related to marine debris and then taught his students with them. He brought his education materials to the workshop, which were very helpful to the participants.

The following Japanese presenter told their experiences. At first, students from Nakasaki University presented their activities against marine debris. They cleaned up the beach and tried to find out the cause and solutions for the marine debris problem and seek the works they could do. Recently they had the chance to clean up the beach with office workers and other college students. They also had a photo exhibition. Next, activists from Iki introduced their activities and hoped to develop a tour program associated with beach clean-up.

As the final presenter, an official from City of Goto introduced the city's program to extract oil from Styrofoam and got many questions about the program.

While finishing all-day program, we had delicious dinner and then gathered in the workshop room again to have discussions and develop countermeasure policies against marine litter. During this discussion, I was very impressed with the young presenters who were addressing the matter, who had deep thoughts and put great effort to come up with measures.

On the third day, before departing Iki we shared e-mail addresses and phone numbers with one another for the further communication. We also, looked around the island and took pictures.

Through this workshop, I witnessed the enthusiasm and the activities of all participants in tackling the marine debris problem. The trip also hardened my thought on how essential it is to cooperate with other nations to help solve marine debris issues. I would like to thank Dr. Jongmyung Lee for inviting me to this workshop.

Beautiful coast of Iki Island

Plastic bottle originated from Korea

Plastic buoy originated from China

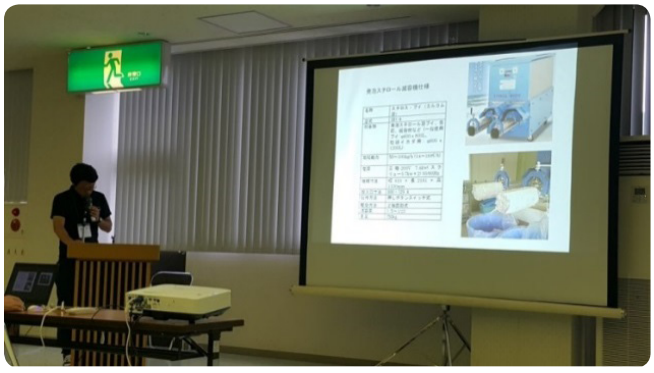
Dr. Jongmyoung Lee explained the problems caused by styrofoam buoy

Dr. Jongmyoung Lee presented Korean marine debris

Japanese student expressed her opinion about marine debris

Kojima Azusa presented Japanese marine debris

Mr. Jongho Lee showed educational materials for marine debris program



An official from City of Goto introduced city's program

Participants developed countermeasures against marine debris

Marine Litter News
Vol. 7(2): 27-30, December 2016
Asia Pacific Civil Forum on Marine Litter

A CONSERVATION INITIATIVE OF

The Great Canadian Shoreline Cleanup

Kate Le Souef,
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shorelinecleanup@vanaqua.org

Canadians love being around the water. With the longest coastline in the world and thousands of lakes and rivers, every Canadian lives near a shoreline. Since 1994, the Great Canadian Shoreline Cleanup has been encouraging Canadians to protect their local waterways and wildlife by coordinating shoreline cleanups. A joint initiative of the Vancouver Aquarium and WWF-Canada and presented by Loblaw Companies Limited, the Shoreline Cleanup is celebrating the most cleanups in one year in 2016, with more than 2,300 cleanups across Canada.

More than 20 years of history

Our mission is to promote understanding and awareness of shoreline litter issues by engaging Canadians to rehabilitate shoreline areas through cleanups. We envision a fully engaged and committed public keeping all Canadian shorelines free from litter.

The Shoreline Cleanup began in 1994, when volunteers from the Vancouver Aquarium decided to take action against litter by coordinating a cleanup on the shorelines of Stanley Park in Vancouver. The program expanded to shorelines throughout the province of British Columbia and became a national initiative in 2002. Since 2010, the Vancouver Aquarium has partnered with WWF-Canada to deliver the program. This year, more than 2,300 volunteer-led cleanups were registered with the Shoreline Cleanup, with events in every province and territory, and more than 75,000 registrants in total.

Our team loves to support new and returning cleanup coordinators. We provide ongoing support to our returning coordinators, many of whom have been coordinating cleanups for more than 10 years. We have developed education guides for teachers, written specifically to match provincial curriculum requirements. By partnering with groups like youth organisations, federal and regional parks agencies, and key municipalities, we are constantly reaching out to new audiences who share our mission to activate volunteers and keep Canada's beautiful shorelines free of litter.

