Ocean and Society
2025 • Volume 2 • Article 9809
https://doi.org/10.17645/oas.9809

cogitatio

ARTICLE

Open Access Journal

The Ocean & Society Survey: A Global Tool for Understanding People–Ocean Connections and Mobilizing Ocean Action

Jen McRuer [1], Diz L. Glithero [1], Emma McKinley [2], Jordi F. Pagès [3], Géraldine Fauville [4], Elisabeth S. Morris-Webb [5], Natalie Hart [6], Craig Strang [7], Ronaldo Christofoletti [8], Sophie Hulme [9], Elliot Grainger [6], Bárbara Pinheiro [10], Diana L. Payne [11,12], Nicola Bridge [13], Vinicius Lindoso [14], Ivan Machado Martins [10], David Zandvliet [15], Marilia Bueno Fernandes [8], Janaina Bumbeer [16], and Rebecca Shellock [17]

[1] Canadian Ocean Literacy Coalition, Dalhousie University, Canada
[2] School of Earth and Environmental Sciences, Cardiff University, UK
[3] Centre d'Estudis Avançats de Blanes, Consejo Superior de Investigaciones Científicas (CSIC), Spain
[4] Department of Education, Communication and Learning, University of Gothenburg, Sweden
[5] Nordland Research Institute, Norway
[6] Insight and Strategy Unit, Communications INC, UK
[7] Lawrence Hall of Science, University of California, Berkeley, USA
[8] Institute of Marine Science, Federal University of São Paulo, Brazil
[9] Communications INC, UK
[10] Institute of Marine Science, Federal University of São Paulo, Brazil
[11] Connecticut Sea Grant, University of Connecticut, USA
[12] National Marine Educators Association, USA
[13] Ocean Advocacy and Engagement, Ocean Conservation Trust, UK
[14] Research for Purpose, Brazil
[15] Faculty of Education, Simon Fraser University, Canada
[16] Boticario Group Foundation, Brazil
[17] Centre for Sustainable Development Reform, University of New South Wales, Australia

Correspondence: Jen McRuer (jen@colcoalition.ca)

Submitted: 20 December 2024 **Accepted:** 12 May 2025 **Published:** 17 July 2025

Issue: This article is part of the issue "Ocean Literacy as a Mechanism for Change Across and Beyond the UN Ocean Decade" edited by Emma McKinley (Cardiff University), Benedict McAteer (Queen's University Belfast), Berit Charlotte Kaae (University of Copenhagen), and Brice Trouillet (Nantes Université), fully open access at https://doi.org/10.17645/oas.i463

Abstract

Recent years have seen calls for improved ways of assessing and understanding ocean literacy across a range of contexts. This article presents collaborative advances toward these ends on a global scale, through the co-creation of the Ocean & Society Survey. This Survey—based on national surveys in Canada, Brazil, and the UK—and the collaboration of 20 core partners, aims to capture diverse people–ocean connections. The article outlines the Ocean & Society Survey's objectives to: (a) strengthen people–ocean relationships by exploring

how people understand, value, and/or engage with the ocean; (b) guide pathways of engagement by identifying behavioural motivations, barriers, and enablers; (c) generate insights to inform targeted, audience-specific ocean communications campaigns; (d) demonstrate the value of transdisciplinary partnerships; and (e) better understand what influences peoples' interests and concerns about the ocean, alongside the willingness and capacity to take action and make informed decisions. The article presents the co-design process of the global tool. In particular, it outlines the analytical approach using thematic, dimensional, and metric indices to compile a question set that can be used to achieve the above objectives by comparing public ocean perceptions over time and across regions. It discusses processes of external review, piloting, and launch in the lead-up to the third UN Ocean Conference, and the projected trajectory until 2030.

Keywords
Ocean Decade Challenge 10; ocean literacy; ocean literacy research; public ocean perceptions; strategic ocean communications

1. Introduction

How we frame global challenges can result in paralysis or mobilization of the action needed to address them. Complex global challenges that span multiple systems and scales have often been framed as "wicked problems" to refer to their nebulous, time-sensitive nature, fraught with competing priorities, interconnected causes, and solutions that often create new challenges (Levin et al., 2012; Rittel & Webber, 1973). Coined by Rittel and Webber (1973) to describe social planning and policy, "wicked problems" have since been applied by a wide range of disciplines, most prominently in the environmental field to describe themes such as sustainability, climate change, and biodiversity loss (Crowley & Head, 2017). Of particular interest to this article, recent literature has pointedly called the issue of restoring ocean health a "super wicked" problem (de Salas et al., 2022), highlighting its complexity and urgency. While such framing underscores the gravity of the challenge, it can inadvertently dampen efforts to mobilize action by presenting issues as too daunting, abstract, or high-level to address. This may result in eco-anxiety (Hogg et al., 2021), or it may cause issues to feel too far removed from everyday life whether due to time, space, probability, or social aspects, known as psychological distancing (Schuldt et al., 2016; Trope et al., 2007). In addition, such framing may distract/detract from efforts that are seeking to drive solutions forward such as the recent Vision 2030 ambition-setting process outlined by the UN Decade of Ocean Science for Sustainable Development (hereafter referred to as the Ocean Decade 2021–2030).

The Vision 2030 process led to the creation of a set of White Papers outlining key recommendations to address 10 Challenge areas within the Ocean Decade framework. Challenges 1 through 6 highlight the need for ocean science solutions related to pressing themes (e.g., marine pollution, biodiversity, climate change, etc.), in tandem with the need for increased technology, data, resources, and infrastructure (Challenges 7–9). Challenge 10 "restoring society's relationship with the ocean," critically focuses on understanding the human dimensions of the ocean that are essential to operationalize all Challenges on a global scale. Drawing on the critical significance of the role of people and society, it is perhaps necessary to reframe the "super wicked problems" facing the ocean as "people-driven problems," underscoring the many ways that ocean health is impacted by human values, attitudes, and behaviours. Moreover, by reframing challenges facing the ocean in this way, pathways for public engagement and people-driven solutions become paramount.

The Ocean & Society Survey is a collaborative initiative by an international and multi-sectoral team of partners to directly respond to recommendations from the Ocean Decade Challenge 10 White Paper (Glithero et al., 2024). In particular, to prioritize increased research and investment in marine social sciences to better understand social dynamics in relation to people–ocean connections and ocean health. The Survey focuses on public ocean perceptions, specifically how people understand, value, and/or engage with the ocean (Bennett, 2016; Jefferson et al., 2015, 2021).

This focus helps to identify behavioural motivations, barriers, and enablers and can thereby help to shape engagement pathways in ways that are reflective of, and responsive to peoples'/communities' experiences (Gelcich et al., 2014). Such an informed approach shifts the traditional science–policy focus on knowledge mobilization of ocean issues, highlighting instead the importance of leaning on public insights to inform science and policy. The Ocean & Society Survey facilitates this shift by asking questions on how people perceive their connection with the ocean-related to their emotions, lifestyle choices, willingness to change habits and behaviours, awareness of ocean benefits, access to the ocean, sources of information about the ocean, perceived ocean threats and concerns, and place-based perspectives on personal and collective actions and solutions. By making the questions accessible to countries around the globe, the Survey fosters the exchange of perceptions related to people–ocean connections and supports public involvement in finding actionable ways to engage society in matters of ocean health (Ashley et al., 2019; Reddy et al., 2017).

