
CURRICULUM VITAE, LAURA UUSITALO

FULL NAME AND DATE

Name: Uusitalo, Laura Anita
Gender: Female
Date of the CV: 23 August 2018

DATE AND PLACE OF BIRTH, NATIONALITY, CURRENT RESIDENCE

Date of birth: 19 March 1977
Place of birth: Turku, Finland
Nationality: Finnish
Current residence: Helsinki, Finland

EDUCATION AND DEGREES AWARDED

Degree: Title of Docent (aquatic sciences)
Date: 28 June 2012
Institute: University of Helsinki

Degree: PhD (fisheries science)
Date: 19 September 2007
Institute: University of Helsinki
Other: Title of thesis: Environmental factors and Uncertainty of fisheries management in the northern Baltic Sea

Degree: MSc (limnology)
Date: 9 October 2001
Institute: University of Helsinki

Degree: MSc (computer science: subspecialization in algorithms, data analytics and machine learning)
Date: 5 May 2017
Institute: University of Helsinki, 5 May 2017.
Other: *Pro gradu* thesis accepted with the highest grade (Laudatur).

Degree: Specialist Qualification in Management
Date: 4 November 2015
Institute: Helsinki Business College

CURRENT POSITION

Organization: Finnish Environment Institute SYKE, Programme for Environmental Information
Position: Leading Researcher (until August 2018: Senior Research Scientist)
Tasks: Leading SYKE's machine learning + artificial intelligence network
Development of environmental information systems, intelligent data analyses, and data-based decision support systems

Participating in and leading research projects
Building national and international collaborative networks
Research related to environmental management and governance
Since: 1.1.2018

PREVIOUS POSITIONS

Organization: Finnish Environment Institute SYKE, Marine Research Centre
Position: Head of Unit, Senior Research Scientist
Tasks: Personnel management
Member of the executive team of the Marine Research Centre
Participating in and leading research projects
Supporting the implementation of the MSFD and HELCOM's Baltic Sea Action Plan
Research related to the marine ecosystem, management and governance
Dates: Head of Unit 1.1.2014-31.12.2017; Senior Research Scientist 1.12.2011-31.12.2017

Organization: Finnish Environment Institute SYKE, Marine Research Centre
Position: Researcher
Dates: February 2011 – December 2011

Organization: University of Helsinki, Faculty of Biosciences
Position: Research Coordinator
Dates: June 2008 - February 2011

Organization: University of Helsinki, Faculty of Biosciences
Position: Researcher
Dates: January 2006 - June 2008

Organization: University of Helsinki, Faculty of Biosciences
Position: PhD Student
Dates: January 2002 - December 2005

Organization: University of Helsinki, Faculty of Forestry and Agriculture
Position: Researcher, part-time (50 %)
Dates: September 2001 – December 2001

Organization: University of Helsinki, Faculty of Forestry and Agriculture
Position: Assistant
Dates: January 2001 – April 2001

Organization: University of Helsinki, Faculty of Forestry and Agriculture
Position: Research Assistant
Dates: June 2000 - August 2000

Organization: University of Helsinki, Faculty of Forestry and Agriculture
Position: Trainee
Dates: June 1999 - August 1999

