



# Dr Abigail McQuatters-Gollop

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## ABOUT ME

I am a high-profile interdisciplinary conservation ecologist and associate professor in marine conservation. I use natural and social science skills to enable the sustainable use of marine and coastal environments through delivery of the best available evidence into the decision-making process. I've led development of pelagic biodiversity indicators for UK and OSPAR policy for 12 years. I'm passionate about knowledge exchange, from policy-makers to the public, to encourage, facilitate, and inspire marine sustainability.

## PROFILE AND REACH



**50**

Peer-reviewed papers



**>40**

Policy publications



**>4000**

Citations



**>4000**

Twitter followers



**12**

International keynotes



**34**

h-index

## RECENT EXPERIENCE

2015 – **ASSOCIATE PROFESSOR, MARINE CONSERVATION**



**University of Plymouth**

Lecturer and supervisor to marine conservation students while maintaining a high research profile and engaging directly with UK, EU, and international policy-makers.

2019 – **COMPANY DIRECTOR**



**Ecosystem Approaches, Ltd**

Founder and director of environmental consultancy which uses natural and social science to enable sustainable use of the coastal and marine environments.

2019 – **SYSTEMS RESEARCH FELLOW, MARINE**



**Defra, Chief Scientific Advisor's Office**

Development and implementation of systems thinking approaches in Defra.

2013 – **KNOWLEDGE EXCHANGE FELLOW, MARINE POLICY**



**NERC**

Two fellowships focusing on integrating scientific evidence into UK and international marine policy mechanisms.

2008 – **SCIENCE AND POLICY RESEARCH FELLOW**



**Sir Alister Hardy Foundation for Ocean Science**

Delivery of scientific advice to policy-makers. Spatio-temporal analysis of plankton data.

## KEY SKILLS



Biodiversity and conservation advice



Biodiversity indicator development



Environmental policy expertise



Science-policy communication



Systems thinking



Nature-based solutions



Stakeholder engagement



Plankton ecology



Scientific Scuba diving

## EDUCATION

2008 **PHD PLANKTON AS INDICATORS FOR EUTROPHICATION IN EUROPE'S SEAS**



**University of Plymouth**

2001 **MA MARINE AFFAIRS AND POLICY**



**University of Miami  
Rosenstiel School of  
Marine and Atmospheric  
Science**

2000 **BA MARINE AFFAIRS AND POLICY**



**University of Miami**

## SELECTED RECENT MEDIA HIGHLIGHTS

2022 • TEDx talk: The Breath-Giving Beauty of Bioluminescence,  
<https://tinyurl.com/BeautyOfPlankton>

2021 • The Conversation: Inside the world of tiny phytoplankton –  
microscopic algae that provide most of our oxygen  
<https://tinyurl.com/PlanktonBreath>

## LANGUAGE





## KEY RELEVANT PROFESSIONAL ACTIVITIES

- 2023** • **OSPAR Pelagic Habitats Expert Group Chair** Leading OSPAR's implementation of the Marine Strategy Framework Directive for pelagic habitats (2012 – present)
- **Defra/HBDSEG: Pelagic Habitats Expert Group Co-Chair** Co-leading implementation of the UK Marine Strategy for pelagic habitats (2011 – present)
  - **EU JRC Pelagic Habitats group working on interpretation of MSFD Commission Decision** (2021- present)
  - **University of Plymouth Sustainable Earth Institute Executive Committee** (2019 – present)
  - **Bright Tide** Advisory Board member
  - **State of Nature Steering Group** (2017 – present)
  - **ICES Working Group on Biodiversity Science Member** (2014 – present)
  - **ICES Working Group on Common Ecosystem Reference Points Member** (2018 – present)
- 2020** • **British Ecological Society Brexit Policy Working Group** (2017 – 2020)
- 2018** • **Environment, Food, and Rural Affairs UK Fisheries Bill Inquiry**, Scientific witness. UK Parliament
- **Environmental Audit Committee Sustainable Seas Inquiry**, Scientific witness. UK Parliament
  - **The Science of Managing UK Fisheries**, Invited speaker, UK Parliament
  - **Research, Impact and the UK Parliament**, Invited speaker, Parliamentary Office for Science and Technology
  - **Challenger Society Marine Science and Policy Special Interest Group** Co-founder and co-chair (2015 –2018)
- 2017** • **International policy decisions based on world-leading evidence**, Invited case study, UK Parliament
- **Japan Society for the Promotion of Science Invited Fellowship** Engaging local policy makers with ocean acidification research



