

# CommOcean22

30 Nov-1 Dec 2022

Sete

France

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**Type (select one)**

- In person workshop

**Title** #sandybeach: an Instagram snapshot to look for relational values and sustain conservation

**Presenter/ organizer**

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**Summary**

We applied netnography to analyse Instagram posts with hashtag #sandybeach, extracting cultural attitudes and relational values towards beach ecological features. Instagram users construct mainly on the recreational aspect and the imaginary of a pristine beach, with white sand and clear water, perpetrating an approach which excludes ecology and conservation. Building on the concept of beaches as social-ecological systems and on leverage points could bring a change to out of date representations.

**For in person submissions: Audio Visual or special requirements** Audio Visual (likely using Prezi)

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### Abstract (1page max)

Sandy beaches are ecological systems with a terrific potential to move billions of people yearly, hence they hold a huge economic relevance at local, national and international level. However, their perception as environments is limited to the recreational asset, and only during holiday time. This hampers conservation and ultimately threatens the ecosystem services they provide. Such mismatch is well known in ecology, where conservation is usually promoted as top-down, national level, and often lacks in the attitudes of visitors –coming from outside the “beach system”, and for limited time. The framing of beach studies within the Social-Ecological Systems approach was recently applied, reinforcing the concept of beaches as dynamic connection between land and sea, and the relevance of ecological features as keys for both the ecosystem and the society. In fact, morphophysical components such as substrate characteristics, water colour, beach cleanse, are known positive drivers of choice by visitors. On the other hand, exploring valuation of nature is critical to understanding how people behaviour is driven by nature valuation itself. This is connected to the leverage points of the system, providing a critical lens through which to examine the various layers of a system, namely parameters, feedback, design, and intent, and how they can be utilized to change the system. Therefore we analysed images posted on Instagram and reporting the hashtag #sandybeaches to extract intrinsic, instrumental and relational values applied to the perception of beaches, and their representation in both social and ecological components.

The analytical method applied was netnography, allowing a qualitative analysis of cultural experiences through the traces made available by users on social media. The concept of Littoral Active Zone (LAZ) as the zone where exchanges of material and energy occur along land and sea was used to define the system: morphophysical elements of the LAZ, i.e. from the wave breaker to the primary dune, were used as boundaries of the system where beachgoers express values via pictures and short text in Instagram posts.

Beach visitors expressed intrinsic, instrumental and relational values, such as recreation, individual or social identity, or nature stewardship.

Unsurprisingly, the attractiveness of white, fine substrates, clear waters was confirmed by the frequency of their representation in images. The representation of a “pristine condition” beach was also often presented, constructing on the recreation and aesthetics values, mostly representing the “land side” of the LAZ. Identity, whether social or collective, was often present in surfers’ communities –with pictures including the “marine side” of the LAZ. Stewardship and environmental awareness scored lowest of the relational values.

The results indicate that, when comes to sandy beaches, recreation consistently dominates over all other values. However, the drive towards a pristine beach as a desirable place could be used as a leverage point to act towards conservation of a valued landscape, and of its ecological features to grant its functionality. Furthermore, the consideration of the LAZ beyond the emerged littoral only, allowed the inclusion in the study of specific groups such as surfers, which are characterized by a different attitudinal approach towards the beach, and may advocate for conservation as well. The absence of images of beach cleanups or other stewardship actions (held on beaches) suggests that probably these messages are channelled through hashtags other than #sandybeach.

In summary, while the persistency of a recreation-centred attitude towards sandy beaches is reported, options to shift the system towards sustainability seem available, and so are methods to monitor such change on social media.



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## A journey between two deep-sea scientists, a seaman and a cartoonist

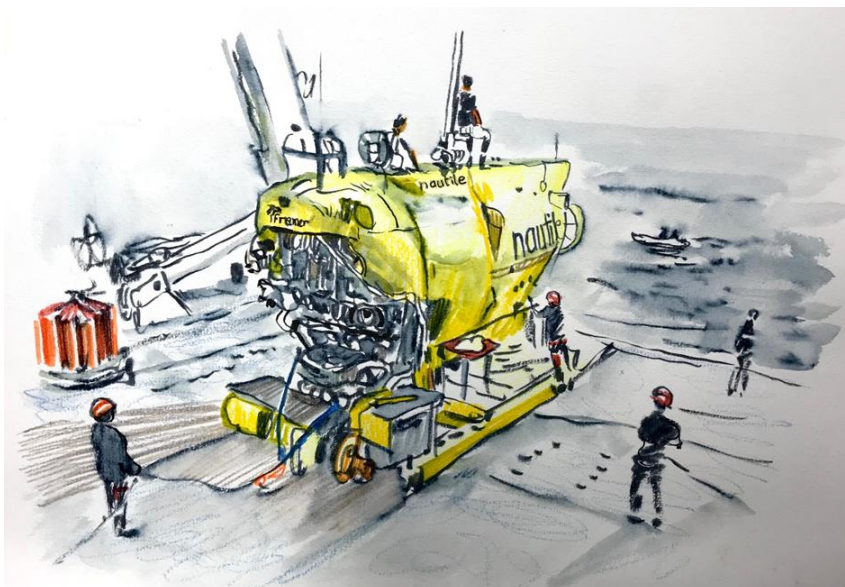
M Matabos<sup>1</sup>, D Roudeau<sup>2</sup>, N Le Roy<sup>3</sup>, J Sarrazin<sup>1</sup>

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### In person workshop

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Gold, copper, nickel, cobalt, zinc, manganese... if the new Eldorado lies at the bottom of the oceans, mining will also threaten luxuriant and still largely unknown ecosystems. What mineral wealth is hidden deep in the ocean? What is the historical context of underwater exploration and mining? Why is the exploitation of metals coming back to the forefront? What do we know about the biodiversity found at these depths? How do we learn about the deep-sea and access the knowledge to better inform society? In order to help provide the general public with some answers, Marjolaine Matabos and Jozée Sarrazin, researchers in benthic ecology at Ifremer, asked a cartoonist to accompany the MoMarsat 2022 cruise on board the French research vessel Pourquoi pas? to graphically tell the story of a scientific cruise including operations, scientific experiments and discoveries made with the manned submersible Nautilie. Through a hundreds of illustrations, Damien Roudeau describes and shares the adventures of scientists, pilots and crew members working together towards a common objective: enhance our knowledge about deep-sea ecosystems. The sketches were posted daily on Instagram <https://www.instagram.com/momarsat/>. After this month-long journal, a comic book story will be prepared (to be released at the end of 2024 by Arènes BD) to embody the scientific, environmental and financial stakes of the quest for rare earths and strategic minerals through this mission. This conference will lead the audience to this journey that was initiated several years ago during a conversation with N. Le Roy, a seaman of the Pourquoi pas? concerned by environmental issues related to the sea.



Launching the first dive of the submersible Nautilie at 1700 m depth on the Lucky Strike vent field  
(©D. Roudeau/Ifremer/Momarsat2022)



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**Type**

In person oral presentation

**Title**

**Adaptation of ‘Coasts for Kids’ animations: an exercise of cultural diversity in coastal communication**

**Authors**

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**Summary**

Coasts for Kids animations intend to engage children with coastal sciences. Identity elements were used to foster engagement (e.g., UK sites, child narrators). To develop a version for Portugal, a comprehensive adaptation was necessary. This entailed several tasks, from rewriting episodes about specific coastal areas to casting Portuguese children as narrators. As more versions develop, an enriched and diverse collection will be built, acknowledging cultural diversity in coastal communication.

**Abstract**

‘Coasts for Kids’ (C4K) is a series of animations developed to engage children with the coast, celebrate its richness, communicate concepts of coastal geosciences, raise awareness to problems faced by coastal zones in a changing climate and to show what can be done to address current and future challenges. The original animations were developed in English and are targeted at Primary School children in the UK. C4K had contributions from coastal geomorphologists, physical geographers, coastal ecologists, and human geographers from Universities in the UK, Australia, Canada, Spain, France and Mexico.

The series engagement strategy was to use identity and place-based elements. To create a sense of identity, episodes were narrated by school children aged 6-8 years old from the Merseyside area (Liverpool City Region, UK). Place-based identification was achieved by introducing coastal elements of the Liverpool Bay and mention the different locations where the child narrators live. References were made to playing and fun activities by the coast (both in the script and chosen photographs). Engaging elements were used throughout the animations, such as the inclusion of superheroes, the character ‘Mrs. Piggy’, onomatopoeia and interjection.

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While effective for the target audience, the use of place-based and identity elements, makes the series C4K less suitable for children from other countries. Therefore, developing a version for another country, let alone for another language, implies more than translation and instead a comprehensive adaptation is necessary.

The adaptation of C4K for Portugal - 'O Litoral para Crianças' (LPC), required a number of tasks (not exhaustively): (1) adapting the script to Portuguese, including rewriting the episode about the coastal zone of Liverpool to the coastal zone of the Algarve (South Portugal), (2) substituting location maps, (3) collecting photographs of the coast of Portugal, (4) casting six children to narrate the episodes in off-voice, (5) working with the volunteer families for sound recording, (6) choosing acquiring illustration avatars, (7) choosing new music, (8) creating new content to support teachers and parents, in addition to (9) the technical work of sound editing and (10) reassembling the animations.

As a result of the adaptation work, LPC closely resembles the main features of C4K, as underlying coastal science principles apply, but at the same time it is diverse to account for the many differences between the coastal zones, the cultural and educational context of children in different countries. With the expectation that many more country-based versions of C4K will be developed, enriching the mosaic of cultural and geographical diversity, the collection C4K, LPC and other adaptations is therefore an exercise of cultural diversity in coastal communication.

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## Coupling “arts & sciences”: inspiration and innovation to increase ocean literacy

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### In person workshop

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Projects associating "arts & sciences" are rapidly emerging both at national and international levels. For the past fifteen years, several original initiatives associating arts and science, including performance projects, artist residencies, training courses and festivals, received the support of different instances. These projects have as common objectives to share knowledge and go beyond the limits of their own disciplines to create new objects of communication and experimentation. The enthusiasm of the general public, as well as the cultural and scientific communities, for such projects confirms the major impact that these transdisciplinary approaches can have on the communication of knowledge and awareness of environmental issues, especially in the remote deep-sea. This dialogue between artists and scientists should also inspire new generation of students and early-career scientists with new perspectives on their practices, raise their awareness of transdisciplinary issues and place creativity at the heart of their scientific approaches. This "arts & sciences" alliance may enhance their own disciplinary training, while enriching their ability to open up and find avenues to dialogue with others. This conference will present one “art & science” initiative, a collaboration between deep-sea scientists from the Ifremer deep-sea laboratory and a professional theater company – Teatr PIBA- based in Brest (Brittany). The DONVOR/SPLUJ sensory plays have touched over 20 000 people since 2018. They immerse spectators in the heart of deep-sea ecosystems and makes them aware of the environmental issues related to the potential exploitation of their resources. The protocol of our 6-year collaboration will be detailed : how did we meet, how did we work together from embarking the artists on board our scientific cruises to doing scientific mediation before/after the plays. We also analyse what were the strong facets of this collaboration and what could be improved. In addition to the plays produced, several other projects have been grafted onto the project: a 52' making-off film, the publication of the original text and creation of “art & science” workshops for University students.

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**Type:** Online oral presentation

**Title:** Deep-sea tropes – to resist or play along?

**Presenter/organizer:** Thomas Linley, Director of Science, Armatus Oceanic (UK), thomasl@armatusoceanic.com

**Summary** (suitable for publication if successful) (max 500 characters inc spaces)

Becoming frustrated with how our own work was often relayed through the media Alan Jamieson and I started The Deep-Sea Podcast as a chance to speak with people directly about deep-sea science. We decided to actively push against the tropes and the clichés in our own discipline: ‘we know more about the moon than the deep sea’, monsters and aliens of the deep etc. The response has been overwhelmingly positive and has become a vital tool in communicating our science.

**Abstract** (1page max)

It can be difficult to offer people a personal connection to the deep sea. As terrestrial air-breathing mammals, there are few habitats that differ from the world we know so completely and that represent so many of our innate fears. Our own language gives us away ‘deepest darkest fears’, the abyss – a bottomless pit in hell and Hadal from Hades – the underworld and its god. To many, the deep sea may represent our repressed subconscious, or death\*. The surface waters embody life, there is growth and productivity. The deep ocean is its antithesis, death, decay, and filth. The life found there is starving and inherently unclean.



*"I don't know why I don't care about the bottom of the ocean, but I don't."*

Figure 1: Charles Saxon (1983), *The New Yorker*

Becoming frustrated with how our own work was often relayed through the media (and stranded in our homes) Alan and I started The Deep-Sea Podcast as a chance to speak with people directly about deep-sea science. We decided to actively push against the tropes and the clichés in our own discipline: ‘we know more about the moon than the deep sea’, monsters and aliens of the deep etc. We tried not to oversimplify the science but rather help the listener understand the concepts. The response has been overwhelmingly positive, and I have had some wonderful interactions with listeners.



Figure 2: Link to The Deep-Sea Podcast : <https://www.armatusoceanic.com/podcast/welcome>

But there are many who like the ‘alien monsters’ and how remote and different the deep ocean feels. They like that anything could be out there, and we know so little. There is no single right way to communicate the deep ocean. We need diversity in tone, medium, style and the people who are communicating to engage the maximum audience and help them feel a personal connection with the deep sea.

