

# Setting Sail



**Diverse Marine Values**

Integrating Diverse Values into Marine Management

## A Transdisciplinary Guide for Diverse Values in UK Marine Management and Research



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Environment  
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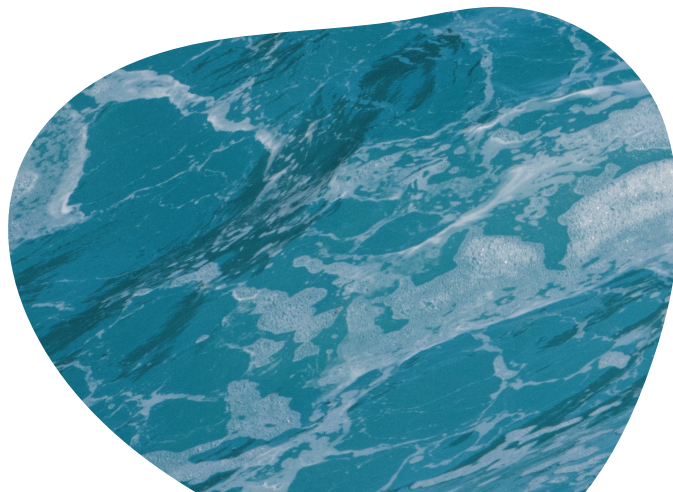




*Lead Author: Victoria Leslie*

*Co-authors: Tim Acott, Fernanda  
Balata, Lucy Greenhill, Steve  
Fletcher, Sayyidah Salam*

*Contributors: Cressida Bowyer, Nicola  
Bridge, Paul Ekins, Alison Fairbrass,  
Kathryn Fradera, Erika Hughes,  
Stephen Jay, Emma McKinley, Jon  
Parr, Jonathan Potts, Sue Ranger,  
Rachel Shucksmith, Elena Vacchelli*







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# 1. Forward

**Tackling today's ocean challenges means thinking beyond just one field. Climate change, pollution, habitat loss, and competing demands on marine resources and space all call for different kinds of knowledge and expertise. That's why transdisciplinary approaches - bringing together science, academia, local knowledge, policy, and more - are becoming essential for managing our seas. But while many agree this is the way forward, these ways of working still sit on the sidelines of mainstream marine research and practice.**

Funded by the Sustainable Management of UK Marine Resources (SMMR) research programme, the Diverse Marine Values project aims to address this need and help create a step-change in the transdisciplinary capability of the UK marine policy and research community to better include diverse values in marine decision-making. This recognises that we can only understand relationships between people and complex marine environments by expanding the range of values we use to characterise coastal places, including social, cultural, aesthetic and economic values.

Working in three very different places in the UK, the waterfront city of Portsmouth, the wild and remote Shetland Islands, and the town of Chepstow and the broader catchment of the River Wye, the project used a suite of qualitative, quantitative and arts-based research approaches to engage with coastal communities and uncover place-based marine values.





These methods were selected due to their propensity to facilitate dialogue and deliberation, to prompt creative thinking and experimentation, and to promote engagement across a range of sectors.


The project team also engaged with marine management institutions and actors across Scotland, England and Wales, to better understand why and how they can improve inclusion of more diverse values into their decision making. This included eliciting insights into challenges such as a lack of consistent terminology use or social science capacity in key organisations, as well as opportunities, including enhancing existing engagement practices and collaborating with third-sector organisations.

**A step-change in marine management for the UK cannot be generated without a procession of smaller steps toward a common objective. In synthesising the learning from the Diverse Marine Values project, this guide collates salient lessons from the project into a series of transdisciplinary actions.**



Transdisciplinarity can often seem like a distant goal, an evasive destination and working toward it can be much like embarking upon a journey. The journey, which we can imagine within the marine context as a voyage, can be hindered by time and funding constraints and distances between disciplines, values, and types of knowledge. This guide addresses these challenges as well as the opportunities that emerge when a transdisciplinary crew is assembled and the familiar shores of single disciplines are left behind.





This guide begins by exploring what diverse values are and why transdisciplinarity is relevant for marine research and management. It draws upon the transdisciplinary experiences of the Diverse Marine Values team and presents a series of practical actions inspired by those insights. It also shines a spotlight on approaches to build transdisciplinary institutional capacity and on qualitative and arts-based methods as a mechanism for transdisciplinary research and action. By retracing the steps of the Diverse Marine Value's unique transdisciplinary journey, this guide champions the inclusion of innovative approaches, perspectives and forms of knowledge to help drive the future transdisciplinary direction of marine research and management.