Our data

Every cleanup group records litter data, contributing to our national litter database which is shared with the International Coastal Cleanup. Year after year, the top items are cigarette butts and single use disposable items. Much of this litter could be avoided by using reusable drink bottles, coffee mugs, shopping bags and other items. Summary data for cleanups in 2015 are presented below, including our 'Dirty Dozen', which are the most common items picked up by our volunteers. Some of our most unusual items include a rainbow clown wig, a piano, yoga pants and a fire extinguisher.

Table 1: Summary data from cleanups across Canada in 2015

	Total
Number of registered cleanups	2,016
Number of registered participants	59,136
Weight of litter removed (kg)	175,932
Distance of shoreline cleaned (km)	3,211
Trash bags filled	11,910
Recycling bags filled	3,866

Table 2: The 'Dirty Dozen', the most common items collected on cleanups throughout Canada in 2015

	Litter item	Quantity
1	Cigarette Butts	409,417
2	Food Wrappers	93,129
3	Plastic Bottle Caps	50,904
4	Plastic Beverage Bottles	37,769
5	Beverage Cans	27,814
6	Other Plastic & Foam	27,110
7	Straws & Stirrers	27,047
8	Other Plastic Bags	25,047
9	Metal Bottle Caps	22,093
10	Plastic Grocery Bags	20,492
11	Plastic Lids	19,365
12	Paper Cups & Plates	17,819

Where does Canadian litter come from?

Shoreline litter in Canada comes from many sources, but it's always the result of human activities. At popular shorelines close to cities and towns, litter may be accidentally or deliberately dumped right at the shoreline. At other shorelines, wind, rain and currents may have carried litter huge distances from where it was originally generated.

Most shoreline litter comes from recreational activities, including food wrappers, drink containers, plastic bags, caps, lids and cans. Smoking also generates litter, and every year, cigarette butts are the most common litter item found on our shorelines. Fishing and shipping can also contribute litter to our shorelines, including particularly harmful items such as fishing line, nets, oil bottles, rope, crab/lobster traps and sinkers.

Many shorelines such as river beds also become a dumping ground for large items that should be disposed at a dump. This garbage can include building and construction materials, household appliances, tires, batteries and even car parts.

Natural disasters such as typhoons, hurricanes and tsunamis can wash huge volumes of debris into waterways in a short period of time. The 2011 tsunami in Japan is a tragic example. Tonnes of debris from Japan washed up on Canada's western shores in the months and years following the disaster.

What's the threat in Canada?

Litter poses a number of direct threats to wildlife. Items such as rope, plastic strapping bands, six pack rings and wire can entangle aquatic animals. Once entangled, animals may be unable to swim or find food and they may slowly starve. In some cases, animals cannot surface to breathe, resulting in suffocation. Estimates from the west coast of Vancouver Island suggest that hundreds of sea lions are currently suffering from entanglement.

Abandoned fishing gear such as lines, nets, traps and pots pose a threat to wildlife in the form of ghost fishing. These items are specifically designed to trap and catch animals, so they continue to catch and trap fish, mammals, turtles, and seabirds long after they've been discarded or lost.

Scientists are also finding a growing number of freshwater and marine animals that have eaten litter by accident. Ingesting litter can affect an animal's ability to eat, breathe and move, leading to starvation, choking or fatal poisoning.

A pervasive and emerging threat, microplastics are being found in shorelines and waterways across Canada. Microplastics include deliberately manufactured items such as microbeads and pellets, as well as microplastics that break down from larger pieces of plastic. Recent research by Dr. Peter Ross at the Vancouver Aquarium shows that zooplankton, the smallest animals in the food chain, are eating these tiny pieces of plastic. Microplastics may even be transferred up the food chain, from zooplankton to fish to birds and mammals.

The challenge

We know that a cleanup can be the first step in aquatic conservation for an individual or team, and many of our volunteers go on to take meaningful action to reduce their personal waste, influence their friends and family, or introduce new policies at their school or workplace.

However, we know that cleanups alone cannot solve the problem of litter and plastic in our waterways. Cleanups are just one part of the overall strategy needed to address this global issue. Ultimately, changing consumer behaviour to refuse single use plastic items, providing incentives for industry to use plastic alternatives, and properly collecting, disposing and recycling of waste is needed to ensure a lasting reduction of plastic pollution in our oceans and waterways.

