32nd Conference European Cetacean Society

6th Workshop

COMMUNICATING MARINE MAMMAL SCIENCE TO THE GENERAL PUBLIC

Plastic litter and marine mammals: how communication can properly address the issue

Photo: Luigi Bundone ©CBD Habitat

Programme-Abstracts

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La Spezia-Italia

6th Workshop on "Communicating Marine Mammal Science for the General Public"

Within the 32nd Conference of the European Cetacean Society

Hosted by

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Workshop Programme

Time	Agenda
08:15-09:00	Registration
09:00-09:30	**Introduction** Muñoz-Cañas M., Smit V., Hernandez-Milian G., Bundone, L.
09:30-10:00	**From land to the sea: threats to marine mammals and ocean literacy for the general public living on the mainland** Hernandez-Milian, G., Lusher, A.
10:00-10:30	**Making microplastic visible - the Microplastic Pollution Map** Stöhr, R.
10:30-11:00	**#I Care – A behavioural change campaign to raise awareness and empower the public to reduce plastic waste** Frey, S.
11:00-11:30	Coffee Break
11:30-12:00	**Plastic Pirates-from rivers to the sea: a citizen science project** Smit, V.
12:00-12:30	**Ecoalf-fishermen recollection and requalification of plastic to become selling products** Diez, I.
12:30-13:00	**Plastic litter in a MPA, projects involving artisanal fishermen and local stakeholders to clean the sea** Bundone, L., Fai, S., Muscogiuri, L., D'Ambrosio, P.
13:00-14:30	Lunch Break
14:30-15:30	**Afternoon Session (1st part)**
15:30-15:45	Coffee Break
15:45-16:45	**Afternoon Session (2nd part)**
16:45-17:00	Workshop Closing

Abstracts

From land to the sea: threats to marine mammals and ocean literacy for the general public living on the mainland

Gema Hernandez-Milian[1], Amy Lusher[2]

1 Archipelagos-ambiente e sviluppo, Italia; 2 Marine and Freshwater Research Centre, Galway-Mayo Institute of Technology, Galway

Ocean literacy is a relatively recent term used as a tool to increase the ocean knowledge of the public. Marine debris, especially plastic debris, have become one of the most important topics to explain not only the contamination of our oceans and seas, but also to show that people and our oceans are all connected with our day by day activities from offshore to the coast, and from the coast to the mainland.

The project started in 2014 with a serial of talks held in primary and secondary schools in (Galway, Ireland). These talks were implement as a part of the schools "green" activities in the country. The workshops involved presentations and interactive activities to highlight the threats to our oceans and introduce the topic of plastic pollution. Students were also shown videos and images of the impacts on the environment and biota.

The project was extended to Madrid (Spain), as a challenge due to the distance from the sea (>300km). Two schools were selected for such activities and they were included within an international big project carried out by Sea Change and leading in Spain by the NGO Submon. Over a program of at least a week, students carried out activities designed to encourage protection of the environment with a focus on our oceans. These activities started with a serial of talks on marine debris and plastic (including microplastics) effects. Furthermore, students organized different activities to understand the effects of plastics (e.g. microbeads) and raise awareness to younger students (e.g. stories).

The importance of carrying out this type of projects in non-coastal areas is to raise awareness to general public, but the follow-up of them by the scientific community is also necessary with teachers and responsible people of different schools being involve. The success of this initial project has already results and other schools have been invited us to participate.

Making microplastic visible - the Microplastic Pollution Map

Rüdiger Stöhr

One Earth One Ocean

Plastic in the sea is a big threat to all living creatures. And there are about 150 millions of tons that have accumulated during the past 40 years. Annually 6-10 millions of tons reach the ocean as waste and increase the pollution. The plastic acts on marine life on different levels of size. Under the harsh conditions of the sea and the coastline plastic breaks up to smaller and smaller pieces. Particles smaller than 5 mm are referred to as microplastic.

One Earth – One Ocean is dedicated to remove plastic from the sea before it turns to microplastic.

In a special project One Earth - One Ocean builds up a Microplastic Pollution Map that is presented on the homepage. The motivation is to visualize the marine situation according to the distribution of microplastic. In order to produce the data for the map water samples are taken concentrated and filtered. Particles are collected from the filter surface and are analyzed using a FTIR spectrometer. These results are published in the Microplastic Pollution Map (http://oneearth-oneocean.com/der-verein/microplastic-pollution-map/).

#I Care – A behavioural change campaign to raise awareness and empower the public to reduce plastic waste

Silvia Frey

OceanCare

Vast quantities of disposable plastic items consumed daily such as bags, packaging or cups account for a large portion of marine plastic pollution. In order to solve this major environmental problem we are convinced that we have to stop plastic from entering the oceans in the first place. Therefore, OceanCare raises awareness for the issue among the public to make people rethink their use of disposable plastic and thus prevent plastic waste from entering the oceans. The recently launched «I Care» campaign raises awareness and offers practical ideas: for example, avoiding disposable plastic bags by replacing them with reusable alternatives.

