

**Sanni-Leea Aalto**

Year of birth: 1982

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**ORCID****0000-0002-6724-2632****Degrees**

PhD, Aquatic sciences, University of Jyväskylä (JYU), Jyväskylä, Finland (21.8.2013)

MSc, Animal Physiology, University of Helsinki, Helsinki, Finland (14.12.2006)

**Positions****Current position**

SENIOR RESEARCHER, Section of Aquaculture, DTU AQUA, Technical University of Denmark (since 04.2022)

**Previous positions**

RESEARCHER, Section of Aquaculture, DTU AQUA, Technical University of Denmark (09.2019-03.2022)

POST-DOCTORAL RESEARCHER, University of Eastern Finland (UEF) (09.2017-08.2019)

POST-DOCTORAL RESEARCHER, JYU (11.2013-08.2017)

REGIONAL COORDINATOR, LIFE12 ENV/FI/597 N-SINK-project (11.2013-04.2017)

MATERNITY LEAVE (07.2008-05.2009/12.2011-10.2012)

POST-GRADUATE RESEARCHER, JYU (01.2007-07.2008/05.2009-12.2011/10.2012-8.2013)

RESEARCH ASSISTANT, Finnish Game and Fisheries Research Institute (04-08.2006)

TEACHING ASSISTANT, Division of Animal Physiology, University of Helsinki (01-03.2006)

RESEARCH ASSISTANT, University of Helsinki (UH) (04-12.2003/06-08.2005)

**Research area**

ENVIRONMENTAL MICROBIOLOGY IN NATURAL AND CONSTRUCTED ENVIRONMENTS

- H<sub>2</sub>S producing microbes
- Biofilters and system microbiology in recirculation aquaculture systems
- Microbial-driven nutrient transformation processes (e.g. nitrification, denitrification, DNRA)
- Greenhouse gases

**Grants (competitive), ongoing or finished in 2016 or later**

SAPERE AUDE RESEARCH LEADER FROM DFF, PI, 48 mo (1.2022-12.2025), 6.188.102 DKK

POST-DOCTORAL FUNDING FROM THE ACADEMY OF FINLAND, PI, 36 mo (9.2017-8.2020), 1.959.075 DKK

EUROPEAN MARITIME AND FISHERIES FUND (EMFF) part of Aquaculture innovation-program, PI, 30 mo (6.2017-12.2019), 738.409 DKK

**Web of Science publications:** 41. **Citations:** 703. **h-index:** 15.**Selected publications**

1. Aalto S.L., Syropoulou, E., de Jesus Gregersen K.J., Tiirola M., Pedersen P.B. & Pedersen L.F. 2022. Microbiome response to foam fractionation and ozonation in RAS. *Aquaculture* 550: 737846.
2. Aalto, S. L., Suurnäkki, S., von Ahnen, M., Siljanen, H. M., Pedersen, P. B., & Tiirola, M. (2020). Nitrate removal microbiology in woodchip bioreactors: A case-study with full-scale bioreactors treating aquaculture effluents. *Science of the Total Environment*, 138093.
3. Rojas-Tirado P., Aalto S.L., Åtland Å. & Letelier-Gordo C. 2021. Biofilters are potential hotspots for H<sub>2</sub>S production in brackish and marine water RAS. *Aquaculture* 536: 736490.
4. Aalto, S. L., Saarenheimo, J., Mikkonen, A., Rissanen, A. J., & Tiirola, M. (2018). Resistant ammonia-oxidizing archaea endure, but adapting ammonia-oxidizing bacteria thrive in boreal lake sediments receiving nutrient-rich effluents. *Environmental microbiology*, 20(10), 3616-3628.

5. Aalto, S. L., Saarenheimo, J., Ropponen, J., Juntunen, J., Rissanen, A. J., & Tirola, M. (2018). Sediment diffusion method improves wastewater nitrogen removal in the receiving lake sediments. *Water research*, 138, 312-322.

**International conferences, 2016-present: Contributions as first author: 5. Invited: 0. Organizing role: 0.**

#### **Evaluation tasks, 2016-present**

Reviewer for Estonian Research Council (2019)

External evaluator for Associate professorship positions (NTNU, 2021, 2022)

PhD thesis opponent: Sharada Navada (NTNU 2021), Ragnhild Fossmark (NTNU 2021)

Reviewer for 15 journals, including high-impact factor journals e.g. *Water Research*, *Science of Total Environment*, *Environmental Microbiology*, and *Environmental Science and Technology*

#### **Supervision**

**Post doctoral researchers:** David Hopkins 2019, Suvi Suurnäkki 2017-2019, JYU

**PhD students:** Alexandre Nguyen-tiet (main supervisor, 2022-, DTU AQUA), Xiaoyu Huang (co-supervisor, 2020-, DTU AQUA), Antti Laihonen (co-supervisor, 2017-, JYU), Jani Pulkkinen (co-supervisor, 2017-2020, JYU), Sari Uusheimo (co-supervisor, 2013-2019, University of Helsinki)

**MSc students:** Sarah Perche (2021, DTU AQUA), Elisavet Syropoulou (2020, DTU AQUA), Antti Laihonen (2017, JYU), Nathan Foore (2016, JYU), Outi Kaski (2010, JYU)

#### **Educational tasks at academical level, 2016-present**

**BSc:** Fisheries and Aquaculture (DTU AQUA, contributor), Pre-requirements of life on Earth (JYU, contributor), Bioprocesses in removal of environmental pollutants (UEF, contributor), Ecology and ecosystems (UEF, contributor)

**MSc:** Advanced RAS (DTU AQUA, contributor), Environmental Microbiology (JYU, contributor), Stable isotopes in Environmental Research (UEF, contributor), Molecular microbiology (JYU, responsible)

**PhD:** Journal Club (DTU AQUA, responsible), Bioinformatics for Microbial Ecologists (JYU, responsible)

#### **Positions in professional associations**

Director in the board of Aquacultural Engineering Society