\*Jamieson AJ, Singleman G, Linley TD, Casey S, Browman H (2020) Fear and loathing of the deep ocean: why don't people care about the deep sea? ICES Journal of Marine Science doi 10.1093/icesjms/fsaa234

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## Abstract Submission for CommOcean22

By: Jamie Zaccaria, Digital Media Specialist, Ocean Exploration Trust,  
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Category: 3. Online visual/1 min video (“Show and Tell”)

### Dialoguing with Deep Sea Explorers: Inspiring Learners with Live Ship-to-Shore Programming

Believing ocean exploration should be accessible to everyone, regardless of geographic location or socioeconomic status, [Ocean Exploration Trust \(OET\)](#) is eager to share successes from our revolutionary live [ship-to-shore interaction program](#). Our interactions are designed to introduce communities around the world, with a focus on schoolchildren, to oceans and role models in STEAM by connecting them directly with team members aboard Exploration Vessel *Nautilus*. Our programs share deep sea exploration in real-time, inspire and encourage learners to follow careers in science, engineering, technology, maritime tracks, communications, and more. We can provide statistics on the number of classrooms, students, and locations reached each year with interactions and the increasing popularity over time.

Ship-to-shore interactions are one-on-one live video Q&A broadcasts with the diverse explorers at sea providing unique dialog opportunities to learn about life aboard the ship and the latest discoveries on Earth. Interactions are free and scheduled 7-days a week across all global timezones for the convenience of audiences. We publicly advertise programming in English and 'Ōlelo Hawai'i (Hawaiian language) and opportunistically host in other language fluencies of onboard explorers including in 2022 Spanish, Catalan, Chamorro, and American Sign Language. While the majority of our audiences are youth (K-12 grades), live interactions also reach universities, museums, camps, aquaria, community events, conferences, and more. This presentation will share our successes and passion about broadening excitement for deep-sea exploration around the globe.

OET's [2022 expedition season](#) includes eight months of live streaming scientific exploration in the waters of the Central Pacific Ocean near the Hawaiian Islands, the Pacific Remote Islands Marine National Monument, and Papahānaumokuākea Marine National Monument. We are guided by partners building relationships with community and uplifting educational priorities for Native Hawaiians including prioritizing impact with schools and communities in Hawai'i and across the Pacific through interactions as well as co-developing [educational resources](#) centering the language and cultural perspective of the Hawaiian Islands.



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## **I live by the Sea Ocean Action interactive workshop.**

I. Kotynska-Zielinska<sup>1</sup>, T. Zielinski<sup>2</sup>, T. Kijewski<sup>2</sup>, A. Koroza<sup>2</sup>, P. Pakszys<sup>2</sup>

<sup>1</sup> Today We Have, Poland

<sup>2</sup> Institute of Oceanology Polish Academy of Sciences, Poland

### **Summary**

Co-designed in collaboration with European partners and community representatives, the workshop will explore opportunities and challenges in communication of scientific information to general public. We expect the groups to come up with ideas for promotion actions, sharing good practice methods, etc. We want participants to come up with project names, acronyms, methods and target groups.

### **Objectives**

The goal of the workshop is to explore the role of researchers and citizens in supporting community led action on marine sustainability, marine pollution, climate action, and community resilience through engagement and outreach. A series of short introductions from the panel (including live links and/or recorded video messages from community groups) will precede group work on creation of dedicated ocean related actions to promote effective communication of ocean related knowledge to citizens.

### **Description**

During the workshop participants in groups use their common knowledge to create effective means/actions for transfer of science based information with reference to the ocean. The groups work out the following:

- What resources can scientific organizations provide to support effective knowledge transfer?
- What format is most effective?
- How can we identify audience preferences with regards to engagement activity and output format?

### **The workshop procedure is © I live by the Sea Ocean Action.**

1. Participants sit at 3-5 tables of up to 8 per table. c. 5 min.
2. Participants get the first part of the Questionnaire. c. 5 min.
3. Short lectures about the ocean, knowledge, data collection. c. 15 min.
4. Work in groups. 30 min.
5. Each group presents their project. c. 15 min.
6. Participants get the final question (How does ocean influence you?). c. 10 min.
7. Summary. 5 min.

Total length: 90 minutes.

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## Submission content

### Type

In person oral presentation

**Title:** Observations from Galway Bay – Bringing coastal communities closer to marine science and research

**Presenter/ organizer** – Sinéad Ní Fhátharta, Community Liaison Coordinator, BlueWise Marine, [sinead.nifhatharta@bluewisemarine.ie](mailto:sinead.nifhatharta@bluewisemarine.ie)

### Additional presenters/ contributors 1,2,3,N –

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2. Rebecca Kavanagh, Stakeholder & Environmental Planning Coordinator, BlueWise Marine, [rebecca.kavanagh@bluewisemarine.ie](mailto:rebecca.kavanagh@bluewisemarine.ie)

### Summary

SmartBay is a marine and renewable energy test site located in an Irish speaking coastal community on the west coast of Ireland, near Spiddal Co. Galway. Within the test site sits an underwater observatory, where a variety of marine sensors are used to monitor the bay. Helping the local coastal community to learn more about the SmartBay facility has been a key strategy in building understanding, trust, acceptance, and support for the infrastructure in their marine area.

Like most projects, best practice recommends a thorough investigation into how to engage and communicate about the project to different stakeholders and audiences. For this purpose, stakeholder mapping was completed, and with that a Stakeholder Management Plan (SMP) and the Community Engagement Strategy (CES) compiled for SmartBay.

Two key audiences were identified in the communications strategy: Industry and non-industry. An additional variable to consider was that a large percentage of our audience is bilingual. Taking the target audience into consideration and mapping out the most effective and efficient methods of communications, a two-pronged approach was put in place: Bring science to the community both physically and digitally.

Lessons learned from previous interactions with the community revealed an uncertainty and ambiguity towards SmartBay by some. It was therefore highly important to eradicate all misinformation about SmartBay and quash any doubts they might have had about the activities onsite. Complete transparency became essential and so an in-person event in the community was organised where the Observatory frame and all its sensors were craned onsite. This gave the community an opportunity to see the mysterious objects from under the sea first-hand and ask the experts any questions they might have had. Upon analysis of the post event evaluation, it quickly became clear that the majority then had a more of an understanding about SmartBay and thus more of a positive attitude towards it. In fact, future similar events were welcomed to take place within the community.

Digital communication and interaction are steadily becoming method of choice for gaining knowledge about any subject matter. Taking this and our key audience into consideration, the SmartBay virtual tour was created. This virtual tour guides the audience through the full journey of SmartBay, from the Marine Institute's headquarters to the SmartBay site both above and below the surface of the sea. The virtual tour is already available on the

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SmartBay website; however, it is still under development and will soon include professional videography for each hotspot, information in both Irish and English, and access to live data and video feeds.

**For in person submissions: Audio Visual or special requirements** It is intended to present with the aid of a PowerPoint presentation and would also require access to Wi-Fi to present and guide delegates through the SmartBay Virtual Tour.

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**Type (select one):** Online oral presentation

**Title** Ocean in sign. Inclusive scientific communication strategies for deaf people.

**PRESENTER/ ORGANIZER:** **Isabela Katime Arroyave.** Head of scientific communication team. Instituto de Investigaciones Marinas y Costeras – INVEMAR.

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3. Paula Sierra Correa. Research and Information for Marine and coastal management Coordinator. Instituto de Investigaciones Marinas y Costeras – INVEMAR. [paula.sierra@invemar.org.co](mailto:paula.sierra@invemar.org.co)

**Summary** (suitable for publication if successful) (max 500 characters inc spaces)

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The teaching of the ocean for deaf people in Colombia has been minimal, and the most substantial cause is, perhaps, that there is no education in the first language of deaf people: sign language, and there is not enough vocabulary to support it. The document review revealed four (4) institutions in Colombia have generated vocabulary in sign language. This repository has one hundred and twenty-seven (127) signs related to Oceanic Culture, and although not all of them are part of the marine environment, they help explain processes, phenomena, and in general, Oceanic Culture topics. However, some of these lists are not available to the general public free of charge, which means that a high percentage of the deaf population nationwide does not know or use them.

"Ocean in Signs" is a pioneering project in Colombia led by the Marine and Coastal Research Institute, which seeks to eliminate the barriers that deaf people have to accessing comprehensive knowledge about the ocean. Its objective is to promote inclusive education about the sea by building a new vocabulary in sign language and creating content that allows a practical education according to the epistemology of the deaf community. Thus, the deaf community can know, enjoy, and understand the ocean and make it part of their cultural and personal heritage.

To meet the objective of inclusive education, the project has carried out several activities. Initially, a diagnosis of the educational conditions of the deaf communities of some coastal cities (Santa Marta and San Andres) was made, finding that, for Santa Marta, 75% indicated that they had not received marine education. In San Andres, 73% indicated they were not taught about the sea, and those who did were led by their families or friends. As a result, most of the knowledge that deaf people have about the sea has come from experience. The main problems associated with the lack of education, the work, and tastes related to the sea have been identified, and even the empirical signs they use to refer to the ocean, geographical features, or organisms have been compiled. To date, it has been possible to identify variations of the signs in some regions of the country.

Secondly, ocean literacy workshops have been carried out through workshops based on the seven principles of Oceanic Culture to build new signs about the ocean. Twenty-two deaf people from Bogotá (not a coastal city) and Santa Marta participated in this process, and an exchange of experiences between the two communities took place. Through these meetings, some deaf people could learn about the sea for the first time, review the signs proposed so far and discuss the creation of some new ones. The project currently has 150 terms covering topics such as biodiversity, climate, geographical features, and ocean characteristics, among others.

All this communicational effort is complemented through the use of social networks to generate inclusive content about the ocean; hence on Facebook and Instagram, the signs are published along with explanatory videos that illustrate the concept so that the deaf community can understand why that sign is proposed and at the same time learn about how important and wonderful the ocean is. INVEMAR continues working for the deaf community to be part of the Ocean Generation, that generation committed to achieving the ocean we want.

**Acknowledgments:** The development of this project has been possible thanks to INVEMAR, CORALINA Corporation (Agreement 001-2021) and the BPIN Misional project code 20170110000113.

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Ocean in Sign Vocabulary (Updating)

[https://youtube.com/playlist?list=PLoD5grkTNh4\\_wGGn0NQhWXMaXKPFi78s](https://youtube.com/playlist?list=PLoD5grkTNh4_wGGn0NQhWXMaXKPFi78s)

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**Type (select one)**

- In person oral presentation

**Title** Reciprocity, Respect & Interconnectedness: marine science communications rooted in food sharing, culture & community on Haida Gwaii

**Presenter/ organizer** – Miranda Post, Public Relations and Communications Officer, Gwaii Haanas National Park Reserve, National Marine Conservation Area Reserve and Haida Heritage Site, Parks Canada, [Miranda.post@pc.gc.ca](mailto:Miranda.post@pc.gc.ca)

**Additional presenters/ contributors 1,2,3,N** –

Gulᵑa taa'a gaagii ng.aang Nadine Wilson, Conservation and Restoration Project Manager, Gwaii Haanas, Parks Canada, [Nadine.wilson@pc.gc.ca](mailto:Nadine.wilson@pc.gc.ca)

Lynn Lee, Marine Ecologist, Gwaii Haanas, [lynn.lee@pc.gc.ca](mailto:lynn.lee@pc.gc.ca)

\*Presentation based on the published marine science work of: Lynn C. Lee, Gwiisihlgaa Daniel McNeill, Pauline Ridings, Mike Featherstone, Daniel K. Okamoto, Nathan B. Spindel, Aaron W.E. Galloway, Gary W. Saunders, Emily M. Adamczyk, Luba Reshitnyk, Ondine Pontier, Miranda Post, Robyn Irvine, Gulᵑa taa'a gaagii ng.aang Nadine Wilson, and Sᵑiids Kung Vanessa Bellis

**Summary Reciprocity, Respect and Interconnectedness: marine science communications rooted in food sharing, culture and community on Haida Gwaii, northern British Columbia, Canada**

**For in person submissions:**

Smart screen, internet connections, speakers to connect to laptop for a power point presentation delivery.

**Abstract:**

Located off the northwest coast of British Columbia, Canada, Gwaii Haanas National Park Reserve, National Marine Conservation Area Reserve and Haida Heritage Site is a land-and-sea protected area in southern Haida Gwaii within the traditional territory of the Haida Nation. Canada and the Haida Nation have worked together using traditional knowledge and science to protect the culturally and ecologically significant area since 1993. This cooperative management is guided by ethics and values based in Haida Law. When communicating marine science and eco-cultural initiatives, Gwaii Haanas/Parks Canada team members demonstrate Yahguudang-Respect, Isda ad dii gii isda-Giving and Receiving (reciprocity) and Gina 'Waadluxan gud ad kwaagid-Interconnectedness. Haida Gwaii's remote nature, Haida cultural organisations and expanse of ocean and place-based learning opportunities lead to unique prospects for public and community relations, outreach and engagement. Many communications initiatives involve multiple organisations working together to raise awareness of both ecological and cultural objectives of ocean science projects. Gwaii Haanas communications teams coordinate to achieve communications objectives by working with K-12 educators, cultural organisations, academia, local food security groups, provincial fishing sector associations and local, regional and international media. We outline lessons learned delivering community-focused, strategic, evidence and culture-based communications, outreach and engagement about marine conservation initiatives using case studies from marine ecosystem restoration projects, research and monitoring, and visitor interpretive programming. The presentation will explore how communications contributed to achievements such as:

- Haida law, values and ethics were upheld, particularly the principles of Yahguudang *Respect*, Isda ad dii gii isda *Giving and Receiving* (reciprocity) and Gina'waadluxan gud ad kwaagid *Interconnectedness*.
- Five years of field and lab data were collected for ongoing analyses, primary publications, and future research.
- Community and school food-sharing and project outreach – sea urchin meat shared with residents and students across Haida Gwaii
- The project earned positive media coverage in 14 magazines, community newspapers, regional and national CBC radio shows and a science podcast. Proactive media relations the coordination of three media trips into Gwaii Haanas in 2018 and 2019.
- There were 50 presentations to the public at scientific conferences, university and Parks Canada speakers/seminar series, public events and management working groups.
- New visitor experiences in Gwaii Haanas were created. Visitors can boat, kayak, snorkel and/or SCUBA dive in 25 ha (about 3 km of shoreline) of restored kelp forest and learn about them in front country interactive, interpretive programming.