The focus of the Ocean & Society Survey on peoples' perceptions of how they understand, value, and engage with the ocean aligns with the evolving concept of ocean literacy (Shellock et al., 2024) and its recent positioning as a societal outcome, i.e., a society that better understands, values, and *cares* for the ocean (Glithero et al., 2024). Although "engage" may be distinguished from "care," with engagement offering a spectrum of ways for people to participate (e.g., the Future Seas Project; Kelly et al., 2022), it is ultimately the lived experiences and place-based dependencies, attachments, and identities that influence engagement (Ardoin et al., 2025). These factors, in turn, shape a broader ethic of care for the ocean (Bender et al., 2022; Buchan et al., 2024; Tugend, 2025). Cumulative research supports this conceptual evolution and public ocean perceptions framing, as signalled by expanding ocean literacy dimensions to better understand and encompass diverse people–ocean connections. The latest ocean literacy dimensions include awareness, activism, communication, attitudes, behaviour (Brennan et al., 2019), emotional connections ("emoceans"), access and experience, trust and transparency, adaptive capacity (McKinley et al., 2023), and ocean connectedness (Fauville et al., 2024). This ever-expanding multidimensional framework enhances the ability to depict the complexity of people–ocean connections. Yet, to conceptualize how dimensions shape—and are shaped by—place and ocean-based realities, we must draw on human experience (Stoll-Kleemann, 2019).

Understanding the significance of how we relate to the ocean requires broader input. This is particularly of note as ocean perceptions research to date retains a knowledge focus with scant attention to social values, emotions, culture, and behaviours (Jefferson et al., 2021). Furthermore, it remains fragmented across disciplines; is geographically skewed toward higher-income countries, and often underrepresents diverse people–ocean connections with an emphasis on ocean threats and protection measures (Lotze et al., 2018). There is a need to further recognize and appreciate the diversity of relationships people have with the ocean. To investigate this, more coordinated, collaborative, and transdisciplinary approaches have been stressed, most recently by the Rio Action Statement during the Fourth Foundations Dialogue Meeting of the Ocean Decade (IOC-UNESCO, 2024). Moreover, responsive research and associated tools are needed to inform

insight-led, actionable solutions and ultimately track progress toward an ocean-literate society (Ashley et al., 2019). The co-creation of the Ocean & Society Survey tool responds to these calls, bridging ocean literacy research with strategic ocean communications, two complementary yet previously parallel fields (Kolandai-Matchett & Armoudian, 2020). It aims to capture public ocean perceptions of peoples' many connections with the ocean to support targeted, audience-specific strategies. This necessary alignment helps to elevate the critical role and focus on society, historically the least invested element within the science-policy-society interface (Balvanera et al., 2020; Pascual et al., 2017).

In what follows, we outline the iterative, 18-month co-design process of the Survey, describing the conceptual, strategic, and methodological stages. We then discuss external reviews, piloting and data collection, validation, data sharing and analysis, and lastly, uptake. We conclude with a discussion on how the findings will help shape collaborative strategies, insight-led communication campaigns, and best practices for public engagement in actionable solutions.

2. Co-Design Process of the Ocean & Society Survey

Between July 2023 and December 2024, 20 core partners and 30+ collaborators from both the Global North and South co-designed the Ocean & Society Survey. The process advanced through three pivotal phases: conceptual, strategic, and methodological. The conceptual phase focused on defining the Survey's purpose and objectives. The strategic phase prioritized the alignment of the initiative with existing efforts to monitor ocean literacy. The methodological phase designed the Survey instrument, ensuring its validity, reliability, adaptability, and accessibility through thematic, dimensional, and metric analyses. Each phase contributed to shaping the Survey as a globally relevant tool.

2.1. Conceptual Phase

From July to September 2023, Survey development was guided by bi-weekly ideation sessions. These sessions included an initial team of 11 ocean literacy researchers and strategic ocean communicators from North America, South America, and Europe. Over the course of Ocean & Society Survey development, team members joined to advance the effort at different stages, resulting in a core team of 20 collaborators by December 2024. The ideation process led to five primary objectives: (a) to strengthen people–ocean relationships by exploring how people understand, value, and/or engage with the ocean over time and across regions (i.e., tracking ocean literacy progress); (b) to guide pathways of engagement by identifying behavioural motivations, barriers, and enablers; (c) to generate insights to inform targeted, audience-specific ocean communications campaigns; (d) to demonstrate the value of transdisciplinary partnerships; and (e) to better understand what influences peoples' interests and concerns about the ocean, alongside the willingness and capacity to take action and make informed decisions.

The Survey was envisioned as an evidence-based and adaptable tool, using accessible platforms and language to be applicable across diverse contexts and audiences. A host institution was necessary to lead the coordination of the evolving process and oversee operations, data security, ethical frameworks, and maintenance. A dedicated website was envisioned to share guiding documents for Survey uptake and open-source access to Survey datasets. Additionally, the role of strategic ocean communications teams was considered key to translating findings into actionable insights for diverse audiences.

2.2. Strategic Phase

The development of the Survey built upon three existing, validated national ocean literacy surveys conducted in 2019 in Canada (Canadian Ocean Literacy Coalition) and 2022 in Brazil (Instituto do Mar, Universidade Federal de São Paulo; and Fundação Grupo Boticário) and in the UK (Department for Environment, Food and Rural Affairs and Ocean Conservation Trust). Each national survey had a distinct focus, but all aimed to better understand public ocean perceptions to track ocean literacy progress. The initial step required a comparative analysis of the national surveys to inform contextualization based on their unique strengths. In Canada, the focus was on fostering relevance through place-based perspectives, ensuring transferability in standardized questions, and promoting inclusivity of multiple ways of knowing the ocean (and the freshwater that flows to it). In Brazil, the emphasis was on integrating ocean literacy and ocean communications into survey design to reach diverse audiences, track changes over time, and develop strategies to increase impact. In the UK, the survey metrics were informed by assessing key ocean literacy dimensions based on the latest research.

2.3. Methodological Phase

Between September and December 2023, the co-design team conducted a comparative analysis of the mentioned national surveys, guided by a methodological approach to assess public ocean perception surveys in Canada (McRuer & Glithero, 2025). This methodology evaluated all questions across the three national surveys based on the following stages: (a) thematic analysis, (b) dimensional analysis, and (c) metric analysis. The purpose of this approach was to identify a core set of questions that would reflect the evolving concept of ocean literacy, informed by the perspectives of any global citizen 18 years of age or older. The analytical process leading to the selection of the core question set leveraged co-design team members' expertise in social science methodologies, questionnaire design and analysis, ocean literacy research and practice, education, psychology, ocean science, and ocean communications. The three stages of analysis are outlined in Subsections 2.3.1–2.3.3.

2.3.1. Thematic Analysis: Identifying Arising Themes in Question Sets

Thematic analysis focused on the Survey question content rather than associated data, using a deductive coding process to attribute a set of nine existing themes (Braun & Clarke, 2022). Themes included ocean connections, ocean health, ocean protection, ocean threats, ocean values, ocean knowledge/awareness, blue economy, ocean governance, and ocean influence and solutions (see Table 1). Themes were assigned to each question across each national survey, allowing multiple themes per question, if applicable. A process of co-review by all team members over four months ensured reliability, given the subjective nature of the analysis. After assigning themes to all questions, the surveys were next combined and organized by thematic representation to discern areas of similarity and difference.

2.3.2. Dimensional Analysis: Assigning Ocean Literacy Dimension(s)

Next, survey questions were evaluated in relation to 10 ocean literacy dimensions put forth in the literature: knowledge, awareness, attitudes, behaviour, activism, communication, emotional connections "emoceans," access and experience, adaptive capacity, and trust and transparency (McKinley et al., 2023; see Table 2). While the analysis of questions for these dimensions was inherently subjective, co-review ensured

Table 1. Themes applied to the analysis of questions from the national surveys.

