Decade Laboratory #1: An Inspiring & Engaging Ocean
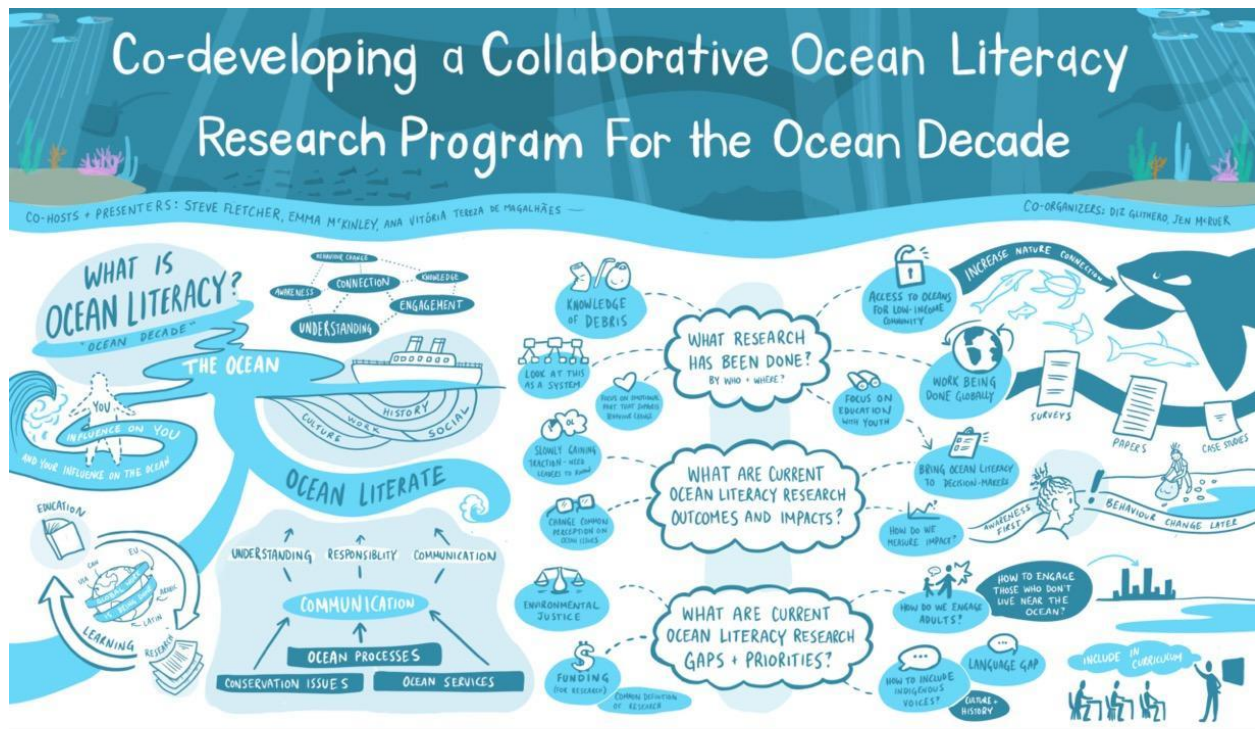
Co-developing a Collaborative Ocean Literacy Research Program for the Decade
Satellite Activity
Wednesday July 7 18:00 to 20:00 CEST

Workshop Summary Report

This report provides a high-level summary of the workshop, including description, agenda, breakout group and plenary discussion key findings, links to outputs, and a 'next steps' overview.

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Workshop Description

Organised as a collaboration between the Marine Social Science Network, Cardiff University, University of Portsmouth, and the Canadian Ocean Literacy Coalition, this two-hour workshop served as the first in a series of workshops, taking place from July 2021 to September 2022. Each workshop will build on the previous, with the objective to co-develop a collaborative global Ocean Literacy Research Program for the Decade. The second workshop, which will take the form of a webinar discussion, will take place in November 2021 aligning with the events occurring as part of COP26, the third workshop will take place in March-April 2022, and the fourth workshop as an official side-event at IMPAC5 being hosted by Canada in early September 2022.

This first workshop, an endorsed activity of the UN's Ocean Decade Laboratories, brought together a global community of over 170 registered participants, including practitioners, researchers, evaluators, communicators, and/or other community experts who share an interest in the Decade's goals to foster and strengthen societal ocean literacy. The initial workshop served as a 'stock take' of ocean literacy research to date - what research has been done, by who, where, outcomes – enabling us to begin to co-map this important work onto an online crowdsourced platform. Additionally, this first workshop provided an opportunity to begin to co-identify ocean literacy research gaps, priorities, and interests to help inform the subsequent workshop(s).

