

CURRICULUM VITAE

CV LN

Name: Louise H. Nørremark

Contact: E-mail: ln@fishlab.dk

Language: Fluent in English writing, talking and reading, in addition German
Native language: Danish



Profession: Environment and nature technician

Qualifications: Detection and quantification of zooplankton
Determination of fish eggs and larvae
Marine benthic invertebrates
Participation in the intercalibration, soft bottom fauna, mesozooplankton and lake vegetation
Field work and sampling
Data processing, DMP (STOQ and WinRambi), PlanktonSys
Participation in intercalibration tests, lake vegetation, soft bottom fauna and mesozooplankton
Safety Course, survival and first aid at sea

Education:

| <i>Period</i> | <i>Institution</i> | <i>Degree(s) or Diploma(s) obtained</i> |
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| 2006-2008 | Dansk Center for Jordbrugsuddannelse | Jordbrugsteknolog, Miljø og natur. |

Courses:

| <i>Period</i> | <i>Course description</i> |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2017 | Participation in intercalibration sediment sampling. Held by Institute of Bioscience, Aarhus University (DCE) |
| June 2014 | Participation in intercalibration "Fiskeundersøgelser 2014" ("Fish Survey 2014"). Held by DCE National Center for Environment and Energy, Aarhus University. |
| March 2014 | Participation in intercalibration of soft bottom fauna 2013. Held by DCE National Center for Environment and Energy, Aarhus University. Fishlab. |
| June 2013 | Participation in intercalibration meeting. Vegetation i Søer 2013 (Vegetation in Lakes 2013). Held by DCE National Center for Environment and Energy, Aarhus University. |
| Autumn 2012 | Participation in HELCOM intercalibration of mesozooplankton 2012. Responsible: Prof. Elena Gorokhova, Department of Applied Environmental Science & Department of Systems Ecology, Stockholm University. |
| 2012 | Transport of live fish, Ministry for Food, Agriculture and Fisheries. Food Administration. |
| 2011 | Safety at sea, STCW - Standards of Training Certification and Watchkeeping for seafarers) Switzer Safty service A / S, Esbjerg |

Professional experience:

| <i>Year</i> | <i>Company</i> | <i>Position</i> | <i>Description</i> |
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| 2011 - present | Fishlab | Environment and nature technician | Zooplankton determination and quantification. Determination of fish eggs and larvae. Aquaculture, extensive production. Work-up and determining marine benthic invertebrates. General field work. Data processing (entry, creation of new species and quality of data in the div. |

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| | | | Databases - DMP (STOQ and WinRambi) and PlanktonSys. Sediment Studies. |
| 2009-2011 | Orbicon A/S | Environment and nature technician | Determination of fish larvae and fish eggs. Gonad studies of fish. Fieldwork. Training in fresh zooplankton. Sorting DSFI samples. Sorting marine benthic fauna. Entering and quality assurance of data. |
| 2008-2008 | Danmarks Miljøundersøgelser | Laboratory technician / Environment and nature technician | Laboratory work consisting of microscopy. Fieldwork. Data entry. |

Selected professional references:

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| 2018 | EU tender: "Udførelse af opgaver under Miljøministeriets nationale overvågningsprogram for vandmiljøet og naturen samt § 3-kortlægning". Task for the national surveillance program for the aquatic environment and nature, delaftale 25 " Marin blødbundsfauna ". Participation in data entry in WinRambi. Working with marine stations for Miljøstyrelsen Fyn, Miljøstyrelsen Midtjylland and Miljøstyrelsen Storstrøm. In collaboration with RUF Dykkerservice. Fishlab. |
| 2016-ongoing | Aquaculture of parasite free oysters from Limfjord in closed cages. Sampling, determination and biomass determination of phytoplankton. Data work. Financed by Ministry of Environment. Coordinated by Aquamind. Fishlab. |
| 2015-ongoing | EU tender: Task for the national surveillance program for the aquatic environment and nature, delaftale 30, " Oparbejdning af marin mesozooplankton 2016 ". Participation in work-up, as well as the density and biomass determination of marine mesozooplankton from 7 areas: Hirtshals, Løgstør Bredning, Aalborg Bugt, Aarhus Bugt, Øresund og Østersøen, Arkona. Data entry in STOQ. For Naturstyrelsen Aalborg, Naturstyrelsen Kronjylland, Naturstyrelsen Nordsjælland og Naturstyrelsen Nykøbing. Fishlab. |
| 2014-2015 | EU tender: "Udførelse af opgaver under Miljøministeriets nationale overvågningsprogram for vandmiljøet og naturen samt § 3-kortlægning". Task for the national surveillance program for the aquatic environment and nature, delaftale 25, " Marin blødbundsfauna ". Sorting, biomass determination and participation in data entry in WinRambi. Have worked with samples 29-42 of marine benthic invertebrates from all stations at Nordsøen and 11 marine stations for Naturstyrelsen Fyn and Naturstyrelsen Nykøbing F. In collaboration with RUF Dykkerservice. Fishlab. |
| 2014 | EU tender: "Udførelse af opgaver under Miljøministeriets nationale overvågningsprogram for vandmiljøet og naturen samt § 3-kortlægning". Task for the national surveillance program for the aquatic environment and nature, delaftale 15, " Oparbejdning af marin mesozooplankton 2014 ". Participation in work-up, as well as the density and biomass determination of marine mesozooplankton samples from Ringkjøbing Fjord, Løgstør Bredning, Aalborg Bugt, og Aarhus Bugt. Data entry in STOQ. For NST Nordsjælland og NST Kronjylland. Fishlab. |
| 2014 | EU tender: "Udførelse af opgaver under Miljøministeriets nationale overvågningsprogram for vandmiljøet og naturen samt § 3-kortlægning". Task for the national surveillance program for the aquatic environment and nature, delaftale 25, " Marin blødbundsfauna ". Sorting and biomass determination of marine benthic invertebrates from 2 marine stations for Naturstyrelsen Nordsjælland. In collaboration with RUF Dykkerservice. Fishlab. |
| 2013-ongoing | Proaqua . Reducing antibiotic use in marine larviculture by a novel combinatory probiotic strategy. Sampling in aquaculture facilities, culturing of cell culture and monitoring of bacteria. Selection of fish eggs, live embryos, for experiments and test for new models. Financed by Danish Council for Strategic Research. Coordinated by DTU.Fishlab. |

