

Anchoring in Strong Currents: Strategies for Reflexivity to Enhance Inter- and Transdisciplinary Marine Research

Annette Breckwoldt¹, Christopher Cvitanovic^{2,3}, Asha de Vos⁴, Amy Diedrich^{5,6}, Leonie Dziomba¹, Marie Fujitani^{7,8}, Denis Karcher⁹, Priscila Lopes^{10,11}, Sangeeta Mangubhai^{12,13}, Shannon McLaughlin¹⁴, Vitor Renck^{2,3,15}, and Ma Suza¹

¹ Programme Area "Societal Impact," Leibniz Centre for Tropical Marine Research (ZMT), Germany

² Biological, Earth, and Environmental Sciences, University of New South Wales – Sydney, Australia

³ Centre for Marine Science and Innovation, University of New South Wales, Australia

⁴ Oceanswell, Sri Lanka

⁵ College of Science and Engineering, James Cook University, Australia

⁶ Centre for Sustainable Tropical Fisheries and Aquaculture, James Cook University, Australia

⁷ Programme Area "Coastal Transformation," Leibniz Centre for Tropical Marine Research (ZMT), Germany

⁸ Faculty of Social Sciences, University of Bremen, Germany

⁹ Anthropocene Laboratory, Royal Swedish Academy of Sciences, Sweden

¹⁰ Department of Ecology, Federal University of Rio Grande do Norte, Brazil

¹¹ Research Institute of the University of Bucharest, University of Bucharest, Romania

¹² Talanoa Consulting, Fiji

¹³ Centre for Sustainable Futures, University of the South Pacific, Fiji

¹⁴ Environmental Policy Group, Wageningen University, The Netherlands

¹⁵ Institute of Marine Sciences, Federal University of São Paulo, Brazil

Correspondence: Annette Breckwoldt (annette.breckwoldt@leibniz-zmt.de)

Submitted: 29 June 2026 **Accepted:** 20 July 2026 **Published:** 9 September

Issue: This commentary is part of the issue "Tides of Change: Reflective and Practical Skills for the Next Generation of Marine Researchers" edited by Christopher Cvitanovic (University of New South Wales), Annette Breckwoldt (Leibniz Centre for Tropical Marine Research), Asha de Vos (Oceanswell / University of Western Australia Oceans Institute), Leonie Dziomba (Leibniz Centre for Tropical Marine Research), Shannon McLaughlin (Wageningen University), Salanieta Kitolelei (Leibniz Centre for Tropical Marine Research / University of the South Pacific), Sangeeta Mangubhai (Talanoa Consulting), and Denis Karcher (Royal Swedish Academy of Sciences), fully open access at <https://doi.org/10.17645/oas.i551>

Abstract

Marine research increasingly demands that early career researchers collaborate across disciplines, work with diverse communities including Indigenous peoples, and navigate social-ecological challenges characterised by ambiguity, uncertainty, and contested values. Yet the conceptual tools needed to do this well—chief among them reflexivity—are rarely taught in science training. This commentary argues that reflexivity (i.e., the practice of actively and continuously examining how one's position, assumptions, and subjectivity shape the research process and its outcomes) is not an optional methodological add-on, but a foundational practice for rigorous, ethical, and inclusive inter- and transdisciplinary marine research. It is addressed primarily to early career

researchers and their supervisors: people who can act on the strategies offered here within their own research practice. We acknowledge that sustaining reflexive practice also requires institutional and structural change—but that change is beyond the remit of any individual researcher. Rather, our focus is on what individual researchers can integrate, practise, and lead by example: from writing a positionality statement and asking reflexive planning questions, to active listening, peer dialogue, and keeping a reflexive personal journal—as entry points into larger accountability.

Keywords

early career researchers; interdisciplinarity; marine science; positionality; reflexivity; transdisciplinarity

1. Introduction

Have you ever felt uncertain about how your background or assumptions affected a research interaction? Have you wondered whose knowledge was really shaping the questions you asked, or whether the communities you worked with were genuinely included rather than just consulted? If so, you were already at the threshold of reflexivity—and this commentary is written for you.