Workshop #1 Host organizations

Co-organizers:
Professor Steven Fletcher, University of Portsmouth
Dr Diz Glithero, Canadian Ocean Literacy Coalition and University of Victoria
Dr Emma McKinley, Cardiff University and MarSocSci
Dr Jen McRuer, Canadian Ocean Literacy Coalition

Workshop #1 Collaborating Organizations

Workshop #1 Agenda

18:00 - Welcome and Context – Professor Steve Fletcher, University of Portsmouth
18:10 - Ocean Literacy Research and the UN Ocean Decade – Ana Vitoria Tereza De Magalhaes
18:20 – What is ocean literacy research and why does it matter – Dr Emma McKinley, Cardiff University and Marine Social Sciences Network
18:30 – Q&A from attendees (Moderated by Steve Fletcher)
18:40 - Taking Stock of Ocean Literacy Research – small breakout groups
- Each group focused on discussing the same 3 questions (see Table 1 below).

Table 1: Breakout Group Questions
1) What research has been done, by who, and where? (20 minutes)
2) What are current ocean literacy research outcomes and impacts? (20 minutes)
3) What are current ocean literacy research gaps and priorities? (20 minutes)

19:40- Sharing back and feeding back to the larger Laboratory plenary (Moderated by Steve Fletcher)
20:00 – Workshop close

Key Findings: breakout groups and plenary discussion
(Note: OL = ocean literacy; OLR = ocean literacy research)

Q1: What research has been done, by who, where?
- Participant experience in OL/OLR is varied, offering a rich context of researcher and practitioner perspectives, as well as those curious in the field and exploring career options.
- Discussion & resources revolved around many themes - some of which pertained directly to former or current OLR practice and efforts; others that offered suggestions as to directions where future OLR may be needed/supported (based on personal interest, involvement, and practice in the OL field generally).
- Arising research themes/resources based on specific OLR practice, or generally discussed in terms of OL practice include:
  - Nature connectedness and green-space research; place, well-being, attitudes, behaviours and emotions; blue health and well-being; OL approaches for formal and informal education; OL in formal education curriculum; youth understandings of marine debris; public perceptions and engagement; marine citizenship; climate change education; public awareness, attitudes, knowledge and behaviours related to the marine environment and ocean climate change; perceptions of aquaculture; art-science collaboration; historical focus on scientific knowledge; need for local knowledge and contexts/understandings of OL; OL language and cultural diversity, history, and resonance; anti-colonialism and history of literacy as knowledge deficit; specific methodologies to understand OL (i.e., childhood experiences; citizen/community science approaches; participatory and action-oriented methods); marine spatial planning; marine policy and blue economy; ocean tourism; science-policy interface in ocean governance; participatory science decision-making; access to the ocean for low-income communities; interdisciplinarity in OLR; National OL surveys and age-specific OL surveys; International, national, and regional literature reviews and syntheses related to OL activities, history, collaboration.

- Many linked resources were submitted, affording potential for broadening existing OLR literature review efforts
- Mention of many collaborative efforts underway or beginning, as well as forthcoming articles, literature reviews, surveys; and existing data to build upon – strong opportunity for engagement and collaboration

Q2: What are current ocean literacy research outcomes and impacts?
- Seeing many positive trends:
  - For example, at European level, OL has now a large prominence in official documents like *Mission Oceans and Rivers* and the *Atlantic Strategy*; it is also referred to in the *Blue Economy Report*. With the Green Deal, OL has gained a new prominence within European politics. Similar trend in other places (e.g., OL will be referred to in Canada's emerging Blue Economy Strategy).
  - There has been an increase in collaboration of scientific teams, when OL is included (e.g., inclusion of social scientists, science communicators, natural scientists, local knowledge keepers, etc.).
  - There is an increase in courses offered to the public (schools, citizens, and fishermen) to raise overall public awareness, and therefore, education-based levels of OL. There is also evidence of an increase in mobile apps being used to engage people in ocean issues.
- Current Outcomes / Important trends to consider:
  - There is a lot of excellent OL program/ activity/ initiative / event / campaign data, evidence and evaluation being collected by NGOs, communities, etc for program improvement – need to better include this work/info.
  - There is good OL work being done in places with strong leaders who are known in one place but not in other places. As a result, initiatives and their impact are often localized.
  - Current research is focused on creating behaviour change as an impact but doesn't, in general, directly evaluate or create tools for achieving this. There is an assumption of impact. Current OL effort and research outcomes are often focused on changing public perceptions and public understanding of ocean knowledge and ocean-related issues. Other research is inward facing (e.g., what is ocean literacy, what can it achieve, what should it be doing, how should it be done).
  - Much of current emphasis is on pre and post testing of knowledge which reinforces this understanding of how learning works. This is easy research for natural sciences to accept and it gets published in high impact science journals. However, critical social science research that explores how people live in the ocean (e.g., Epistemologies of Knowledges, ecologies of knowledges, Indigenous knowledge) is not always read and included in what is OL.
  - There has been considerable effort on the education related to OL; however, there is much less focus across the science-policy interface, and less again in relation to science diplomacy. Public engagement with science in marine systems in the Global South is also incipient. Need to see strategies to adapt OL material to other cultures, contexts, values.
  - There is currently evidence of moderate knowledge of ocean but with misconceptions, positive attitudes, limited presence of OL topics in many national curricula, limited recognition by senior education leadership of importance/urgency of ocean education.