*The Diverse Marine Values project is one of six projects funded to explore innovative ways of forging new partnerships and approaches to marine management in the UK. Funded by two UK Research and Innovation research councils: the Natural Environment Research Council and the Economic and Social Research Council, the Sustainable Management of UK Marine Resources programme (SMMR) recognises that by working together we can improve the management of the UK marine environment and realise sustainable societal and economic benefits for the UK.*



## 2. Diverse Values

### *What are diverse values?*

The idea of “value” can be hard to define, but it’s a concept people regularly engage with. For example, we might say things like: “What is my house worth?”, “I really value my time at the coast”, or “This plant is valuable.” These everyday phrases demonstrate that “value” can have different meanings, such as worth, importance, or personal significance. Philosophy uses terms like intrinsic value (valuable in itself), instrumental value (useful for something else), and relational or subjective value (based on personal or cultural perspectives) to express how value can mean different things. The International Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) has reviewed the meanings of value, and they suggest it can be a core belief, a preference, a sign of importance, or even a way to measure things<sup>1</sup>. It is also helpful to think of “value” not just as a thing (a noun), but as something we do (a verb). Sometimes, the act of exploring what matters to people is as, or more

important, than a final measurement. For example, exploring the value (or importance) of the coast through artworks (such as painting, writing or theatre) can help people understand how their lives and the coast are closely connected, in both good and challenging ways.

The ambiguity of the meaning of value creates challenges for coastal management and policymaking in general. Some values can be measured and assessed using tools from natural science and economics, like how many species live in an area or the monetary value of something. But other values, like cultural beliefs or nature’s intrinsic value, are harder to evidence. To help make these values visible, we need to draw on a broader range of disciplines, including the social sciences, arts, and humanities. A key issue is that some institutions tend to focus on specific methods for understanding values more than others. This means that, depending on how we choose to measure or recognise value, some ways of understanding values can end up being ignored or overlooked.

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<sup>1</sup> IPBES, 2022





As noted by IPBES, institutions themselves help shape which values are recognised. The way we talk about and frame value can push some ways of thinking to the front and leave others out. IPBES has responded to this and promotes ways of thinking about nature's values that take into account different cultures, worldviews, and ways of knowing, showing how people's relationships with nature and nature's values vary across societies. IPBES provides a comprehensive typology of diverse values which differentiates between: worldviews and knowledge systems; broad values; specific values; and value indicators. World views are the lens through which people understand the world, these are embedded in culture and language.

Knowledge systems are dynamic bodies of knowledge, practices and beliefs ranging from scientific knowledge to indigenous and local knowledge. Broad values are general moral guiding principles linked to the worldviews and beliefs people hold. Specific values are judgements regarding the importance of nature in particular circumstances and can be grouped into instrumental values, intrinsic values and relational values. Value indicators are the quantitative measures and qualitative descriptors that reflect the importance of nature for people. These are often grouped as biophysical, monetary and sociocultural.

The IPBES typology provides a useful framework for understanding diverse values. However, to reveal the spectrum of marine values in each of our project locations, especially those values that are harder to recognise or capture, we employed a variety of integrated methods which went beyond traditional scientific approaches. We adopted a transdisciplinary approach and, as we see in the next chapter, this generated innovative, collaborative and transformational ways of thinking and working.



### 3. Exploring Transdisciplinarity

#### ***Why is transdisciplinarity regarded as such a vital approach for marine and coastal management?***

It is widely acknowledged that monodisciplinary approaches, or multidisciplinary approaches composed of disciplines from closely related fields are unable to respond to the complexity of current environmental and climate challenges. A defining characteristic of transdisciplinary research is its ability to address real world problems that are 'complex and multidimensional', particularly those at the intersection of 'human and natural systems' which cannot be addressed by single disciplinary approaches.<sup>2</sup> This is because complex problems require diverse approaches and forms of knowledge.

Transdisciplinary research can be regarded as a collaborative and participatory process<sup>3</sup> to integrate knowledge and methods from multiple actors operating within and beyond academia. In order to address real world problems, transdisciplinary research

emphasises the importance of engaging societal actors and integrating non-academic knowledge. By doing so, it challenges 'traditional academic modes of knowledge production'<sup>4</sup> and encourages diverse ways of thinking and working.