Themes	Description
Ocean connections	Reciprocal influences (actual or perceived) between humans and the ocean, or references to the physical, emotional, and spiritual relationship(s) with the ocean
Ocean health	Perceptions of ocean health, its importance to daily lives, ocean health priorities, and objectives
Ocean protection	Ocean protection awareness, priorities, strategies, and leadership
Ocean threats	Awareness and concerns related to ocean threats (actual or perceived)
Ocean values	Ocean values related to daily lives, resources, protection, economics, and governance
Ocean knowledge/awareness	Understanding of the ocean and how information is sourced, taken up, and shared
Blue economy	Perceptions and understanding related to ocean-based economic activities, assets, growth, and services
Ocean governance	Perceptions related to processes of enforcement/modification related to ocean and coastal activities, health, and protection
Ocean influence and solutions	Actions, influences, and innovation to support healthy oceans

Table 2. Ocean literacy dimensions used in the analysis of questions from the national surveys.

Dimensions	Description
Knowledge	Knowledge includes both an individual's understanding of ocean topics and their connections, as well as awareness of ocean decision-making, opportunities for participation, and access to relevant information
Awareness	Awareness is the understanding that a problem exists, along with knowledge of possible solutions and actions to address it, which empowers society to take action
Attitude	Attitude involves agreement or concern for a position, shaped by perceptions, values, and views, which can influence policy and societal change
Behaviour	Behaviour involves decisions and actions at all levels, from individuals to institutions, aiming for system-wide change in ocean-related issues
Activism	Activism is the level of involvement in activities aimed at changing policies, attitudes, and behaviours, considering who can participate and the barriers they may encounter
Communication	Communication in ocean literacy includes individual discussions on ocean issues, the effectiveness of information sources, and how organizations convey ocean-related messages to different audiences
Emotional connections "emoceans"	Emotional connections involve the feelings a person has toward ocean-related issues, with all emotional responses, whether positive, negative, or neutral, contributing to potential behaviour change
Access and experience	Access and experience involve both real and virtual interactions with the ocean, while also considering any barriers that may restrict these experiences
Adaptive capacity	Adaptive capacity is the ability to adjust to changes in ocean conditions, including those caused by climate change, economic shifts, or ecosystem alterations
Trust and transparency	Trust and transparency involve confidence in ocean information sources and the clarity of the platforms and processes associated with them

Note: This table has been amended from the original by McKinley et al. (2023).

consistency in coding (Braun & Clarke, 2022). More than one dimension could be attributed to each question. We chose to analyze questions by dimension to ensure that the Survey question set included all. It should be noted that two surveys (Canada and Brazil) were designed prior to the latest iteration of ocean literacy dimensions. While these surveys may not have incorporated dimensions from the outset, all questions across all surveys were found to reflect one or more dimension(s).

2.3.3. Metric Analysis: Assessing Question Alignment With Indicators of Change(s) Over Time

To guide rigorous question selection, each question was considered for its alignment with metric indicators taken from marine ecosystem management literature (Hattam et al., 2015; Link et al., 2010; van Oudenhoven et al., 2012), and chosen for their applicability in the context of people–ocean connections (Burdon, 2020). Chosen indicators included measurability, sensitivity, specificity, scalability, transferability, and policy relevance (see Table 3).

Table 3. Metrics used in the analysis of questions from the national surveys.

Metrics	Description
Measurability	Will data result in something that can be measured?
Sensitivity	Can data reflect change over time?
Specificity	Is the change resulting from a response to a particular ocean literacy dimension or specific to a particular topic?
Scalability	Is the data adaptable to different scales?
Transferability	Is the question applicable across regions?
Policy relevance	Is the question resultant data impactful for policy?

Together, thematic, dimensional, and metric analyses enabled questions to be assessed based on similarities and differences. Guided by the interest to craft a set of representative questions by theme and dimension, 64 potential questions (including 10 demographic questions) were circulated for external review and piloting.

2.3.4. External Review

Between December 2023 and March 2024, the potential question set was circulated with 30+ international colleagues for review, including the IOC-UNESCO's Ocean Literacy Group of Experts (20 members from across diverse disciplines and regions). Feedback was incorporated to clarify misinterpretations, refine content, and remove redundancies. In April 2024, the initiative was shared during the UN Ocean Decade Conference in Barcelona, Spain, during two parallel sessions: first, a dedicated research panel as part of a two-day "Advancing Strategic Ocean Communications Symposium" hosted by Communications INC (a UK based leader in strategic ocean communications) and the Gulbenkian Foundation; and second, an ocean literacy research panel as part of the 5th edition of the Ocean Literacy Dialogues hosted by UNESCO (UNESCO, 2024). Building from this, a collaborative partnership was established between the Canadian Ocean Literacy Coalition (the lead coordinator of the Ocean & Society Survey) and Communications INC (the lead coordinator of the Advancing Strategic Ocean Communications initiative), underscoring the importance of bridging professionals from diverse fields. Moreover, the project's growing interest attracted additional transdisciplinary collaborators. Colleagues with expertise in qualitative and quantitative analysis joined the partner team, offering suggestions to strengthen the reliability and validity of the Survey design.

Between April and July 2024, further review of the proposed question set focused on enhancing data comparison, identifying potential biases in question-wording and answer framing, and offering input for future stages of analysis and audience-targeted reporting.

2.3.5. Reliability and Validity

Reliability is the degree to which an assessment tool produces stable and consistent results. For the Ocean & Society Survey instrument, we use a common psychometric procedure termed test-retest reliability (Mason et al., 2021). This is essentially a measure of reliability obtained by administering the same survey twice over a period of time to a group of individuals. The scores from Time 1 and Time 2 are then correlated to evaluate the test for stability over time (with a test-retest interval of one week).

2.3.6. Piloting and Data Collection Approaches

Between July 2024 and September 2024, the Ocean & Society Survey was piloted in Canada through two modes of administration: (1) facilitated and (2) independent:

1. Facilitated administration maximizes collaborative international efforts and facilitates ease of comparative analysis across countries and over time. Interested countries or groups can join a growing number of countries co-administering the Survey through a public opinion survey agency based in the UK—FocalData. This method provides expedited and nationally representative data collection through existing participant panels and a multi-country dashboard for visualization.

2. Independent administration ensures inclusivity of users without the means to use a public survey agency, or with project-specific goals in mind. Interested countries or groups can access the Survey via a prepared link designed using the REDCap survey platform (affiliated with Dalhousie University), chosen for its accessibility, usability, and encryption standards. Survey links, issued on a case-by-case basis, provide users with secure access to a dedicated page on the REDCap platform for data collection and use.

For both cases, an accompanying guidebook and dedicated webpage (https://oceanliteracyresearch.com/ocean-and-society-survey) support administration by providing background context related to standardization, translation, ethics, contextualization, and open access data sharing. The pilot stage resulted in comparable datasets across the two approaches. Additionally, both approaches provided insight into survey fatigue, language uncertainty, inconsistent responses, lack of attention, and time to completion. Accounting for these factors, between September 2024 and December 2024, the potential question set of 64 questions was refined to 30 (inclusive of 10 demographic questions) primarily consisting of open, ranking, Likert, multiple select, and single select formats—to aid in inclusivity and accessibility on a global scale, additional questions can be added to reflect specific contexts and regions, while retaining the core set for purposes of standardization.

Example questions from the 30-question set are provided in Figures 1–3, drawing attention to motivations, barriers, and enablers of ocean action. The thematic, dimensional, and metric analysis codes (see Tables 1–3) are referenced alongside the question itself. However, depending on the answer choice, additional

dimensions could be further attributed. High-level insights for each example question are provided (based on the Survey results in Canada) to reflect the functionality of specific questions related to how engagement pathways can be tailored and targeted to align with public sentiments. It should be noted that analysis efforts are currently underway at the time of writing, and thus insights provided herein are a snapshot of question-level preliminary analysis. A full complement of insights will be drawn by looking across questions, specific demographics (e.g., gender, age, region), and countries. How the Ocean & Society Survey questions perform in terms of the goal of capturing diverse people–ocean connections will be determined in time, with a more comprehensive analysis forthcoming.

