

Bent Herrmann

ORCID

0000-0003-1325-6198

Degrees

- Master of Engineering Science, Faculty of Engineering and Science/Institute for Machine Construction, Aalborg University, Denmark (1985).
- PhD, Faculty of Engineering and Science/Institute for Production, Aalborg University, Denmark (2005).

Positions

- Development Engineer, Research and Development, Pedershaab a/s, Denmark (1986-1990).
- R&D manager, Research and Development, Pedershaab a/s, Denmark (1990-1993).
- Own company (special grant from Erhvervsfremmestyrelsen), Denmark (1993-1994).
- Consultant, Pipetech Innovation, Nordjylland Science Park, Denmark (1994-1996).
- Consultant, Forsheda AB, Sweden (1996).
- Project Leader, Danish Army Material Command, Denmark (1996-1998).
- Consultant, Danish Institute for Fisheries Technology and Aquaculture (DIFTA), Denmark(1998-1999).
- Project Leader, Danish Army Material Command, Denmark (1999-2000).
- External Consultant, DIFTA, Denmark (1999-2000).
- Teaching computer science on bachelor level, Frederikshavn Business School, Denmark (2000-2002).
- Senior Research and Development Engineer, Photronic a/s, Nordjylland Science Park, Denmark (2002-2003).
- Research Assistant in fisheries technology, Danish Institute of Fisheries Research (DIFRES), Denmark (2003-2005).
- Scientist in fisheries technology, DIFRES, Denmark (2005-2006).
- Senior Scientist in fisheries technology, DTU Aqua, Technical University of Denmark (2007-2012).
- Teaching physics and programming, Hjørring Technical Gymnasium (part time), Denmark (2008-2011).
- Senior Scientist, SINTEF Fiskeri & Havbruk, Denmark/Norway (2012-2016).
- Chief Scientist, SINTEF Ocean, Denmark/Norway (2016-2024).
- Professor in fish capture technology, University in Tromsø, Norway (part time) (2014-present).
- Professor in fishing gear performance, Section for Fisheries Technology, DTU Aqua, Technical University of Denmark (2020-present).

Research area

Primary research areas include computer-based methods and tools to assist development of new selective and efficient fishing gears and to help analysing and understanding experimentally collected data for assessment of gear selectivity and catch efficiency. This research work has led to development of the tools/methods PRESEMO, FISHSELECT and SELNET which are currently used by several research institutions conducting research and providing advice in fisheries technology.

Distinctions and awards

- Being part of the research team getting the runner up price in 2014 Smart Gear competition by WWF with the flatfish bycatch reduction device FRESWIND.
- Being one of the authors on the conference paper OMAE2015-41892 "the physical behaviour of seine ropes for evaluating demersal seine fishing" that received the "OMAE2015 Best paper award – Ocean Engineering Symposium" (2015).

Memberships of scientific committees (last 5 years)

ICES working group WGFTFB (2003-present). Convener for topic groups at ICES WGFTFB (2015-2018).

Publications

| Type of publication: | Number |
|------------------------------|--------|
| Web of Science publications: | 238 |
| Citations: | 4321 |
| <i>h</i> -index: | 38 |

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|---------------------------------|-----|
| Other peer review publications: | |
| Books: | |
| Book chapters: | 1 |
| Reports: | +50 |

International conferences (last 5 years)

| Type of participation: | Number |
|--------------------------------|--------|
| Contributions as first author: | |
| Invited: | |
| Organizing role: | |

Evaluation tasks and reviews (last 5 years)

- Review assignments for various (15+) peer reviewed journals.

Advisory tasks (last 5 years)

- Participation in various ICES WGFTFB.

Educational tasks at academical level (last 5 years)

- DTU course BSc: Lecturing fisheries technology on BEng, Sisimiut, Greenland.
- DTU Course: Mathematics (Calculus and Algebra 2 for Fisheries Technology), Hirtshals, Denmark.

Supervision (ongoing or finished in the last 5 years)

| | Principal/main supervisor | Co-supervisor |
|------------------|---------------------------|---------------|
| Other (MSc etc.) | 2 | 0 |
| PhD: | 3 | 6 |
| Postdoc: | 0 | N/A |

Innovation activities (last 5 years)

- Being part of development, test and documenting several selective fishing gears to reduce unwanted catches through industry/science partnerships.
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Collaboration with other stakeholders (within last 5 years)

- Participation in meetings with fisheries authorities and fishing industry regarding advice and disseminating of scientific results.

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

- H2020: Smart fisheries technologies for an efficient, compliant and environmentally friendly fishing sector (SMARTFISH) (coordinator and development of proposal concept).
- SustainTrawl: Technology for a future Norway lobster trawling with less environmental impacts (coordinator).
- GENTLE: Developing a more sustainable, selective and gentle approach to trawling (coordinator).

Selected publications

- Herrmann B., Øye E.R., Dyrstad J.S., Alvestad A.H. (2024). Can automatic measuring replace humans when evaluating a shrimp fishery?. *Regional Studies in Marine Science*, 79, 103852
- Herrmann B., et al. (2024). Are rigid sorting devices necessary to control size selectivity in demersal trawl fisheries?. *Regional Studies in Marine Science*, 72, 103445
- Herrmann B., et al. (2022). Accounting for Uncertainties in Biodiversity Estimations: A New Methodology and Its Application to the Mesopelagic Sound Scattering Layer of the High Arctic. *Frontiers in Ecology and Evolution*, 10, 775759.
- Herrmann B., Sistiaga M, Rindahl L & Tatone I (2017). Estimation of the effect of gear design changes in catch efficiency: methodology and a case study for a Spanish longline fishery targeting hake (*Merluccius merluccius*). *Fisheries Research*, 185: 153-160.
- Herrmann B., et al. (2019). Size selectivity and length-dependent escape behaviour of haddock in a sorting device combining a grid and a square mesh panel. *Canadian Journal of Fisheries and Aquatic Sciences*, 76(8): 1350-1361. DOI: 10.1139/cjfas-2017-0461