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## Type

“Show and Tell” exhibition entry

**Title** “The SmartBay Virtual Tour: A deep dive into Galway Bay.”

**Presenter/ organizer** – Sinéad Ní Fhátharta, Community Liaison Coordinator, BlueWise Marine, [sinead.nifhatharta@bluewisemarine.ie](mailto:sinead.nifhatharta@bluewisemarine.ie)

**Additional presenters/ contributors 1,2,3,N** –

1. Felicity Donnelly, Research Infrastructure – EU Projects Support, Marine Institute, [felicity.donnelly@marine.ie](mailto:felicity.donnelly@marine.ie)

## Summary

The recently launched SmartBay Virtual Tour has become a vital communication tool with regards to our Community Engagement efforts for SmartBay. It is indicated in the SmartBay Community Engagement Strategy (CES) that:

- We will be **open, transparent, and honest** in all our community engagement activities.
- We will actively encourage, facilitate, and promote **inclusivity** and **accessibility**.

Keeping our Community Engagement goals in mind, it seemed appropriate to provide people with a clear visualization of SmartBay. Progress was therefore made in developing the SmartBay Virtual Tour which is available on [www.smartbay.ie](http://www.smartbay.ie). Visitors to the site can now navigate the 360° journey of the SmartBay facilities. Although the tour is already freely available, it is still under further development. The tour’s information will soon be available in both Irish and English and professional videography for each each hotspot will be added.

Upon redeployment of the Subsea Observatory, anyone will have access to live data and video feed from beneath the sea. The audience will therefore have a full visualization of SmartBay and Galway Bay; what it looks like, where it is, what it does, and how it works.

The SmartBay Virtual Tour can be accessed here: <https://www.smartbay.ie/sites/default/files/VirtualTour/index.html>

## For in person submissions: Audio Visual or special requirements

Ideally, the virtual tour would require Wi-Fi and touch screen to allow participants self-navigate, alternatively a looped video of the tour/videos would suffice.



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**Type:** In-person oral presentation

**Title** Why storytelling is key to communicating and advancing marine science and community-led conservation

**Presenter/organiser** – Randall Mabwa, Regional Communications Officer for East Africa, Blue Ventures, [randall@blueventures.org](mailto:randall@blueventures.org)

**Summary** (suitable for publication if successful) (max 500 characters inc spaces)

Science communication is a versatile, valuable tool for ensuring the success of coastal and marine conservation. In the tropics and specifically the Western Indian ocean, I envision the use of storytelling focusing on scientific research to drive inclusivity and raise awareness on multiple issues affecting conservation. I aim to show how storytelling has effectively driven peer-led change and challenged communities to engage in community-led conservation.

**Audio Visual or special requirements** (max 100 characters inc spaces)

A projector/ screen with HDMI cable will be required for this presentation.

Abstract

Background

Communicating scientific information and knowledge to local communities in an easily accessible form is vital to improving the effectiveness of marine conservation and community-led initiatives focused on rebuilding fisheries. The inspiring research and conservation work informing fisheries management in the Western Indian Ocean is primarily documented and disseminated through scientific journals, publications, newsletters, white papers and in-person meetings. These conventional communication channels are very exclusive and limited in their reach. This limited access by local communities and other stakeholders to crucial information and knowledge reduces the impact of grassroots conservation efforts.

Method

At Blue Ventures, we provide first-hand narratives of fisheries, conservation and research-based activities through audio, photos, and videos to share the science and bridge the marine science information and knowledge gap in the Western Indian Ocean. By creating compelling stories, we aim to increase the availability and accessibility of scientific information and knowledge by not only relying on conventional mediums of scientific communication that many audiences do not have access to or understand.

Results

By relying on products such as videos aimed at communities as part of learning networks, we increase the availability and consumption of information and promote inclusivity. Communities now have access to social media platforms and smart devices, helpful in showcasing community-led action in fisheries management and conservation. For example, the Munje community on Kenya's south coast had set up a locally marine managed area that collapsed. However, during a learning exchange trip, documenting a thriving locally marine managed area (LMMA) with octopus closures in Lamu, Kenya, challenged other community members from Munje to establish their LMMA after watching their peers from Lamu. Such a development shows that storytelling improves the uptake of knowledge that leads to action.

Conclusion

We advocate for storytelling to communicate marine research and conservation by practitioners to increase scientific and indigenous knowledge uptake. We shall be sharing the knowledge widely and raising awareness

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among target audiences, leading to action and impact in fisheries management and community-led marine conservation.

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**Type (select one)**

- In person workshop
- Online oral presentation
- **In person oral presentation**
- “Show and Tell” exhibition entry

**Title** (max 100 characters inc spaces)

adopt a float: an international educational program

**Presenter/ organizer** – Name, Job Title, Organisation, Email

Manon Audax

Science outreach officer

Institut de la Mer de Villefranche (CNRS, Sorbonne Université)

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**Additional presenters/ contributors 1,2,3,N** – Name, Job Title, Organisation, Email

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**Summary** (suitable for publication if successful) (max 500 characters inc spaces)

adopt a float is an international educational program that offers students of all educational levels and all around the world the opportunity to adopt an underwater robot of the profiling float type. These robots are part of international ocean observation programs and are designed to take measurements that meet today’s challenges in Ocean sciences.

In this talk, we will present our specific way to convey messages on ocean issues within the context of this program.

**For in person submissions: Audio Visual or special requirements** (max 100 characters inc spaces)

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**Abstract (1page max)**

The adopt a float program creates opportunities for a young public to discover the Ocean and the importance of studying it in order to better understand and protect this vast environment. Thus, adopt a float offers students of all educational levels a scientific, cultural and civic approach to the Ocean and to marine sciences through meetings, exchanges and activities with scientific research and outreach professionals.

adopt a float is based on the idea that a class adopts a scientific underwater robot of the profiling float type. These robots are part of international ocean observation programs and are designed to take measurements that meet today's challenges in Ocean sciences. Equipped with miniaturized sensors and linked to a database fed in real time, the profiling floats yo-yo deep into the Ocean, measure and provide various physical, biological and chemical properties.

By adopting a profiling float, the students become part of the "Ocean Voyagers" community of participating classes. Via the associated web platform, each class can follow and accompany the scientific journey of its underwater robot. Thus, they can familiarize themselves with the scientific data collected, which is accessible on an interactive map shared with the scientists.

In our presentation, we will provide background information on the international program adopt a float, present modalities for example of in-person and virtual interactions during the school year, and share associated educational and communication resources. A focus will be made on our specific way to convey messages on ocean issues.

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## **Submit an Abstract**

### **Type (select one)**

- In person oral presentation

**Title** Application of Information and Communication for Marine Resilience and Sustainability

**Presenter/ organizer** – Dr.Kalpana Chaudhari, Assistant Professor, Shah and Anchor Kutchhi Engineering College,Mumbai,India, Email: isdrklc@hotmail.com

**Additional presenters/ contributors<sup>1,2,3,N</sup>**– Dr.Maria Cerreta, Professor, University of Naples, Federico-II, Italy, Email: cerreta@unina.it

**Summary** (suitable for publication if successful) This research study signifies the role of coastal societies in marine systems protection through information and communication technologies in governance of coastal sector for sustaining the marine health. The study discusses specialist applications of ICTs in coastal and marine sector for sustainable exploitation of the marine fisheries and aquaculture for ocean health sustainability. This study intends to focus the role of coastal communities in marine sector specially planners, managers, researchers and community workers functioning on interdisciplinary as well as multidisciplinary issue involved in conclave of adoption strategies and management, adverse impacts of climate change on coastal and estuarine resources planning, coastal risk and vulnerability, social-ecological vulnerability and resilience in coastal region, human Pressures on coastal environments, land water-seawater interactions, economic issues and challenges for sustaining marine food chain in Indo-Pacific aquatic resources.The research suggests that Ocean and marine resources can be utilised for the health and wellbeing of populations by minimizing various risks human activities expose the oceans to, and the threats that those activities and the resulting ocean degradation pose to human health through sustainable exploitation. The research study indicates that concerted efforts are required to stimulate new research activities with interdisciplinary and multidisciplinary approach in ocean minimum zones and dead zones, Ocean Deoxygenation coupling the human interactions and governance and policies required for ocean health sustainability. (max 500 characters inc spaces)

**For in person submissions: Audio Visual or special requirements**(max 100 characters inc spaces) Ocean Health sustainability is essential in the era of Global Sustainability comprising interdisciplinary issues uniting Earth, ocean and climate sciences with environmental health sciences.This presentation deals with the cross cutting issues with the interface of the geosciences, ecology, health sciences, Ocean health and environment Information and communication science, Media and Information Literacy and other allied disciplines.This presentation aims to bring together experts from multiple disciplines in GeoHealth connecting earth,ocean climate and health.

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**Type (select one)**

- In person oral presentation

**Title :**

Marine Science Communication: case study of local communities in Kerkennah islands (sfax, Tunisia)

**Presenter/ organizer**

Nabil SOUISSI, Professor Assistant, National Institute of Marine Science and Technologies, Tunisia, nabil.souissi@gmail.com

**Summary**

Last years, many environmental scientific projects are interested to social aspects, especially the impact on local communities. However, scientists are still considering these community as a classroom and they lack communications skills dedicated to such audience. Last decade, many scientists integrated several NGOs in order to practice new communications techniques such using social media and participation in podcasts and videos. Moreover, in situ activities are conducted with local communities directly affected by environmental impacts. Science communication activities are planned and developed to artisanal fishermen organized in the main fishing association of Kerkennah island (Sfax, Tunisia). These activities include small meetings and presentations to the fishermen to approximate their everyday activities to the research topics and highlight the human impacts (i.e., coastal pollution, habitat destruction, introduction of non-native species...) on marine ecosystems, fishery production, economy, and human health. Those meetings are conducted by communication experts (NLP, Kolb, rhetorical triangle...), and they are benefic for both scientists and local communities (more than 100 persons).

**For in person submissions: Audio Visual or special requirements**

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## OCEANOPOLIS, AT THE OCEAN-SCIENCE-SOCIETY INTERFACE

Dr Céline LIRET – Scientific director

OCEANOPOLIS – Port de plaisance du Moulin Blanc – 29200 BREST – France

celine.liret@oceanopolis.com

### SUMMARY

Océanopolis (Brest, France), national center of scientific culture dedicated to the ocean, is considered as a pedagogical and educational place for sharing marine knowledge and maritime excellence in all its components of research, technology, and innovation. It has gradually become the reference's place of an oceanic culture, both inspiring, challenging, and accessible, to awaken and inspire all audiences, develop their critical thinking, and foster interest and passion for the Ocean.

### ABSTRACT

Océanopolis, national center of scientific and technical culture dedicated to the ocean, is considered as a pedagogical and educational place for sharing marine knowledge and the maritime excellence in all its components of research, technology, innovation, economic development, and training. Created in 1990, this equipment of Brest metropolis is born from the high concentration of oceanographic research organisms and maritime skills on the territory. Océanopolis has gradually become a place of reference for the mediation and dissemination of an oceanic culture that is both inspiring, challenging, and accessible.

Scientific mediation is a societal issue that is more important today than ever. At the interface between ocean, science, and society, Océanopolis works actively to transmit and share knowledge with everyone by developing a program of actions in collaboration with regional, national, and international oceanographic research and maritime innovation. Workshops, conferences, meetings with scientists, festivals, artistic approaches, citizen science, science in the making, etc. The actions carried out are various, multiple, and highlight the scientific works, the diversity and complementarity of the stakeholders concerned, and the plurality of the skills and disciplines involved. The aim is to awaken and inspire all audiences, especially the younger generations, develop their critical thinking and foster interest and passion for the Ocean.

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**TITLE:**

REMARCO network: communicators and scientists working together towards marine and coastal environment.

**AUTHOR:**

Laura Brenes-Alfaro, sociologist / researcher.

Centro de Investigación en Contaminación Ambiental (CICA), Universidad de Costa Rica.

[lauramaria.brenes@ucr.ac.cr](mailto:lauramaria.brenes@ucr.ac.cr)

**TYPE:** Show and tell exhibition entry

**ABSTRACT:**

The Marine-Coastal Research Stressors Network in Latin America and the Caribbean (REMARCO) is an interdisciplinary research network that employs nuclear and isotopic techniques for peaceful use to address environmental problems of marine-coastal ecosystems in Latin America and the Caribbean (LAC). It relies on the integrated work of scientists and communicators from 18 countries to effectively transfer the results of scientific research to decision-makers and communities affected by chemical and microplastic pollution, harmful algal blooms, eutrophication, and ocean acidification.