We would like to set sail with the definition provided by Biggs et al. (2023, p. 486), where:

Reflexivity is the process of actively and continuously reflecting on the role of one's own position, subjectivity, and assumptions in the research process, and how this may shape conclusions drawn from the research. Reflexive researchers recognise that they do not exist outside of the system of study, and that their engagement with the system affects the outcomes of their research. Reflexivity is not about removing the researcher from the study, or making them more “objective,” but rather making explicit the lens through which they engage in the study.

Inter- and transdisciplinary marine research crosses natural and social sciences, and engages as well as integrates the knowledge of coastal communities, Indigenous peoples, managers, and policymakers. They have become central to addressing ocean challenges and wicked problems, such as climate change, biodiversity loss, unsustainable fisheries, poor marine spatial planning, and inequitable ocean governance (Brodie et al., 2022). These are not simply technical challenges; they are shaped by competing values, uneven power relations, colonial histories, and disciplinary blind spots (Yates et al., 2024). In this context, the absence of reflexivity does not merely leave a methodological gap—it weakens research integrity and risks reinforcing the very injustices the research aims to address.

Despite this, we posit that reflexivity as practice (i.e., the concrete habits that help researchers notice assumptions, which serves as the focus of this commentary) remains undervalued and underused in marine research, particularly among researchers whose training has been primarily in the natural sciences, where reflexivity is rarely taught or embedded in field methods training (Rölfer et al., 2022). This matters for early career researchers (ECRs) especially because they are increasingly expected to work across disciplines and engage diverse knowledge systems without being given the conceptual tools or institutional support to do so (Kelly et al., 2019).

Our commentary speaks primarily to ECRs and their supervisors. We seek to provide practical strategies, based on our experiences, that can be adopted, adapted, and built into the readers' own research practices. Clearly, this also includes the possibility to opt out of such reflexive processes—our commentary shall not be read in a way that calls “to duty” every marine researcher. This commentary first examines why inter- and transdisciplinary marine research makes reflexivity especially important (Section 2), then offers concrete practices ECRs can integrate into their work (Section 3). We are aware that sustaining reflexive practice over the long term also requires institutional change in training programmes, funding cycles, supervisory cultures, and incentive structures. Section 4 briefly acknowledges the broader institutional conditions that support—or undermine—reflexive practice (e.g., Schutter et al., 2025), while recognising these as beyond individual ECR control and reach.

While this commentary focuses on practical entry points for reflexive practice in inter- and transdisciplinary marine research, we also recognise that the practice of reflexivity itself is not uncontested. Across qualitative and critical social science, for example, scholars have long debated whether reflexivity meaningfully reshapes knowledge production. It is also important to distinguish between reflexivity as *practice* (focused on here), opposed to reflexivity as *epistemology* (in the sense of reflecting on and navigating multiple ways of knowing), which raises much deeper questions about what it means to produce knowledge in a certain environment, representation, authority, and the circulation of knowledge in contexts marked by power asymmetries. Epistemological reflexivity is necessarily part of reflexive practice in research, yet this is not to say that reflexive practice itself can or should aim to resolve broader epistemological questions. Our aim here is, therefore, not to resolve these debates, but to offer ECRs an accessible starting point while signalling that reflexive practices are a beginning rather than a destination, and entry points into larger accountability.

2. Why Is Reflexivity Important for Inter- and Transdisciplinary Marine ECRs?

2.1. Navigating Multiple Ways of Knowing

Inter- and transdisciplinary marine research draws together diverse knowledge systems (e.g., across the natural and social sciences, local knowledge, Indigenous knowledge, or experiential knowledge)—each bringing different assumptions about what counts as valid knowledge, how causality is inferred, and what research is for (Moon & Blackman, 2014; Moon et al., 2021). These (epistemological) differences are often implicit and hidden. When left unexamined, integration becomes superficial and tokenistic: one discipline (or knowledge system) quietly sets the terms while others accommodate. Reflexivity encourages researchers to surface and respect these assumptions rather than unconsciously override them.

Without reflexive practice, even well-intentioned collaboration may re-inscribe hierarchies in which “Western science” remains the default arbiter of what is credible or policy-relevant (de Vos et al., 2023; Mangubhai et al., 2025). Reflexivity is therefore an epistemic practice that helps teams notice when they are narrowing the field of possible questions and possible answers.

