

Marine social science: A tool to understand the human dimensions of marine policy and ocean sustainability

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Understanding the human dimensions of the world's seas and coasts is fundamental to evidence-based decision-making across marine policy realms, including marine conservation, marine spatial planning, fisheries management, the blue economy and climate adaptation. The marine social sciences can provide evidence regarding the human dimensions to inform the pursuit of sustainable oceans. This presentation will introduce this burgeoning field and briefly review the insights that social science can offer to guide ocean and coastal policy and management. In summary, the marine social sciences can offer important insights to guide ocean and coastal policy and management through: (a) characterizing and evaluating the efficacy of governance and management, (b) documenting the social context to inform planning and management, (c) assessing the impacts of conservation, management or development activities on human well-being, and (d) identifying the social and institutional factors that influence people's behaviors, actions or responses. We will be missing the boat if the marine social sciences do not form an integral and substantial part of the mandate and investments of global ocean science and sustainability initiatives.

Twitter: @NathanJBennett

Tweet: In this talk @NathanJBennett will examine how “We will be missing the boat if marine social science is not part of global ocean science and sustainability initiatives” @NathanJBennett @marsocsci @thepeopledseas #marsocsci #peopleandthesea Link: <https://www.tandfonline.com/doi/full/10.1080/08920753.2019.1564958>

The wellbeing and human health benefits of exposure to marine and coastal environments in the UK

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Over a third of the UK population live within 5 km of the coast and approximately 17% live in coastal communities. Large numbers of people visit UK coastlines each year. In England, an estimated 271 million recreational visits were made to coastal environments annually. However, these environments are facing significant anthropogenic pressure and their status is of concern. Thus, there is increasing need to understand and promote the human health benefits provided by marine and coastal environments. Over recent years, the integrated study of ocean health and human health (Oceans and Human Health; OHH) has emerged and has been contributing to this gap in understanding. The current study undertook a Quick Scoping Review to examine the evidence base on the wellbeing, mental and physical health benefits from exposure to marine and coastal environments in the UK and the risks associated with or to these benefits. Two routes of exposure were examined: neighbourhood exposure (i.e. whether living closer to the coast benefits human health) and visit-based exposure (i.e. whether visits to the marine and coastal environment are linked to improved health). This presentation will provide: (i) a brief overview of the findings, (ii) highlight the key evidence gaps and (iii) set out the implications for research and practice.

steering group for their insights and contributions to the evidence statement.

Tweetable abstract:

Do UK marine and coastal environments provide human health benefits? And are these benefits at risk due to environmental change? @Marinebecca provides an overview of the evidence base & their implications, drawing on work from @DefraGovUK #marsocsci #consocsci #MASTSasm2021

Acknowledgements

The results of this study were written up as an Evidence Statement for Defra, as part of a UKRI Policy Internship. We would like to thank UKRI and Defra for their support and funding. The project was shaped and reviewed by a steering group of experts from Cefas, Defra, Marine Management Organisation, Plymouth Marine Laboratory, The Calouste Gulbenkian Foundation, University of Aberdeen, University of Exeter, and University of Hull. We would like to thank all members of the

Searching for a bridge over troubled waters': An exploratory analysis of trust in United Kingdom fisheries management

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Abstract:

Effective management of fisheries relies on high levels of trust between the fishing industry, managers and scientists. This study examines the current levels of trust that fishers have of governing and scientific bodies in United Kingdom (UK) fisheries, as the UK develops new management measures outside of the Common Fisheries Policy, after Brexit. A survey was conducted to examine trust, alongside fishers' opinions of current management goals and tools, and to investigate participation in cooperative schemes. We received a total of 43 responses from fishers across the UK representing a variety of vessel sizes and types of fisheries. These participants had low levels of trust in nearly all the institutions included in the survey, however, there was high variation between individual responses. The management goals of fishers aligned with several goals from Defra's 25-year Environment Plan. However, increasing the coverage of marine protected areas (MPAs) was the least popular goal. Increased use of selectivity devices was most favored as a management tool, while MPAs were again the least popular. More encouragingly, those fishers who had previously collaborated with scientists and managers showed higher levels of trust across the board. Based on our results, we recommend increased use of fishing industry-science partnerships and co-management as key to increasing trust as the UK seeks to reform and improve its management of fisheries after Brexit. Although our sample size was relatively small, we hope our study paves the way for more expansive analyses into trust in fisheries sectors globally, and how it can be improved.