The team of communicators built and are implementing a regional communication strategy, which also involves activities at country level, within the framework of RLA7025 project "Strengthening Capacities in Marine and Coastal Environments Using Nuclear and Isotopic Techniques" (2020-2023), funded by the International Atomic Energy Agency (IAEA), which also provides budget for REMARCO.

This network involves internal challenges that must be solved efficiently. This is especially important since it is a recently formed network (year 2018); whose configuration is not common to see; faces distance challenges and countries with diverse contexts and institutions; governmental and staff changes; and different ways of assuming tasks.

The communication component has been given the task of promoting communication in all aspects of the scientists' work, and at the same time encouraging them to participate and take on communication actions in their daily work as representatives of the Network. This work has involved training and awareness processes, meetings between the members, organization of external activities, joint elaboration of informative material, presence in scientific and decision-making events, among others. The results and lessons learned are important to highlight as an example of coordinated work between scientist and communicators in LAC region.



T. Zielinski<sup>1</sup>, T. Kijewski<sup>1</sup>, I. Kotynska-Zielinska<sup>2</sup>, A. Koroza<sup>1</sup>, P. Pakszys<sup>1</sup>

<sup>1</sup> Institute of Oceanology Polish Academy of Sciences, Poland

<sup>2</sup> Today We Have, Poland

### **Abstract**

We highlight the challenges in bringing researchers, data managers and educators together to provide consistent, up-to-date messages that can appeal to and can be understood by modern societies. In identifying challenges, we propose a pathway for improving communication on ocean changes that takes advantage of the technological abilities for environmental data collection and processing, global and regional research, as well as good practices in ocean literacy and climate and ocean education.

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We know very little about the deep sea. Increasing our knowledge is crucial especially about the biodiversity in both the pelagic and benthic environment, and the rôle of this ecosystem into the carbon cycle. To highlight this environment, BathyBot is a multi-instrumented deep-sea crawler with several light with different colors, two cameras, various environmental samplers. BathyBot, deployed at 2500m depth in the Mediterranean sea, will allow real time observation and measurements for several years.

BathyBot has started its own twitter account and has been the focus of press articles, conferences by researchers as well as a virtual reality application. In this presentation we will summarize the diverse actions we developed around BathyBot and quantify their potential impact for outreach and communication about the deep sea.

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**Type (select one)**

- In person workshop

**Title** Building a Movement of Ocean Stewardship

**Presenter/ organizer** – Jack O'Donovan Trá, Communications Officer, Fair Seas, jack@fairseas.ie

**Additional presenters/ contributors 1,2,3,N** – Regina Classen, Marine Policy and Research Officer, Irish Wildlife Trust, r.classen@iwt.ie

**Summary** (suitable for publication if successful) (max 500 characters inc spaces)

A workshop on bringing people together, pooling resources and strategically communicating an urgent message. Launching Fair Seas has shown how eNGOs can effectively work together and leverage support from the wider community to call for change. In the first three months, Fair Seas reached three million people online, got national news coverage and developed a collaborative working relationship with the government to increase Ireland's Marine Protected Areas from 2% to 30% of our waters by 2030.

**For in person submissions: Audio Visual or special requirements** (max 100 characters inc spaces)

Projector, Screen, Speaker.

Abstract (1page max)

[Fair Seas](#) is a coalition of eight Irish environmental NGOs working together for the first time to create more Marine Protected Areas (MPAs) in Irish waters supported by a team of international funders.

At the conference, we would demonstrate and give examples of how to launch a new campaign/report/project in a way that gets the attention of key political figures or stakeholders, while also building a movement among the public based on our recent experience in Ireland.

The communications approach we would discuss was used in June 2022 for the launch of Fair Seas and the report [“Revitalising Our Seas”](#). The campaign launch garnered over €100,000 in PR, received huge attention from government ministers/figures and has led to a collaborative relationship between the NGOs working on the campaign and the political figures in charge of the legislation relating MPAs.

The campaign has also received huge public support and reached almost three million online users in the first 3 months of establishing its online presence. A true community of ocean lovers have been brought together including filmmakers, business owners, TV presenters and researchers to share resources and content to ensure Ireland's MPA network is quickly expanded. Their pro-bono support was crucial to the successful communication of the report. By involving these external ambassadors we were given access to top-class content and knowledge and our message was widely amplified at no extra cost, giving credibility to our new campaign/report within a tight timeline. Samples of our [launch videos here](#) and our most recent [video featured on Adworld](#).

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If done correctly, a successful multi-platform launch can garner political attention/action and build support for your campaign. The public support developed alongside political attention can be used to reinforce the importance of the campaign in the minds of political figures. We intend to use this newly activated public support to create local projects and case studies to act as communication tools and examples to show the government how much communities are invested in our campaign.

Working in a coalition is often difficult however our successful model is different. We want to demonstrate how a campaign team and brand can be established. How a new overarching campaign can be communicated to represent a stand-alone campaign/project, which means all NGOs can be represented. This also allows the communications to be more flexible and broad (outside of the remit of one specific NGOs area of work).

In the workshop, we will discuss and work through examples of how the combination of traditional media, social media and physical brand presence were used and how they all worked in sync with one another to amplify our message. We will demonstrate how these core communication pillars can be aligned and interchanged and shared via our coalition of NGOs to make the campaign message reach as many people from as many social groups as possible.

Our methods were based on traditional media techniques, used in a dynamic way to amplify our message and gain attention for Marine Protected Areas in Irish waters. We are very excited to share our methods, results and examples with the conference so that others can maximise their reach. We want to host this as a workshop so that we can help others understand in person how our model can be adapted by others to bring the scientists and communications specialists together to deliver successful campaign communications.

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## NOWRDC's CommOCEAN 2022 Abstract

The National Offshore Wind Research and Development Consortium (NOWRDC), established in 2018, is a not-for-profit public-private partnership focused on advancing offshore wind technology in the United States through high impact research projects and cost-effective and responsible development to maximize economic benefits. To date, NOWRDC has funded 47 offshore wind R&D projects ([full portfolio linked here](#)), focused on a range of technical innovations and strategic assessments.

This presentation will give an overview of NOWRDC's strategy to communicate the technical offshore wind R&D it funds to a broader audience. The success of many of NOWRDC's projects depends on policy and commercial entities taking project results onto their next stage of development – be that commercial implementation or policy development.

The presentation will go over NOWRDC communication content - including project features on social media, project advisory boards, industry conference presentation strategy, and NOWRDC features in external content, such as White House fact sheets. Through all of NOWRDC's content, there are several strategic guiding principles:

- Frame the work around the problem the project is solving
- Highlight the collaboration at work in solving the problem, both within NOWRDC as a public-private funder as well as within the project team, with often multiple subcontractors as well as an industry advisory board
- Include graphics and other images that visually communicate the concept

Structuring content around these principles aims to ground technical concepts that are typically outside of the audience's area of expertise with what they know – be that entities involved in the project or the sub aspect of offshore wind that the project is situated in.

NOWRDC measures the success of this work through:

- Annual project metrics that track things like publications, commercialization meetings, and follow-on investment.
- Typical social media metrics such as following over time and post impressions, comments, and shares
- NOWRDC's Board engagement in individual projects

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**Type (select one)**

- **Online oral presentation**

**Title** Conference requests and communication errors

**Presenter/ organizer** – Paulina Pakszys, Oceanographer, Institute of Oceanology Polish Academy of Sciences (IOPAN), [pakszys@iopan.pl](mailto:pakszys@iopan.pl)

**Additional co-authors**

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Tomasz Kijewski, Institute of Oceanology Polish Academy of Sciences (IOPAN), [tkijewski@iopan.pl](mailto:tkijewski@iopan.pl)

Aleksandra Koroza, Institute of Oceanology Polish Academy of Sciences (IOPAN), [akoroza@iopan.pl](mailto:akoroza@iopan.pl)

**Summary** At a time when all conference applications are carried out by online platforms, we can often encounter errors repeated at subsequent events. It does not have to be the fault of the participant, as long as the regulations and the application itself are clear and transparent. However, let's pay attention to the manual, but also to the limitations of the system itself. What are the most common mistakes made by organizers and participants?

**For in person submissions: Audio Visual or special requirements** (max 100 characters inc spaces)

**Abstract (1page max)**

At a time when all conference applications are carried out by online platforms, we can often encounter errors repeated at subsequent events. It does not have to be the fault of the participant, as long as the regulations and the application itself are clear and transparent. However, let's pay attention to the manual, but also to the limitations of the system itself. What are the most common mistakes made by organizers and participants? I would like to present these on the example of events organized and carried out in the Climate and Ocean Research and Education Laboratory of the Institute of Oceanology Polish Academy of Sciences. One of them is the annual International Sopot Youth Conference entitled Where the World is Heading? Although the conference is dedicated to young scientists who should easily find themselves in the Internet age, they still make many standard mistakes, if not more than their older colleagues. Let's take a closer look at them and make the organizers' work easier!

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**Type (select one)**

- In person oral presentation

**Title**

*Engaging communication of Maritime Spatial Planning at European level: the MSPMED experience.*

**Presenter/ organizer** – Folco Soffiatti, Assistant Researcher, University Iuav of Venice, fsoffiatti@iuav.it

**Summary**

The study reviews and evaluates a set of key communication actions performed in the framework of the MSPMED project. By employing survey's results and using different indicators identified in relevant documents, the study assess the role of communication in a EU funded project on Maritime Spatial Planning, in order to benefit future communication packages in projects, especially European and Mediterranean ones, involving marine sciences, marine management and MSP.

**For in person submissions: Audio Visual or special requirements** (Possibility of projecting a presentation with visuals from the communication campaigns)

**Abstract**

Maritime Spatial Planning (MSP) has been identified by the European Union by the MSP Directive (2014/89/EU) as a science-based tool able to contribute to an effective management of marine space, by employing an Ecosystem-based approach, to ensure a correct allocation of activities. This approach is able to reduce conflicts, granting protection of nature and its resources while fostering sustainable development.

The directive recognizes that the management of marine areas is complex and involves different levels of authorities, economic operators and other stakeholders. And that in order to promote sustainable development in an effective manner, it is essential that stakeholders, authorities and the public be consulted at an appropriate stage in the preparation of maritime spatial plans.

The engagement of relevant stakeholders is a requirement of the MSP Directive but such engagement can only be reached through a successful communication as indicated by *Communicating MSP: An inspiring era of cooperation between institutions* (2020).

The following study reviews the communication design in the framework of the EU Project Grant No EASME/887390/MSPMED/EMFF-MSP-2019. Towards the operational implementation of MSP in our common Mediterranean sea (MSPMED) that runs from March 2020 to October 2022. The communication was developed from the beginning of the project with a visual identity and a Communication Plan (CP) subcontracted to the studio Bey Studio, and revised and steered every six months by Iuav's researchers. The communication took into consideration traditional printed materials (i.e. leaflets, roll-ups, publications) but mainly, and this also due to Covid-19 pandemic, digital communicative outputs. The project has a dedicated website (mspmmed.eu) and newsletter, and is present on Twitter, Instagram and Facebook.

A survey was submitted to experts in the field in order to identify best media and communicative output. Specific campaigns to narrate the project's evolution and promote its findings were designed all along the lifespan of the project. Attention was given to the attempt of reaching a wide public by integrating the ocean literacy approach and great attention to the visual aspects.

The scope of this study is based mainly on the social media campaigns that were designed during the project and have a strong Ocean Literacy approach.

Considering the achieved goals in terms of social media interactions and public feedback, and in the light of Quest's 12 Quality Indicators for Science Communication, the MSPMED communication

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is therefore presented and analysed to share a tentative and multidisciplinary experience generated by joining pieces of information on marine science, marine policies, cultural assets of maritime life and conveying them via graphic design.

Results of the study intend to benefit future communication packages in projects, especially European and Mediterranean ones, involving marine sciences, marine management and MSP.



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## Light on the abyss

P.M. Sarradin<sup>1</sup>, C. Borremans<sup>1</sup>, J. Burdallet<sup>2</sup>, M. Ferraris<sup>2</sup>, M. Matabos<sup>1</sup>, J. Sarrazin<sup>1</sup>, J. Tourolle<sup>1</sup>, L. Virard<sup>2</sup>

1. Univ Brest, Ifremer, CNRS, UMR BEEP, F-29280 Plouzané, France
2. Département communication, Ifremer, F-29280 Plouzané, France

### In person workshop

**Corresponding author: pierre.marie.sarradin@ifremer.fr**

The deep-sea is Earth's last frontier to explore with potentially one million species awaiting to be discovered. It is the least human-impacted area and a vast reservoir of biological, energetic and mineral resources to face the increasing worldwide demand. This environment has long suffered from a lack of knowledge due to its difficult access, perpetuating a distorted image of a calm, quiet and desert-like abyssal plain preserved from anthropic pressures. We now know that the deep seafloor features highly diverse landscapes that host various microbial and faunal assemblages driven by different geological settings and environmental conditions, the availability of energy sources and geographical locations.

Our understanding of this complex system and its associated biodiversity is hampered by a lack of basic knowledge. Human activities have been increasing in the deep ocean and these ecosystems may be threatened by emerging activities such as the exploitation of marine mineral resources, the development of blue (bio)technologies but also by cumulative anthropic pressures to the deepest part of the ocean (global warming, pollution, ...). The international community agrees that this unawareness can hinder the sustainable use of the ocean and lead to the underestimation of the impacts of any exploitation.