2.2. Power, Positionality, and Who Gets Heard

Researchers enter projects with identities, institutional affiliations, passports, languages, and career positions, among other things, that shape how they are perceived and what authority they are granted (Muhammad

et al., 2015; Younging, 2018). For ECRs, who may feel pressure to align with senior colleagues, dominant methods, or powerful funders, reflexivity provides a tool to assess critically how their own position shapes their contributions. Pauly's (1994) prominent research on marine science institutions was one of the first of its kind to show that gender, age, ethnicity, nationality, and disciplinary status influence whose expertise is heard and who carries invisible labour. Reflexive awareness makes these dynamics visible and potentially negotiable. It does not solve power asymmetries—but it makes them harder to ignore.

2.3. Ethical Engagement With Communities and Partners

Ethical engagement is not defined by formal approval procedures (e.g., university human ethics committees) alone. It requires ongoing attention to how researchers enter collaborations, engagements, and teamwork, what power they carry into those relationships, what they ask of participants, and whose interests are ultimately served (Cvitanovic, Partelow, et al., 2026). Reflexivity encourages researchers to think carefully about these questions throughout a project—not only at the ethics clearance stage. Studies in marine conservation, participatory governance, and Indigenous co-management show that slowing down, actively listening, and being transparent about one's role can build trust and improve the legitimacy of outputs (Breckwoldt et al., 2021; Mangubhai et al., 2015). Participatory language alone does not guarantee equitable practice (e.g., Bennett et al., 2025); reflexivity can reveal when inclusion is tokenistic, rushed, or structured around pre-determined outcomes. Reflexivity can also be used as a tool to understand how relationships and collaborations develop over time, to ensure that they continue to operate in a manner that is ethical and inclusive.

2.4. Working With Complex, Value-Laden Problems

Climate adaptation, fisheries conflicts, blue economy transitions, and marine spatial planning, among other challenges, are wicked problems: They are uncertain, value-contested, and cannot be resolved by technical optimisation alone. Reflexivity matters here because it keeps researchers open to the possibility that their initial framing is incomplete, their categories are too narrow, or their models capture only part of what is at stake. This is also critical for transdisciplinary processes where problems, and legitimate solutions, require openness and iteration. It makes room for unexpected insights, flags unintended consequences, and helps teams adapt when new perspectives change what the research sees and produces.

3. Practical Strategies: What Can You Do?

Reflexivity can sound abstract or intimidating, especially to ECRs navigating deadlines and funding pressures. The strategies below are scalable to context—not an all-or-nothing ideal. Not every project requires the same depth of reflexive work, but every inter- and transdisciplinary marine researcher can benefit from asking more explicitly how their assumptions, relationships, and choices shape their work (Muhl et al., 2026).

In this section, we provide an actionable starting point for activities that ECRs and their supervisors can implement to improve their own reflexive practice in ways that value transparency, humility, and continuous learning (see Figure 1). We acknowledge that this list is not definitive or exhaustive, but rather based on our own experiences. We also acknowledge that the implementation of the strategies mentioned here should not be seen as the endpoint of reflexive practice, but rather the beginning.

