



Engaging citizens to help protect our seas

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Ocean literacy, citizen science and outreach initiatives

Engaging citizens has been an important pillar of activity for PERSEUS. It is clear that for our seas to be given the importance they deserve, the general public must understand the huge contribution the seas make to our lives. Citizen awareness and moreover their active engagement in protecting the sea is crucial for the successful implementation of marine policies. PERSEUS successfully organised and rolled out many citizen engagement initiatives, from ocean literacy in schools to citizen science campaigns and other outreach activities.

Ocean literacy

PERSEUS@School



PERSEUS created a prototype, large-scale ocean literacy initiative called "PERSEUS@School" which provided an opportunity for schools, teachers and students to participate in Environmental Education Programmes and study ways to protect the marine environment of the Mediterranean and Black Seas. A total of five countries participated in this initiative: Greece, Malta, Romania, Spain and Turkey. The programmes were run in coordination with each country's respective Ministry of Education.

In Greece alone, more than 23 schools from Greece took part with a total number of more than 600 students, while 45 students participated in the two oceanographic cruises named 'Andromeda I' and 'Andromeda II' respectively, which took place in March 2014 and May 2015.

Another innovation of the PERSEUS@School network was the introduction of 'Clean Seas' Ambassadors which gave students the opportunity to become ambassadors for PERSEUS and present some of the project's results to the European Members of Parliament in Brussels at a special event organised during the project's closing conference.

Citizen science

The PERSEUS Project is committed to bridge the communication gap between science and the public on issues of 'Good Environmental Status' (GES), and to develop a "Clean Seas" framework. PERSEUS main focus has been to enhance the idea of popular science across the Mediterranean and Black Sea by promoting a change in the public perception of science and reinforcing the participation of the wider society in science-based research.

Jellyfish Spotting Campaign

The PERSEUS **Jellyfish Spotting Campaign** was officially launched in time for summer season 2013 and ran for 3 summer seasons, until 2015. The campaign relied on "citizen scientists" who were encouraged, through the PERSEUS website and the campaign's webpage, to record sightings of jellyfish and send a photograph where possible posting them directly on the project's website. Citizen science proves to be a very effective way to monitor the presence of jellyfish for two simple reasons: first, jellyfish are rather large and they do not normally swim away from observers; and second, generally, people notice them.



Figure 1: New species of jellyfish *Pelagia benovici* was discovered in the Gulf of Venice by a citizen scientist

The Jellyfish Spotting Campaign was received with great enthusiasm by the society at large. Thanks to this campaign, recording of these species brings to one confirmed new gelatinous species recorded out of a total of over **10,000 reports** since the launch of the campaign. The new species of jellyfish *Pelagia benovici* was discovered in the Gulf of Venice in May 2014¹.

Marine LitterWatch Campaign

Marine Litter is an important environmental threat in the Southern European Seas. PERSEUS provided scientific support for the Marine LitterWatch (MLW) smartphone application, which was developed by European Environment Agency (EEA). The app is a modern tool for monitoring beach litter, based on a scientific protocol, which can be used for both MSFD monitoring tool and environmental awareness (citizen science). PERSEUS helped on harmonising the monitoring protocols and provided a number of pilot tests before its launch.



Following its launch in Spring 2014, PERSEUS has created an extensive survey network dedicated on beach marine litter by launching the PERSEUS Marine LitterWatch (MLW) Campaign. A total of 41 beaches have been adopted by PERSEUS partner institutes and have been surveyed for marine litter. The data collected through the Marine LitterWatch app is submitted to a central database hosted by the EEA and is available (open-access), thus providing a central repository for this information across Europe.

The PERSEUS Marine LitterWatch Campaign applies a two-tier approach to raise public awareness on coastal pollution issues:

1. **Facilitate monitoring to support official processes**- citizens are encouraged to participate in large-scale beach litter recording activities and scientific data production
2. **Promote voluntary beach clean-ups** - PERSEUS is actively promoting the collection of marine litter on beaches in the Mediterranean and Black Sea.

¹ The discovery has been reported on newspapers, such as:

<http://www.theguardian.com/world/2014/may/12/jellyfish-species-venice-pelagia-benovici> and <http://theconversation.com/the-beautiful-new-jellyfish-identified-in-the-gulf-of-venice-26616>

OUTREACH ACTIVITIES

PERSEUS has given significant attention to involving the public on the importance of maintaining and preserving oceans clean. This has been one through several outreach campaigns, including:

PERSEUS@Art

PERSEUS, together with the School of Fine Arts in Athens, decided to hold an Art Competition in order to introduce an artistic dimension to the science world and vice versa. A peculiar "marriage" between science and art, where the inspiration and captured feelings walked alongside towards the exploration of our seas. The results of the **PERSEUS@Art** contest showcased in an exhibition entitled "Images of the Sea" in January 2014. The works aimed to raise awareness on maintaining clean seas in southern Europe.



PERSEUS & Sailing

PERSEUS teamed up with 'Myweekcharter' (a sailing charter company) to create a special outreach action: the **PERSEUS & Sailing "eco-campaign"**. This campaign targeted general public who were sailing in the Mediterranean during the summers of 2014 and 2015. It aimed to encourage them to adopt an eco-friendly approach during their sailing experience and a leaflet on "5 eco-friendly tips" for sustainable sailing was developed and disseminated in chartered sailboats across the Mediterranean. Over a hundred photos were entered into the Sailing Photo Contest as part of the campaign, the winning photo is pictured below.



© PERSEUS & Sailing photo: Pedro Alves - www.photoattraction.net

Clean Seas Communication & Outreach Best Practice Guide

The **PERSEUS Clean Seas Communication & Outreach Best Practice Guide** was developed with the purpose of providing clear information on the types, scope and means to undertake citizen communication and public awareness activities that can make a significant difference to the state of the marine environment in the Southern European Seas. This Guide is a first of its kind in that it facilitates the creation of communication-oriented policy measures. It is especially made for policy and decision makers, who are encouraged to integrate awareness raising and communication campaigns as a key policy measure with a view to stimulating the change in behaviour of citizens to adopt eco-friendly practices. The Guide also presents examples of best communication practices and useful resources on how to raise public awareness to improve the general public's behaviour and reduce human pressures on the marine environment.

RECOMMENDATIONS

The involvement of citizens is crucial for a successful implementation of marine policies.

PERSEUS successfully organised and rolled out many citizen engagement initiatives, as well as communication and awareness raising programmes which are crucial elements for success in policy implementation, as a mean to gain citizen support and stimulate positive behaviour changes. These initiatives should not be lost but instead considered as a precious long-term investment. PERSEUS strongly encourages that these activities are integrated and rolled into other future programmes in the Southern European Seas.