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| 2013 | Task for the national surveillance program for the aquatic environment and nature, delaftale 25, " Marin blødbundsfauna ". Sorting and determination of marine benthic invertebrates from 7 marine stations for Naturstyrelsen Ålborg and Naturstyrelsen Kronjylland. Data entry in WinRambi. In collaboration with RUF Dykkerservice. Fishlab |
| 2012-2017 | HABFISH , Harmful algae and Fish kills. Financed by Danish Council for Strategic Research. Coordinated by Copenhagen University. |
| 2012-2016 | Fishguard . Development of software for monitoring of fish in aquaculture. Test different camera equipment and software, and experiment planning and execution. GDDP. Fishlab. |
| 2012-2016 | Task for the national surveillance program for the aquatic environment and nature, delaftale 15, " Oparbejdning af marin mesozooplankton " 2012 and 2013. Participation in work-up, as well as the density and biomass determination of marine mesozooplankton samples from Roskilde Fjord and Øresund. Data entry in STOQ. For NST Roskilde/Nykøbing. Fishlab. |
| 2012-2014 | Task for the national surveillance program for the aquatic environment and nature, delaftale 15, " Oparbejdning af marin mesozooplankton " 2012 and 2013. Participation in work-up, as well as the density and biomass determination of marine mesozooplankton samples from Roskilde Fjord and Øresund. Data entry in STOQ. For NST Roskilde/Nykøbing. Fishlab. |
| 2012 | Field work related to the procurement of sediment samples Zealand and West Jutland lakes NST Storstrøm and NST West Jutland. Fishlab. |
| 2012 | Field work and data entry in Fiskebasen (Fish data base) in connection to fish survey in Furesø and for NST Roskilde. Fishlab. |
| 2011-present | Field work and laboratory work associated with the breeding of marine fish fry for Venøsund Fisk og Skaldyr Aps. Fishlab |
| 2011-2017 | LI. Torup Gaslager , Baseline and VVM. Field work in Lovens Bredning and Hjarbaek Fjord, sampling of zooplankton, sediment sampling and collection of mussels, CTD monitoring, laboratory work and determination of zooplankton. Entering and establishment of new species in STOQ. Rambøll / Energinet. Fishlab. |
| 2011-2016 | IMPAQ (Improvement of Aquaculture High Quality Fish Fry Production) Field work and laboratory work associated with the copepod project IMPAQ. Removing the plankton and fish, photo documentation, chemical measurements of water, use of various electronic measuring equipment (electrodes and data loggers). Determination of mesozooplankton. Danish Strategic Research Council. Fishlab |
| 2011-2015 | DAFINET - Danish Fish Immunology Research Center and Network. Field and laboratory work in connection with various experiments and collecting data. DSF. Fishlab. |
| 2011 | Sorting and determination of marine benthic invertebrates from Ebeltoft Vig, Horsens Fjord, Hevring Bugt and Nordlige Lillebælt. Data entry in WinRambi, Denmark's Environment Portal. Naturstyrelsen Århus. Fishlab |
| 2011 | Participation in sorting of DVFI samples for Naturstyrelsen. Taught by Viggo Mahler and Simon B. Leonhard, Orbicon. |
| 2011 | Biological effect monitoring of eelpout. Analysis of eelpout and fry in accordance with the Technical information ch. 6.3 Biologisk effektmonitoring – Fisk (12.12.05). Naturstyrelsen Århus. Orbicon. |
| 2010 | Food items for birds (black ducks). Collection of benthic invertebrates samples at Horns reef, in connection with food for black ducks. Collection of samples with the benthic fauna haps, and sorting / determination. Dong energy. |
| 2009-2010 | FEDEC . Determination of fish larvae and fish eggs. Gonad research, labeling of eel, and various fieldwork in the Femen Bælt. Femern Bælt A/S. Orbicon. |
| 2008-2009 | Organic agriculture as refuge for biodiversity (REFUGIA). Botanical species identification of weeds, as well as the collection of insects (Pterostichus spp.) in the field. Biomass determination of plant samples. DMU. |

2008-2009

Lighting of climate change impact of biological processes in nature (CLIMATE).
Laboratory assistant, freezing earthworms. DMU

Selected publications

Eckford-Soper L, Nørreremark LH, Engell-Sørensen K and Daugbjerg N. Comparison by light microscopy and qPCR of potentially ichthyotoxic microalgae in Danish on-shore lagoons producing European flounder (*Platichthys flesus*): Pros and cons of microscopical and molecular methods. Submitted to Harmful Algae News December 2017

Rønneseth, A; Castillo, Daniel; D'Álvise, P; Tønnesen, Ø; Haugland, G; Grotkjær, T; Engell-Sørensen, K; Nørreremark, L; Bergh, Ø; Wergeland, HI; Gram, L, 2016. Comparative assessment of *Vibrio* virulence in marine fish Larvae. Journal of Fish Diseases. DOI: 10.1111/jfd.12612
https://mc.manuscriptcentral.com/downloads/linkpool/prod1/jfd/2016/11/s1-In254828511148881150-1939656818Hwf-6008881IdV131704308425482851PDF_HI0001.pdf

Andersen, NG; Hansen, PJ; Engell-Sørensen, K; Nørreremark, LH; Andersen, P; Lorenzen, E; Lorenzen, N, 2015. Ichthyotoxicity of the microalga *Pseudochattonella farcimen* under laboratory and field conditions in Danish waters. Diseases of aquatic organisms, DAO 116:165-172(2015)
<https://doi.org/10.3354/dao02916>

Engell-Sørensen, K and Nørreremark, L., 2011-2013. Quarterly data reports of mesozoo- and ichthyo-plankton during baseline and pilot investigations for LI. Torup Deposit Enlargement. Fishlab for Rambøll Oil & Gas.