In comparison to multidisciplinary which draws upon a range of disciplinary expertise, and interdisciplinarity which integrates knowledge from different disciplines, transdisciplinarity transcends disciplines and sectors and involves a more holistic approach to a problem or theme. Rather than simply being an academic framework or a 'super-discipline', transdisciplinarity is a 'different manner of seeing the world, more systemic and more holistic'.<sup>5</sup>

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<sup>2</sup> Wickson et al, 2006

<sup>3</sup> Pohl, 2010

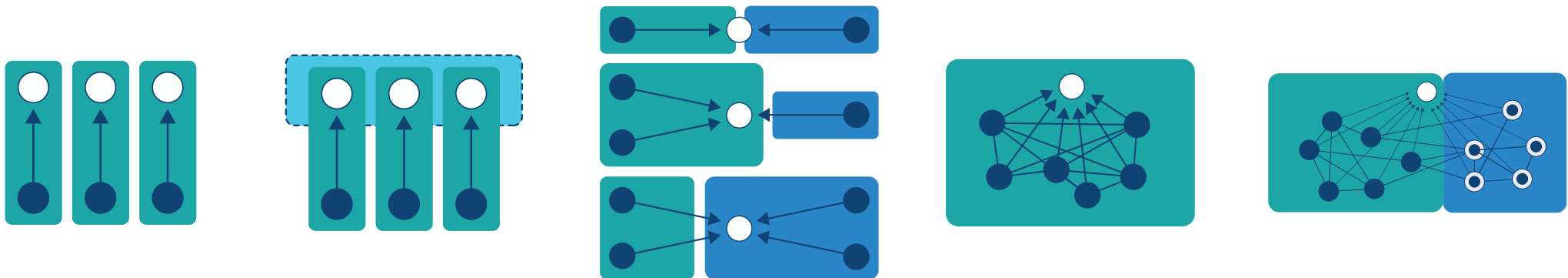
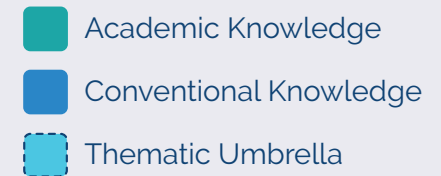
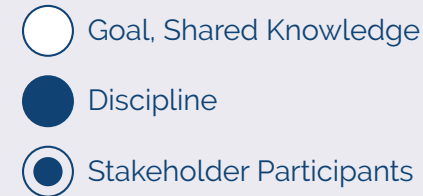
<sup>4</sup> Manuel-Navarrete, 2025

<sup>5</sup> Max-Neef, 2005



**Schematic representation of transdisciplinary research. Adapted from Morton *et al* (2015), originally from Tress *et al.* (2005).**

**Key:**



**DISCIPLINARY**

- Within one academic discipline
- Disciplinary goal setting
- Develops new disciplinary knowledge

**MULTIDISCIPLINARY**

- Multiple disciplines
- Multiple disciplinary goals set under one thematic umbrella

**PARTICIPATORY**

- Academic and non academic participants
- Knowledge exchange without integration

**INTERDISCIPLINARY**

- Crosses disciplinary boundaries
- Develops integrated knowledge
- Draws from and contributes to 'interdisciplines'

**TRANSDISCIPLINARY**

- Crosses disciplinary and sectorial boundaries
- Common goal setting
- Develops integrated knowledge for science and society
- Draws from and contributes to



Recent transdisciplinary scholarship has explored conceptual differences between 'working towards transdisciplinarity' or 'doing transdisciplinarity'<sup>6</sup>. This framework resonates particularly well with this guide as we set out a series of actions and enabling conditions to build individual, team and institutional capacity to work towards transdisciplinary goals (as we discuss in the next chapter). In addition, we also reflect upon specific moments of transdisciplinarity throughout the project (as we reveal in Chapter 6). '

Doing transdisciplinarity' and 'working towards transdisciplinarity' are not mutually exclusive but part of a continuum. For the Diverse Marine Values project, this takes account of specific transdisciplinary actions and encounters undertaken throughout the project, alongside our overall mission and ethos governing how collaborators work together towards a common transdisciplinary goal.

Although there are increasing calls for transdisciplinary knowledge to be more widely applied to the management of ocean and coastal resources, how to operationalise transdisciplinarity within a variety of contexts is less clear. Practical barriers, such as how to assemble the necessary collaborators from diverse disciplines and sectors, how to ensure recognition of plural perspectives and forms of knowledge, and how to find a common language to share and catalyse research, can present real impediments to transdisciplinary progress. In the next chapter, we offer the following actions to overcome these challenges and help cultivate transdisciplinary skills and aptitude.

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<sup>6</sup> Strand et al, 2022



## 4. Working Towards Transdisciplinarity

Transdisciplinarity is a journey in progress. It's not a done deal. We don't know how to do it perfectly. There is a lot of learning and times when I felt out of place because my brain couldn't help jumping to what's going to happen next. I had to train myself to allow that there was discomfort. The point is that it's difficult. People have to make adjustments and listen to each other. The culture was right, of openness and welcoming everybody in, but it's still a new way of working so it's honest to talk about it being uncomfortable at times.