- There is limited knowledge of what OL is amongst early career professionals, marine conservation people.

**Q3: What are current ocean literacy research gaps and priorities**
- Improving Ocean Literacy
  - Future OLR needs to consider best practice for increasing ocean literacy that is inclusive across generations, cultures, and languages. In particular, there is a need for OLR to identify and further develop best practice to support and improve the impact of OL initiatives.
  - Traditionally, OL initiatives have focused on communities which could be defined as being 'coastal communities' - there is, perhaps, a need to redefine what is meant by 'coastal community' in such a way that takes account of the diverse types of communities which engage and connect with their ocean and coastal environments in different ways. This may be encouraged by adopting an approach that is aligned with the 'catchment to coast' or 'summit to sea' concepts.

- **Measuring impact and success**
  - There is a need to develop metrics of assessment to ensure the effectiveness of ocean literacy initiatives can be assessed. Historically, OLR has focused on bringing about behaviour change and there has been limited focus on the design of tools to measure OL and assess effectiveness of existing programmes.
  - Crucially, there is a need to understand the different ways OL matters and how it can be harnessed to support sustainable ocean management and governance across a range of topics e.g. protected area designations, blue economy agendas.

- **Reframing and defining Ocean Literacy Research**
  - There is perhaps a need to redefine what is meant by 'ocean literacy' to ensure the definition takes account of how the concept has evolved since its inception, and in particular, how it has moved away from a knowledge or information deficit approach. Workshop participants discussed a need to consider more than just 'awareness'. Taking account of diverse knowledges, values, emotional connections, and ways of knowing ocean, coastal and marine environments and how these translate into ocean literacy requires further investigation. Future OLR must be done in a way that respects and includes diverse cultures and languages.
  - There is a limited understanding of what ocean literacy is at an institutional level across many sectors. Crucially, the workshop highlighted the need for any future OLR agenda to be multi-scale and multi-sector, moving away from only including the 'usual suspects' and including a diverse range of disciplines. There is also a need to consider how OLR can feed directly into decision making and for there to be more focus on better understanding the science-policy interface and associated science diplomacy. Crucially, there is a need for more OLR to test approaches and develop recommendations to support the use of OL as a practical policy tool.

- **OLR and Climate Change**
  - As the interconnectivity between ocean and climate continues to be positioned at the centre of ocean governance debates, there is a need for future OLR to consider the

impacts of future climate change and how this might impact societal relationships with the ocean, and in turn, levels of OL in different communities.
- ○ Crucially, OLR needs to include aspects of resilience and adaptive capacity.

- **OLR and Social Justice**
  - ○ Future OLR must place equity, inclusivity, and diversity at its core - with this in mind, there is a need for more OLR which draws on critical social science and governance theories which can explore the environmental justice dimensions of OLR, including power dynamics and various social, economic and cultural factors.
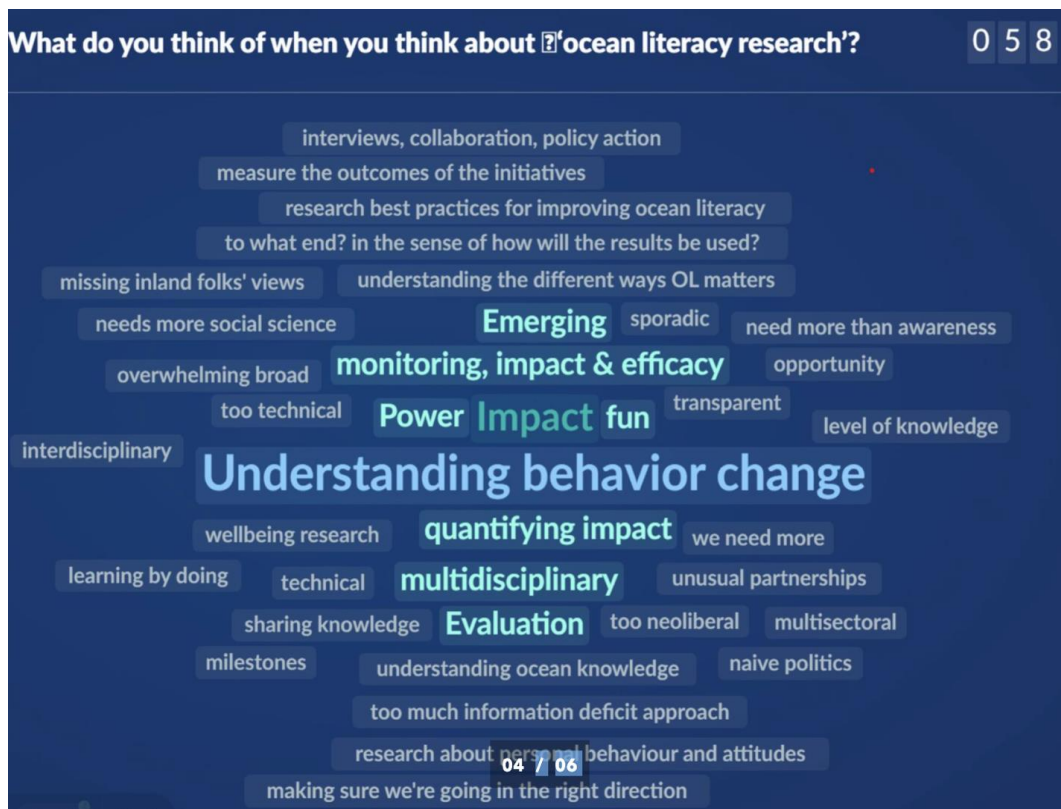
Defining Ocean Literacy Research