Organization: City of Vantaa

Position: Trainee
Dates: June 1998 – August 1998

LEADERSHIP EXPERIENCE

- Specialist Qualification in Management degree from the Helsinki Business College, completed 4 November 2015
- Coordinator of SYKE's machine learning & artificial intelligence network, 2018 →
- Head of Unit at the Marine Research Centre of the Finnish Environment Institute, years 2014-2017. Supervisor to 7-8 researchers and planners; member of the executive board of the Marine Research Centre.
- Coordinator of BONUS BLUEWEBS (Blue growth boundaries in novel Baltic food webs) 2017-2020 (<http://www.syke.fi/bonusbluewebs>). This project has a duration of 3 years, total funding of 2.7 million € and 7 research institutes from 5 countries (Finland, Sweden, Germany, Poland, Latvia).
- Work package leader in BONUS FUMARI: WP3, *"A proposal for renewed monitoring system for the Baltic Sea"*. 2018-2020.
- Work Package co-leader (WP3) in the FP7 project DEVOTES (Development of innovative tools for understanding marine biodiversity and assessing good environmental status) 2012-2016 (<http://www.devotes-project.eu/>). This project had a total duration of 4 years, budget of 12 million €, and 23 institutes from 18 countries. WP3 was the largest work package of the project, measured by the amount of person months.
- Work Package leader in the Interreg project GES-REG (Good environmental status through regional coordination and capacity building) 2011-2013 (<http://gesreg.msi.ttu.ee/>)
- Co-chair of HELCOM/ICES Working Group on Integrated Assessment of the Baltic Sea, 2015-2017. This is a researcher network that has around 30 active members. Chairing requires network leadership skills balanced with the requirements set by ICES as the host organization.
- Supervisor of academic work:
 - o Susanna Jernberg, PhD student 2016-. Main supervisor. Thesis topic: Relationship between marine biodiversity and ecosystem services.
 - o Susanna Jernberg, MSc 2015. Main supervisor.
 - o Nerea Aalto, MSc 2015. Main supervisor.
 - o Inari Helle, PhD 2015. Secondary supervisor.
 - o Kirsi-Maaria Hoviniemi (née Järvenpää), MSc 2008. Main supervisor.

RESEARCH FUNDING ACQUIRED

- BONUS FUMARI, total budget 400 000 €. 2018-2020. Role: Work package leader. PI, coordinator: Kristian Meissner. Funded through the BONUS Synthesis programme.
- BONUS BLUEWEBS, total budget 2.7 mill. €, 2017-2020. Role: coordinator, consortium leader. Funded through the BONUS Blue Baltic programme.
- DEVOTES, total budget 12 mill. €, 2012-2016. Role: Work package co-leader. PI: Anna-Stiina Heiskanen. Funded through EU FP7 programme.
- Baltic Gender, 2016-2021. Role: Team member. PI: Helena Valve. Funded through EU Horizon2020.

RESEARCH PROJECTS

- Work Package leader (WP3) in BONUS FUMARI (Future Marine Assessment and Monitoring of the Baltic), 2018-2020
- Coordinator of BONUS BLUEWEBS (Blue growth boundaries in novel Baltic food webs) 2017-2020 (<http://www.syke.fi/bonusbluewebs>)
- Work Package co-leader (WP3) in the FP7 project DEVOTES (Development of innovative tools for understanding marine biodiversity and assessing good environmental status) 2012-2016 (<http://www.devotes-project.eu/>)
- Work Package leader in the Interreg project GES-REG (Good environmental status through regional coordination and capacity building) 2011-2013 (<http://gesreg.msi.ttu.ee/>)
- EU Horizon 2020 project Baltic Gender 2016-2020: researcher (gender equality plans in marine science projects)
- Swedish EPA project Status assessments of the MSFD in the Baltic Sea - the coastal fish example 2014-2016: researcher (Bayesian networks in environmental management science)
- Academy of Finland funded project AKVA ECA 2012-2016: researcher (data mining, biodiversity valuation)
- EU Interreg project GES-REG 2011-2013: WP leader, researcher (food web indicators)
- EU Life+ project MARMONI 2011-2015: researcher (biodiversity indicator development)
- BONUS+ project IBAM 2009-2011: principal investigator (integrated assessment, Bayesian networks)
- EU 6th Framework Programme project POORFISH 2005-2008: researcher, project manager (management advice in data-poor cases). This project included partners across Europe as well as research institutes from Senegal and Mauritania.
- EU 6th Framework Programme project PRONE 2006-2009: project manager at the coordinator institute.

STUDENT SUPERVISION

Supervision on academic theses:

- Susanna Jernberg, PhD student 2016-. Main supervisor. Thesis topic: Relationship between marine biodiversity and ecosystem services.
- Susanna Jernberg, MSc 2015. Main supervisor.
- Nerea Aalto, MSc 2015. Main supervisor.
- Inari Helle, PhD 2015. Secondary supervisor.
- Kirsi-Maaria Hoviniemi (née Järvenpää), MSc 2008. Main supervisor.