The campaign is mainly directed towards young people and therefore focuses on social media channels. Moreover, a campaign song of an environmentally conscious rock band has been integrated and the campaign will go on tour with the band. As such, a broad audience will be encouraged to participate. On the campaign's website people are asked to take a pledge to reduce their disposable plastic consumption by choosing different options. A real-time calculator on the site measures the equivalent impact of such commitment in terms of the reduced yearly consumption of disposable plastics. These impressive numbers are a catalyst to encourage participants to further rethink their daily plastic consumption. Additionally, participants are presented with eco-friendly products helping them to keep their promise.

We are convinced that innovative campaigns such as #I Care will significantly contribute to a rethinking about our attitude towards plastic use which is, among other instruments, an effective solution to the problem of marine plastic pollution.

Plastic Pirates - from rivers to the sea: a citizen science project

Volker Smit

M.E.E.R. e.V.

As humans we put an ever growing pressure on the marine environment. Whatever the source - be it acoustic, chemical or by any form of litter - marine mammals are facing them all.

Our knowledge is still limited if it comes to the effects that will result of the many forms of plastics that find their ways to our waterways and seas. The problem is there, only the magnitude of it will reveal itself further down the road.

Citizen science projects when prepared thoroughly are a strong means in order to raise the awareness of many public bodies. The plastic pirates in this project are usually junior scientist - in the case presented here school children - that follow a scientific method in order to collect a data set that will be combined with many other data sets collected the same way. Unlike many other projects the plastic pirates take the issue of plastic waste to the many places where much of it has its origin - the river systems and its many water supplies.

The data samples are processed by scientific specialists and the results are being visualized on a map on the projects' website.

https://www.wissenschaftsjahr.de/2016-17/weiterfuehrende-informationen/englisch/plastic-pirates.html

ECOALF - UPCYCLING THE OCEANS

Irene Diez

ECOALF Fundation

ECOALF is a fashion Company whose goal is to create the first generation of recycled products with the same quality, design and technical properties as the best non-recycled ones. In this manner it shows that there is no need to use our world's natural resources in a careless way.

ECOALF, through its Foundation, has undertaken its most ambitious project to date: Upcycling the Oceans. It is an unprecedented global adventure that will help rid the oceans of rubbish through partnership with fishermen. A revolutionary project that aims to be replicated all over the world, whose main objective is to recover the trash that is destroying the sea and transform it into top quality yarn to produce fabrics and tailor clothes and accessories.

In September 2015 ECOALF Foundation, supported by HAPfoundation, begun to remove waste from the seabed with the participation of the fishermen of the Levante Coast. One year later, Ecoembes (non-profit organization that coordinate the recycling of the packaging in Spain) joined the project to expand it to other regions of the Spanish Coast and improve the recycling process. To date, the project has managed to involve over 2,000 fishermen, 32 ports amounting to a total of 462 sea trawlers and collecting more than 200T of trash from the bottom of the Mediterranean Sea. The objective is to replicate the Project all over the Spanish coast, including the Atlantic area, involving 60 ports and 700 boats.

In light of the success of the project undertaken along the Spanisg coast, in February 2017 ECOALF Foundation, partnered with the Tourism Authority of Thailand and PTT Global Chemical Public Company Limited (PTTGC) to help remove the waste from the oceans and islands (Phae, Samed Island, Phuket Island, Samui Island and Tao Island) and start developing a circular economy model by transforming that plastic into yarn, fabric and garments. The goal is to help organize and coordinate all of the fishermen and beach-cleaning associations in order to collectively arrange an organized trash-collecting system.

Fishermen continue to be the main characters of Upcycling the Oceans as without their support we would not be able to move forward, but partnerships with other key players are fundamental not only for the expansion and consolidation but also to foster the environmental awareness.

The first Mediterranean collection was retailed in Spring-Summer 17; since that, it has continued to be part of ECOALF's following seasons. Once again, ECOALF is achieving 100% recycled filaments providing high technical quality and textures in tune with current trends without using more of the planet´s natural resources. Because where others see trash, ECOALF sees premium quality raw materials.

Plastic litter in a MPA, projects involving artisanal fishermen and local stakeholders to clean the sea

Luigi Bundone[1], Sergio Fai[2], Luciana Muscogiuri[2], Paolo D'Ambrosio[2]

1 Archipelagos-ambiente e sviluppo, Italia; 2 MPA Porto Cesareo

Plastic litter is a major problem concerning all of the world's oceans, affecting the marine ecosystems health and the survival of its inhabitants, including marine mammals.

In 2013 the Marine Protected Area "Porto Cesareo" started activities to investigate and reduce plastic litter within its territory. "PESCA.MI.CA" was developed and carried out between 2013 and 2015 in order to sensitize school children, fishermen and scuba divers. The latter two stakeholders became active actors in the operations, allowing the recollection of 350 kg of lost nets.

Since 2017 the MPA "Porto Cesareo" has established - within the Marine Strategy Framework Directive policy - a long-standing monitoring plan and a programme agreement on the control and reduction of marine litter. The activity plan foresees public awareness, environmental education and the active involvement of common citizens and stakeholders, fishermen in particular, in the cleaning operations and in reducing the amount of waste discharged into the sea. Several projects have been launched since.