MOTIVATION TO ACT

Question	Answer Choices	Theme(s) Attributed	Dimension(s) Attributed	Metrics Attributed
Why are you willing to change your lifestyle? Please select your top 3 reasons.	1. I like my lifestyle, but am willing to change 2. I know what to do, or am willing to learn 3. I have access to resources to support change 4. I believe I can make a difference and feel motivated to help 5. I find it is convenient and/or affordable 6. I'm concerned about my impact on pollution and climate change 7. I worry about future generations 8. I think ocean health is my responsibility 9. I feel if I don't make change(s), my lifestyle will be negatively impacted (e.g., money, health) 10. None of the above	• Attitudes • Ocean health • Ocean influence and solutions	• Attitudes • Behaviour • Adaptive Capacity	• Measurability • Sensitivity • Specificity • Scalability • Transferability • Policy Relevance

Significance for Engagement Pathways

Worry for future generations, and concern about personal impact on pollution and climate change are the top motivators respondents. Importantly, they also feel they can make a difference and are motivated to help. Examples to support engagement efforts include:

- Framming actions as a legacy for future generations by using storytelling and visuals that connect today's choices with tomorrow's future in positive ways.
- Highlighting personal environmental footprints and showing the impact of small daily changes.
- Cultivating a sense of civic duty, shared norms and responsibility by leveraging trusted communitiy voices to issue call-to-action, and tie participation to community pride.

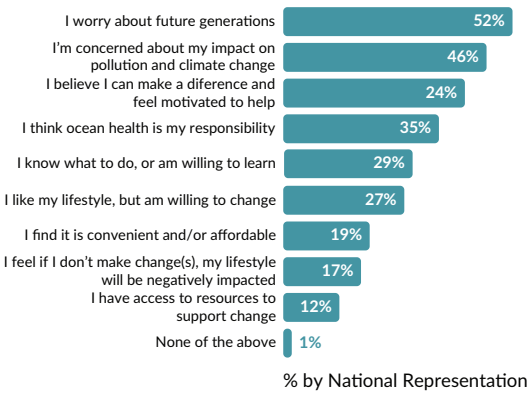


Figure 1. Example question and response from the Ocean & Society Survey (Canada) dataset (January 2025) related to motivation to act, spotlighting attributed themes, dimensions, and metrics, as well as preliminary insights lending to functionality.

BARRIERS TO ACT

Question	Answer Choices	Theme(s) Attributed	Dimension(s) Attributed	Metrics Attributed
Why are you not willing to change your lifestyle? Please select up to 3 reasons.	1. I like my lifestyle and don't want to change 2. I don't know what to do, or am not willing to learn 3. I don't have access to resources to support change 4. I find it is inconvenient and/or expensive 5. I feel unmotivated to help as the issues feel too big 6. I'm not concerned about my impact on pollution and climate change 7. I am willing to learn and/or have the resources to support change, but don't know where to start 8. I think we have to live for today, not worry about future generations 9. I don't think ocean health is my responsibility 10. I think technology will fix any ocean issue 11. I feel if I make change(s), my lifestyle will be negatively impacted (e.g., money, health) 12. None of these	• Attitudes • Ocean health • Ocean influence and solutions	• Attitudes • Behaviour • Adaptive Capacity	• Measurability • Sensitivity • Specificity • Scalability • Transferability • Policy Relevance

Significance for Engagement Pathways

Feeling that issues are too big, a longside lack of motivation, incovenience, or cost, are the most significant barriers for respondents. Yet, their willingness to learn and access to resources suggest strong potential for change. Examples to support engagement efforts include:

- Reducing the perception of scale and inaction by making ocean action feel achievable and personnaly relevant—emphasizing collective impact, showing how individual actions aggregate into real outcomes, and highlighting successful community-led efforts and tangible wins.
- Addressing inconvenience and cost by promoting low-cost, easy-to-adopt behaviours, and framming ocean-friendly choices as pratical, time-saving, or financially beneficial.
- Supporting those willing to learn but unsure how by creating clear, actionable guides and toolkits tailored to different lifestyles.

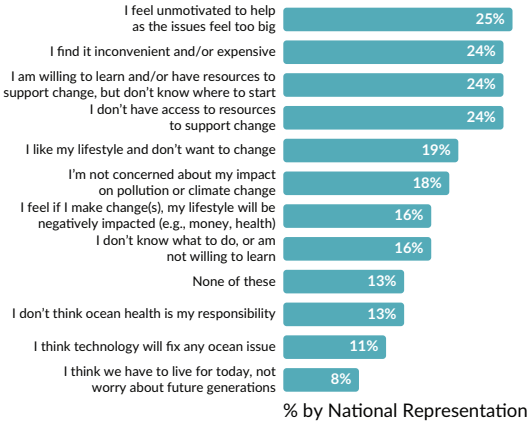


Figure 2. Example question and response from the Ocean & Society Survey (Canada) dataset (January 2025) related to barriers to act, spotlighting attributed themes, dimensions, and metrics, as well as preliminary insights lending to functionality.

ENABLERS TO ACT

Question	Answer Choices	Theme(s) Attributed	Dimension(s) Attributed	Metrics Attributed
Would any of the following incentives encourage you to make lifestyle change(s) to support ocean health?	1. Being provided with government resources and support 2. Feeling that I'm doing the right thing 3. Feeling that I'm helping a team or community 4. Feeling that my lifestyle will be positively impacted (e.g., money, health) if I make lifestyle changes 5. Seeing others take action (e.g., leaders, businesses, influencers, etc) 6. Understanding how my actions affect the ocean 7. Learning about issues in clear and actionable ways 8. Feeling that my lifestyle will be negatively impacted (e.g., money, health) if I don't make lifestyle changes 9. None of these	• Attitudes • Ocean health • Ocean influence and solutions	• Attitudes • Behaviour • Adaptive Capacity	• Measurability • Sensitivity • Specificity • Scalability • Transferability • Policy Relevance

Significance for Engagement Pathways

Respondents feel most willing to help when they feel they are doing the right thing, understand how their actions impact the ocean, and learn in clear and actionable ways. Based on this, examples to support engagement efforts include:

- Appealing to moral clarity and personal integrity by framing ocean-positive behaviorus as morally right and socially responsible, using affirming language that aligns with personal ethics, values and integrity.
- Making impacts visible and tangible by sharing clear, relatable cause-effect stories showing how individual or collective behaviours influence ocean health.
- Proritizing clarity and actionability by delivering information in simple, practical formats making the steps from knowledge to action more achievable.
- Highlighting personal gains by emphasizing the co-benefits of action such as saving money, improving health, or creating more meaningful experiences.

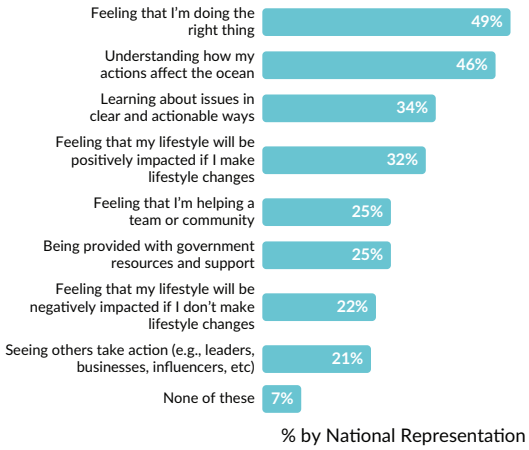


Figure 3. Example question and response from the Ocean & Society Survey (Canada) dataset (January 2025) related to enablers to act, spotlighting attributed themes, dimensions, and metrics, as well as preliminary insights lending to functionality.