DMV  
Researcher

Transdisciplinary research can seem daunting. Assembling a team of collaborators from multiple disciplines and practices and creating a shared space where everyone can contribute their knowledge and expertise presents challenges. We can liken transdisciplinarity to a journey across uncharted water. Transdisciplinary collaborations bring together individual expertise and experience and through reciprocal learning co-create new navigational tools and approaches to progress beyond where a single discipline can go. Working in this way means embracing unfamiliarity and uncertainty, challenging disciplinary hierarchies and biases and exploring innovative and collaborative working methods. In thinking about the experience of the Diverse Marine Values project as a journey across unfamiliar seas, we've identified the following transdisciplinary actions which were undertaken at an individual and team level, as well as with wider actors.

Using a maritime metaphor to describe four interconnected stages of developing transdisciplinary capacity:



### 1. Learning to Swim

*Building individual awareness and capability*



### 2. Building a Raft

*Creating collective strength and shared purpose*



### 3. Setting Sail

*Navigating systems and sustaining momentum*



### 4. Continuing the Journey

*Transdisciplinary exploration and learning*

Each stage involves cycles of learning, moving between reflection, action, and adaptation, to deepen transdisciplinary practice over time.



## 1. Learning to Swim

Before you begin transdisciplinary research, it is imperative to reflect upon the position you are starting from and assess your skills, expertise and experience which might be useful. It is also helpful to identify any attributes or attitudes you have which might impede your progress. Your positionality and worldview may be informed by your values and experiences, disciplinary and professional perspectives, and social and political factors. Being conscious of these and of the knowledge and values that you hold can be helpful in considering how you approach working with others.

Like learning to swim, this stage is about developing confidence and capability within a safe space before venturing into deeper waters where you could become out of your depth as you encounter new ways of thinking and working. Importantly, this is not a one-time exercise. Continuous reflection, before, during, and after collaborative work, forms the foundation for adaptive and lifelong learning.



## Individual Actions:

- **Reflect on your identity and worldview.** Consider how your background and values might influence transdisciplinary interactions.
- **Assess your skills and expertise.** What knowledge, expertise and experience do you bring to any transdisciplinary collaboration?
- **Cultivate curiosity and openness.** Be willing to learn, unlearn and share with others.
- **Identify biases, assumptions.** Acknowledge predispositions you may hold towards other disciplines, practices and forms of knowledge.
- **Moderate your language and concepts.** Communicate in ways that are accessible beyond your own area of expertise.
- **Commit to continuous learning.** Treat engagements as part of an ongoing cycle of learning that informs future practice.

Transdisciplinarity is hard but really rewarding. The biggest learning about transdisciplinarity is checking in constantly with your team and not being afraid to stop and say I have no idea what you are talking about.

DMV  
Researcher



## 2. Building a Raft

Having developed your individual awareness, you realise that to go further on your transdisciplinary journey, you need the help of others. Transdisciplinary research depends on collaboration across disciplines, sectors and communities. Like building a raft, this process involves collective input, co-design and collaborative action. A strong raft is built on trust, mutual respect and a willingness to learn from each other. You will need to formulate ways of working together and establish guiding principles. Collaboration can be seen as a learning partnership, a space where all participants contribute to and benefit from shared reflection and co-creation.

It is important for transdisciplinary research to include non-academic collaborators and to incorporate diverse forms of knowledge. Within marine research and management, this could mean ensuring that your team includes representatives from community groups, marine managers, civic actors, institutional professionals, and decision-makers.

Each member of the crew will have their own area of expertise. Sharing plural perspectives and forms of knowledge can be challenging, but it is essential for transdisciplinary working. Remember that you are embarking on a shared journey towards a common goal, and that working holistically as a team will allow you to progress further than working as individuals within disciplinary silos. This may be where you feel even more out of your depth as you learn, share with others, and develop integrated approaches. A transdisciplinary team should develop structures for continuous learning and reflection, pausing, evaluating and adjusting approaches in response to experience and feedback.





## Team Actions:

- **Develop a shared sense of purpose.** Co-design the project or activity together with collaborators, helping to define aims and objectives.
- **Be respectful of other views.** People will have different opinions and expertise. Consensus is not always possible or desirable.
- **Establish guiding principles.** Co-produce principles of interaction as a team to encourage a transdisciplinary outlook and mutual respect.
- **Create adequate space and time for reflection.** Build moments into the process to review progress, surface tensions, and learn collectively.
- **Develop holistic and adaptive approaches.** Use a range of approaches and methods to address research questions.
- **Foster transdisciplinary 'hospitality'**<sup>7</sup>. Provide a welcoming, inclusive environment where all voices and forms of knowledge are valued.
- **Document and share learning.** Continue to capture insights, allowing collective knowledge experiences to grow and be shared.

My brain is trained in a particular way. One of the reflections I have of working in a transdisciplinary project is to give yourself space to realise that different disciplines work differently and be comfortable with the learning and the change of approach.