Following this workshop, an initial working definition of Ocean Literacy Research (OLR) has been proposed:

> *OLR is an interdisciplinary, cross-sector field of research which explores the diverse dimensions, drivers, influences and impacts of ocean literacy initiatives. OLR seeks to understand how these aspects may vary in different social, economic, cultural, political, and geographic contexts and is inclusive of diverse voices, actors and ways of engaging with the ocean.*

As this is a working definition, we would very much welcome comments and thoughts on this so that they can be explored further throughout the workshop series over the coming months.

Outputs and Links

- Dr. Emma McKinley presented key workshop findings to UN Ocean Decade Laboratory Plenary on July 8th – see: https://www.oceandecade-conference.com/en/an-inspiring-and-engaging-ocean.html
- Graphic representation by Canadian visual artist, Laura Hanek, of workshop discussion – see cover page image.
- Online, crowdsourced, geo-tagged '**OLR Storymap'** showcasing the growing international OLR community, designed by Dr Jen McRuer, Canadian Ocean Literacy Coalition – visit: https://storymaps.arcgis.com/collections/355c1375140e46febb2cd87646b51278?item=1
  - To learn about who is part of this community to date, click on "Surveys & Interactive Maps" on top of page and then click on the header 'OLRC Who's Who'
  - To see a real-time snapshot of the OLR Community contributions to date, click on the header 'OLRC Snapshot'
  - To view the real-time interactive maps generated to date (i.e., OLR Community Member Details; OLR Focal Themes; OLR Priorities; OLR Gaps; OLR Outputs & Impacts) – based on survey #1 and #2 respondents (see 'Looking Ahead' section below), click on the header 'OLRC Interactive Map'
  - To see what questions community members are asking, click on 'OLRC Burning Questions'

Looking Ahead: Updates & Next Steps

1. If you have not yet joined the OLR Community, please take 5-10 minutes to complete **Survey #1** to do so: https://survey123.arcgis.com/share/8cfd9f361b404d57803035526edce405

2. Following Workshop #1, we shared via email a link to **Survey #2** that builds off our workshop discussion. If you have not yet completed this short follow-up survey, please take 10 minutes to do so: https://survey123.arcgis.com/share/e006765570b1428bad64e572d030aaa0

3. Currently, the formal name of our collaborative initiative as per Workshop #1 title is ***Co-developing a Global Ocean Literacy Research Program for the Decade***. However, to simplify communications by email and summary reports such as this, we will use the acronym **OLRC (Ocean Literacy Research Community).**

   UPDATE: IOC-UNESCO's OL programme office, led by Francesca Santoro, are leading together with many collaborating organizations, the formally endorsed Decade Action, *Ocean Literacy With All (OLWA)*. There are 7 program components within the OLWA program - one of which is OL Research. In turn, to capitalize on synergies and avoid duplication, our OLRC project will become a core element of the OLWA research-focused component. Dr Diz Glithero, Dr Diana Payne and Houraa Daher have been named co-leads of OLWA's Research component.

4. SAVE THE DATE: Nov 23, 2021from 6:00-7:00pm CEST (5:00-6:00pm GMT/ 12:00 to 1:00pm EDT) OLRC Webinar Discussion on Gaps & Priorities in ocean literacy research (based on findings from community survey #2 - see item #2 above). Register for the session here

Any questions & comments?
Contact Diz Glithero (diz@colcoalition.ca) & Emma McKinley (McKinleyE1@cardiff.ac.uk)