2.4. Data Sharing and Analysis

To promote open access to datasets to foster collective learning, cross-regional comparison, and broader impact, users of the Ocean & Society Survey (administered or independent) are encouraged to share their anonymized datasets. Datasets from the facilitated administration of participating countries can be found on the dedicated website (https://oceanliteracyresearch.com/ocean-and-society-survey) with raw data available upon request.

2.5. Survey Uptake

Following 18 months of co-development (see Figure 4), the Survey was launched via facilitated administration in January 2025, starting with Canada (Canadian Ocean Literacy Coalition). This was quickly followed by the US (National Marine Educators Association), Brazil (Group Boticario Foundation), the UK (Ocean Conservation Trust), Norway, Ireland, Spain, Bulgaria, Cyprus, and Finland (EmpowerUs group), Sweden (Swedish Institute for the Marine Environment, University of Gothenburg and Voice of the Ocean), and France (EU4Ocean).

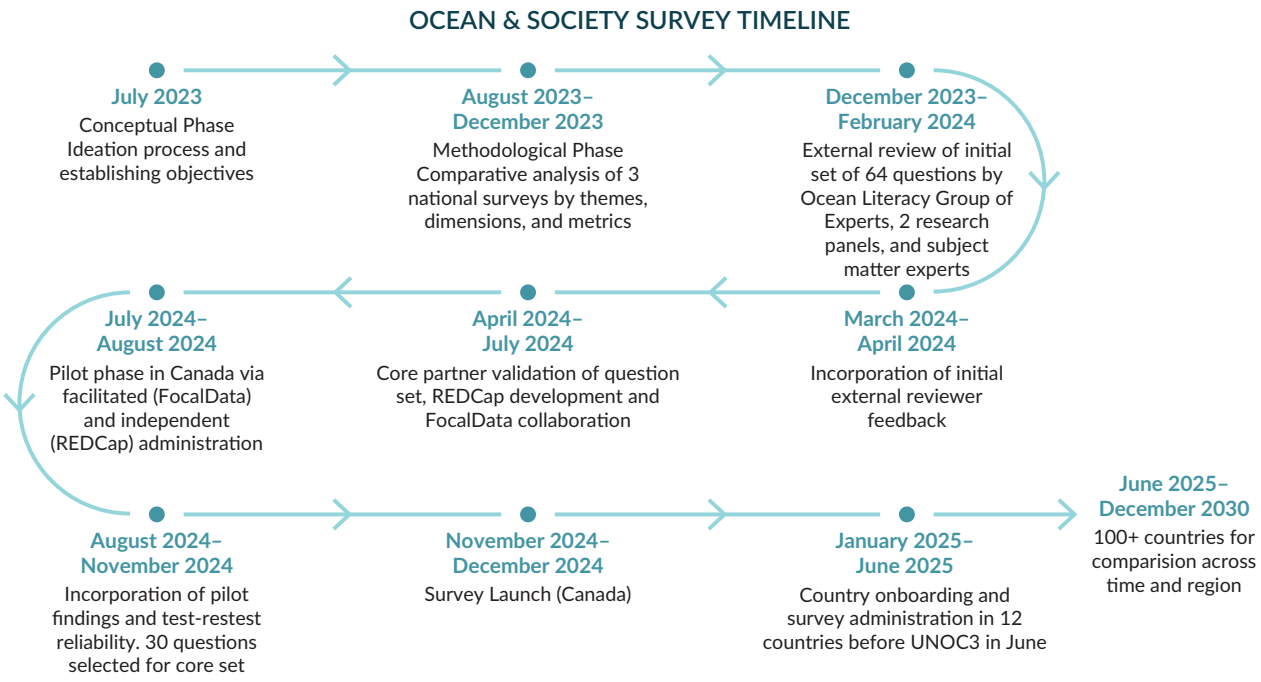


Figure 4. Ocean & Society Survey co-development timeline.

At the time of writing, 12 countries have administered the Survey prior to the UN Ocean Conference in Nice, France, in June 2025, with capacity to onboard additional countries on a rolling basis. Concurrent with these facilitated administration advances, there have been expressions of interest for independent administration to support ocean advocacy campaigns, as well as post-secondary projects for country-wide and secondary education settings.

3. Discussion

Given the diversity of ways that people connect to and depend on the ocean, the Survey proposes one means of gathering public insights on how people understand, value, and engage with it. Prioritizing the social dynamics of ocean health emphasizes that it is the lived experiences, place-based dependencies, attachments, and identities that truly shape how individuals engage with the ocean (Glithero et al., 2025). Peoples' connections to the ocean are deeply influenced by their cultural, geographic, and personal contexts, which in turn inform their attitudes, behaviours, and willingness to act. By capturing these nuances, the Survey enables enhanced data-led insights for better-aligned strategic activity across the ocean community. These insights can guide the design, facilitation, and coordination of effective engagement pathways, communication strategies, and decision-making toward measurable, solution-focused action. By mapping public ocean perceptions across different audiences over multiple Survey iterations (until 2030), we can track changes in people–ocean connections and ocean literacy. This enables the global ocean community to iteratively refine their understanding of what drives peoples'/communities' engagement in place-based solutions.

Ocean solutions depend on collective action across multiple sectors, scales, and disciplines. The Survey's focus on identifying behavioural motivations, barriers, and enablers opens new avenues for collaboration, enabling diverse stakeholders to work together in addressing shared challenges in ways that align with the

priorities of the people directly impacted by those challenges. By foregrounding the diversity of connections people have with the ocean, the Survey challenges the notion that simply providing more information will solve shared ocean health challenges. Instead, it highlights the need for dynamic, two-way engagement processes that involve people and communities in contributing to solutions and fostering a sense of shared ownership over ocean health outcomes. This cooperative approach is essential for ensuring that solutions are not only scientifically sound but also socially and culturally relevant, increasing their likelihood of success.

Central to the Survey's credibility and relevance is its foundation in a highly collaborative development process. Through an 18-month co-design effort, 20 core partners, and over 30 collaborators from across the Global North and South contributed to the conceptual, strategic, and methodological design of the Ocean & Society Survey. This transdisciplinary approach significantly enriched the instrument, embedding a diversity of perspectives and ensuring global applicability. The collaboration fostered legitimacy, promoted shared ownership, and strengthened methodological rigour by integrating expertise across ocean science, communications, education, psychology, and social science research. At the same time, the process demanded time, resources, facilitation, and coordination to navigate differing opinions and to ensure continuous engagement. Despite these nuances, the benefits far outweighed the trade-offs—yielding a robust and adaptive survey tool that reflects both local specificity and global comparability. The collaborative nature of its development sets a precedent for future public ocean perceptions research and resultant uptake grounded in equity, inclusion, and co-creation.

The Survey provides evidence-based and context-specific insights that speak directly to the values, concerns, and experiences of different groups of people, making the issue of ocean health more relatable and actionable. By capturing a range of ocean literacy themes and dimensions, the Survey offers insights into how individuals perceive their connection with the ocean and what drives or hinders this connection. The responses help illuminate pathways of engagement, from awareness to action, and highlight the importance of targeted communication, trust-building, and accessibility to support sustainability practices. Overall, the Survey facilitates a nuanced understanding of the social dynamics underpinning ocean-related behaviour change, reinforcing the need for multi-dimensional strategies that align with diverse values and capacities within and across cultures and geographies.