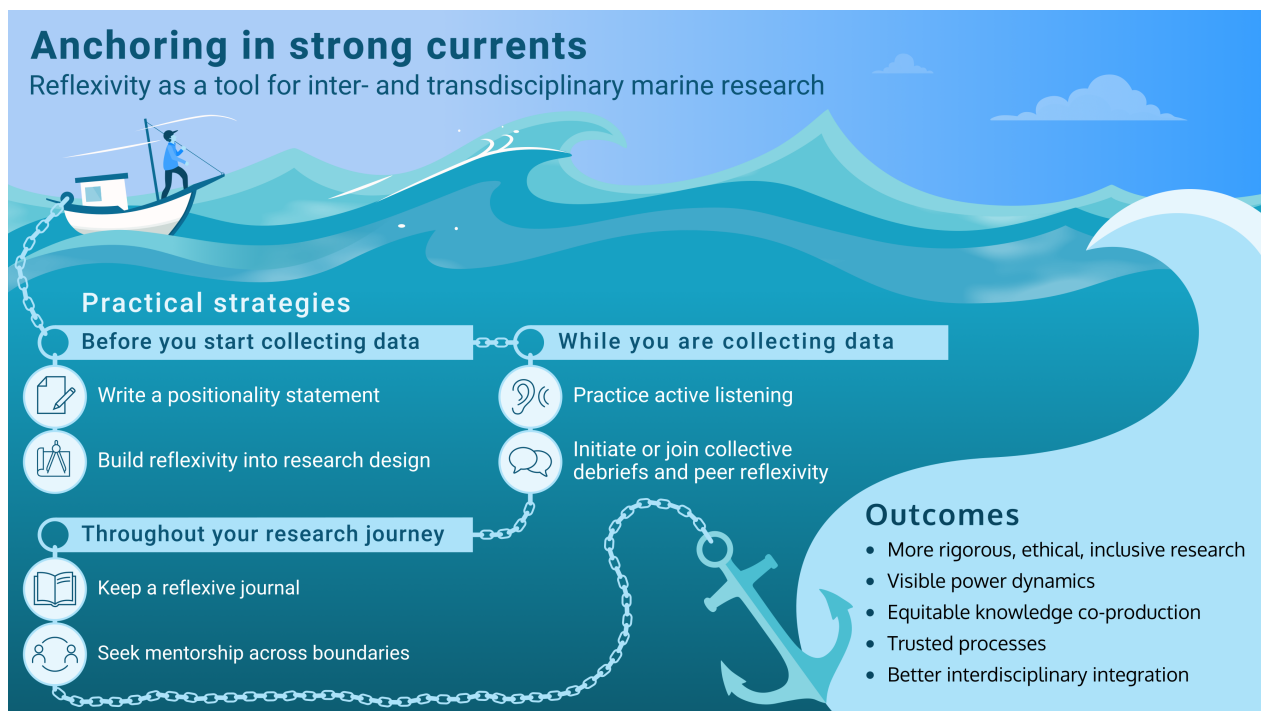


Figure 1. Summary of practical strategies to use reflexivity to enhance inter- and transdisciplinary marine research (© S. McCormack).

3.1. Before You Start Collecting Data

3.1.1. Locate Yourself and Drop the Personal Anchor, Write a Positionality Statement

A positionality statement is a short account of your background, disciplinary training, values, relationship to the field site, and potential blind spots. It renders visible the lens through which research is conducted—to yourself first, and later to collaborators, supervisors, and readers. It can also help to purposefully add partners with different positionalities to a project. It does not need to be confessional; its value lies in converting implicit assumptions into something available for reflection and discussion. Start privately as a planning exercise, and adapt it for publications or team documents later.

Useful starting questions include: Why am I interested in this problem? What experiences shape my framing? What power do I carry into this setting? What is my relationship to the communities I engage with? How might they perceive me, and the potential benefit of my research? And—the harder question—why should I be part of this project at all, and what do I bring to this space (Gani & Khan, 2024)? This can be followed by further reflections on what to ask and why. These questions help turn reflexivity into a research instrument rather than a vague aspiration, to promote transparency and accountability in one's own knowledge production.

3.1.2. Build Reflexivity Into Research Design---Including Language and Framing

Reflexivity is most effective when embedded early, before methods and assumptions harden. The following questions can fundamentally reshape project design: What exactly is the problem or needs research, and who might disagree with this problem framing? Who benefits and how? Which disciplines and whose voices

are absent? What power dynamics are at play? What assumptions are built into the methods, variables, and indicators chosen? (Breckwoldt et al., 2021). A fisheries model, restoration design, or stakeholder process is never neutral simply because it is technically sophisticated. Building reflexive questions into proposal development, field planning, and analytical frameworks helps prevent narrow or exclusionary assumptions from becoming locked-in at the outset. A certain flexibility can also be supported in this way; for example, if working with communities shows that they have different needs, then a reflexive research design makes space for these iterative processes, which increases the potential for relevant outcomes, rather than enforcing rigid approaches that do not grow with the needs of the communities.