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An exploratory survey of UK fishers' trust in fisheries management shows participants had low levels of trust in nearly all the institutions included. Those fishers who had previously collaborated with scientists and managers showed higher levels of trust. #MASTSasm2021.

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@ellieford_ @BD_Stew



Acknowledgements

We would particularly like to thank all of the respondents to this survey who provided their valuable perspectives on the management of UK fisheries. We would also like to thank Hannah Fennell, Ian Kinsey, Chris Williams and Griffin Carpenter for their thoughts and edits on the survey design. This project received ethical approval from the Environment and Geography Department at the University of York.

References

Ford, E. and Stewart, B.D., 2021. Searching for a bridge over troubled waters: An exploratory analysis of trust in United Kingdom fisheries management. *Marine Policy*, 132, p.104686.

A multidisciplinary approach to tackling entanglement

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Combining emerging technological capacity in data collection from Scotland's creel fishing fleet with fishers' traditional knowledge, to gain a better understanding of the issues surrounding marine animal entanglement and facilitate the development of practical, industry-led data collection and mitigation strategies.



Marine animal entanglement in fishing gear is a global issue that has conservation, welfare and human safety implications, however a thorough understanding of the true scale and impacts of this threat is lacking (IWC 2016; Dolman and Brakes 2018). In Scottish waters entanglement has been identified as a growing concern (MacLennan et al. 2021), particularly within the inshore creel fishery which makes an important economic, social and cultural contribution to many fragile coastal areas, but remains largely unregulated.

In a bid to help the creel sector minimise the negative consequences of entanglement whilst supporting the future sustainability of these fishing communities, this project is exploring theoretical and applied approaches to mitigating entanglement risk, both technical and behavioural.

Preliminary work modelling fisher's decision making has shown that understanding behavioural and attitudinal factors is informative for understanding fishing effort, and key to future decision support tools for policy makers, regulators and industry. Therefore a mixed approach to data collection and analysis is being adopted here, combining vessel track data to assess the spatio-temporal distribution and intensity of creel fishing effort around Scotland's coast, a mobile phone app that allows fishers to log details of their daily catches and wildlife sightings, and a series of face-to-face and online surveys and interviews to gather and utilise fisher's expertise and understanding of the environment in which they work, which will be essential to shape workable mitigation measures.

Acknowledgements

The researchers and project partners involved in this work thank all the fishers who have contributed to this research so far.

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Positionality as a (marine) social scientist researching Just Transitions: Notes from the Field.

Professor Tavis Potts

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Are you a student? (Delete as appropriate): No.

Any social researcher in the environmental and marine sciences will encounter the issues of 'positionality' in the research process. Positionality is a term, particularly in qualitative social research, that refers to the *stance* or *positioning* of the researcher in relation to the human, social and political context of the study (Bourke 2014). It could be explored in the context of the research process via a relationship with individuals, expert stakeholders, a community, or an organisation. Many of us who pursue 'action research' are working on 'live' issues with human subjects and will encounter positionality during the research process. It raises interesting questions in how we navigate, research or advocate issues of power and justice in social research. It requires reflexivity in our role as a researcher and relation to the researched. This brief seminar will explore issues of positionality when investigating issues around Just Transitions in the coastal context. Just transitions involve questions of climate and energy (in)justice, the winners and losers in transitions, mechanisms of change and questions of power and control. These issues are increasingly prevalent in marine social science (Bennett *et al* 2021). The seminar will explore examples of positionality and reflection in a current project on energy transition and conflict in NE Scotland.

BOURKE, B., 2014. Positionality: Reflecting on the Research Process. *The Qualitative Report*, **19**(33), pp. 1-9.

Nathan James Bennett, Jessica Blythe, Carole Sandrine White, Cecilia Campero (2021) Blue growth and blue justice: Ten risks and solutions for the ocean economy, *Marine Policy*, 125, <https://doi.org/10.1016/j.marpol.2020.104387>.

Tweetable Abstract:

How do researchers position themselves to deal with issues of power and justice in marine social research? Potts shares experiences from a live project on energy transition in Scotland.

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