The deep ocean is invisible to the general public although it represents the largest biome on Earth and most likely our future main source of energy. In order to inform these economic, ecological and societal issues, Ifremer commits to enable the appropriation of current science by the society through an approach based on exchange and practice, rather than just a dissemination of scientific information. The outreach tools and actions developed at Ifremer aim to provide the citizens with tools to investigate, question what they observe, sharpen their critical thinking and stimulate their curiosity in order to emancipate oneself, and ultimately, to shed light on this hidden part of our planet, the abyss.

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**Type (select one):** Online oral presentation

**Title:** MAPCO: Communication strategies for ecosystem positioning in local communities.

**PRESENTER/ ORGANIZER:** **Isabela Katime Arroyave.** Head of scientific communication team. Instituto de Investigaciones Marinas y Costeras – INVEMAR.

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**Additional presenters/ contributors**

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The MAPCO Action, Mangroves, Seagrasses, and Local Communities is a regional initiative co-funded by the European Union INVEMAR and Fundación Natura and coordinated by INVEMAR with the collaboration of other national and international entities to promote knowledge and conservation of marine and coastal biodiversity. It began in 2017 and covers the coastal marine zone of Sucre, Córdoba, La Guajira and San Andrés, and Providencia, territories with more than 13% of mangroves and 85% of the seagrasses of the Colombian Caribbean. In addition, these departments are home to five marine protected areas, where the country has some challenges in managing and conserving ecosystem services.

For five years, through a strong communication strategy related to the empowerment of communities, the involvement of key stakeholders, knowledge management supported by communication actions, the dissemination of progress, results, and lessons learned, and through institutional synergies, MAPCO was able to maintain an active interest and strengthen the importance of traditional and ancestral knowledge for the conservation of marine and coastal ecosystems. More than 90 workshops were held with the community, seven exchanges of experiences between local communities and countries in the Caribbean region, and the workspaces fostered between young people and women.

One of the flagship activities during the project was the "Mangrove Legacy," an activity where the young people received knowledge and carried out a symbolic generational handover to assume the commitment to continue caring for this vital ecosystem.

The MAPCO action ends in February 2022 but assumed along the way the challenges of the pandemic situation. Although the project is administratively on pause, it could not ignore the value of communication channels to maintain ties with the community. Therefore, a parallel communications plan was activated, encouraging young people, women, and others, to use and manage content for the project's social networks. All live conversations could transmit the exchange of experiences between communities from the Caribbean and the Pacific, live events with the Zenú indigenous community, and the sale of experiences with other projects in the region. As a result, an important increase of 44.8% in social networks (new followers) and an average of 27,000 accounts were impacted through digital campaigns that included these live events. MAPCO also materialized many of its results in joint publications resulting from this intimate experience with the community.

Capacity building was also achieved through communications. On the one hand, national and international environmental journalists were brought to the territory to enhance the voice of the communities. On the other hand, the ecotourism associations also participated in a space that taught how to maximize the use of social networks to promote ecotourism and the services they provide in the area in a post-pandemic context. In the process, we provide them with tools for "best practices" in managing these channels. This activity impacted the 170 members of 5 ecotourism associations in the Gulf of Morrosquillo, one of which comprised 90% women.

The information from the project allowed the Action to be awarded in spaces that sought to highlight conservation or environmental management projects. MAPCO won an award from a national media outlet and took eighth place in the Oceans category of the Latin America Green Awards, where more than 2,000 environmental projects were evaluated. The Action was also shown as an inspiring case in different scenarios such as the COP 13 RAMSAR and other 27 scientific events where it was and has been exposed.

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Finally, the objective of the strategy to promote knowledge and conservation of biodiversity, especially ecosystems such as mangroves and seagrasses, improved perception, from 74% in 2017 to a positive perception of 84% in 2021.

The MAPCO initiative (developed between 2017-2021) contributed to the communities expanding their knowledge about mangroves and their benefits. As a result, they moved from defining it as a space for resource extraction to an important ecosystem for biodiversity, providing ecosystem services such as oxygen and protection against coastal erosion.

MAPCO was able to generate changes in the behavior of the local, sub-national, national, and regional communities towards mangrove and seagrass ecosystems, which leads directly to the conservation and sustainable use of their biodiversity. This was possible thanks to the education actions and communication strategy implemented throughout the project.

Results Book available: <https://alfresco.invemar.org.co/share/s/CC2Qq6bMTbyEkDZRN2VvUA>

**Disclaimer:**

*Acknowledgments to Action ENV/2016/380-526 MAPCO co-funded by the European Union, Instituto de Investigaciones Marinas y Costeras-INVEMAR and Fundación Natura Colombia.*

*Attribution, to acknowledge the credits of the work in the manner specified by the author or licensor. If you use part or all of this abstract, you must specify the source according to the disclaimer. No commercial permission is granted, images may not be used for commercial purposes. No Derivative Works, shall be generated, transformed from this written consent of INVEMAR and Fundación Natura.*

# ”Climate change challenge”: a comic book aimed at young Europeans

Bruno Pinto \* <sup>1</sup>

<sup>1</sup> Marine and Environmental Sciences Centre (MARE) – Portugal

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\*Speaker

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**Bright and darks sides of COVID-19 pandemic turbulences  
in Ocean Literacy communication and education.**

Tomasz Kijewski<sup>1</sup>, Joachim Dengg<sup>2</sup>, Izabela Kotynska-Zielinska<sup>3</sup>, Tymon Zielinski<sup>1</sup>,  
Aleksandra Koroza<sup>1</sup>, Paulina Pakszys<sup>1</sup>

<sup>1</sup> Institute of Oceanology Polish Academy of Sciences, Poland

<sup>2</sup> GEOMAR Helmholtz Centre for Ocean Research Kiel, Germany

<sup>3</sup> Today We Have, Poland

**Abstract**

UNESCO confirms a general negative impact of the pandemic on education systems worldwide. This also affects any efforts to convey ocean literacy, not only in formal teaching but also in non-formal approaches. However, some of these approaches may turn out to be valuable even after the pandemic.

We will present an overview of the non-formal, Ocean Literacy related activities organized by our teams, which have been run prior to the COVID pandemic outbreak in Europe and during the pandemic times.

# Four lessons learned in the co-creation of a TV documentary

Bruno Pinto <sup>\*†</sup> <sup>1</sup>, Joaquim Pedro Ferreira <sup>2</sup>

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<sup>2</sup> University of Aveiro (CICECO - Aveiro Institute of Materials / CESAM – Centre for Environmental and Marine Studies.) – Campus Universitário de Santiago 3810-193 Aveiro Portugal, Portugal

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\*Speaker

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**Type (select one)**

- In person oral presentation

**Title**

REFINE: a scientific project committed to raising awareness on ocean sciences

**Presenter/ organizer**

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## **Summary**

The REFINE project team is dedicated to advance the understanding of the oceanic biological carbon pump and committed to sharing science with a broad audience. Guided by the projects scientific approach and driven by societal needs, it develops and deploys adapted resources. This process benefits from a strong engagement of the science team in outreach issues, from a very short information chain during design and making as well as from a highly complementary outreach team directly associated to the project.

***For in person submissions: Audio Visual or special requirements /***

## **Abstract**

REFINE - Robots Explore plankton-driven Fluxes in the marine twillght zoNE – is the name of an ambitious scientific project financed by the European Research Council. Its outcome is considered important to tackle essential services for society, as the project seeks to contribute to a better understanding of the biological carbon pump. By using a new generation of underwater robots and an unprecedented observational approach, REFINE allows to explore oceanic zones and also boosts the knowledge related to its studies.

The project team is committed to share this knowledge and approach. With the scientific community, of course, but also with non-scientific audiences and especially young people. Therefore, a variety of means and methods are used and specific communication and mediation resources are developed and then deployed in formal and informal environments on a national and international level.

The development and deployment of the REFINE resources is guided by the projects scientific and observational approach and driven by societal needs. It benefits e.g. from a strong engagement of the science team in outreach issues, from a very short information chain during design and making as well as from a highly complementary outreach team directly associated to the project.

In our contribution, we will present selected resources and give feedback on their use within the context of the Ocean Literacy movement. Experiencing close links between science and outreach as well as between science and society, we also plan to open for an exchange on positive effects and limiting factors within ocean communication.

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## **Ocean Observers initiative – developing an international educational platform on *in situ* ocean observations**

**Authors: M. Bollard (1), E. Rusciano (2), C. Gourcuff (1) and the *Ocean Observers* working group**

(1) Euro-Argo ERIC

(2) OceanOPS

The Ocean Observers is an international educational network of ocean scientists, teachers, educational authorities, marine communicators and other stakeholders (e.g. public, policy-makers, etc.), who are willing to share marine science educational resources and experiences for exploring the possibilities to establish new international collaborative activities.

In November 2021, the 2nd Ocean Observers workshop was organized by the international Ocean Observers Working Group, co-led by OceanOPS and the Euro-Argo ERIC, and attended by several dozens of participants – including communicators, scientific outreach officers and scientists – from 22 countries.

The 3-days online workshop was very well welcomed and animated by interesting discussions. During the event many connections were done between people engaged in educational activities developed in different countries.

A key focus of the Ocean Observers initiative is to gather and share experience on educational activities related to *in situ* ocean observations, to be able in the longer term, to assemble all educational materials in a unique repository freely accessible that will help to build a global ocean observation learning platform ([www.oceanobservers.org](http://www.oceanobservers.org)).

After the 2nd Ocean Observers workshop, the website was populated with ready-to-use educational resources as well as thematic sheets focusing on *in situ* global ocean observations, and organized by ages and scientific thematics to be used with students and public at large. In addition, a video promoting the Ocean Observers initiative was published.

*The 2<sup>nd</sup> Ocean Observers workshop has been endorsed by the UN Decade of Ocean Science for Sustainable Development and organized in the framework of the European Union H2020 Euro-Argo RISE project.*

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### **What are the remaining questions we'd like to address during the CommOcean?**

- How to create an international platform that can be used in different countries and efficiently enrich it with educational resources?
- How to disseminate it to scientists, teachers, educators and communicators?
- How to engage new people in the initiative?

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### **Why is Ocean Observers a crucial initiative?**

The existing outreach activities focused on in situ ocean observations are isolated and lack national, and international visibility. The Ocean Observers network attempts to bring together different actors involved in marine science outreach activities to:

- Do a review of the existing initiatives;
- Favour discussions and collaboration between people engaged in marine science outreach programmes;
- Engage “new” schools, educators and private associations in ocean observing outreach activities;
- Give educators marine science information they could apply to their unique environments to raise awareness of the importance of the ocean for human life among school children and local communities;
- Give scientists (researchers and PhD students) tools and suggestions to share and make their results understandable by large public;
- Federate a community around a coordinated project.

An international working group was created after the first Ocean Observers educational workshop co-organised by Euro-Argo ERIC and OceanOPS in Brest in June 2017, with the aim to coordinate the initiative.

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**Type (select one)**

- Online oral presentation

**Title** 432Hz

**Presenter/ organizer** – ANDREIA SOUSA\*, RESEARCHER, Centre for Ecology, Evolution and Environmental Changes (cE3c); agsousa@fc.ul.pt

**Additional presenters/ contributors 1,2,3,N –**

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MÓNICA REIS\*, MUSIC TEACHER, Conservatório Regional de Ponta Delgada (CRPD), monicasousareis94@gmail.com

\*presenters

**Summary**

The 432Hz project is an arts and science project which calls to the urgent need to increase humanity's awareness of environmental problems and to the importance of taking action to ensure the sustainability of our oceans. We invite the local community to a process of deep listening to the ocean where the vocalizations of large whales and dolphins will serve as an inspiration for the creation of an interactive artistic performance that will developed with in the island of São Miguel, Azores.

**Abstract** (1page max)

The 432Hz project is an analogy to the urgent need to increase humanity's awareness of environmental problems and to the importance of taking action to ensure the sustainability of our oceans. Some claim that 432Hz is the frequency of the Universe, the perfect attunement, capable of healing body and mind and of raising the level of perception of the human being to its maximum exponent. Thus, we invite the entire community to a process of deep listening to the ocean - which is in constant metamorphosis - where the vocalizations of large whales and dolphins will guide this journey that will conclude in an interactive artistic performance. Here, art and science merge with one objective: to increase people's awareness to the conservation and protection of the Oceans' heritage and natural resources in Azores.

The project will be developed in three phases: 1) Collection of marine soundscape data including cetaceans' vocalizations; 2) Artistic creation workshops using the sounds collected in phase 1 with improvisations by the students from the local music school and visual creations developed with the local community; 3) the final artistic performance will be presented to the local community in São Miguel, Azores.

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## **Submit an Abstract**

### **Type (select one)**

- In person oral presentation

**Title** After ZOOLYS: communication hopes of scientists, public perception, and outreach of an animated film

**Presenter/ organizer** – Andrea Bozman, Science Communicator, North SciComm, andrea@northscicomm.com

**Additional contributors 1,2,3,N** – 1) Kanchana Bandara, Post-doctoral Researcher, Univeristy of Tromsø, info@kanchanabandara.com; 2) Joachim Voldseth, Lecturer in 3D animation and film, Nord University, Joachim.Voldseth@nord.no

### **Summary**

ZOOLYS is a visual production that disseminates zooplankton vertical migration through edutainment. Perspectives from the interdisciplinary team, including science communication, the 3D film animation team, the research scientist, and the concert hall (screening venue), will be discussed. In addition, the talk will present data film's impact beyond the screening through analysis of Google trends, online mentions, and traditional media communications.