Member of the PhD Thesis Advisory Committee at the University of Helsinki, Faculty of biological and Environmental Sciences:

- Mirka Laurila-Pant, 2015-
- Mohammad Mozumder, 2017-
- Lauri Ronkainen, 2017-

MERITS IN TEACHING AND PEDAGOGICAL COMPETENCE

- 10 credit unit course on university pedagogy at the University of Helsinki.
- Excellent teaching skills, as evaluated by the teaching skills evaluation board of the Faculty of biosciences, University of Helsinki, December 2017.
- Teaching experience from multiple international workshops on Bayesian Network modelling; latest, we offered a course in the International Council for the Exploration of the Sea (ICES) on Bayesian Network analysis including socio-cultural dimension

(<http://www.ices.dk/news-and-events/Training/Pages/Bayesian-network-analysis-including-the-socio-cultural-dimension.aspx>). I have produced teaching materials for these courses, including lecture slides, handouts, and exercises.

OTHER ACADEMIC MERITS AND POSITIONS OF TRUST

- Examiner of PhD theses
 - o Jose Antonio Fernandes Salvador, University of Basque Country, Spain, April 2011
 - o Rosa Fernandez Ropero, University of Almeria, Spain, 15 December 2016
 - o Ana Maldonado, University of Almeria, Spain, September 2018
- Pre-examiner of PhD theses
 - o Teppo Juntunen, University of Helsinki, Faculty of Biological and Environmental Sciences, 2013
 - o Virpi Siipola, University of Helsinki, Faculty of Agriculture and Forestry, 2017
- Project or project proposal evaluator for
 - o EU DG CNECT, 2016
 - o Polish Academy of Sciences, 2018
- Member of the Science Committee of the International Council for the Exploration of the Sea, 2014-
- Co-Chair of the ICES/HELCOM Working Group of Integrated Assessment of the Baltic Sea 2015-2017
- Member of the editorial board of the new academic journal Socio-Environmental Systems Modelling (SESMO; <https://library.wur.nl/ojs/index.php/sesmo/>)
- Reviewer for international academic journals:
 - o Applied Stochastic Models in Business and Industry
 - o Conservation Biology
 - o Earth and Space Science
 - o Ecological Applications
 - o Ecological Indicators
 - o Ecological Modelling
 - o Ecosphere
 - o Ecosystem Services
 - o Elementa: Science of the Anthropocene
 - o Environmental Modelling and Software
 - o Estuarine, Coastal and Shelf Science
 - o Fish and Fisheries
 - o Frontiers in Marine Science
 - o Global Environmental Change
 - o ICES Journal of Marine Science
 - o Journal of Hydrology
 - o PLoS One
 - o River Research and Applications
 - o Scientia Marina
 - o Socio-Environmental Systems Modelling
 - o Stochastic Environmental Research and Risk Assessment
 - o The Open Environmental Pollution & Toxicology Journal
- Member of the Awards Committee of the ICES Annual Science Conference 2015 (Copenhagen, Denmark) and 2018 (Hamburg, Germany)
- Student mentor in ICES Annual Science Conference 2016 (Riga, Latvia)

- Member of the Finnish national expert group for marine management (merenhoidon asiantuntijaryhmä) 2015-2017
- Member of the drafting group for the Finnish Blue Bioeconomy research and knowledge strategy (sinisen biotalouden tutkimus- ja osaamisagendan valmisteluryhmä), 1.9.2017-30.5.2018
- Member of the advisory committee for the national salmon and sea trout strategy and the fish ladder strategy (kansallisen lohi- ja meritaimenstrategian ja kalatiestrategian seurantaryhmä) 20.2.2015-1.4.2021
- Shortlisted for professorships
 - o Professor of multidisciplinary risk analysis. University of Helsinki, 2012
 - o Research professor in sustainable natural resources management. Natural Resources Institute Finland, 2017
 - o Professor in sustainability science, specializing in modelling long-term ecological and social system dynamics in the Arctic. University of Helsinki, 2017

PUBLICATIONS AND SCIENTIFIC IMPACT OF RESEARCH

- Total number of peer-reviewed publications: 34
- Up-to-date list of publications: <https://scholar.google.fi/citations?user=US6Sm44AAAAJ>
- h-index (Google Scholar): 16
- Total number of citations (Google Scholar): 1728
- Most cited publication (single-authored by L.U.) has 660 citations (Google Scholar)

TALKS AND PRESENTATIONS

Scientific presentations: 2-3 conference and symposia presentations & invited talks yearly to national and international audience.

