DTU Aqua
National Institute of Aquatic Resources

Pernille Nielsen – Short CV

ORCID
0000-0003-4478-6335

Degrees
- PhD, Marine Biological Section, University of Copenhagen, Denmark (2014).
- MSc, Institue of Biology and Chemistry, Roskilde University, Denmark (2005).

Positions
- Senior Researcher, DTU Aqua, Technical University of Denmark (2020-present).
- Researcher, DTU Aqua, Technical University of Denmark (2016-2020).
- Research Assistant, DTU Aqua (2013-2015).
- Biologist and Project Leader, Danish Shellfish Center (2011-2012).

Research area
My research can be divided into three overall topics in relation to native and invasive bivalves i) research on bivalve biology, populations dynamics and habitat distribution of natural wild beds and reefs but also in relation to nature restoration, ii) the cross field between basic bioenergetics studies and how to optimize mussel aquaculture production and iii) research on sustainable ecosystem-based management of shellfish fisheries including ecosystem impacts.

Distinctions and awards
- N/A

Memberships of scientific committees (last 5 years)
- Member of the Danish Mussel Committee (2013-present).
- DTU Aqua's representative of the Danish advisory group for invasive species (2017-present).

Publications

Type of publication:	**Number**
Web of Science publications:	23
Citations:	517
h-index:	13
Other peer review publications:	
Books:	0
Book chapters:	0
Reports:	38

International conferences (last 5 years)

Type of participation:	**Number**
Contributions as first author:	3
Invited:	0
Organizing role:	0

Evaluation tasks and reviews (last 5 years)
- Evaluator of research proposal for the Research Council of Norway.
- Evaluator of research proposal for the Department of Agriculture, Food and the Marine (DAFM), Ireland
- Opponent at PhD defence at Wagening University.
- Reviewer for selected journals: Aquacultural Engineering, Aquaculture Research, Fisheries Oceanography, ICES Journal of Marine Science, Nature Food, Marine Biology Research, Marine Environmental Research, Science of the Total Encironment. Limnology and Oceanogogrephy.

Advisory tasks (last 5 years)

- Coordinator for advice to the Ministry of Food, Agriculture and Fisheries of Denmark in realtion to bivalve fisheries and aquaculture incl. environmental impact assessments of mussel and oyster fishery in Natura 2000 sites, mussel on-bottom cultivation, mussel longline production, mussel mitigation cultures to mitigate excess nutrients in eutrophic areas and invasion of Pacific oyster in Danish coastal waters.

Educational tasks at academical level (last 5 years)

- Contibutor in developing new moduels for the DTU Aqua's master program in "Sustainable Fisheries and Aquaculture".
- Contributor to teaching graduate courses in "Biological Oceanography", "Management, biodiversity, and conservation of aquatic ecosystem" and "Introduction to aquatic ecosystems and their organisms" as part of DTU Aqua's master program in "Ocean Engineering" and "Sustainable Fisheries and Aquaculture".
- Developing and teaching the "Mussel modules" as part of the Sustainable Aquaculture for Low Trophic Species" a free Massive Open Online Course (MOOC) at The Arctic University of Norway as part of the EU H20202 AquaVitae project.

Supervision (ongoing or finished in the last 5 years)

	Principal/main supervisor	Co-supervisor
Other (MSc etc.)	0	3
PhD:	1	2
Postdoc:	1	N/A

Innovation activities (last 5 years)

	Number
Patents:	0

Collaboration with other stakeholders (within last 5 years)

- The Danish Fisheries Agency
- The Danish Nature Agency
- The the Danish Fishermen's Association, The Danish Mussel Fishermen's Association, The Mussel Industry's Association as well as Danish mussel farmers.
- Cartron Point Shellfish LTD, Ireland
- Ørsted, Denmark
- WWF - Denmark

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

- European Fisheries Fund and the Danish Fisheries Agency. Climate-adaptive shellfish aquaculture (2024-2027, PI).
- EU Horizon2020 Program: UltFarms: Circular low trophic offshore aquaculture in wind farms and retoration of marin space (2023-2026, PI).
- European Fisheries Fund and the Danish Fisheries Agency. Flat oyster grow-out (2023-2026, PI).
- European Fisheries Fund and the Danish Fisheries Agency. Sustainable development of the Danish mussel production (2023-2026, PI).
- European Fisheries Fund and the Danish Fisheries Agency. Cumulative effects of mussel farming (2023-2026, PI).
- Ørsted A/S. Repopulating European flat oyster (*Ostrea edulis*) and horse mussel (*Modiolus modiolus*) reefs in Denmark (2022-2027, Coordinator).
- Velux Foundation and the Danish Ministry of Environment. Center for marine restoration (2022-2026, PI).
- European Maritime and Fisheries Fund and the Danish Fisheries Agency. Mapping of coastal fisheries and reef monitoring in Danish waters (2020-2023, PI).
- The Danish Environmental Protection Agency. Environmental impact assessment of Danish off-coast fish farms in or nearby Natura-2000 areas (2020-2022, PI).
- European Maritime and Fisheries Fund and the Danish Fisheries Agency: Sustainable cockle fishery in Limfjorden II (2020-2022, PI).
- EU Horizon2020 Program: AquaVitae, New species, processes and products contributing to increased production and improved sustainability in emerging low trophic, and existing low and high trophic aquaculture value chains in the Atlantic (2019-2023, PI).

Selected publications

- Tett P, Franco SC, Charalambides G, Hughes A, Mikkelsen A, Nielsen KN, Routledge EAB, **Nielsen P**, James P (2025). Leaving the niche: recommendations for mainstreaming Low Trophic Aquaculture in countries around the Atlantic basin. Marine Policy. https://doi.org/10.1016/j.marpol.2024.106475
- Thurstan RH, McCormick H, Preston J, Ashton EC, BennemaFP, Cetinić AB, Brown JH, CameronTC, da Costa F, Donnan D, Ewers C, Fortibuoni T, Galimany E, Giovanardi O, Grancher R, Grech D, Hayden-Hughes M, Helmer L, Jensen KT, Juanes JA, Latchford J, Moore ABM, Moutopoulos DK, **Nielsen P**, von Nordheim H, Ondiviela B, Peter C, Pogoda B, Poulsen B, Pouvreau S, Roberts CM, Scherer C, Smaal AC, Smyth D, Strand Å, Theodorou JA, zu Ermgassen PSE (2024). The world was our oyster: Records reveal the vast historical extent of European oyster reef ecosystems. Nature Sustainability https://doi.org/10.1038/s41893-024-01441-4
- Johansson I, Saurel C, Taylor D, Petersen JK, **Nielsen P** (2024). Longevity of subtidal mussel beds (*Mytilus edulis*) in eutrophic coastal areas. Journal of Sea Research. https://doi.org/10.1016/j.seares.2024.102506
- Krause G, Le Vay L, Buck BH, Costa-Pierce BA, Dewhurst T, Heasman KG, Nevejan N, **Nielsen P**, Nielsen KN, Park K, Schupp MF, Thomas JB, Troell M, Webb J, Wrange AL, Ziegler F, Strand Å (2022). Prospects of Low Trophic Marine Aquaculture Contributing to Food Security in a Net Zero-Carbon World. Frontiers in Sustainable Food Systems, 6, https://doi.org/10.3389/fsufs.2022.875509
- **Nielsen P**, Nielsen MM, McLaverty C, Kristensen K, Geitner K, Olsen J, Saurel C, Petersen JK (2021). Management of bivalve fisheries in marine protected areas. Marine Policy,124:104357, https://doi.org/10.1016/j.marpol.2020.104357