Until we reach that point, we will continue to engage the Canadian public using the best tool we have: direct action through shoreline cleanups.

A cleanup on the west coast of Vancouver Island, Canada

Site: www.shorelinecleanup.ca
Blog: www.aquablog.ca/category/shoreline-cleanup
Twitter @cleanshorelines
Instagram @shorelinecleanup

Two volunteers clean a shoreline in Vancouver, Canada

A snowy shoreline cleanup in Edmonton, Alberta

A shoreline cleanup in Halifax, Nova Scotia

Marine Litter News
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Asia Pacific Civil Forum on Marine Litter

Development of the Global Ghost Gear Initiative (GGGI)'s ALDFG Web Portal – *How you can be involved!!*

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Nice to meet you!

Hello Marine Litter News community members and subscribers. My name is Kelsey Richardson. I'm an incoming PhD student with the University of Tasmania in Australia, and am working with Australia's Commonwealth Scientific and Industrial Research Organisation (CSIRO) to research the sources, amounts, types, fates and impacts of abandoned, lost or discarded fishing gear (ALDFG)[1] .

I've spent the last year working with CSIRO and the Global Ghost Gear Initiative (GGGI) to collate data from around the world for the development of a global ghost gear database and web portal. For those of you unfamiliar with the GGGI, the aim is to help solve the problem of lost or abandoned fishing gear worldwide (www.ghostgear.org). Participants include stakeholders from the fishing industry, the private sector, academia, governments, intergovernmental and non-governmental organisations.

Database and web portal work featured at annual GGGI meeting, Miami, Florida, USA

At a recent GGGI meeting, the database and web portal was highlighted by the GGGI's Building Evidence Working Group. At the meeting, we identified the Asia Pacific as a region to focus. I'm hoping that the Marine Litter News community is interested to become involved with the GGGI and will share information about what you know in your region. In addition to building evidence on the impacts of derelict gear, working groups are developing solutions and defining best practices to inform policies.

Group photo from the 3rd Annual Meeting of the Global Ghost Gear Initiative (GGGI) in Miami, Florida, USA, 13 October 2016 © World Animal Protection

Ghost gear database and web portal goals

The ultimate goal for the GGGI database and web portal is to provide a publically accessible, interactive resource that increases our knowledge about the sources, amounts, types, fates and impacts of ALDFG around the world. Analysis will reveal ghost gear 'hotspots', high-risk fisheries and where and when we find different types of gear.

1 ALDFG is also commonly referred to as derelict fishing gear (DFG) or ghost gear.

Here's the concept:

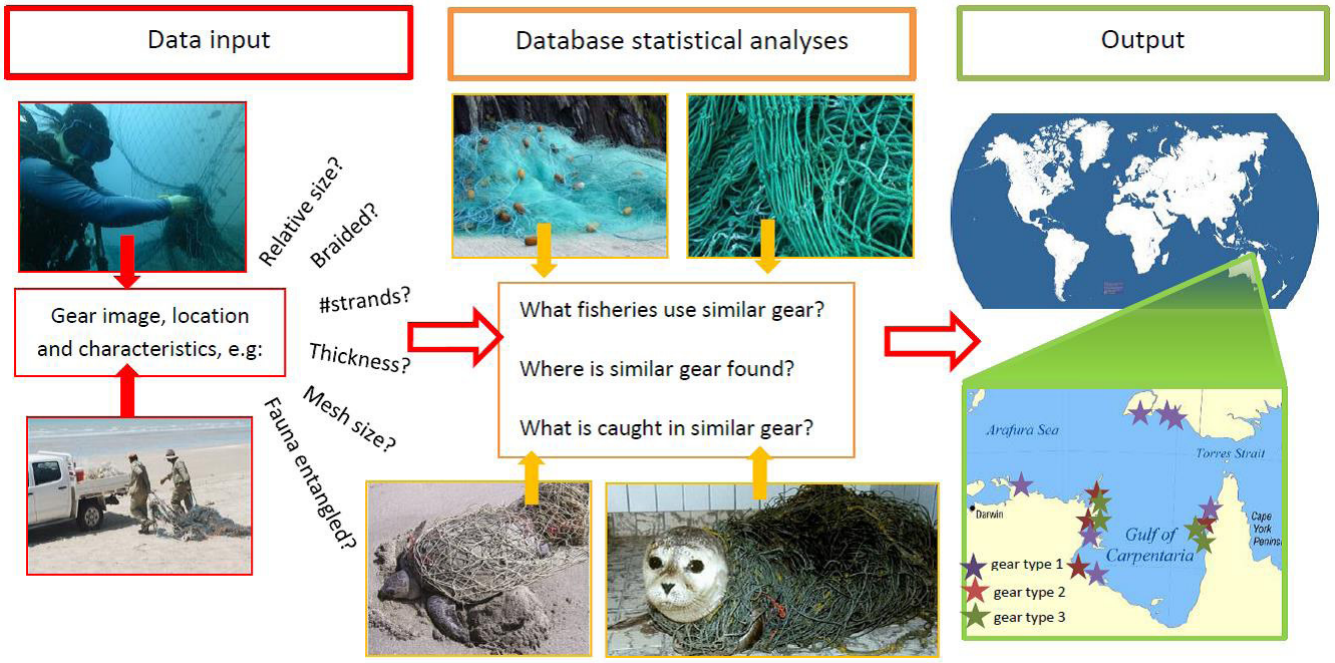

Figure 1. How the web portal will work: user enters net characteristics, image and location. Portal shows image(s) of nets with similar characteristics, lists fisheries that use nets with similar characteristics, known information about what wildlife are known to have been entangled by similar nets. Global navigable map shows areas where gear types - and entanglement incidents - have been reported. NB map shown is for illustrative purposes only.

How can you get involved?

Database and web portal development relies on people sharing information about ALDFG. That's where you come in! We're asking you to share your knowledge, data, and connections. It's a big project, and I'm very excited about it.

What information do we want?

1) Share with us the locations where you find ALDFG(and where you've looked)!
2) Tell us about any animals caught in nets; tell us what kind of gear animals are caught in; and
3) Take measurements and photos of nets, traps and animals caught.

We are particularly interested in specific gear characteristics including, measurements of twine construction, mesh size, colour, and the presence/absence of knots. See link: http://oa-16-cdc.it.csiro.au/ghostnet/getNetType-2.html

All data contributing to the database will remain anonymous, and we can discuss any privacy concerns with groups to ensure that any particularly sensitive data is not shared. We can also post your group's logo if you're happy for people to know you've contributed information. No raw or disaggregated data will be made available without express consent of all parties.

Become involved with the Global Ghost Gear Initiative! More information about the GGGI can be found at www.ghostgear.org.

GLOBAL GHOST GEAR INITIATIVE

Source: World Animal Protection

Let's continue the conversation!

If this article has piqued your curiosity and you'd like to learn more such as how you can become involved and help with this work from within your own country, I'd love to connect! Please feel free to contact me via email at Kelsey.Richardson@csiro.au or by phone at +61362325283.

Marine Litter News
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Asia Pacific Civil Forum on Marine Litter

Monthly webinar for capacity building of NGOs in Asian region

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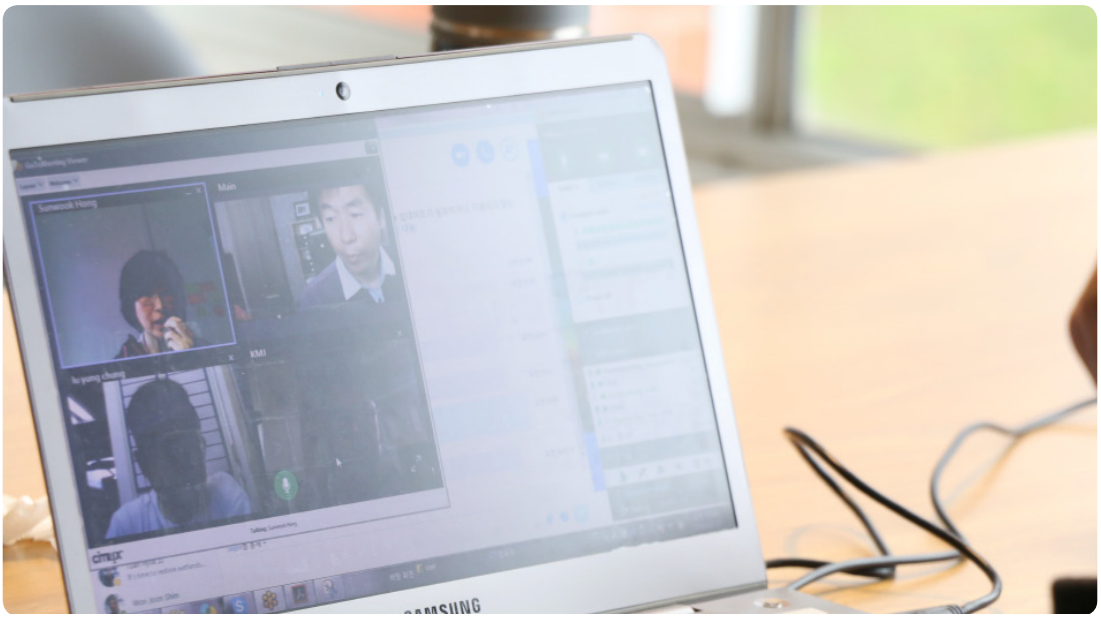
The 60th monthly webinar on marine litter by Asia Pacific Civil Forum on Marine Litter (APML) was held on 20th of December, in which Korean, Chinese (both Taiwan and mainland), and Vietnamese NGOs were together. Asian countries have been pointed out as hot spots of marine plastic litter contributing to world ocean pollution. To reduce marine debris in terms of amount and impact, civil societies' role is very important. Japanese and Korean NGOs have built expertise on the marine litter issue. However, when it comes to the Asian region, NGOs in the countries have worked separately and rarely exchange amongst themselves to build their capacity. There has also been no system to support them.