DMV  
Researcher

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<sup>7</sup> Strang et al, 2015. This draws upon the concept of 'academic hospitality' which is required for effective interdisciplinary working.



### 3. Setting Sail

With your raft built, you and your collaborators are ready to venture into open waters and navigate established systems and currents that shape the project. For instance, the parameters of a funding programme may dictate certain research activities, or the requirements of a project partner or institutional end-user may influence ways of working and the production of outputs.

Although much transdisciplinary research seeks to achieve real-world impact, this is where the momentum of transdisciplinarity can dissipate. Projects can encounter fixed or siloed systems that resist integrated and holistic approaches. Identifying opportunities and 'entry points' where transdisciplinary research could be incorporated is one way to generate the potential for change.

Being cognizant of factors which may have an influence on the operationalisation of a transdisciplinary project is important. Navigating open waters to prevent a project from drifting or being swept away by forces beyond its control requires reflexive navigation and a willingness to learn from experience. It is crucial to identify barriers and enablers to transdisciplinary working and maintain a clear course. Sustaining transdisciplinary work depends on iterative cycles of reflection, evaluation and adaptation.





## Actions to Help Navigate Open Waters:

- **Recognise systemic barriers.** Identify institutional, disciplinary, or structural constraints that limit transdisciplinary practices.
- **Identify allies and champions.** Build partnerships with those who can advocate and embed transdisciplinary approaches.
- **Identify 'entry points'.** Find policies, programmes or funding streams where transdisciplinary research and engagement can be incorporated.
- **Showcase methods and approaches.** Share outcomes and creative approaches beyond the usual to inspire and foster curiosity and collaboration.
- **Engage diverse experts.** Involve diverse disciplines and practices to advise on how to develop transdisciplinary capacity within specific contexts.
- **Reflect and recalibrate.** Periodically assess what is being learned and how learning can inform future transformations.



## 4. Continuing the Journey

Transdisciplinarity is not a destination but a continuous learning journey. It involves cycles of co-production, reflection and transformation at multiple levels, individual, collective and institutional. Embracing transdisciplinarity as an ongoing process strengthens the collective capacity to address complex challenges with creativity and care. Transdisciplinarity takes courage to leave the shore and chart new courses together. However, as we will see in the next chapter, to generate impact from transdisciplinarity, institutional appetite, capacity, and support are vital.

# 5. Unlocking Benefits Of Transdisciplinary Working In Marine Management

Creating real-world impact from transdisciplinary working requires influencing decisions being made on behalf of society. However, within marine management institutions, a range of factors can create resistance to transdisciplinary approaches. Addressing these institutional and systemic barriers can help unlock the potential of transdisciplinary working to deliver more sustainable outcomes.

- **Understanding where transdisciplinarity adds value.** Not all marine decision-making processes are equally open to transdisciplinary approaches. While regulatory functions such as marine licensing tend to follow legally defined procedures, forward-looking process, like marine planning offer more scope for stakeholder engagement and integration of diverse knowledge.  
**Recommendation:** Identify decision making contexts where transdisciplinary approaches can add value. Focus on those processes that are strategic, adaptive and participatory, and use these as entry points to influence more formal decision making over time.
- **Recognising and broadening what counts as evidence.** Decision-makers consider information used in decision-making as 'evidence', i.e. information which can be considered objectively as reliable and rigorous for making decisions through formal and often legally binding processes. In general, there is a bias towards quantitative information and there remains a perceived, yet unfounded, concern with qualitative and arts-based research.  
**Recommendation:** Build support through training and guidance to ensure that transdisciplinary approaches, including qualitative, arts-based and knowledge outside of academia, can complement traditional forms of evidence where appropriate.



Build institutional capability for understanding social and cultural dimensions of research. Although some marine management agencies now employ social scientists in their teams, qualitative social sciences, the arts and humanities are underrepresented in government agencies. This limits the capacity to consider social values, relational values and cultural dimensions in marine decision-making.

**Recommendation:** Strengthen transdisciplinary capacity through secondments, partnerships and collaborative networks or embed people with the appropriate expertise into the agencies themselves.

- **Institutional constraints:** Marine management often operates in a resource-limited way with limited budgets and tight deadlines leading to concerns about the cost and efficiency of less familiar methods including collaborative and participatory approaches.  
**Recommendation:** Demonstrate how transdisciplinary approaches can enhance and build on existing approaches, for example through improving legitimacy, reducing conflict and strengthening long term outcomes. Showcase case studies that evidence their practical value.
- **Ensuring representation and inclusion:** Identifying who to engage, particularly those whose voices may currently be underrepresented, is a challenge.  
**Recommendation:** Use creative and inclusive engagement approaches to reach beyond traditional stakeholders groups. Work with civil society organisations and community partners to ensure democratic and equitable participation.
- **Navigating systemic and ideological constraints:** Marine management operates within legal and policy frameworks that embed certain values and paradigms, for instance natural capital accounting. These may conflict with alternative perspectives in indigenous or relational ways to understand humans and nature.  
**Recommendation:** Encourage institutional reflection on underlying assumptions, recognising and openly discussing values at play in the wider sea can create the potential for starting ripples of transformational change.