Additionally, as the Survey intends to collect data over time, it highlights the importance of strategies that evolve alongside the changing social landscape. Public perceptions of the ocean are not static, and the challenges facing the ocean are continually shifting due to factors such as climate change, technologies, and social and political contexts. By regularly gathering data on public ocean perceptions, the Survey offers a mechanism for monitoring these shifts and adjusting strategies accordingly. This ongoing feedback loop is crucial for maintaining the momentum of public engagement and ensuring that efforts to restore ocean health remain responsive to the needs and connections of diverse populations.

The Survey response to the Ocean Decade Challenge 10 calls for a more holistic, people-driven framework for addressing the interconnected challenges facing the ocean. The urgent need for this shift is underscored by the rapid increase in support for the Survey, growing from just one country with dedicated funding to 12 countries within 3 months. The goal is to administer the Survey in at least 100 countries by 2030. Looking ahead, the Survey requires sustained global collaboration to advance research and application. One

burgeoning effort toward this end, is the development of the Ocean & Society Engagement Lab, launching in 2025. Keeping in line with the Survey efforts in transdisciplinary collaboration, the multi-partner Ocean & Society Engagement Lab aims to translate Survey findings into actionable strategies and targeted outputs to help drive real-world impact. Central to the overarching Lab, an Insights Application Hub will democratize access to the research insights and help ocean conservation communicators, practitioners, and decision-makers develop more effective, evidence-based strategies. The Hub will disseminate insights through reports and infographics, support campaigners in translating data into communication strategies, generate talking points for stakeholders, engage journalists with societal insights for impactful media coverage, and convene the ocean community through workshops and clinics to co-develop evidence-based approaches. The project builds on extensive partnerships with organizations including the Canadian Ocean Literacy Coalition, Communication INC, and numerous global ocean conservation networks (e.g., OneOcean Flotilla), with the ultimate goal of achieving both policy wins and long-term behavioural change for improved ocean health.

4. Conclusion

By understanding what motivates people to take action—or what holds them back—we can create clear, place-based pathways that enhance society's understanding, value, and care for the ocean (i.e., increased ocean literacy). The circulation and launch of the Ocean & Society Survey in 2025 coincides with a critical halfway juncture in the Ocean Decade, offering invaluable insights on people–ocean connections to ultimately galvanize society's role and widespread public engagement in ocean health solutions.

Acknowledgments

We acknowledge and appreciate the valuable contributions of international collaborators (and collaborating institutions) whose expertise and commitment have been critical to the success of this project. Their efforts, spanning diverse disciplines and regions, have provided essential guidance, insights, reviews, and resources that have strengthened the work. Built on this foundation, continued collaboration is invited to pursue Ocean & Society Survey goals over the next five years to monitor changes in public ocean perceptions over time, toward ocean literacy as a societal outcome.

Authors contributed in the following order: Jen McRuer contributed to conceptualization, methodology, validation, resources, writing—original draft—review and editing, visualization, and project administration; Diz L. Glithero to conceptualization, methodology, validation, resources, writing, review and editing, visualization, project administration, and funding acquisition (project and Survey administration); Emma McKinley to conceptualization, methodology, validation, writing, and review and editing; Jordi F. Pagès to methodology, validation, data curation, and analysis; Géraldine Fauville to methodology, validation, writing, review and editing, and funding acquisition (Survey administration); Elisabeth S. Morris-Webb to methodology, validation, writing, review and editing, and funding acquisition (Survey administration); Natalie Hart to methodology, validation, and visualization; Craig Strang to methodology and validation; Ronaldo Christofoletti to conceptualization, methodology, and funding acquisition (Survey administration); Sophie Hulme to methodology, visualization, and funding acquisition (Survey administration); Elliot Grainger to methodology, visualization, writing, review, and editing; Bárbara Pinheiro to conceptualization and methodology; Diana L. Payne to conceptualization, methodology, and funding acquisition (Survey administration); Nicola Bridge to conceptualization, methodology, and funding acquisition (Survey administration); Vinicius Lindoso to

conceptualization, methodology, and visualization; Ivan Machado Martins to methodology and visualization; David Zandvliet to methodology and validation; Marilia Bueno Fernandes to methodology, writing, review, and editing; Janaina Bumbeer to methodology; and Rebecca Shellock to Methodology.

Funding

This research was coordinated by the Canadian Ocean Literacy Coalition and made possible in part through the Government of Canada's Oceans Management Contribution Program. Additionally, valuable in-kind contributions, including time and expertise, were offered by the co-authors of this article, supported by their respective partner organizations and institutions. Funding for FocalData administration by participating countries includes the following: the Canadian Ocean Literacy Coalition's participation in the Ocean & Society Survey initiative has been made possible, in part, through funding from Fisheries and Oceans Canada (DFO) via the Oceans Management Contribution Program. The views and opinions expressed in this publication are those of the authors and do not necessarily reflect those of DFO. The participation of the National Marine Educators Association (NMEA) in the Ocean & Society Survey was made possible through funding from the National Oceanic and Atmospheric Administration's (NOAA) Office of Education. The views and opinions expressed in this publication are those of the authors and do not necessarily reflect those of NMEA or NOAA. The administration of the Ocean & Society Survey in Brazil was made possible by funds from CNPq (PPBio CNPq 441230/2023-7). EmpowerUs partner facilitation, contributions, and funding were supported by the European Union under the Horizon Europe Program, Grant No. 101059957 (EmpowerUs). Views and opinions expressed are, however, those of the authors only and do not necessarily reflect those of the European Union or the Research Executive Agency (REA). Neither the European Union nor the granting authority can be held responsible for them. The University of Gothenburg's participation in the Ocean & Society Survey has been funded by the Swedish Research Council starting grant 2021–03868, and the Swedish Institute for the Marine Environment has used funds allocated to the institute's assignment by the Swedish government. The Ocean Conservation Trust has provided funding for the Ocean & Society Survey in the United Kingdom as part of their charitable mission of connecting people to the ocean. The administration of the Ocean & Society Survey in France was made possible through joint funding from Communications INC—under the Advancing Strategic Ocean Communication Project—and ACTeon, as part of its research activities focused on behavioural change related to nature and the ocean. The survey results will inform the activities of the EU4Ocean coalition, with which ACTeon is affiliated, and contribute to strengthening both the European ocean literacy knowledge base and broader international efforts.

Conflict of Interests

In this article, editorial decisions were undertaken by Benedict McAteer (Queen's University Belfast), Berit Charlotte Kaae (Københavns Universitet), and Brice Trouillet (Nantes Université).

Data Availability

Data is available upon request by contacting the corresponding author, or by visiting https://oceanliteracyresearch.com/ocean-and-society-survey

References

Ardoin, N., O'Connor, R., & Bowers, A. (2025). 9. Exploring how place connections support sustainability solutions in marine socio-ecological systems. In L. B. Crowder (Ed.), *Navigating our way to solutions in marine conservation* (pp. 143–154). Open Book Publishers.

Ashley, M., Pahl, S., Glegg, G., & Fletcher, S. (2019). A change of mind: Applying social and behavioral research methods to the assessment of the effectiveness of ocean literacy initiatives. *Frontiers in Marine Science*, *6*, Article 288. https://doi.org/10.3389/fmars.2019.00288

Balvanera, P., Jacobs, S., Nagendra, H., O'Farrell, P., Bridgewater, P., Crouzat, E., Dendoncker, N., Goodwin, S., Gustafsson, K. M., Kadykalo, A. N., Krug, C. B., Matuk, F. A., Pandit, R., Sala, J. E., Schröter, M., & Washbourne, C. L. (2020). The science-policy interface on ecosystems and people: Challenges and opportunities. *Ecosystems and People*, *16*(1), 345–353.