**For in person submissions: Audio Visual or special requirements** (max 100 characters inc spaces)

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**Type:** In person workshop

**Title:** Artist-scientist collaborations for diverse, high quality, science communication media

**Presenter/ organizer** – Bayosa Aya Carino-Valdez, University Researcher II, University of the Philippines Marine Science Institute (UP MSI), [bcvaldez@msi.upd.edu.ph](mailto:bcvaldez@msi.upd.edu.ph)

**Additional presenters/ contributors 1,2,3,N** – Laura T. David, Director, University of the Philippines Marine Science Institute (UP MSI), [ltdavid@msi.upd.edu.ph](mailto:lt david@msi.upd.edu.ph)

**Summary**

Collaborations among scientists and artists have produced quality science communication materials by combining scientific messages with expertise in different media. Collaborations allow us to take strides and innovate instead of baby steps in attempting projects without prior experience in that medium. As science communicators, we must be aware that aside from “learning new skills” (because these skills can take a career to learn), we can create high impact work through collaboration.

**Audio Visual or special requirements:** Projector, tables surrounded by chairs to seat 4 (to play a board game).

**Abstract**

Scientists become experts in their fields by taking undergraduate and postgraduate courses, and dedicating time to conduct research on their specialization. Communication practitioners, artists, and storytellers have also dedicated their careers in honing their craft.

The workshop will discuss how collaborations among scientists (of the UP Marine Science Institute) and artists have produced quality science communication materials by combining scientific messages with expertise in different media.

The expectations/contributions of each party is clear: the scientists make sure the message is scientifically accurate/sound, while the artists ensure the quality and artistic excellence of the product. Scientists, with the help of science communicators, have to distill a precise message so that the artists have a clear objective about what the medium (e.g. game, animation, campaign, exhibit) is supposed to achieve. Science communicators also play an important role as project managers to ensure that there is a good working relationship among the parties, and the project stays on message until the final product.

The workshop will be a combination of:

1. discussion about what makes these collaborations successful
2. sharing of outputs from these collaborations (animations, board games, museum and exhibit designs)

When we stand on the shoulders of giants, we minimize inefficiencies and losses from failed attempts and trial and error. These collaborations allow us to take strides and innovate instead of baby steps in attempting projects without prior experience in that medium. By working with experts in different fields of communication, we are able to create products with more impact. We need to respect communication and storytelling as a craft honed by continuous practice, just like science. We can attempt to do these ourselves (design our own board game, exhibit, etc), but without expertise from actual practitioners, the attempt might fall flat because we are underestimating the medium. As in any multidisciplinary approach, we need to recognize the arts and humanities - communication arts - as disciplines people train and dedicate their career to and can't just be learned overnight.

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As science communicators, we must be aware that aside from “learning new skills” (because these skills can take a career to learn), we can create high impact work through collaboration.

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**Session : How to include wisely new technologies and approaches?****Oral presentation in person****Title (maximum of 100 characters (spaces included))**

Citizen Science 2.0 : (~~big~~) quality data and (~~artificial~~) collective intelligence

**Presenter/ organizer – Name, Job Title, Organisation, Email**

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Program coordinator

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**Additional presenters/ contributors 1,2,3,N – Name, Job Title, Organisation, Email**

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**Abstract**

Citizen science is often associated with the "big data" paradigm: collecting a large amount of simple data to address complex issues. However, recent projects have shown that far from being off-putting, a certain complexity in what is required can, on the contrary, be engaging, especially in the long term, by allowing an experience of participation that continues to be enriched over time. Within Citizen Science, Mosaic is specialized in an original method of data production that we call Citizen Science 2.0. We assist projects aiming at collecting structured data (based on protocols/guidelines), often combining observations based on basic human skills with situated data, user's knowledge, data enriched with high value information that only each individual participant can provide. Such data are then shared among participants, and interactions such as comments, validation, complementation, are encouraged and organized. This leads on one hand to high value data, often innovative compared to other form of data production, and on the other hand, to empowered participants that acquire knowledge and skills through their participation, as well than to structured, engaged and persistent communities of participants.

While these observations may seem self-evident once stated, they in fact prove to be somehow in contradiction with the orthodoxy of scientific data production and suggest that citizen science is not only transforming the nature of the data produced, but also the way research is done. Moreover existing literature globally tends to show that participation in Citizen Science projects promotes knowledge about biodiversity and nature, and interest towards conservation sciences. Citizen Science is therefore often seen as a win-win solution for promoting public engagement with scientists, but also for empowering the public and, in the process, improving scientific literacy.



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## **Submit an Abstract**

### **Type (select one)**

- In person oral presentation

**Title** Copepods messengers: non-scientific visualization of copepod data for promoting of ocean literacy

**Presenter/ organizer** – Andrea Bozman, Science Communicator, North SciComm, andrea@northscicomm.com

**Additional contributors 1,2,3,N** – 1) Kanchana Bandara, Post-doctoral Researcher, Univeristy of Tromsø, info@kanchanabandara.com; 2) Joachim Voldseth, Lecturer in 3D animation and film, Nord University, Joachim.Voldseth@nord.no

### **Summary**

This presentation will show how scientific research data can be communicated to the public through 3D film animation edutainment. ZOOLYS depicts 24-hours of nocturnal diel vertical migration with copepods as the main character on a 20-by 10-meter concert hall screen. Animation used game engine and AI technology, with data points form copepod research allowing for the species on-screen to migration behavior, swimming speed and trajectory, and predator-prey interactions to be shown as in nature.

**For in person submissions: Audio Visual or special requirements** (max 100 characters inc spaces)

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**Type:** “online oral presentation”

**Title:** Do you find data and models boring? Using gamification to scratch the tedium

**Presenter:** Mariola Norte, Project Officer, CETMAR, [mnorte@cetmar.org](mailto:mnorte@cetmar.org)

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**Summary**

Have you ever find yourself looking for relevant information in a database that probably have all that you need but, for some reason, just thinking on the tedious process of searching makes you tired? Well, in this session you will see how a ‘boring’ database of cultural and natural heritage of the small scale fisheries in the Northeast Atlantic becomes an exciting treasure hunt of the most amazing pieces of tangible and intangible fishing heritage by playing an online escape room game.

Abstract (1page max)

# Eurofleets+ Ship to Shore Programme

Sandra Sa \* <sup>1</sup>

<sup>1</sup> EurOcean – Avenida Dom Carlos I, 126-3º 1249-074 Lisboa, Portugal

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\*Speaker

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# HOW TO DISSEMINATE AWARENESS OF AN ENVIRONMENTAL EMERGENCY THROUGH CITIZEN SCIENCE: THE INNOVATIVE INCLUSION OF WATER SPORTS IN THE INVESTIGATION OF MICROPLASTICS PRESENCE IN THE COASTAL MARINE ENVIRONMENT

Roberta Minetti<sup>1</sup>, Elisa Costa<sup>1</sup>, Arianna Liconti<sup>2</sup>, Luca Tixi<sup>2</sup>, Michelangelo Lategola<sup>3</sup>, Umberto Verna<sup>5</sup>, Carmen di Penta<sup>4</sup>, Mariachiara Catta<sup>1</sup>, Sauro Genocchio<sup>4</sup>, Marco Faimali<sup>1</sup>, Francesca Garaventa<sup>1</sup>

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<sup>4</sup> Marevivo Onlus, via Lungotevere Arnaldo da Brescia Scalo de Pinedo (RO), Italy

<sup>5</sup> Lega Navale Italiana sez. Genova, via Molo Gianò (GE), Italy

Microplastics (MPs) distribution and presence in the marine environment has been widely studied. However, the coastline marine zones remain poorly investigated. Despite being the regions where the largest plastic mass flux occurs, shallow environments results cramped for research vessels that are usually used by scientist. For this purpose, “MicroPlastic Hunters Project”, a Citizen Science project lead by the CNR-IAS of Genoa, with Auxiliary Coast Guard, Outdoor Portofino, Marevivo Onlus and the Italian Naval League in collaboration with Portofino AMP, 4Elements and supported by different scientific projects, was launched. The aim of the project was to educate a team of “Microplastics Hunters”, composed of sportsmen and lovers of the sea, to carry out sampling to obtain robust scientific data. People involved were provided with a little version of the Manta nets (MSFD instrument for MPs sampling) called Mini-manta specifically built for the project. Mini-manta nets can be easily trawled in the nearshore coastal areas by recreational sports floating gear like kayaks. Five sampling field activities, starting on March 2021 were performed in the Ligurian Sea. Surface water samples were collected along three coastal transects by using both Mini-manta net pulled by the “MicroPlastic Hunters” and traditional Manta net towed from boats by researchers to compare the different methods. The results showed that MP abundances in the nearshore sampled by Mini-manta net were on average higher than those collected offshore by using the traditional Manta net. However, no differences in term of shape, size, and composition between the two methods used, were observed, suggesting the validation of the Mini-manta net. This project represents a paradigm shift in MP research, demonstrating how citizen science can be an effective tool in helping science in collecting data creating not only the basis for improving sampling monitoring capacity but also to increase people awareness about emerging contaminants such as MPs through an active and emotional involvement.

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## **MonitorMyOcean.com: Bridging Research and Policy through an Interactive Web Application**

Yearly increases in global trade, 80% of which occurs via the sea routes mean underwater noise levels are rising in oceans globally. Low-frequency noise from marine shipping is an underwater acoustic pollutant. The noise spectrum overlaps with frequencies marine mammals use to communicate and navigate, leading to stress, hearing loss, and increasing collision with ships.

In combination with climate change, ocean acidification, and net entanglements, ocean noise is an additional stressor leading to a decline in marine biodiversity. So how do we raise awareness and precipitate action on reducing anthropogenic ocean noise?

My research established a model to measure the contribution of anthropogenic activities to underwater noise levels. The COVID-19 lockdown led to a decline in marine traffic globally. The model quantified the reductions in noise levels before and during the lockdown in the Arctic, Atlantic, Pacific Oceans, and the Mediterranean Sea. Underwater ocean sound peaks between 10 – 100Hz and is dominated by noise from shipping traffic. Twenty years of cumulative hydrophones (underwater microphones) data from seven ocean observatories were analyzed at 1Hz spectral and 1 min temporal resolution. Power spectral densities were calculated, aggregated into monthly long-term spectral averages, and noise levels in the 63Hz third-octave band compared to previous years.

The study found that global oceans quietened by an average of 4.5dB, or the peak sound intensity decreased 2.8 times during the lockdown period. The maximum decrease was at locations close to major shipping channels and cruise tourism destinations. The findings were validated by comparing shipping traffic using the satellite-based Automated Identification System. The study proved that strategic “anthropauses” such as shifting of shipping lanes or moratoria in deep-sea mining can be an effective strategy to reduce underwater noise levels and give marine mammals a chance to reverse the decline in their population.

To communicate the findings of this research to youths, researchers, media, and policymakers, an open-source web application MonitorMyOcean.com was created to provide updated anthropogenic noise levels in global oceans up to 1kHz third-octave band. The web application makes it easier for users to select locations and timelines that are of interest to them and visualize the changes in underwater anthropogenic noise levels. Policymakers can determine if measures such as shifting shipping channels or moratorium on new shipping routes are leading to “Quieter Oceans.”

Making the entire project and algorithm open source also forms a part of communication strategy as it enables crowdsourcing of ocean noise monitoring which in turn builds greater awareness and communities around the issue.

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**Type (select one)**

- In person oral presentation

**Title** (max 100 characters inc spaces):

The very first (virtual) Ocean Pavilion at the UN Climate Change meetings

**Presenter/ organizer** – Name, Job Title, Organisation, Email

Miss Thecla Keizer MSc, Deputy Head International Office & International Marketing and Business Development Executive, Plymouth Marine Laboratory, [tke@pml.ac.uk](mailto:tke@pml.ac.uk)

**Additional presenters/ contributors** – No

**Summary** (suitable for publication if successful) (max 500 characters inc spaces)

The 2021 UN Climate Change meeting COP26 saw the first ever dedicated Ocean Pavilion at a COP, developed to raise the visibility of the ocean and showcase why the ocean matters in climate negotiations and to all life on our planet. The Pavilion was deemed a great success with around 3,000 registrations and its virtual format ensured access to a much wider audience than just those able to attend COP26 in person. The presentation will provide a summary overview, lessons learned and next steps.

**For in person submissions: Audio Visual or special requirements** (max 100 characters inc spaces) screen to present slides on

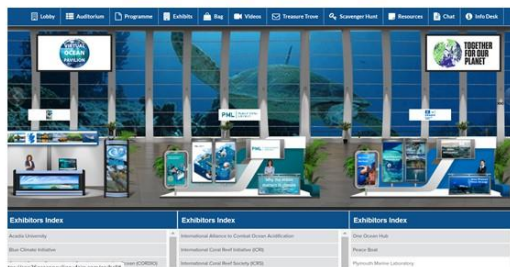
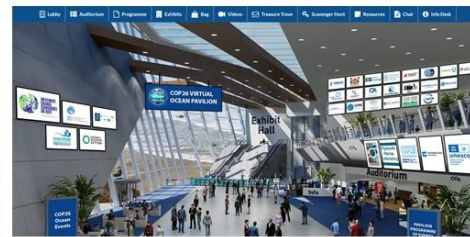
**Abstract (1 page max):** The UN Climate Change meeting COP26 saw the first ever dedicated Ocean Pavilion at a COP, developed to raise the visibility of the ocean and showcase why the ocean matters in climate negotiations and to all life on our planet. The presentation will provide a summary overview, including survey results, and share the lessons learned and recommendations through highlighting successes, challenges and next steps.