## Opportunities for Progress Include:

Despite the barriers, there are several opportunities that can create a momentum for change:

- Policy Shifts towards wellbeing, inclusivity and equity can provide a foothold for transdisciplinary ways of working, where they can be demonstrated to support progress in achieving these broader outcomes.
- Working with third party organisations such as ENGOs and civil society groups can extend reach and legitimacy by providing important partners in transdisciplinary working given their active role in engagement.
- Cross UK coordination and collaboration among agencies, including the Marine Management Organisation, the Marine Directorate of Scottish Government and Natural Resources Wales, could help build shared learning and transdisciplinary capacity.
- Support institutional reflection to help organisations reflect on their processes and systemic barriers and explore where they could be more open to values integration and transdisciplinarity in their operational approaches.

Transdisciplinary working in marine management involves changing how institutions value knowledge, engage with society and reflect on their own norms and structures. By strategically targeting transdisciplinary opportunities, building capacity, embracing diverse values and forms of knowledge where possible, marine management can navigate towards a more inclusive, adaptive and socially grounded form of governance.



## 6. Doing Transdisciplinarity

One of the interesting lessons of this project is to show that different methods and ways of engagement work with different audiences. This project has highlighted the importance of stretching our minds, working with a whole set of methodologies and tools which are available to us to ensure that we are engaging with as many people as we can and ensuring as many voices are being heard as possible, so we are not losing really important and valuable insights and relationships that can be captured.

DMV  
Researcher

Working towards transdisciplinarity involves creating the right conditions to allow transdisciplinary research to flourish. In taking the actions outlined previously, the Diverse Marine Values team created opportunities for 'transdisciplinary moments'<sup>8</sup> throughout the project as well as devising integrated research approaches to explore diverse marine values. As a marine research-funded project, special attention was paid to incorporating approaches from disciplines under-represented in marine research, such as the arts and social sciences, as well as integrating non-academic knowledge from a diverse range of collaborators. Here, we reflect on these transdisciplinary moments, as well as some examples of integrated approaches.

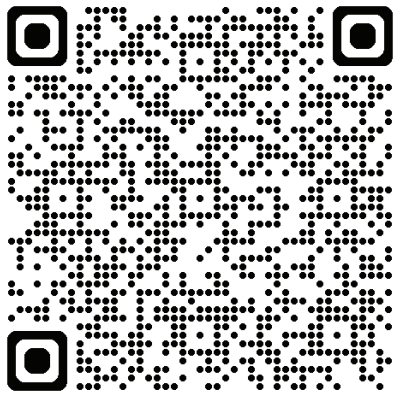
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<sup>8</sup> Hawkes, F., Acott, T. (2022). Building upon 'interdisciplinary moments', a framework devised by UKRI project WetlandLIFE to assess interdisciplinarity.

## Transdisciplinary Moments

Throughout the project, the Diverse Marine Values team created opportunities to reflect and learn, share methods, practice and ways of thinking and knowing. This functioned to demystify research approaches, field-specific language and conceptualisations. It also allowed space and time to build commonality and co-production. Many of these transdisciplinary moments were facilitated by an arts-based or participatory activity, such as creative writing, performance, digital storytelling and craft-based exercises. Crucially the activities were designed to highlight interconnections and prompt creative and collaborative working.

Scan the QR to listen to Diverse Marine Values researchers reflect on their experience working on a transdisciplinary project as part of our Echoes from the Shore: Lessons from Diverse Marine Values podcast series.

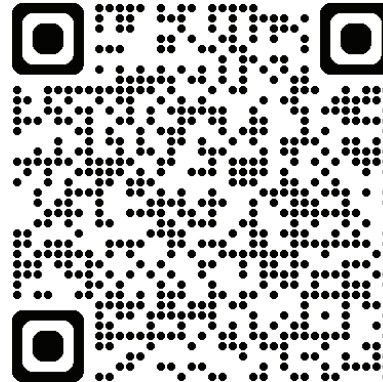




## Socially Engaged Theatre and Diverse Values

Throughout the project, the Diverse Marine Values team created opportunities to reflect and learn, share methods, practice and ways of thinking and knowing. This functioned to demystify research approaches, field-specific language and conceptualisations. It also allowed space and time to build commonality and co-production. Many of these transdisciplinary moments were facilitated by an arts-based or participatory activity, such as creative writing, performance, digital storytelling and craft-based exercises. Crucially the activities were designed to highlight interconnections and prompt creative and collaborative working.