Language is part of this, as it is never neutral in inter- and transdisciplinary marine research. The words used to describe and ask questions on communities, ecosystems, methods, and knowledge systems can reinforce technocratic, colonial, or extractive assumptions even when researchers are trying to be inclusive. Terms such as “validation,” “knowledge uptake,” or “stakeholder buy-in” can subtly position some actors as authoritative and others as peripheral (often depending on who is organising an interaction; Reed et al., 2024). This can involve reviewing interview guides, survey instruments, emails, workshop materials, or manuscript drafts with attention to tone, hierarchy, unintended prompts, and implied assumptions. In some cases, asking a colleague for a second opinion on phrasing, as well as co-authoring or co-presenting with community collaborators, can further shift not just wording, but authorship and ownership of the narrative itself.

3.2. While You Are Collecting Data

3.2.1. Practice Active Listening

Active listening is a deceptively simple but powerful reflexive practice. It makes space for others’ perspectives, especially those less represented or less vocal. In cross-disciplinary and cross-cultural settings, this means suspending the urge to defend disciplinary categories, checking your interpretations, and making room for perspectives that do not fit familiar (and/or comfortable) frames. Further, it requires the researchers to engage with communities with an open mind and free from pre-formed judgments. Active listening can build trust, reveal assumptions, and support more equitable (and inherently more effective) forms of collaboration. Practical habits include paraphrasing what you have heard, asking whether your understanding is correct, avoiding jargon, and noticing when you instinctively treat some forms of knowledge as more authoritative than others (Battaglia et al., 2026). These are immediately usable practices that improve both team interaction and field engagement, and they can help to think of knowledge as a process (instead of an endpoint), along which trust, as well as understanding across disciplines and cultures, can be built.

3.2.2. Initiate or Join Collective Debriefs and Peer Reflexivity

Reflexivity should not be left to solitary self-examination. Structured collective reflection—team debriefs, peer conversations, facilitated discussions—moves reflexivity from private doubt to shared learning. For ECRs, peer reflexivity is especially accessible: Pair with a trusted colleague from another discipline to discuss a field interaction, a draft positionality statement, or a challenging team meeting. Short post-meeting debriefs, asking what assumptions shaped the discussion, whose voices were missing, and what needs to change, can facilitate shared learning across inter- and transdisciplinary teams.

3.3. Throughout Your Research Journey

3.3.1. Keep a Reflexive Journal

A reflexive journal captures assumptions, emotional responses, uncertainties, and shifts in perspective over time (Duggan & Sokini, 2021). Reflexivity rarely arrives as a single insight; it develops through patterns noticed across a project. A simple structure helps: What happened? Why did it feel important? What assumptions were involved? What should I revisit or ask someone else about? What seem to be individual, contextual, or cultural sensitivities that I might not understand yet? This turns journaling into an analytical aid rather than an additional burden, and it documents a process that can later be reported as part of your methodology.

3.3.2. Seek Mentorship Across Boundaries

ECRs in inter- and transdisciplinary marine research benefit from mentors outside their immediate discipline or institutional chain of command—people with experience in facilitation, community-engaged work, or cross-cultural collaboration (Cvitanovic, Mackay, et al., 2026). Such (informal) mentors normalise uncertainty, model epistemic humility, and help navigate tensions invisible in methods training. Mentorship need not be limited to senior academics: peers, practitioners, and community collaborators each offer different reflexive insights. Learning from lived experience can be as important as theoretical frameworks.

4. Institutional Conditions: Beyond ECR's Remit

The practical strategies in Section 3 sit within a broader structural reality: reflexive practice is shaped—and often constrained—by funding timelines, supervisory norms, organisational cultures, and the absence of safe spaces for dialogue. ECRs cannot (and should not) be held individually responsible for changing these conditions. Funders and institutions can do more to value process alongside output, to support scoping and trust-building phases, and to recognise facilitation and collaboration labour. Supervisors can model reflexive practice and treat positionality discussions as part of good science, not a threat to authority. Embedding reflexivity into graduate training—alongside statistics, ethics, and field methods—is overdue (Battaglia et al., 2026; Rölfer et al., 2022). While it is beyond the scope of this commentary to provide a detailed overview of the broader enabling environment, we wanted to at least acknowledge these structural needs clearly, and thereby direct ECRs who face institutional barriers to find allies, build peer networks, and—where possible—nudge the system from within. Changing the system is a long game; beginning one's own reflexive practice is not.

