DTU Aqua
National Institute of Aquatic Resources

Camille Saurel - Short CV

ORCID
0000-0002-6266-852X

Degrees

- PhD (Mussel production carrying capacity), University of Wales, Bangor, UK (2008).
- MSc (Marine Environmental Protection), University of Wales, Bangor, UK (2002).
- French Maitrise Biologie des populations et des ecosystèmes mention Environnement Biology of populations and ecosystems, mention Environment, Université Paul Sabatier, Toulouse, France (1999)
- Equivalent BSc, (French Licence de biologie des organismes) Biology of organisms, Université Paul Sabatier, Toulouse, France (1998)
- Diploma of Higher Education (French DEUG Sciences de la vie) Sciences of life, Université de Nice Sophia Antipolis, France (1997)

Positions

- Research Coordinator of Sustainable Resource Utilization (2020-present).
- Senior Researcher, Section for Coastal Ecology, DTU Aqua, Technical University of Denmark (2014-present).
- Postdoc, New University of Lisbon (FCT-UNL), Monte de Caparica, Portugal (2008-2014).
- Research Assistant, Bangor University, UK (2002-2006).

Research area

Filter-feeders such as mussels and oysters are key low trophic organisms in estuaries and coastal systems, where they can act as top-down control. My research focuses on sustainable low-trophic organism production (mussel, oysters, cockles) from both aquaculture and fisheries in collaboration with stakeholders. I am also working on the use of mussel culture as mitigation tool for nutrient removal in eutrophied coastal waters.
My research areas include the ecological impacts of bivalve production and biogenic reef restoration in coastal waters, ranging from biodiversity to water quality. I investigate biological and physical processes, monitoring and bivalve surveys, and the impact of invasive species and climate change on bivalve production. Finally, a significant part of my research concerns the development of hatchery and biosecurity practices, as well as genetic diversity for the European flat oysters and other bivalve species for aquaculture and restoration.

Publications

Type of publication:	**Number**
Web of Science publications:	**33**
Citations:	**851**
h-index:	***16***
Other peer review publications:	
Books:	**1**
Book chapters:	**1**
Reports:	**24**

International conferences (last 5 years)

Type of participation:	**Number**
Contributions as first author:	3
Invited:	2
Organizing role:	1

Evaluation tasks and reviews (last 5 years)

- Referee of international journals, e.g. Science of the Total Environment, Aquaculture Environment Interaction, Aquatic Living Resources, Aquaculture Report Review, Reviews in Aquaculture.
- Reviewer for proposal of the French National Research Agency (ANR) generic call (2021).
- Internal chair censor for PhD thesis Kristian Maar, DTU Aqua, DK (2024).

Advisory tasks (last 5 years)

- Advising the Ministry of Food, Agriculture and Fisheries of Denmark on all matters relating to shellfish production.
- Advisor to the Ministry of Environment of Denmark on implementation of marine mitigation measures.
- Freitas, P. S., Saurel, C., Olsen, J., Petersen, J. K., Nielsen, P. & Boye, A. G. 2023. Rådgivning om bestandsvurdering og TAC for hjertemuslingefiskeri 2023-2024. DTU Aqua, 34 p., No. 23-1009397.
- Freitas P.S., Saurel C., Olsen J. and Petersen J.K. 2022. Hjertemuslingefiskeri i Limfjorden: Status 2021-2022 sæsonen og anbefalinger om bæredygtig kvote for sæsonen 2022-2023. DTU Aqua, 18p., Notat J nr. 22/1008192.
- Nielsen, P., Saurel, C., Hansen, F.T., Geitner K., Freitas, P., Petersen, J.K. 2021. Notat om udbredelse og påvirkning af stillehavsøsters. J.nr: 21/1035830 Notat til Miljøstyrelsen.
- Freitas P.S., Saurel C., Olsen J. and Petersen J.K. (2021) "Hjertemuslinger fiskeri i Limfjorden: Status 2020-2021 sæson og ledelsesanbefalinger". Notat til Ministeriet for Fødevarer, Landbrug og Fiskeri.
- Saurel, C., L. Madsen, P. Nielsen, J.K. Petersen. 2020. Dødelighed hos europæisk østers og forekomst af Bonamia i Limfjorden. J.nr. 20/1000578
- Petersen, J.K, C. Saurel, L. Madsen 2020. Dødelighed hos østers i Nissum Bredning. J.nr: 20/1000578
- Freitas P.S., Nielsen P., Saurel C., Olsen J. and Petersen J.K. (2020) " Hjertemuslingers fiskeri i Limfjorden: Status og ledelsesanbefalinger". Notat til Fiskeri, Miljø- og Fødevareministeriet.

Educational tasks at academical level (last 5 years)

- Coordinator course 25348 5ECTS Low Trophic Aquaculture: Shellfish, micro- and macroalgae in the MSc Sustainable Fishery and Aquaculture.
- Course contributor 25350 Introduction to aquatic ecosystems and their organisms in the MSc Sustainable Fishery and Aquaculture.