Scan the QR code to read more about the transdisciplinary theatre and ocean literacy approach in 'Bringing the Ocean to the Stage: Performing Coastal Values and Marine Management' paper.



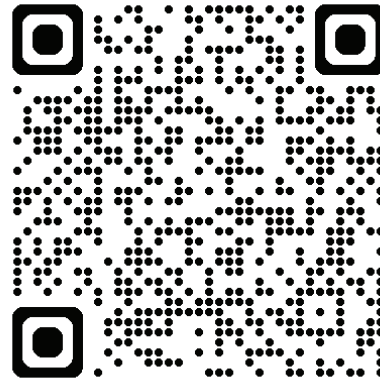
I had the opportunity to take part in some Forum Theatre which was an incredibly valuable experience using theatre and role play to train people in the skills they need for town planning. The biggest learning from transdisciplinary working is being open to other people's ideas.

DMV  
Researcher

## Community Voice Method

Community Voice Method is a well-established, interviewer-led approach for engaging with people and communities. It merges documentary filmmaking techniques with social science analysis and participatory engagement. Throughout the project, over fifty people were interviewed about their relationship with the sea and coast, with the interviews analysed using a values framework to identify key themes. Three films were produced, Shetland: Reddin<sup>9</sup> Values, Tides of Change: Navigating Social and Environmental Change in Portsmouth, and Watershed. These were used to stimulate discussion around community-held marine values.

Scan the QR code to watch the Diverse Marine Values films and learn more about the many ways people value their marine environments.



*Title of Portsmouth CVM Film, Tides of Change*



*Shetland Youth Theatre performance following forum theatre workshops, April 2022*



<sup>9</sup> 'reddin' – to disentangle, unravel, sort out.



## Transdisciplinary Exhibition; Echoes of the Shore, Bristol, 2024

The succession of transdisciplinary moments and integrated research approaches culminated in a final project event designed to encourage conversation and reflection amongst conference attendees and the broader general public. Echoes of the Shore: New Horizons for Marine Research and Management exhibition took place at the 2024 Sustainable Management of Marine Resources conference at the M-Shed venue in Bristol and was a culmination of the transdisciplinary voyage started three years previously by the Diverse Values team. The exhibition brought together the diverse methods and approaches used throughout the project to reveal and study marine values, including marine governance analyses, ocean literacy, digital storytelling, photo essay, theatre and community voice method. understandings of the sea.