Bender, M., Bustamante, R., & Leonard, K. (2022). Living in relationship with the ocean to transform governance in the UN Ocean Decade. *Plos Biology*, *20*(10), Article e3001828.

Bennett, N. J. (2016). Using perceptions as evidence to improve conservation and environmental management. *Conservation Biology*, *30*(3), 582–592.

Braun, V., & Clarke, V. (2022). Conceptual and design thinking for thematic analysis. *Qualitative Psychology*, *9*(1), 3–26. https://doi.org/10.1037/qup0000196

Brennan, C., Ashley, M., & Molloy, O. (2019). A system dynamics approach to increasing ocean literacy. *Frontiers in Marine Science*, *6*, Article 452048.

Buchan, P. M., Glithero, D. L., McKinley, E., Strand, M., Champion, G., Kochalski, S., Velentza, K., Praptiwi, R. A., Jung, J., Márquez, M. C., Marra, M. V., Abels, L. M., Neilson, A. L., Spavieri, J., Whittey, K. E., Samuel, M. M., Hale, R., Čermák, A., Whyte, D., . . . Payne, D. L. (2024). A transdisciplinary co-conceptualisation of marine identity. *People and Nature*, *6*(6), 2300–2324.

Burdon, D. (2020). *Review of marine cultural, social and heritage indicators* (Report No. 005/2019). Defra.

Crowley, K., & Head, B. W. (2017). The enduring challenge of 'wicked problems': Revisiting Rittel and Webber. *Policy Sciences*, *50*(4), 539–547.

de Salas, K., Scott, J. L., Schüz, B., & Norris, K. (2022). The super wicked problem of ocean health: A socio-ecological and behavioural perspective. *Philosophical Transactions of the Royal Society B*, *377*(1854), Article 20210271.

Fauville, G., Voşki, A., Mado, M., Bailenson, J. N., & Lantz-Andersson, A. (2024). Underwater virtual reality for marine education and ocean literacy: Technological and psychological potentials. *Environmental Education Research*. Advance online publication. https://doi.org/10.1080/13504622.2024.2326446

Gelcich, S., Buckley, P., Pinnegar, J. K., Chilvers, J., Lorenzoni, I., Terry, G., Guerrero, M., Castilla, J. C., Valdebenito, A., & Duarte, C. M. (2014). Public awareness, concerns, and priorities about anthropogenic impacts on marine environments. *Proceedings of the National Academy of Sciences*, *111*(42), 15042–15047.

Glithero, D. L., Bridge, N., Paul, K., & McRuer, J. (2025). Ocean Decade challenge 10 underscores social dynamics in marine sciences as critical to transforming human-ocean relationships. *ICES Journal of Marine Science*, *82*(3), Article fsaf030. https://doi.org/10.1093/icesjms/fsaf030

Glithero, D. L. , Bridge, N., Hart, N., Mann-Lang, J., McPhie, R., Paul, K., Peebler, A., Wiener, C., Yen, C., Kelly, R., McRuer, J., Hodgins, D., & Curtin, F. (2024). *Ocean Decade Vision 2030 white papers—Challenge 10: Restoring society's relationship with the ocean*. UNESCO-IOC. https://doi.org/10.25607/ekwn-wh61

Hattam, C., Atkins, J. P., Beaumont, N., Börger, T., Böhnke–Henrichs, A., Burdon, D., de Groot, R., Hoefnagel, E., Nunes, P. A. L. D., Piwowarczyk, J., Sastre, S., Austen, M. C., & Austen, M. C. (2015). Marine ecosystem services: Linking indicators to their classification. *Ecological Indicators*, *49*, 61–75.

Hogg, T. L., Stanley, S. K., O'Brien, L. V., Wilson, M. S., & Watsford, C. R. (2021). The hogg ecoanxiety scale: Development and validation of a multidimensional scale. *Global Environmental Change*, *71*, Article 102391. https://doi.org/10.1016/j.gloenvcha.2021.102391

IOC-UNESCO. (2024). *2024 Rio Action Statement*. https://oceandecade.org/pdfviewer/rio-action-statement

Jefferson, R., McKinley, E., Capstick, S., Fletcher, S., Griffin, H., & Milanese, M. (2015). Understanding audiences: Making public perceptions research matter to marine conservation. *Ocean and Coastal Management*, *11*, 61–70.

Jefferson, R., McKinley, E., Griffin, H., Nimmo, A., & Fletcher, S. (2021). Public perceptions of the ocean: Lessons for marine conservation from a global research review. *Frontiers in Marine Science*, *8*, Article 711245.

Kelly, R., Evans, K., Alexander, K., Bettiol, S., Corney, S., Cullen-Knox, C., Cvitanovic, C., de Salas, K., Emad, G. R., Fullbrook, L., Garcia, C., Ison, S., Ling, S., Macleod, C., Meyer, A., Murray, L., Murunga, M., Nash, K. L., Norris, K., . . . Pecl, G. T. (2022). Connecting to the oceans: Supporting ocean literacy and public engagement. *Reviews in Fish Biology and Fisheries*, *32*, 123–143.

Kolandai-Matchett, K., & Armoudian, M. (2020). Message framing strategies for effective marine conservation communication. *Aquatic Conservation: Marine and Freshwater Ecosystems*, *30*(12), 2441–2463.

Levin, K., Cashore, B., Bernstein, S., & Auld, G. (2012). Overcoming the tragedy of super wicked problems: Constraining our future selves to ameliorate global climate change. *Policy Sciences*, *45*(2), 123–152.

Link, J. S., Yemane, D., Shannon, L. J., Coll, M., Shin, Y. J., Hill, L., & Borges, M. D. F. (2010). Relating marine ecosystem indicators to fishing and environmental drivers: An elucidation of contrasting responses. *ICES Journal of Marine Science*, *67*(4), 787–795.

Lotze, H. K., Guest, H., O'Leary, J., Tuda, A., & Wallace, D. (2018). Public perceptions of marine threats and protection from around the world. *Ocean & Coastal Management*, *152*, 14–22.

Mason, J., Classen, S., Wersal, J., & Sisiopiku, V. (2021). Construct validity and test–retest reliability of the automated vehicle user perception survey. *Frontiers in Psychology*, *12*, Article 626791.

McKinley, E., Burdon, D., & Shellock, R. J. (2023). The evolution of ocean literacy: A new framework for the United Nations Ocean Decade and beyond. *Marine Pollution Bulletin*, *186*, Article 114467.

McRuer, J., & Glithero, D. L. (2025). Advancing public ocean perceptions research: A guiding approach to strengthen collaboration for ocean health. *Facets*, *10*, 1–11. https://doi.org/10.1139/facets-2024-0039

Pascual, U., Balvanera, P., Díaz, S., Pataki, G., Roth, E., Stenseke, M., Watson, R. T., Dessane, S. B., Islar, M., Kelemen, E., Maris, V., Quaas, M., Subramanian, S. M., Wittmer, H., Adlan, A., Ahn, S., Al-Hafedh, Y. S., Amankwah, E., Asah, S. T., . . . Yagi, N. (2017). Valuing nature's contributions to people: The IPBES approach. *Current Opinion in Environmental Sustainability*, *26*, 7–16.

Reddy, S. M., Montambault, J., Masuda, Y. J., Keenan, E., Butler, W., Fisher, J. R. B., Asah, S. T., & Gneezy, A. (2017). Advancing conservation by understanding and influencing human behavior. *Conservation Letters*, *10*(2), 248–256.

Rittel, H. W., & Webber, M. M. (1973). Dilemmas in a general theory of planning. *Policy Sciences*, *4*(2), 155–169.