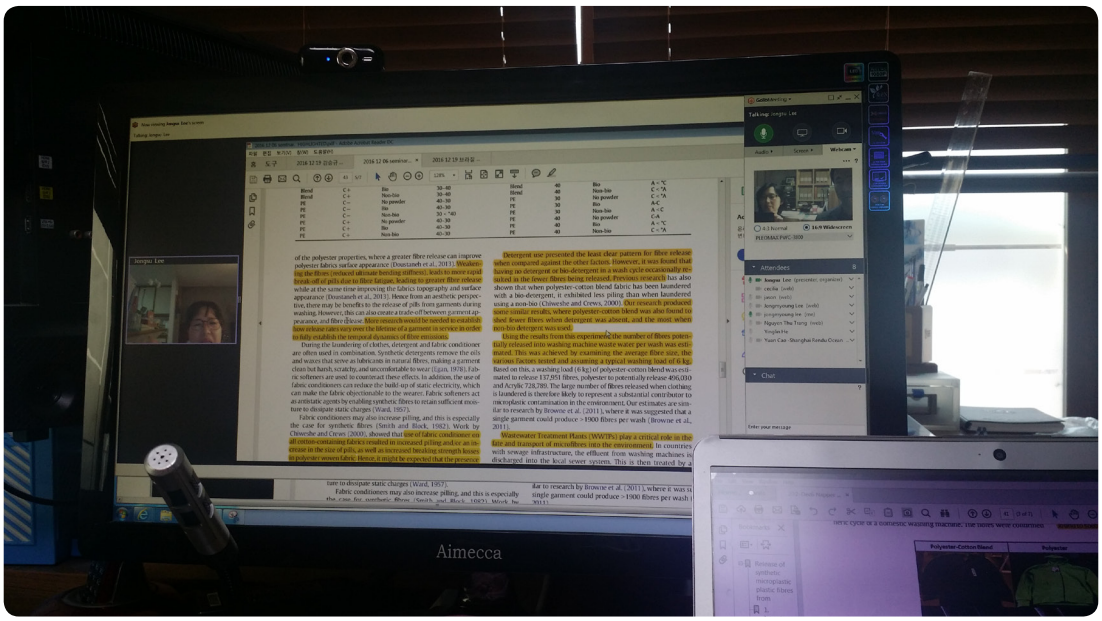
Since October 2011, OSEAN, secretariat of East Asia Civil Forum on Marine Litter (EAML, former of APML) has run a monthly webinar on the regular basis to raise expertise of NGOs on marine litter. We choose recent scientific papers and important documents and study together. Recent papers we dealt with include, 'Plastic waste inputs from land into the ocean by Jambeck et al. (March 2015)', 'Stemming the Tide: Land-based strategies for a plastic free ocean by Ocean Conservancy & McKinsey Center for Business and Environment (November 2015)' 'Anthropogenic debris in seafood: Plastic debris and fibers from textile in fish and bivalves sold for human consumption by Rochman et al. (June 2016)', ' Release of synthetic microplastic plastic fibres from domestic washing machines: Effects of fabric type and washing conditions by Napper and Thompson (December 2016)' etc. English is not the mother tongue to every participant, which causes difficulty in communication but overall the process has been a meaningful ways to learn from each other and to move forward for a better ocean.