This virtual Pavilion was deemed a great success with around 3,000 registrations and was co-founded by the UK research organization Plymouth Marine Laboratory with international partners the Global Ocean Forum (co-ordinating lead), the Ocean Policy Research Institute of the Sasakawa Peace Foundation, the Oceano Azul Foundation, and IOC UNESCO, with a further 30 international partners supporting the initiative, including the UK Department for Environment, Food and Rural Affairs, the European Commission, the governments of Fiji and Sweden, IUCN and the Food and Agriculture Organization of the UN. The virtual format ensured that the Pavilion could reach a much wider audience than just those able to attend COP26 in person and was especially appropriate for those restricted by COVID-19.

The pavilion had a direct link from the UN climate change website, became the gateway to COP26 ocean-related events and featured an overview of more than 130 ocean events at the COP26 itself including ocean events planned by the UN Secretariat under the Subsidiary Body for Scientific and Technological Advice and the Marrakech Partnership for Global Climate Action. It also hosted its own live events with over 60 international speakers including from national and regional organizations, UN and IPCC representatives, ocean and climate experts, and youth leaders. The recorded events have been preserved for future reference (<https://roca-initiative.com/2022/03/18/cop26-virtual->

[ocean-pavilion/](#)). Further features included exhibition booths, a treasure trail, interviews with party negotiators, on demand videos/film and further online resources.

During the ‘COP26 Virtual Ocean Pavilion Closing Event: Working Together For Our Incredible Blue Planet’ Ms. Elizabeth Maruma Mrema, Executive Secretary, Convention on Biological Diversity Secretariat stated “*Congratulations to all those who have made this Virtual Ocean Pavilion possible. Platforms such as this are critical to ensuring that the voice of the ocean is not lost in these climate negotiations.*”



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**Type (select one)**

- In person oral presentation

**Title** (max 100 characters inc spaces)

***Your science story via short videos with limited resources. It's possible!***

**Presenter/ organizer** – Name: Dávid Kulcsár; Job Title: Science Outreach Officer; Organisation: International Council for the Exploration of the Sea (ICES); Email: [david.kulcsar@ices.dk](mailto:david.kulcsar@ices.dk)

**Additional presenters/ contributors 1,2,3,N** – Currently under discussion

**Summary** (suitable for publication if successful) (max 500 characters inc spaces)

MY AIM IS TO DISPEL THE MYTH THAT SCIENCE COMMUNICATION VIA VIDEO IS COSTLY AND ONLY FEW CAN AFFORD IT. WHETHER YOU ARE A SCIENCE COMM. PROFESSIONAL OR A SCIENTIST, COME AND GET HANDS-ON TIPS ON HOW TO SHOOT YOUR VIDEOS YOURSELF OR EXECUTE THEM REMOTELY. LEARN HOW “LOW” QUALITY CAN SOMETIMES BE YOUR FRIEND AND GET MORE INSIGHT INTO VIDEO EDITING SOFTWARE DEPENDING ON SKILL LEVEL, BUDGET GEAR OPTIONS AND BUILDING YOUR OWN BUDGET STUDIO, OR USING ONLY YOUR WEBCAM TO PROMOTE YOUR NEW PAPER ON SOCIAL MEDIA.

**For in person submissions: Audio Visual or special requirements** (max 100 characters inc spaces): A projector and sound to demonstrate some example short video projects.

**Abstract** (1page max)

With this talk, my aim is to dispel the myth that science communication via video is costly and only a few can afford with high budgets. In the age of social media and technology, it is increasingly important to use video: whether via researchers directly in a simple way or via science communication professionals in general. Communication via video has become the new trend on social media. However, in marine science we often face budget constraints, especially when it comes to communicating science to wider audiences.

This talk will bring you different short video project examples to demonstrate how you can put your science on video with limited resources and decent quality. We will talk about why sometimes it can be beneficial to have a more “genuine” low-quality video approach and how you can use it for your own advantage. An example of a fully remotely executed short video series, showcasing the work of early career scientists from 20 countries, as well as one-off projects will be demonstrated to make it equally useful for a scientist as well as a science communication professional attending. I will also touch upon how video can be used as part of your journal social media marketing strategy to increase awareness of scientific publications.

I will walk the audience through a workflow how to execute short video projects remotely (the scientist being abroad) as well as shooting the footage yourself. In fact, I will show how sometimes you can execute a project without even touching a camera and having a video in the end. I will cover the topic of video editing and what software to use depending on skill level.

And finally, I will look at budget gear options for own production (which in many cases is already in your pocket in the form of a smartphone), as well as for building a budget studio for organisations. I will close the talk with some remarks why video is such an efficient way of communication these days and why it is important to choose this method even if it sounds cumbersome at first.



# Communications During Conflict

Yandeh Sallah-Muhammed \* 1,2

<sup>1</sup> Conservation of the Atlantic Humpback Dolphin (CCADHD) – Netherlands

<sup>2</sup> Gambian Marine and Environmental Conservation Initiative (GMECI) – Gambia

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\*Speaker

# Oceanography in the mainstream media because of a volcano: express lessons of crisis communication

Ordóñez Lozano \* <sup>1</sup>

<sup>1</sup> Instituto Español de Oceanografía (IEO), Málaga. (IEO) – Spain

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\*Speaker

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## PROJETO 19 - CONVERTING SCIENTIFIC ARTICLES ABOUT THE OCEAN INTO ARTISTIC PERFORMANCES AND COMMUNICATION ACTIVITIES BY TEENAGERS

Tiago Garcia  
+ATLANTIC CoLAB

Project 19 is an activity that combines ocean literacy, education, and science communication. Portuguese high-school students (15- to 18-year-old) were invited to analyse ocean research papers and present what seemed most relevant to them in artistic performances and communication materials appealing to their generation. Some of the results include conventional formats such as news articles, social media campaigns, or short videos. However, some students chose to explore more artistic and creative formats, such as theatre plays, songs, street art, but not only.

Project 19 aims to contribute to the construction of a better-informed society that consumes more information coming from science and that privileges the search for credible information. The promoters believe that this way it is possible to combat misinformation, fake news, propaganda, and negationism. The teenagers involved were expected to raise awareness and promote behavioural changes within their social circles about what the ocean is, what is its role is in the functioning of the planet and life, and what problems it is subject to.

In its first edition, Project 19 included 13 schools from all Portuguese coastal districts including the Autonomous Regions of the Azores and Madeira. Symbolically, the works of each school were presented in a public online event on April 1<sup>st</sup>, 2022, April Fool's Day. The event demonstrated that even the densest science can be understood, appreciated, and shared by all, including those who will soon be leaders of our society. The impact that this initiative is already having on the school communities involved, as well as their family and institutional environments, was evident.

In a future edition, Project 19 intends to gain an inland and international dimension, covering schools from landlocked districts of Portugal and several countries in the European and Atlantic space, possibly in partnership with the EU4Ocean initiative, the All-Atlantic Ocean Research Alliance, and/or the UN Ocean Decade.

More information about the project, scientific papers worked on by the students, results from each school and recording of the final event available at [projeto19.colabatlantic.com](http://projeto19.colabatlantic.com).

### ACKNOWLEDGEMENTS

Project 19 is an original idea from +ATLANTIC, having been idealised and coordinated, between May 2021 and April 2022, by Tiago Garcia with the support of Maçarico, +ATLANTIC's ocean literacy programme, namely Luísa Barros, Sofia Aguiar, Inês Sousa Magusteiro and Caroline Schio. Projeto 19 would not be possible without the support of the Portuguese Blue School initiative (Escola Azul), namely, Raquel Costa, Fernanda Silva, Patrícia Conceição, and Bernardo Mata, who established the bridge with the schools involved in the first edition and helped to improve the initial idea and its implementation until the final event.

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**Type (select one)**

- “Show and Tell” exhibition entry

**Title** Cùram Cuain- Embrace the Sea

**Presenter/ organizer** – Dr. Saoirse Higgins, artist, educator and researcher, [higginsSaoirse@gmail.com](mailto:higginsSaoirse@gmail.com). @saoirsepapay

**Additional presenters/ contributors 1,2,3,N** – Jonathan Ford, Papay Ranger and artist, [fordvogel@gmail.com](mailto:fordvogel@gmail.com). @papayranger

**Summary** (suitable for publication if successful) (max 500 characters inc spaces)

CÙRAM CUAIN - 'EMBRACE THE SEA' - LOOKS TOWARDS CREATING A VISION TO STEWARD THE MARINE PROTECTED SEA AROUND ISLANDS. THERE ARE TWO CREATIVE STRANDS - 'MY PROTECTED FATHOM' AND A PERFORMANCE EVENT THAT TOOK PLACE IN OCTOBER 2021 ON BAYBLE BEACH ON THE ISLAND OF LEWIS IN THE OUTER HEBRIDES. A FILM TITLED - THE SEA AROUND US - THE ENCIRCLING SEA' - *ARE WE CALLING TIME ON THE SEA?* WAS CREATED AND PRESENTED AS PART OF THE SEAS OF THE OUTER HEBRIDES CONSULTATION PROCESS.

**Abstract:**

Cùram Cuain - which means 'Embrace the Sea' in Scots Gaelic - looks towards creating a vision to steward the marine protected sea around islands. There are two creative strands – 'My Protected Fathom' and a performance event that took place in October 2021 on Bayble beach on the island of Lewis in the Outer Hebrides. 'Fathoming' is an old word meaning to figure out, or get to the bottom of something. It comes from the old maritime unit of depth measurement called a fathom. Originally this was a measure of outstretched arms from fingertip to fingertip. The event consisted of a choreographed performance 'embracing the sea' in collaboration with the Hebridean Sea Swimmers group. Following this, the Bayble community gathered to measure their individual fathoms with special 'fathoming tools' and connect with their vision of the sea. From this event a specially created fold out 'embrace the sea' map was designed, printed as a limited edition and posted to each island participant - mapping the individual islander's fathom onto their own MPA sea, raising awareness of our individual and collective connections to the protected sea within our lives.

A short film was created to contemplate the macro view of the sea, setting up the conditions for a transformative vision for the future. This was presented to islanders as part of the Seas of the Outer Hebrides (SEASOH) MPA consultation process taking

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place this summer 2022 around the Outer Hebrides. This project was commissioned by Creative Carbon Scotland and in collaboration with SEASOH, Nature Scotland and MarPAMM – Interreg European Regional Dev Fund,

You can read about the events on the Creative Carbon Scotland blog:

<https://www.creativecarbonscotland.com/a-dip-in-an-marine-protected-area-reflections-from-curam-cuain-embrace-the-sea/>

And more about the project here:

<https://storymaps.arcgis.com/stories/c10f5c28962e40888c99f43f232efdfa>

<https://www.mpa-management.eu/>

Film Title: 'The sea around us - the encircling sea' - *Are we calling time on the sea?* HD film 6 mins 38 sec

Link to the film:

<https://vimeo.com/700265793>

With kind permission from The Margaret Tait Estate.

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## **Submit an Abstract**

### **Type (select one)**

- “Show and Tell” exhibition entry

**Title:** Eurofleets+ Ocean Classroom Portal – a gateway to Ocean Exploration

**Presenter/ organizer** – Bernadette Ni Chonghaile, Eurofleets+ Administrative+ & Logistical Coordinator, Marine Institute, Bernadette.NiChonghaile@Marine.ie

**Additional presenters/ contributors 1,2,3,N** – 1 Niamh Flavin, Eurofleets+ Project Manager, Marine Institute, [niamh.flavin@marine.ie](mailto:niamh.flavin@marine.ie) 2 Sandra Sa, Information Manager, EurOcean, [sandra.sa@eurocean.org](mailto:sandra.sa@eurocean.org)

**Summary** (suitable for publication if successful) (max 500 characters inc spaces)

The Eurofleets+ Ocean Classroom Portal opens a world of ocean literacy resources demonstrating the key role played in ocean exploration of Research Vessels and underwater robots (Autonomous Underwater Vehicles (AUVs) and Remotely Operated Vehicles (ROVs). Each resource support educators in the concept of investigating the ocean from research vessels and ROVs and bringing live and recorded Ship to Shore Expeditions to their classrooms, aimed at primary and secondary school pupils.

# Eurofleets+ Ocean Classroom Portal

Bernadette Ni Chonghaile \*† <sup>1</sup>

<sup>1</sup> Marine Institute – Oranmore, Galway Ireland, Ireland

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\*Speaker

†Corresponding author: [Bernadette.NiChonghaile@Marine.ie](mailto:Bernadette.NiChonghaile@Marine.ie)

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**Type:**

- In person oral presentation

**Title:** Marine citizen science in Europe

**Presenter/ organizer:**

- Bart DE SMET, Senior Science Officer Communications, Flanders Marine Institute (VLIZ), [bart.de.smet@vliz.be](mailto:bart.de.smet@vliz.be)

**Additional presenters/ contributors 1,2,3,N:**

- Nancy FOCKEDEY, Senior Science Officer Communications, Flanders Marine Institute (VLIZ), [nancy.fockedey@vliz.be](mailto:nancy.fockedey@vliz.be)
- Annelies TAVERNIER, Communication Officer, Flanders Marine Institute (VLIZ), [annelies.tavernier@vliz.be](mailto:annelies.tavernier@vliz.be)
- Jan SEYS1, Science Communication Division Manager, spokesman, Flanders Marine Institute (VLIZ), [jan.seys@vliz.be](mailto:jan.seys@vliz.be)

**Summary:** Marine and coastal citizen science is a highly recommendable tool for the purpose of science, policy, and public awareness. On estimate, 500 marine and coastal citizen science projects exist in Europe. However, today, no comprehensive overview of these projects is available, except for the North Sea area. The recently started Horizon Europe project Prep4Blue aims to generate such a comprehensive inventory and analysis. In this talk we present the current state of marine citizen science in Europe and call the participants of this conference to share marine projects with us.