Schuldt, J. P., McComas, K. A., & Byrne, S. E. (2016). Communicating about ocean health: Theoretical and practical considerations. *Philosophical Transactions of the Royal Society B: Biological Sciences*, *371*(1689), Article 20150214.

Shellock, R. J., Fullbrook, L., McKinley, E., Cvitanovic, C., Kelly, R., & Martin, V. (2024). The nature and use of ocean literacy in achieving sustainable ocean futures: A systematic map. *Ocean & Coastal Management*, *257*, Article 107325.

Stoll-Kleemann, S. (2019). Feasible options for behavior change towards more effective ocean literacy: A systematic review. *Frontiers in Marine Science*, *6*, Article 273. https://doi.org/10.3389/fmars.2019.00273

Trope, Y., Liberman, N., & Wakslak, C. (2007). Construal levels and psychological distance: Effects on representation, prediction, evaluation, and behavior. *Journal of Consumer Psychology*, *17*(2), 83–95. https://doi.org/10.1016/S1057-7408(07)70013-X

Tugend, M. (2025). Reimagining ocean connections: Relationality and care in ocean literacy. In M. P. Poto & L. Vita (Eds.), *The ocean incubator network learning toolkit* (pp. 171–193). Springer.

UNESCO. (2024). *Ocean literacy dialogues at the 2024 Ocean Decade Conference*. https://www.unesco.org/en/articles/ocean-literacy-dialogues-2024-ocean-decade-conference

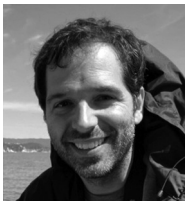
van Oudenhoven, A. P., Petz, K., Alkemade, R., Hein, L., & de Groot, R. S. (2012). Framework for systematic indicator selection to assess effects of land management on ecosystem services. *Ecological Indicators*, *21*, 110–122.

About the Authors

Jen McRuer is a social science researcher with a background in natural and social sciences. Her work engages participatory methods that invite critical perspectives, place-based narratives, and collaborative solutions to shared challenges. She is currently the research manager of the Canadian Ocean Literacy Coalition and is the lead coordinator of the Ocean & Society Survey.

Diz L. Glithero is the executive director of the Canadian Ocean Literacy Coalition. She led the development of the Canadian Ocean Literacy Strategy and co-founded Ocean Week Canada. Internationally, she co-authored the Ocean Decade Vision 2030 Challenge 10 White Paper and serves on several national and international committees, including the IOC-UNESCO-led Ocean Decade Coordination Office, Connecting People and Ocean.

Emma McKinley is a senior research fellow at Cardiff University. Emma is the academic lead of the Severn Estuary Partnership and is the founder of the Marine Social Science Network, a global and interdisciplinary community of marine social science researchers and practitioners. She sits on the Wales Coasts and Seas Partnership, the UK's National Decade Committee for the UN Ocean Decade, the International Science Advisory Group for MEOPAR, and the IOC-UNESCO's Global Group of Experts on Ocean Literacy.



Jordi F. Pagès' research explores how plant–animal and plant–soil interactions influence coastal resilience to global change. He adopts a mechanistic, interdisciplinary approach that integrates biogeochemistry, community and landscape ecology, with insights from the humanities. He focuses on the dynamic nature of coasts, highlighting overlooked biological processes and indirect effects in shaping resilience.

Géraldine Fauville is an associate professor at the Faculty of Education at the University of Gothenburg, Sweden and an affiliate at the Virtual Human Interaction Lab at Stanford University. With a double background in marine biology and education/IT, her research focuses on how virtual reality contributes to marine education.

Elisabeth S. Morris-Webb is a senior researcher II at the Nordland Research Institute and an honorary research fellow at Bangor University. After a career as a marine ecologist, her research now focuses on how human–nature connection and ocean literacy can empower coastal communities, and inform policy and management decisions.

Natalie Hart is an author, researcher, and communications advisor, experienced in designing and delivering strategic communications and behavioural change campaigns across the globe. She is head of Advancing Strategic Ocean Communication at Communications INC.

Craig Strang is a consultant and associate director emeritus of Lawrence Hall of Science where he worked for 32 years. His work spans science, ocean, and environmental literacy in education systems nationally and internationally, with a focus on centring equity and justice. He co-founded the US Ocean Literacy Campaign.

Ronaldo Christofoletti is a professor at the Federal University of São Paulo (UNIFESP), dedicated to advancing ocean science with a focus on biodiversity and climate change in coastal ecosystems. His work also emphasizes ocean literacy and strategic science communication to foster evidence-based decision-making and behavioural change. He serves as co-chair of the UNESCO Group of Experts on Ocean Literacy and coordinates the national Blue Curriculum initiative in Brazil.

Sophie Hulme is the director and co-Founder of Communications INC and has 25+ years' experience in media and communications consulting in the NGO sector, along with several years in feature film production, and is a specialist in strategic advice, campaign management, and business development.

Elliot Grainger is a strategic communication and behavioural change consultant working on ocean-climate campaigns with the Strategy and Insights Unit of Communications INC.

Bárbara Pinheiro is a postdoc research fellow at the Federal University of São Paulo, Brazil. Bárbara is also a member of the Black Women in Ecology Evolution and Marine Science, the Brazilian National Ocean Decade Committee, The Women's League for the Ocean and a Champion at the Blue Thread—Global Network for Ocean Literacy in Action.

Diana L. Payne is an associate professor/education coordinator with Connecticut Sea Grant at the University of Connecticut. She chairs the Ocean Literacy Committee and Ocean Decade Working Group for the National Marine Educators Association. She is a Fulbright Scholar and the co-chair of the IOC-UNESCO Ocean Literacy Group of Experts.

Nicola Bridge is an accomplished ocean conservation professional with over 18 years of experience in the field of human-centred conservation programming, ocean literacy, environmental psychology, and environmental education. Nicola is currently a member of the senior leadership team of the Ocean Conservation Trust (OCT). She is responsible for developing, leading, and evaluating the OCT's formal and informal conservation engagement programs, as well as driving advocacy campaigns to support everyone in thinking about the Ocean in their daily lives.

Vinicius Lindoso is a strategic communications expert with over a decade of experience in international development, focusing on climate, ocean, and environmental policy. He led communications at UNESCO's Intergovernmental Oceanographic Commission and champions inclusive, evidence-based campaigns that connect global audiences to public policy through research-driven storytelling and engagement.

Ivan Machado Martins is part of the Maré de Ciência project, from the Federal University of São Paulo (UNIFESP). Ivan has a background in social and natural science and is currently engaged in the Brazilian Ocean Literacy Alliance.

David Zandvliet is a professor in the Faculty of Education at Simon Fraser University and holds the UNESCO Chair in Bio-cultural Diversity and Education. He is a director for the Institute for Environmental Learning and has published extensively in international journals, presenting papers on six continents and over 21 countries.

Marilia Bueno Fernandes is a postdoctoral researcher at the Institute of Marine Sciences at the Federal University of São Paulo (UNIFESP) with a background in marine ecology and ocean literacy. She is part of the Maré de Ciência team and is currently engaged in the Ocean Olympics.

Janaina Bumbeer is a biologist with ecology and nature conservation degrees (MSc and PhD) and is a project manager at Boticário Group Foundation, leading their Ocean strategy. With 15+ years' experience in the third sector and philanthropy, she's currently pursuing an MBA in leadership and managing, bridging stakeholders for ocean conservation.

Rebecca Shellock is an expert in marine social science and is based at the UNSW Centre for Sustainable Development Reform, Sydney. She has over 10 years' experience of working at the science-policy interface and has a track record of delivering evidence, which can influence decision-making processes.