From the next month, 7 more participants from a variety of NGOs in China will join the webinar. We hope NGOs are more interested in scientific findings and knowledge to date and can use them in their activities.

Since	Participants	Communication Tool
Oct 2011	JEAN (Japan), OSEAN (Korea)	Skype
July 2014	SOW (Taiwan), OSEAN	Skype
August 2016	Shanghai Rendu Ocean (Mainland China), GreenHub (Vietnam), SOW, OSEAN	Gotomeeting



Monthly webinar on marine litter for NGOs in Asian region



Monthly webinar on marine litter for NGOs in Asian region

Marine Litter News
Vol. 7(2): 35-36, December 2016
Asia Pacific Civil Forum on Marine Litter

Academic Paper Published : A Study on the Annual Inflow and Its Control of Styrofoam Buoy Debris in Oyster Aquaculture Farm in Gyeongnam, Korea

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An academic paper about quantitative estimate of styrofoam buoy debris originated from oyster farms in Gyeongnam province and its reduction proposal has been published (through interview with aquaculture farmers.) The paper was co-written by OSEAN and Korea Maritime Institute and published at Ocean Policy Research in summer of 2016 (in Korean with English abstract).

Discarded styrofoam buoy is a big part of overall marine litter. Moreover, those buoys broken into smaller microplastics that are not recollectable cause environmental and biological problems. Resolving this issue is an important step towards resolvinge Korean marine litter problems.

OSEAN has been approaching this problem in different angles and suggested a solution of gathering different stakeholder's wisdom. However, it was not easy work to listen to the voices of the actual consumers / disposers of buoys, the aquaculture farmers.

This piece of recent work of OSEAN has captured those voices by interviewing 21 different aquaculture farmers for 1-2 hours each. The locations of their farms are in Gyeongnam province where aquaculture is the most prominent.
Throughout the research, we found that they re-collect only 17% of the used buoys, but discard 60%. Discarded buoys are estimated to be about 670 thousand ea a year.

Tongyoung, a famous district for aquaculture, uses the most number of buoys, but also discarded less. It is assumed to be a positive result from the obligatory re-collection rate.

Unbelievably high discarding rate of buoys must be reduced, and recollection rate and recycle rate must be increased.

To stimulate aforementioned results, supporting policy to recollect used buoys, providing adequate training, establishing quantitative management system and an overall monitoring system are necessary.

This research was funded by the Ministry of Ocean and Fisheries, Yeong Nam Sea Grant Center, and Gyeongnam Province and performed in 2015.

A Study on the Annual Inflow and Its Control of Styrofoam Buoy Debris in Oyster Aquaculture Farm in Gyeongnam, Korea

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<Abstract>

Marine plastic debris has grown into a global environmental issue. In Korea, recent researches show that Styrofoam buoys debris generated from oyster aquaculture farms have seriously affected coastal environment. We estimated the annual inflow of Styrofoam buoy debris in the oyster farms in Gyeongnam Province based on the in-depth interviews with fishermen. The inflow was calculated to be about 668,000 buoy debris in 3,554 ha of the oyster farms. The quantity of discarded buoys was relatively lower in Tongyeong than those in Geoje and Goseong, whereas the total number of buoys in use was highest in Tongyeong. This lower production of buoy debris is attributable to institutional factors (obligatory retrieval by fishermen) than biophysical factors (location, wind, tide, etc). Main causes of buoy debris include unintended loss, conflicts with other fishery types, and mismanagement. The study suggests raising the rate of obligatory retrieval, supporting transportation, establishing quantitative information system, and raising the awareness of fishermen to more effectively control used buoys.

Key words: Marine Plastic Debris, Styrofoam Buoy, Aquaculture, Annual Inflow, In-Depth Interview

What is Asia Pacific Civil Forum on Marine Litter?

Asia Pacific 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 Asia Pacific countries.

Network member groups are:

Japan Environmental Action Network (JEAN)
Our Sea of East Asia Network (OSEAN)
Taiwan Ocean Cleanup Alliance (TOCA)
Shanghai Rendu Ocean NPO Development Center
Kewkradong Bangladesh
ICC Philippines
Tangaroa Blue Foundation
Ocean Conservancy

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. 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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