**For in person submissions: Audio Visual or special requirements:** No

**Abstract**

Considering the vastness and the importance of the ocean and the world's coastlines for our daily lives, marine and coastal citizen science is a highly recommendable tool for the purpose of science and policy. In the meantime, marine and coastal citizen science can contribute significantly towards a more ocean literate population by creating public awareness on the enormous importance of and dependency on the ocean for our wellbeing. Citizens can participate in science in different levels of engagement, ranging from crowdsourcing and participatory science, to distributed intelligence and extreme citizen science (Hacklay, 2013).

Garcia-Soto et al. (2021) estimated that, for Europe, around 500 marine and coastal citizen science projects exist. However, today, no comprehensive overview of these projects is available, except for the North Sea area (van Hee et al., 2020). The latter assessment revealed a list of 127 citizen science projects in the North Sea, and provided insights in the current trends, topics, organizers, aims, and types of programme in terms of participation. Setting up such an inventory for other European seas, and perform an in-depth analysis on the current state, tools and impact of these citizen science projects is highly recommended. The analysis can detect specific knowledge, identify technological gaps, improve the exchange of good practices, and act as a basis for the set-up of recommendations on specific strategies, platforms, technological tools, etc.

The recently started Horizon Europe project Prep4Blue aims to generate such a comprehensive inventory and analysis. However, most marine citizen science projects – and by extension other types of public engagement projects – are often country and language specific. The regional scale and the foreign language hamper the collection of project information and the completion of the planned inventory. In this talk we present the current state of marine citizen science in Europe and would like to call the participants of this conference to share marine projects with us.



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**Type (select one):** In person oral presentation

**Title :** Maritime Spatial Planning: Communication, a *sine qua non* condition to turn MSP into reality.

**Presenter/ organizer** – Serge Gomes da Silva – Freelance communication expert for EC DG MARE – EU MSP Platform

**Summary:** This presentation will highlight communication initiatives and challenges around the development and adoption of Maritime Spatial Planning across Europe. One of the objective will be to identify new examples, innovative ideas amongst the CommOcean community on this topic, particularly in bridging the gap between institutional and public audiences. - Reference publication for this presentation: [Communicating MSP - An inspiring era of cooperation between institutions](#)

**For in person submissions: Audio Visual or special requirements**

- Connection for Slido interaction
- Video with audio

**Abstract**

In 2014, the EU adopted Directive 2014/89/EU on maritime spatial planning (MSP) (hereafter the “Directive” or the “MSP Directive”) to achieve effective management of marine activities and sustainable use of marine and coastal resources, based on an ecosystem approach. The MSP Directive creates a framework for consistent, transparent, sustainable and evidence-based decisions. It lays down certain obligations, including the obligation for Member States to set up a maritime spatial plan or plans by 31 March 2021 at the latest and to review these plans at least every 10 years.

As a process that consists of regulating human activities in coastal areas to preserve marine ecosystems, avoid conflicts of use between sectors and promote cooperation, by definition Maritime Spatial Planning (MSP) relies on multi-level, multistakeholder and cross-sectoral interaction. Therefore, open and efficient communication must be seen as an underlying, sine qua non, condition for the development and adoption of MSP principles among maritime stakeholders and society.

Although inter-departmental MSP working groups at ministerial levels or online expert group meetings create the “fabric” of MSP understanding and implementation, effort must be made to link with less institutional/expert audiences for the benefit of all parties: by regularly opening technical discussions to non-expert but interested audiences, MSP experts and implementing stakeholders will gain an external view on their activities and possibly, enrich their work with “real world expectations”. For non-expert parties, such outreach efforts will encourage their involvement as stakeholders, in speaking out, formalising opinions and expressing priorities for the shared use of the maritime space. In otherwords, to be as effective as possible, the style of language and methods used should be flexible, innovative, and adapted to the target audiences and their varying degrees of thematic knowledge and expertise and in response to their distinct expectations and requests.

But how to achieve this objective? The resources allocated for MSP are generally limited, which reduces the opportunities for communication activities and might cause stakeholders to feel excluded from the process. Nevertheless, efforts should be made to include a communication component within the MSP work plan and/or identify funding when estimating financial resources.

The European MSP Platform is an information and communication gateway designed to offer support to all EU Member States in their efforts to implement Maritime Spatial Planning (MSP) in the years to come. With the adoption of the EU Directive on Maritime Spatial Planning (2014/89/EU), all coastal EU Member States are required to prepare cross-sectoral maritime spatial plans by 2021.

Funded by the EU Directorate General for Maritime Affairs and Fisheries (DG MARE), the European MSP Platform acts as the central exchange forum for the rich knowledge generated in past, current

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and upcoming MSP processes and projects. This will allow officials, planners and other stakeholders interested in MSP to build on what is already available, avoid duplication of efforts, assist in capacity building and foster development of new practices.

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**Type (select one)**

- In person workshop
- Online oral presentation
- **In person oral presentation**
- “Show and Tell” exhibition entry

**Title (max 100 characters inc spaces)**

Off to new shores of engagement: Shipboard Training meets Uncrewed Miniboats for public outreach

**Presenter/ organizer – Name, Job Title, Organisation, Email**

Fiona Beckman  
Communications Officer  
Partnership for Observation of the Global Ocean (POGO)  
[fbe@pml.ac.uk](mailto:fbe@pml.ac.uk)

**Additional presenters/ contributors 1,2,3,N – Name, Job Title, Organisation, Email**

1. Dr Lilian A. Krug, Scientific Coordinator, Partnership for Observation of the Global Ocean (POGO), [lakrug@ualg.pt](mailto:lakrug@ualg.pt)
2. Cassie Stymiest, Executive Director, Educational Passages, [cassie@educationalpassages.org](mailto:cassie@educationalpassages.org)
3. Dr Eva-Maria Brodte, Scientific coordinator, Alfred Wegener Institute Helmholtz Centre for Polar and Marine Research (AWI), [eva-maria.brodte@awi.de](mailto:eva-maria.brodte@awi.de)
4. Dr Sophie Seeyave, CEO, Partnership for Observation of the Global Ocean (POGO), [ssve@pml.ac.uk](mailto:ssve@pml.ac.uk)

**Summary (suitable for publication if successful) (max 500 characters inc spaces)**

An international collaborative project where school children in four countries prepare uncrewed miniboats for deployment from R/V Polarstern during an Atlantic training cruise. The boats, equipped with GPS and temperature sensors, are publicly trackable, providing an extraordinary opportunity for students to learn about ocean currents, weather, etc as schools interact with each other, their local oceanographic institution, the marine science trainees on board the ship, and the general public.

**For in person submissions: Audio Visual or special requirements (max 100 characters inc spaces)**

Powerpoint presentation

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## **Abstract (1page max)**

After a pilot ocean literacy programme in 2016, POGO and the Alfred Wegener Institute (AWI) successfully partnered in 2019 to conduct a major shipboard outreach initiative during the South-North Atlantic training Transect (SoNoAT). This was a month-long shipboard training cruise, during which the students and teaching staff carried out a variety of outreach communications, including Skype sessions, blog posts and social media interactions. Skype sessions involved thirteen schools in five countries (two in Germany, eight in the UK, one in Ireland, one in Brazil and one in Japan) and a climate conference (Klimakonferenz Wir.Machen.Klima.) in Germany. It is estimated that these audiences included over 250 school children aged between nine and 18 years.

In 2022, a similar training cruise will take place, the 'North-South Atlantic training Transect' (NoSoAT) – from Germany to South Africa. Building on the successes and lessons learned in 2019, we will once again be using it as a platform for public outreach and communication, with the addition of a new element. For the 2022 cruise, POGO, with the financial support of the Nippon Foundation, has purchased four 'Miniboats' from Educational Passages – a not-for-profit organisation. These are 1.5m long uncrewed vessels, which each have a satellite transmitter, allowing them to be tracked as they sail across the ocean, together with sensors for air and water surface temperature. They are supplied as a 'build-your-own' kit, designed to be assembled and decorated by school students as part of a guided project.

We are partnering with oceanographic institutions in Ireland, Germany, Spain and South Africa, who are each working with a local school to assemble the Miniboats. In the preparatory phase, the schools and partner institutions have already begun communicating their progress to a public audience via social media, eg:

- <https://twitter.com/SheenaFennell/status/1534194732984934401?s=20&t=rp-gNIZGY6Wq5RXmw6bnA>
- [https://twitter.com/IEO\\_Canarias/status/1535176085364670467?s=20&t=rp-gNIZGY6Wq5RXmw6bnA](https://twitter.com/IEO_Canarias/status/1535176085364670467?s=20&t=rp-gNIZGY6Wq5RXmw6bnA)

Once complete, the Miniboats will be shipped to Germany and in September they will be deployed from R/V Polarstern along the Atlantic transect, allowing the school students to track the progress of their own vessel, and that of the others involved in the project, learning about ocean currents, weather, technology, etc. The international collaborative nature of the project provides an extraordinary opportunity for school children in four different countries to interact with each other, their local oceanographic institution and researchers, and with the young marine science trainees on board the ship. All the participants will be able to share the stories and track the boats together on a publicly-available webpage: <https://educationalpassages.org/events/pogo/>.

We would like to present this project as an example of effective outreach communications in practice, and share our lessons learnt from the 2019 and 2022 shipboard outreach initiatives.

## **Abstract for CommOCEAN 2022**

### **“Scientists for Ocean Literacy – Empowering Scientists for Sustainable Future”**

This talk will discuss ‘Scientists for Ocean Literacy’ – project coordinated by EuroGOOS, European Global Ocean Observing System, as an endorsed action of the UN Decade of Ocean Science for Sustainable Development 2021-2030. In this project, we want to empower scientists as key actors of a sustainable future.

EuroGOOS brings together national oceanographic institutes, met offices, hydrographic agencies, and foundations in Europe on the topics of oceanographic services, technologies, and data. Its project ‘Scientist for Ocean Literacy’ embraces the diversity of marine disciplines, promotes inclusiveness in knowledge and innovation linked to the ocean, and fosters blue careers.

The talk will address several aspects of Ocean Literacy activities in ocean science and will build on the EuroGOOS policy brief ‘Ocean Literacy in European Oceanographic Agencies – EuroGOOS recommendations for the UN Decade of Ocean Science for Sustainable Development’ (Eparkhina et al, EuroGOOS 2021). The following key questions will be raised with the audience:

- What role are the scientific institutions to play in engaging the public?
- How to sustain and improve the Ocean Literacy offer and improve the impact?
- How to build cohesive communications around Ocean Literacy?

‘Scientists for Ocean Literacy’ is being developed by EuroGOOS to help oceanographic agencies to engage more impactfully with people in their communities, but also internationally. But the scientists cannot act alone - as part of the Ocean Literacy movement, we need a wide range of disciplines on board. Furthermore, despite the policy interest in Ocean Literacy, the scientists’ public engagement work is still under-funded and under-recognized in oceanography.

‘Scientists for Ocean Literacy’ will inspire joint events and resources for public and educators, embrace multi and trans-disciplinarity and inclusiveness in ocean knowledge and innovation, help exchange best practices, and promote blue careers. An important emphasis of the project is the promotion of Ocean Literacy as a strategic activity area in oceanography. The talk at CommOCEAN 2022 will help engage the European communication professionals and scientists interested in communications in the promoting and enabling Ocean Literacy.

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**Type (select one)**

- In person oral presentation

**Title**

The European Atlas of the Seas, an online interactive tool for a more ocean literate society

**Presenter**

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**Summary** (suitable for publication if successful) (max 500 characters inc spaces)

To achieve an ocean literate society, we need to communicate marine data and information in an attractive, easy to digest and playful way. The European Atlas of the Seas ([www.european-atlas-of-the-seas.eu](http://www.european-atlas-of-the-seas.eu)) is a freely accessible, web-based, interactive tool, available in 24 languages, which delivers more than 275 map layers derived from data on natural and socio-economic features in the marine and coastal regions of Europe. This presentation will outline the added value of using the Atlas, recent developments and opportunities for users to provide feedback.

**For in person submissions: Audio Visual or special requirements** (max 100 characters inc spaces)

Possibility to show a PowerPoint presentation

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## **Submit an Abstract**

### **Type (select one)**

- In person workshop
- Online oral presentation
- In person oral presentation
- “Show and Tell” exhibition entry

### **Title**

The European Marine Board Early Career Ocean Professional (ECOP) Network

### **Presenter/ organizer –**

Paula Kellett, Science Officer, European Marine Board, [pkellett@marineboard.eu](mailto:pkellett@marineboard.eu)

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### **Summary** (suitable for publication if successful) (max 500 characters inc. spaces)

The European Marine Board Early Career Ocean Professional (ECOP) Network connects the ECOPs who are connected to EMB member organizations. The network was established by the EMB Young Ambassadors with support from the EMB Secretariat. The network aims to help EMB ECOPs connect, learn more about the marine science landscape, and gain a platform to have a voice at EMB level. Interacting with ECOPs on this level is a new experience for EMB, and an exciting opportunity to learn from future Ocean.

### **For in person submissions: Audio Visual or special requirements** (max 100 characters inc spaces)

N/A

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