5. Conclusions: Shift Reflexive Culture Beyond ECRs

Reflexivity should no longer be treated as a marginal concern in inter- and transdisciplinary marine research, but rather a foundational practice. The evidence in the literature, in combination with our own experiences, suggests that it supports inclusive and respectful knowledge coproduction, strengthens ethical engagement, makes power dynamics more visible, and helps researchers work more honestly, legitimately, and respectfully within complexity and uncertainty. Its absence, by contrast, could leave inter- and transdisciplinary research (and thus researchers) vulnerable to narrow framing, epistemic hierarchies, extractive engagement, team dysfunction, and superficial forms of interdisciplinarity—ultimately

undermining research integrity and reinforcing unjust practices. As shown in this commentary, for ECRs, reflexivity can begin with modest but deliberate practices: positionality statements, planning questions, active listening, journaling, peer dialogue, and debriefs. The longer-term challenge, however, is cultural. A reflexive culture is one that values transparency, humility, and continuous learning, not just productivity or prestige. Reflexivity essentially should be modelled across career stages and supported through supervision, training, funding, and institutional design. If inter- and transdisciplinary marine science is serious about addressing ocean challenges in ways that are rigorous, inclusive, and transformative, reflexivity must be recognised and practised not as an optional add-on, but as a fundamental part of what it means to conduct marine research responsibly and effectively. Its presence—even in modest, everyday forms—improves ethical rigour, strengthens collaboration, and makes knowledge production more inclusive.

Acknowledgments

We thank K. Moon and K. Peters for reading and commenting on the draft, and for sharing useful insights that contributed to the development of this commentary. We thank S. McCormack from Visual Knowledge for developing the graphic, and finally, we thank everyone in our own working environments who contributed to these thoughts and learning curves.

Funding

Priscila Lopes thanks CNPq for a productivity grant (302365/2022-2) and the Romanian Ministry of Research, Innovation and Digitalization for support (#760054-JUST4MPA, PNRR-III-C9-2022-I8). Vitor Renck acknowledges the São Paulo Research Foundation (FAPESP), Brazil (process numbers #2022/10321-8, #2023/08372-6, and #2025/00827-0).

Conflict of Interests

In this article, editorial decisions were undertaken by Salanieta Kitolelei (Leibniz Centre for Tropical Marine Research / University of the South Pacific).

LLMs Disclosure

An LLM (Perplexity.AI) was used to suggest where some of the final paragraphs could be shortened; some of the suggestions were followed, others not.

References

- Battaglia, M. B., Strand, M., Malherbe, W., Muhl, E.-K., Cruz, L. R., Hill, L. S., Lembi, R., Prado, D. S., Psiuk, K., & Renck, V. (2026). *Reflexivity booklet for social-ecological researchers: Navigating ethical place-based research*. The Society for Social-Ecological Systems. <https://zenodo.org/records/19867527>
- Bennett, N. J., Relano, V., Roumbedakis, K., Blythe, J., Andrachuk, M., Claudet, J., Dawson, N., Gill, D., Lazzari, N., Mahajan, S. L., Muhl, E.-K., Riechers, M., Strand, M., & Villasante, S. (2025). Ocean equity: From assessment to action to improve social equity in ocean governance. *Frontiers in Marine Science*, 12, Article 1473382.
- Biggs, R., de Vos, A., Preiser, R., Clements, H., Maciejewski, K., & Schlüter, M. (Eds.). (2023). *The Routledge handbook of research methods for social-ecological systems*. Routledge.
- Breckwoldt, A., Lopes, P., & Selim, S. (2021). Look who's asking: Reflections on participatory and transdisciplinary marine research approaches. *Frontiers in Marine Science*, 8, Article 627502.
- Brodie, S., Addey, C. I., Cvitanovic, C., Dias, B. S., Frainer, A., García-Morales, S., Jiang, S., Kaikkonen, L., Lopez, J.,