Most recent talks:

- *SYKE:n uusi uudistuvan ympäristötiedon strateginen ohjelma*. Group for Earth Observation meeting, Helsinki, Finland. 23.5.2018.
- *Dynamic Bayesian Network model for detecting shifts in the food web*. SYKE Marine Research Centre seminar, Helsinki, Finland. 14.5.2018.
- *Hidden variables in a Dynamic Bayesian Network identify ecosystem level change*. BONUS SYMPOSIUM: Science delivery for sustainable use of the Baltic Sea living resources, Tallinn University Conference Center, Tallinn, Estonia. 17.-19.10.2017.
- *BONUS BLUEWEBS: sininen kasvu Itämeren muuttuvissa ravintoverkoissa*. Suomen Akatemian tiedeaamiainen, Helsinki, Finland. 15.8.2017
- *Koneopimissovelluksia merentutkimuksessa*. Guest lecture, University of Helsinki, 5.4.2017.
- *Semi-automatic classification of zooplankton in the northern Baltic Sea*. Poster in Marine Imaging Workshop, Kiel, Germany. 20.-23.2.2017.
- *Modelling and predicting coastal fish*. Intelligent Data Analysis seminar, Brunel University, London. 9.11.2016.

COMMUNICATION SKILLS

- Ability to find and convey the key messages
- Fluent writer, both scientific and layman text; gained through a lot of reading scientific text, layman articles, and fiction
- Fluent public speaker in English and Finnish

- Good interpersonal skills: ability to listen to and understand various perspectives, adapt messages to different listeners

JOB-RELATED SKILLS

Marine Biology, Statistics, Modelling, Fisheries Science, Bayesian networks, Marine Strategy Framework Directive, Baltic Sea, Science, Environmental Science, R, Natural Resource Management, Fisheries, Data Analysis, Aquatic Ecology, Scientific Writing, Research, Biodiversity, Field Work, Ecosystem Services, Climate Change, Lifesciences, Environmental Policy, Ecology, Remote Sensing, Fish, Environmental Issues, Environmental Awareness

PERSONAL STRENGTHS

One of my biggest personal strengths is the ability to see the big picture: understanding links between issues and concepts, and seeing which parts are the most critical and/or relevant. I find it also generally easy to see an issue from many different viewpoints. I work well in interdisciplinary teams and am often able to “translate” between people from different disciplines. Other personal strengths include the ability to work both independently and as part of a team; good organizing skills; and the ability to understand multiple scientific disciplines and work with people from a wide branch of scientific fields. I finish the projects and tasks that I commit to, and can work to deadlines. I get along with most people and am flexible in organizing my work so that collaboration is easy.

LINGUISTIC SKILLS

Mother tongue Finnish

| Other languages | UNDERSTANDING | | SPEAKING | | WRITING |
|-----------------|---------------|---------|--------------------|-------------------|---------|
| | Listening | Reading | Spoken interaction | Spoken production | |
| English | C2 | C2 | C1 | C1 | C1 |
| Swedish | B2 | B2 | B1 | B1 | B1 |
| German | A1 | A1 | A1 | A1 | A1 |
| Spanish | A1 | A1 | A1 | A1 | A1 |

DIGITAL COMPETENCE

MSc degree in Computer Science.

| SELF-ASSESSMENT | | | | |
|------------------------|-----------------|------------------|------------------|-----------------|
| Information processing | Communication | Content creation | Safety | Problem solving |
| Proficient user | Proficient user | Independent user | Independent user | Proficient user |