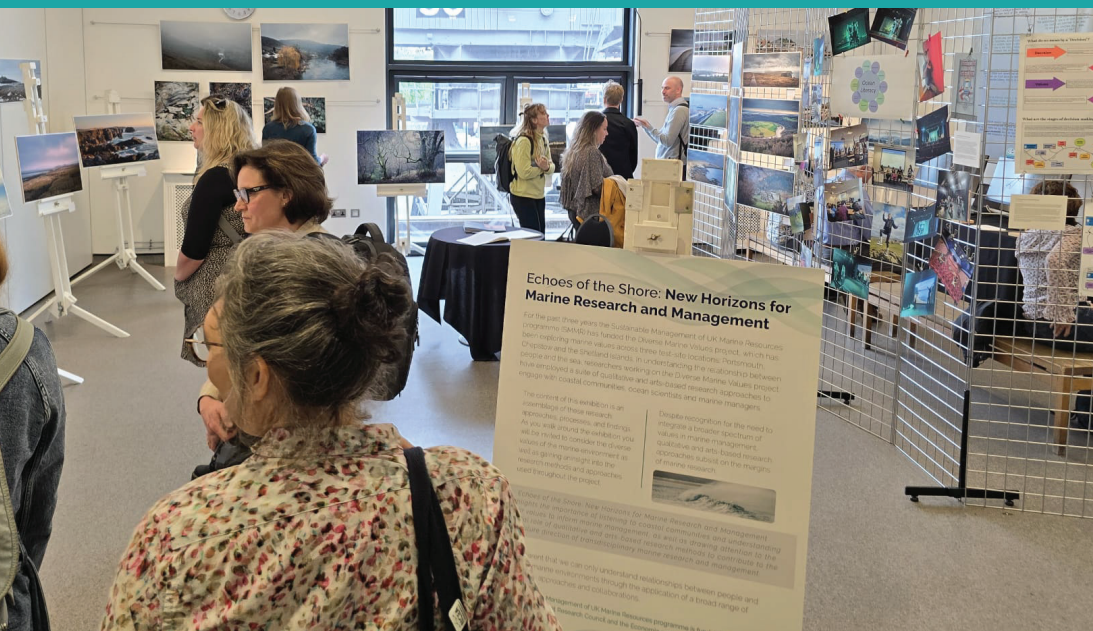
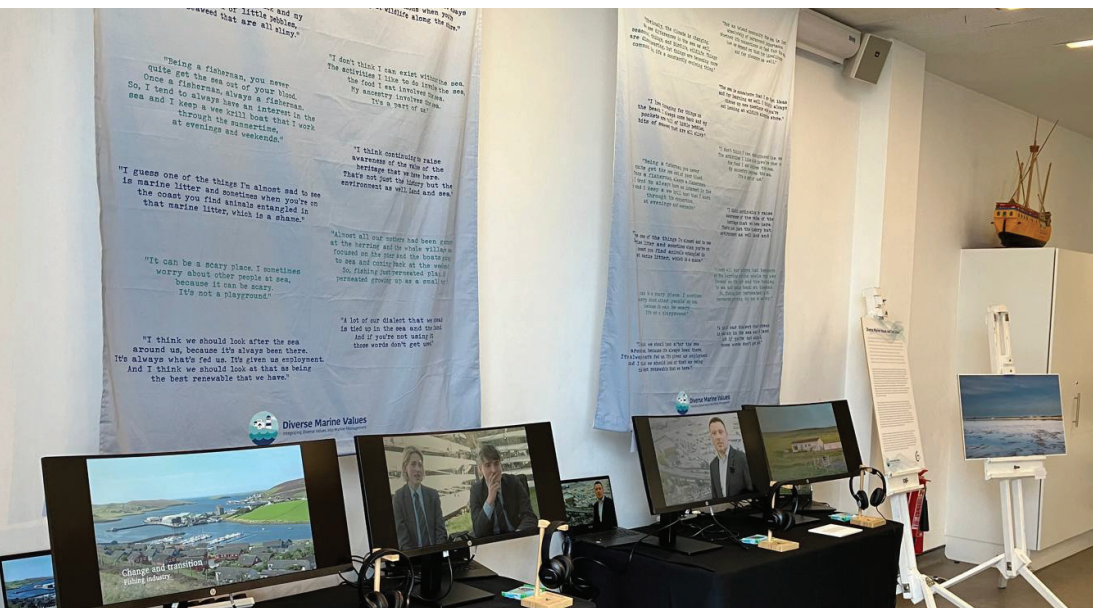


Photo Essay by Tim Acott, 2024





# Transdisciplinary Exhibition; Echoes of the Shore, Bristol, 2024



These contrasting and complementary approaches were presented as interconnected ways of knowing and engaging with marine values. Framed as a space for reflection, exchange and co-learning, the exhibition invited researchers, practitioners and the public to encounter the project's findings through multiple sensory (vision/audio) and intellectual entry points. It demonstrated how art, science and community knowledge can be woven together to reveal new understandings of the sea. Thus, the exhibition embodied the project's transdisciplinary vision and offered a model for how research can communicate across disciplinary and societal boundaries.

Scan the QR code to read more about the *Echoes of the Shore: New Horizons for Marine Research and Management* exhibition.





# 7. Conclusion: The Ripple Effect

The transdisciplinary research activities undertaken within the Diverse Marine Values project were integral to reveal, assess, measure and generate diverse marine values across our project locations, using integrated quantitative, qualitative and arts-based approaches.

These transdisciplinary approaches were particularly effective at highlighting relational and intrinsic values, where research participants and local actors expressed emotional bonds to the coast as a place of solace and recreation. The ocean's spiritual significance was emphasised along with its role in fostering community resilience amid climate changes. In Portsmouth and Shetland, the sea was perceived as both a lifeline and a cultural anchor, while in Chepstow the river was framed as a 'local ocean'.

The research also highlighted instrumental and relational values tied to water quality and access, as well as the sea's role in sustaining local traditions, such as fishing and heritage crafts. Community views on aquaculture development, the transition to renewable energy and shoreline management plans revealed instrumental values linked to economic adaptation and regeneration.





Collectively, the Diverse Marine Values project reveals how cultural, emotional, and socio-economic marine values intersect with environmental challenges. As we have seen, incorporating diverse marine values into policy and decision-making contexts, which are dominated by science-economic frameworks, remains a challenge.

However, a key characteristic of transdisciplinarity is its capacity to generate transformation. The process of engaging multiple collaborators, diverse perspectives and forms of knowledge has the potential to contribute to a 'transformational learning experience'<sup>10</sup> for everyone involved, the ripples of which can travel far beyond the parameters and lifespan of the project.

In the wake of the Diverse Marine Values project, it is hoped that this guide, along with our other project outputs will be used to help plot future transdisciplinary research and contribute to inclusive, holistic and values-led marine research and management in the UK and beyond.



<sup>10</sup> Mitchell et al, 2014



# References and Further Reading

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