- Mathesius, S., & Ortega-Cisneros, K. (2022). Solving complex ocean challenges through interdisciplinary research: Advances from early career marine scientists. *Frontiers in Marine Science*, 9, Article 913459.
- Cvitanovic, C., Mackay, M., Kelly, R., Andreotta, M., McLaughlin, S., Malinconico, N., Jurrius, L. H., & Allan, G. (2026). From surviving to thriving: The role of informal mentorship for early career inter- and transdisciplinary researchers. *Ocean and Society*, 3, Article 12089.
- Cvitanovic, C., Partelow, S., Bednarek, A., Cairney, P., Dalla Pozza, R., Downe, J., Hilly, Z., Hornidge, A. K., Howden, M., Karcher, D. B., & Kelly, R. (2026). Principles for ethical boundary spanning between science, policy and practice: A guide for knowledge brokers. *Environmental Science & Policy*, 179, Article 104361.
- de Vos, A., Cambronero-Solano, S., Mangubhai, S., Nefdt, L., Woodall, L. C., & Stefanoudis, P. V. (2023). Towards ocean equity and justice in ocean sciences. *npj Ocean Sustainability*, 2, Article 25.
- Duggan, J., & Sokini, E. (2021). Considerations for early career conservation researchers seeking to engage across communities and cultures. *Pacific Conservation Biology*, 28(5), 383–392.
- Gani, J. K., & Khan, R. M. (2024). Positionality statements as a function of coloniality: Interrogating reflexive methodologies. *International Studies Quarterly*, 68(2), Article sqae038.
- Kelly, R., Mackay, M., Nash, K. L., Cvitanovic, C., Allison, E. H., Armitage, D., Bonn, A., Cooke, S. J., Frusher, S., Fulton, E. A., & Halpern, B. S. (2019). Ten tips for developing interdisciplinary socio-ecological researchers. *Socio-Ecological Practice Research*, 1(2), 149–161.
- Mangubhai, S., Vave, R., Begg, S. S., Chung, M., Dileqa, S. V., Golbuu, Y., Gomes, C., Kant, R., Kitolelei, S., Ram, R., Thomas, N., Varea, R., & Whiteside, A. (2025). Increasing Pacific Islander research and authorship in the academic literature. *Pacific Conservation Biology*, 31, Article PC25011.
- Mangubhai, S., Wilson, J. R., Rumetna, L., Maturbongs, Y., & Purwanto. (2015). Explicitly incorporating socioeconomic criteria and data into marine protected area zoning. *Ocean and Coastal Management*, 116, 523–529.
- Moon, K., & Blackman, D. (2014). A guide to understanding social science research for natural scientists. *Conservation Biology*, 28(5), 1167–1177.
- Moon, K., Cvitanovic, C., Blackman, D. A., Scales, I. R., & Browne, N. K. (2021). Five questions to understand epistemology and its influence on integrative marine research. *Frontiers in Marine Science*, 8, Article 574158.
- Muhammad, M., Wallerstein, N., Sussman, A. L., Avila, M., Belone, L., & Duran, B. (2015). Reflections on researcher identity and power: The impact of positionality on community based participatory research (CBPR) processes and outcomes. *Critical Sociology*, 41(7/8), 1045–1063.
- Muhl, E.-K., Renck, V., Battaglia, M. B., Strand, M., Malherbe, W., Cruz, L. R., Hill, L. S., Lembi, R., Prado, D. S., & Psiuk, K. (2026). Navigating ethical place-based research in transdisciplinary marine science (and beyond). *Ocean and Society*, 3, Article 12800.
- Pauly, D. (1994). *On the sex of fish and the gender of scientists—Collected essays in fisheries science*. Chapman & Hall.
- Reed, M. S., Merkle, B. G., Cook, E. J., Hafferty, C., Hejnowicz, A. P., Holliman, R., Marder, I. D., Pool, U., Raymond, C. M., Wallen, K. E., & Whyte, D. (2024). Reimagining the language of engagement in a post-stakeholder world. *Sustainability Science*, 19(4), 1481–1490.
- Rölfer, L., Elias Ilosvay, X. E., Ferse, S. C. A., Jung, J., Karcher, D. B., Kriegl, M., Nijamdeen, T. W. G. F. M., Riechers, M., & Walker, E. Z. (2022). Disentangling obstacles to knowledge co-production for early-career researchers in the marine sciences. *Frontiers in Marine Science*, 9, Article 893489.
- Schutter, M., van Tatenhove, J., van Leeuwen, J., & Voyer, M. (2025). Reflexivity and transformative change: Empirical and theoretical insights from a special issue on reflexive marine governance. *Journal of Environmental Policy & Planning*, 27(1), 1–7.

