

Barry O'Neill – Short CV

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Degrees

1998 PhD, Dept of Engineering, University of Aberdeen
1991 MSc Dept of Applied Mathematics, University College Cork
1987 BSc Dept of Applied Mathematics, University College Cork

Positions

DTU Aqua: 2020 – present Professor in Physical Impacts of Towed Fishing
2018 – 2020 Senior Research Scientist
Marine Scotland Science: 2009 - 2018 Group Leader Fishing Technology Section
2004 - 2009 Principal Scientific Officer
1998 - 2004 Higher Scientific Officer
1991 – 1998 Scientific Officer

Research area

The physical impact of towed fishing gears on the sea bed,
Modelling the deformation of netting materials,
The hydrodynamics of flow through netting,
Drag reduction and fuel efficiency of towed fishing gears
Discard reduction and the selectivity of commercial fishing gears

Distinctions and awards

Keynote speaker:

- ICES – FAO Symposium: Technology Development and Sustainable Fisheries, April 2016, Merida, Mexico;
- ICES Symposium: Effects of fishing on benthic fauna, habitat and ecosystem function, June 2014, Tromso, Norway;
- SmartFish 2010. International Symposium on Conservation and Sustainable Utilization in Marine Fisheries. October 2010, Zhoushan, China

Memberships of scientific committees (last 5 years)

- EU Scientific Technical and Economic Committee for Fisheries (STECF).
- Steering group of DeMat (a biennial international conference on Fisheries Engineering).
- ICES WGFTFB, WGFBIT, WGCARBON.

Publications

Type of publication:	Number
Web of Science publications:	80
Citations:	1779
<i>h</i> -index:	25
Reports:	6

International conferences (last 5 years)

Type of participation:	Number
Contributions as first author:	7
Invited:	2
Organizing role:	1

Evaluation tasks and reviews (last 5 years)

- Editorial board of the Fisheries Research.
- Editorial board of the ICES Journal of Marine Science.
PhD juries: University of A Coruña, 2025; Arctic University of Norway, 2025, University of Rostock, 2025; DTU Aqua, 2020, 2025.
- Reviewer for: Ocean Eng; Aqua Eng; Fish and Fisheries; CJFAS; Num Met Eng; Comp and Elec Agri; Fluids and Struc; Mar Pol; App Ocean Res; NZJ Mar Fresh Res; Eur J of Mec; J Mar Sys, PLOS One; ICESJMS; Fis Res.

Advisory tasks (last 5 years)

- DEFRA technical briefing - Seabed carbon, trawling and MPAs (2025)
- Notat til Ministeriet for Fødevarer, Landbrug og Fiskeri. Potentielle effekter af at anvende semipelagiske trawldøre i trawlfiskeriet (2024)
- Miljøskånsomhed og økologisk bæredygtighed i dansk fiskeri (2022)
- Frequent informal conversations with Ministeriet for Fødevarer, Landbrug og Fiskeri

Educational tasks at academical level (last 5 years)

- Lecturer in DTU Aqua Fish Capture Technology PhD School
- Lecturer in DTU Aqua, Sustainability of Fish Capture Methods, MSc Course.

Supervision (ongoing or finished in the last 5 years)

	Principal/main supervisor	Co-supervisor
Other (MSc etc.)	N/A	2
PhD:	4	3
Postdoc:	1	N/A

Collaboration with other stakeholders (within last 5 years)

- Fishing Industry (MLD, Hampidjan, Thyborøn, Strandby Nets)
- Fisheries Managers (Ministeriet for Fødevarer, Landbrug og Fiskeri, Fiskeri Styrelsen, European Fisheries Control Agency)
- MSC, Tænketanken Hav
- Research Institutes: SINTEF, AZTI, IFREMER, CNR, BIM, CEFAS, ILVO, Thunen

Grants (competitive) (ongoing or finished within last 5 years)

- InfiniFish - Climate-friendly and resilient fisheries through innovation and co-learning 2025 – 2029. **DTU-Lead.** (EU – Horizon)
- Intrepid – Investigating transport, resuspension, penetration impacts of demersal gears. 2023 – 2027. **Coordinator.** (EHFAF).
- Reduce Gas – Reduced climate gas emissions in the brown shrimp fishery. 2023 – 2027. **WP-Lead** (EHFAF)
- Trawlvision - Real time monitoring of catching process, and using hydrodynamics to develop low impact selective fishing gears. 2023 – 2025. **Coordinator.** (Oceankind)
- RightFish - Reducing environmental impact and greenhouse gas emissions in commercial fisheries. 2022 – 2025. **Coordinator.** (BluBio CoFund)
- STEER – Steerable trawl doors to reduce bottom contact and improve efficiency. 2020 – 24. **Coordinator.** (GUDP)
- ReFigure – Quantifying and reducing the physical impact of mobile fishing gears. 2020 – 22. **Coordinator.** (EMFF)
- HydroSel - Using hydrodynamics to develop more selective fishing gears. **Coordinator** 2019 – 2021 (EMFF)
- MatRedEx - Innovative materials to reduce fuel emission and increase cod exits. 2020 – 22. **WP-Lead.** (EMFF)

Selected publications (within last 5 years)

- van der Reijden, K.J., Eigaard, O., Bastardie, F., van Denderen, D., O'Neill, F.G. (in press). A gear component approach to trawling impact and sediment mobilization assessments. ICES Journal of Marine Science.
- Huda, N., Veiga-Malta, T., Eigaard, O., O'Neill, F.G., 2025. Flume tank trials to investigate the snagging of towed demersal fishing gears on boulders. Fisheries Research. <https://doi.org/10.1016/j.fishres.2024.107237>
- O'Neill, F.G., Eighani, M., and Savina, E., 2024. Sediment penetration by towed, seabed-contacting, fishing gear components. Marine Pollution Bulletin. <https://doi.org/10.1016/j.marpolbul.2024.117229>
- O'Neill, F.G and Breddermann, K., 2024. The contribution of mesh opening angle to the drag of netting panels. Ocean Engineering. Volume 305. <https://doi.org/10.1016/j.oceaneng.2024.117959>
- Eighani, M., Veiga-Malta, T. and O'Neill, F.G. 2023. Hydrodynamic performance of semi-pelagic self-adjusting otter boards in demersal trawl fisheries. Ocean Engineering. 272. <https://doi.org/10.1016/j.oceaneng.2023.113877>