## PUBLICATIONS

I have published **>50 papers** in international peer-reviewed journals, one book chapter, and contributed to multiple **high impact policy publications**. My work has been **cited >4000** times, my **h-index=34** and my **i10 index=45**.



### Selected peer-reviewed publications:

- Firth, L.B., Farnworth, M., Fraser, K.P.P. and **McQuatters-Gollop, A.**, (2023). Make a difference: Choose artificial reefs over natural reefs to compensate for the environmental impacts of dive tourism. *Sci Total Environ* 901: 165488.
- Holland, **M.M**, **McQuatters-Gollop, A.**, et al. (2023). Major declines in NE Atlantic plankton contrast with more stable populations in the rapidly warming North Sea. *Sci Total Environ* 898: 165505.
- McQuatters-Gollop, A.**, et al. (2022). Assessing the state of marine biodiversity in the Northeast Atlantic. *Ecol Indic* 141, 109148.
- Smit, K.P., **McQuatters-Gollop, A.**, et al. (2022). A Roadmap to advance marine and coastal monitoring, biodiversity assessment, and international reporting: A developing nation perspective. *Front Mar Sci* 9. 10.3389/fmars.2022.886373
- Karcher, D.B., **McQuatters-Gollop, A.**, et al. (2022). Lessons from bright-spots for advancing knowledge exchange at the interface of marine science and policy. *J of Environ Manage* 314, 114994.
- Chee, S.Y., **McQuatters-Gollop, A.**, et al. (2021). Enhancing uptake of nature-based solutions for informing coastal sustainable development policy and planning: A Malaysia case study. *Front Ecol Evol* 9. 10.3389/fevo.2021.708507
- Ostle, C., **McQuatters-Gollop, A.**, et al. (2021). The Plankton Lifeform Extraction Tool: a digital tool to increase the discoverability and usability of plankton time-series data. *Earth System Science Data* 13, 5617-5642.
- Bedford, J., **McQuatters-Gollop, A.**, et al. (2020). Lifeform indicators reveal large-scale shifts in plankton across the North-West European shelf. *Glob Change Biol* 26: 3482-3497.
- McQuatters-Gollop, A.**, et al. (2019). Plankton lifeforms as a biodiversity indicator for regional-scale assessment of pelagic habitats for policy. *Ecol Ind* 101: 913-925.
- Capuzzo, E., **McQuatters-Gollop, A.**, et al. (2017). A decline in primary production in the North Sea over 25 years, associated with reductions in zooplankton abundance and fish stock recruitment. *Glob Change Biol* 24: e352-e364
- McQuatters-Gollop, A.**, et al. (2017). From microscope to management: the critical value of plankton taxonomy to marine policy and biodiversity conservation. *Marine Policy* 83:1-10.
- McQuatters-Gollop, A.**, et al. (2011). Is there a decline in marine phytoplankton? *Nature* 472:E6-E7.