Yates, K. L., Copping, J. P., Tweddle, J. F., & O'Leary, B. C. (2024). Benefits and barriers for researcher-practitioner collaboration on marine and coastal management issues. *Environmental Science & Policy*, 155, Article 103713.

Younging, G. (2018). *Elements of Indigenous style: A guide for writing by and about Indigenous peoples*. Brush Education.

About the Authors



Annette Breckwoldt is a senior interdisciplinary marine scientist at the Leibniz Centre for Tropical Marine Research (ZMT) in Bremen, Germany, focusing on transdisciplinarity in the marine social sciences, small-scale fisheries, coastal realities, and ocean–society relations.



Christopher Cvitanovic is a transdisciplinary marine scientist at the University of New South Wales (UNSW), and deputy director of the UNSW Centre for Marine Science and Innovation. His research is focused on advancing the theory and practice of knowledge exchange at the interface of science and policy to support the governance of marine systems.



Asha de Vos (PhD) is an internationally acclaimed Sri Lankan marine biologist, ocean educator, author, and founder of Oceanswell. A pioneer of blue whale research in the Northern Indian Ocean, Sri Lanka's first deep-sea explorer and aquanaut, she champions diversity, equity, and inclusive marine conservation through research, education, and advocacy.



Amy Diedrich is a professor in the College of Science and Engineering, and head of the Centre for Sustainable Tropical Fisheries and Aquaculture, at James Cook University. She is an applied marine social scientist, and her research seeks to improve livelihood outcomes in vulnerable small-scale fishing communities experiencing social and ecological change.



Leonie Dziomba is a PhD candidate at the Leibniz Centre for Tropical Marine Research (ZMT). Drawing on a background in cognitive science and experience in science communication, her research focuses on social-psychological dimensions of science communication, inter- and transdisciplinary collaboration, and the integration of diverse actor perspectives into marine research.



Marie Fujitani is a professor of human geography with a focus on marine and coastal sustainable development at the University of Bremen and the Leibniz Centre for Tropical Marine Research. Her research seeks to understand how collective decision-making can drive sustainability transformations that advance equitable and effective marine conservation and community well-being.



Denis Karcher is a postdoctoral researcher in the Anthropocene Laboratory at the Royal Swedish Academy of Sciences. His research is focused on science–policy–society interfaces, evidence-informed environmental management, research impact, and perceptions of environmental and social change.



Priscila Lopes is a professor at the Federal University of Rio Grande do Norte and a researcher at the University of Bucharest. Her work focuses on socio-ecological systems, including fishers' local ecological knowledge, small-scale fisheries co-management, and socio-ecological resilience.



Sangeeta Mangubhai (PhD) is principal consultant and researcher at Talanoa Consulting in Suva, Fiji. Her work focuses on socio-ecological systems, with a strong emphasis on integrating gender equity and broader human rights into small-scale fisheries and conservation.



Shannon McLaughlin is currently completing her PhD in the Environmental Policy Group at Wageningen University. Her research explores how policies and institutions shape human relationships with nature, with a specific focus on the Rights of Nature and marine contexts.



Vitor Renck is a trained ecologist and interdisciplinary marine post-doctoral researcher at the Federal University of São Paulo and at the University of New South Wales. His work explores the intersection of ethnobiology, human ecology, transdisciplinarity, and decolonial approaches, with a strong focus on the knowledge and practices of small-scale fishing communities.



Ma Suza is an interdisciplinary postdoctoral researcher at the Leibniz Centre for Tropical Marine Research (ZMT), Bremen. Her research focuses on transdisciplinary approaches to understand and support decision-making, adaptation, and natural resource governance among resource-dependent communities.