Supervision (ongoing or finished in the last 5 years)

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

Innovation activities (last 5 years)

	Number
Patents:	0

- Developing starfish fishery for production of starfish meal.
- Further development of mussel farming as a mitigation tool in relation to eutrophication.
- Further development of long-line farming in Denmark incl. prolongation of the season.
- Development of on-bottom blue mussel aquaculture.
- Development of hatchery and grow out technology for flat oyster spat production.
- Development of biosecurity technology for flat oyster production.
- Development of Early Warning Systems for shellfish Aquaculture

Collaboration with other stakeholders (within last 5 years)

- Industry: shellfish fishery (FME, CF, DFPO), Shellfish industry (Vilsund Blue), Shellfish aquaculture (Seafood Limfjord, Wittrup Seafood, Oyster Boat, Kerteminde, Orsted.
- Authorities: The Danish Coastal Authority, Environmental Protections Agency.
- NGO´s/other: Fjordhaverne (blue garden associations, Denmark), WWF, and Limfjordsrådet (municipality collaboration).

Grants (competitive) (ongoing or finished within last 5 years) *including stakeholders

- *2024-2026 – EFHAF – Climate-Adaptive Shellfish Aquaculture (CASA). Coordinator
- *2024-2026 – EFHAF – Flat oyster Grow out (FØGU). Coordinator
- *2024-2026 – EFHAF – Hjertfisk – PI
- *2024-2026 – EFHAF BUMUS – PI
- *2024-2026 – EFHAF KUMO – PI
- 2023-2026 – INTERREG – BlueBioClimate (BBC). PI
- 2023-2027 – LIFE – COASTaLIFE- PI
- *2023-2027- IFD: Low Trophic Aquaculture: Blue food for green transition (LTA BOOST) PI.
- *2022-2026- Orsted-WWF: BioReef. PI
- *2020-2022-EMFF. Sustainable cockle fishery in Limfjorden (COCKLE II). PI

- 2022-2026 – Velux + Ministry Environment. Center for Marine Restoration. PI
- 2020-2025-H2020. AQUAculture infrastructures for EXCELlence in EUropean fish research 3.0 (AQUAEXCEL3.0). PI
- 2014-ongoing - Environmental impact assessment of mussel and oyster fisheries (Konsekvensvurdering). PI
- 2014-ongoing - Development of low trophic aquaculture (Klækkeriet). Coordinator

Finished

- *2020-2023-GUDP. Development of new sustainable methods in the mussel fishery (KulturMus). Coordinator
- 2019-2021- Using hydrodynamics to develop more selective fishing gears (HydroSel). PI
- 2019-2022-INTERREG Linking research and innovation in aquatic ecology and genomics to business and resource management in the Kattegat-Skagerrak region (MarGen II). PI
- 2019-2023-H2020. 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 (AquaVitae). PI
- *2017-2020-EMFF. Sustainable cockle fishery in the Limfjorden (COCKLE). Coordinator
- *2017-2020-EMFF. Development of strategies for the control of the pacific oysters in Danish waters (GIGAS). PI.
- 2017-2020- BONUS. Optimization of mussel mitigation cultures for fish feed in the Baltic Sea (BONUS OPTIMUS). PI.
- *2017-2020- IFD. Mussel farming—mitigation and protein source for organic husbandry (MUMIPRO). PI Work Package leader.
- 2016-2020- H2020 - BG2 Climate Change – CERES. Participant. Coordinator: Myron Peck University of Hamburg.

Selected publications

1. Juste-Poinapen, N.M.S., Gentili, Q., Hazel, N., Birch, G.C. and Saurel, C. (2025) Assessing the Potential of Innovative Clay Designs for Enhancing Oyster Reef Restoration. Open Journal of Marine Science , 15, 35-58. https://doi.org/10.4236/ojms.2025.151003
2. Taylor, D., Jakobsen, H., Lyngsgaard, M. M., Darecki, M., Werther, M., Maar, M., & Saurel, C. (2024). Quantifying bivalve phytoplankton depletion in a eutrophic system: an integrated approach. Limnology and Oceanography. https://doi.org/10.1002/lno.12680
3. Alves Monteiro, H. J., Bekkevold, D., Pacheco, G., Mortensen, S., Lou, R. N., Therkildsen, N. O., Tanguy, A., Robert, C., De Wit, P., Meldrup, D., Laugen, A. T., Zu Ermgassen, P. S. E., Strand, Å., Saurel, C., & Hemmer-Hansen, J. (2024). Genome-Wide Population Structure in a Marine Keystone Species, the European Flat Oyster (*Ostrea edulis*). *Molecular Ecology*, Article e17573. https://doi.org/10.1111/mec.17573
4. Johansson, I., Saurel, C., Taylor, D., Petersen, J. K., & Nielsen, P. (2024). Longevity of subtidal mussel beds (Mytilus edulis) in eutrophic coastal areas. Journal of Sea Research, Article 102506. https://doi.org/10.1016/j.seares.2024.102506
5. zu Ermgassen, P. S. E., Strand, Å., Bakker, N., Blanco, A., Bonačić, K., Boudry, P., Brundu, G., Cameron, T. C., Connellan , I., da Costa, F., Debney, A., Fabra, M., Frankic, A., Gamble, C., Gray, M. W., Helmer, L., Holbrook, Z., Hugh-Jones, T., Kamermans, P., Magnesen, T., Nielsen, P., Preston, J., Ranger, C. J., Saurel, C., Smyth, D., Stechele, B., Theodorou, J.A. and Colsoul, B. (2023). Overcoming Ostrea edulis seed production limitations to meet ecosystem restoration demands in the UN decade on restoration. Aquatic Living Resources, 36, [16]. https://doi.org/10.1051/alr/2023012