## Recent policy contributions:

- McQuatters-Gollop, A.,** Holland, M., Louchart, A. and Artigas, L.F., (2023). Pelagic Habitat Thematic Assessment. The 2023 Quality Status Report for the Northeast Atlantic. OSPAR, London.
- Parliamentary Office for Science and Technology: **McQuatters-Gollop:** contributing author, (2023). POSTNOTE: Marine Protected Areas and Highly Protected Marine Areas, No. 698. Parliamentary Office for Science and Technology, London, 24 pp.
- Government Office for Science (**McQuatters-Gollop, A.,** contributing author), (2022). Systems thinking: An introductory toolkit for civil servants, p. 85.
- Parliamentary Office for Science and Technology (**McQuatters-Gollop, A.,** contributing author), (2021). POSTNOTE: Effective biodiversity indicators, No. 644, London, 4 pp.
- Defra Systems Research Programme (**McQuatters-Gollop, A.,** contributing author), (2021). A Primer for Integrating Systems Approaches into Defra. Defra, London.
- Edwards, M., Atkinson, A., Bresnan, E., Helaouët, P., **McQuatters-Gollop, A.,** Ostle, C., Pitois, S. and Widdicombe, C., (2020). Plankton, jellyfish and climate in the North-East Atlantic. *MCCIP Science Review 2020*: 322–353.
- Parliamentary Office for Science and Technology (**McQuatters-Gollop, A.,** contributing author), (2019). POSTNOTE: UK Climate Change and Fisheries, No. 604, London, 4 pp.
- Hayhow, D., **McQuatters-Gollop, A.,** et al. (2019). The State of Nature - 2019. The State of Nature partnership, UK.
- Parish, N. and Environment, Food, and Rural Affairs Committee (**McQuatters-Gollop** provided evidence), (2019). Beyond the Common Fisheries Policy: Scrutiny of the Fisheries Bill. Environment, Food, and Rural Affairs Committee, House of Commons, UK Parliament, London, 38 pp.
- Creagh, M., and the Environmental Audit Committee (**McQuatters-Gollop** provided evidence), (2019). Sustainable Seas. Fourteenth Report of Session 2017-19. Environmental Audit Committee, House of Commons, UK Parliament, London, 66 pp.



## SELECTED AWARDS AND ESTEEM

- 2021** • **Student and Staff Teaching and Representation (SSTAR) Award** Nominee: Inspirational Teacher of the Year
- 2015** • **Michael Colebrook Memorial Award** For outstanding external representation of SAHFOS and promotion of the CPR survey to stakeholders and policy makers
- 2012** • **Challenger Society for Ocean Science Honorary Fellowship** For achievement and promise in marine biology



## SELECTED EXTERNAL FUNDING

- 2023** • **£192,183** Defra: Marine Natural Capital Ecosystem Assessment: Pelagic Big Data and Policy
- 2021** • **€182,689** EMFF: North East Atlantic project on biodiversity and eutrophication assessment integration and creation of effective measures (NEA-PANACEA)
- **£25,000** JNCC: Ocean acidification and the seabed: how do we detect early warning signals?
- 2019** • **£108,000** Defra Senior Policy Fellow – Marine
- 2018** • **£188,151** EMFF: Increasing Confidence in Evaluating GES for Regional Assessments of Pelagic Habitats (ICEGRAPH)
- **£48,996** Defra: Increasing the Confidence in Determining GES for English Pelagic Habitats
- 2017** • **£70,000** NERC: Knowledge Exchange Fellowship: Plankton science for supporting the implementation of marine ecosystem-based management and conservation.
- 2015** • **€146,000** EMFF: Applying an ecosystem approach to (sub) regional habitat assessments (EcAprHA).
- 2013** • **£110,269** NERC: Knowledge Exchange Fellowship: Interpreting and targeting NERC-funded research outputs to inform and influence marine policy.
- 2012** • **€100,000** EU European Marine Observation Data NETWORK (EMODNET) Biology
- 2010** • **£116,610** INTERREG: Our shared sea: Mechanisms of ecosystem change in the Western Channel (Marinexus)
- 2008** • **€133,774** FP7 Knowledge Based Sustainable Management for Europe's Seas (KnowSeas)