

Curriculum Vitae

Personal data

Eva Egelyng Sigsgaard, email: eva.sigsgaard@bio.au.dk

Contributions to science

My research on using eDNA - DNA from environmental samples - to monitor and investigate biodiversity has been widely used in the field (Field Weighted Citation Impact (FWCI): 4.77, SciVal, June 2024). The first paper from my PhD, demonstrating that genetic diversity can be estimated from eDNA in seawater samples, has been cited 306 times (Google Scholar, June 2024). Together with colleagues at Aarhus University, I have shown that eDNA from diverse insects can be obtained from flowers (FWCI: 7.29) and dung, facilitating the monitoring of this ecologically vital group. Currently, I am investigating the distribution of biodiversity along the Danish coasts, and the use of taxonomy-independent analyses to improve eDNA-based bioassessment.

Employments

2022 - Present Assistant professor at Aarhus University (AU), Denmark

2018 - 2022 Postdoc researcher at AU

2014 - 2015 Research assistant at the Natural History Museum of Denmark (NHMD), University of Copenhagen, Denmark

Education

23 Oct 2018 PhD degree in biology. Section for Evolutionary Genomics, NHMD

Main supervisor: Dr. Peter Rask Møller. Co-supervisor: Dr. Philip Francis Thomsen

8 Aug 2014 MSc degree in biology. Center for GeoGenetics, NHMD

18 Jul 2012 BSc degree in biology. Vertebrate department, NHMD

Professional training

2023 Completed *Foundational Course in PhD Supervision* at AU

2020 Completed *Project Management* course at AU

2020 Completed *Teacher Training Programme* at AU

2019 Completed *Introduction to Leadership* course at AU

Service to the scientific community

I have reviewed scientific articles for nine journals (incl. *Molecular Ecology* and *Current Biology*) and grant applications for three foundations (incl. *The Icelandic Research Fund*).

Scientific presentations

I have spoken at several scientific events in Denmark, including at the Nordic Society OIKOS meeting 2024, and at Assistant Professor Evening in The Learned Society of Aarhus. I have given invited talks at Qatar University and James Cook University.

Research grants

2022 Independent Research Fund Denmark. “*DarkDNA – Unidentified eDNA sequences as ecological indicators*”

DKK 2,879,406. Main applicant

2016 Augustinus Foundation. “*To Grenoble to learn from the French DNA experts*”

DKK 15,000. Main applicant

2015 Maersk Oil Research and Technology Centre (Mo-RTC), Qatar. “*AQUATAR - Exploring the life of aquatic vertebrates in Qatar using environmental DNA from seawater*”

DKK 3,345,921. Co-applicant

Leadership

Jan 2024 – Present Leading a group consisting of a postdoc, a data scientist, and two students

1 Jan 2020 – 6 Nov 2020 President of the Junior Researcher Association at AU

International relations

In the *COAST_SEQUENCE* project, I am collaborating with researchers from the World Maritime University, Sweden, and University of Bergen, Norway. As part of the *DarkDNA* project, I collaborate with researchers from the CALeDNA project at UCSC, USA.

Supervision

I am currently assisting with the supervision of one PhD student and a graduate student, and have previously helped supervise three PhD students, and many graduate and undergraduate students. I have also trained lab technicians and an associate professor in eDNA metabarcoding methods.

Teaching and assessment

I have contributed to teaching eight courses at BSc or MSc level. My teaching has consisted of: i) seminars relating my research to the course, ii) short experimental projects that I designed and carried out with the students, and iii) supervising theoretical or practical exercises. I have been an internal assessor of written and oral exams, and have assessed two PhD theses as external assessor.

Research stays at other universities

2017 Three months at Laboratoire d'Ecologie Alpine, Université Grenoble Alpes, France.

Outreach and communication

I have given talks for high school students and teachers, and interviews for online magazines (The Atlantic, videnskab.dk, The Scientist), podcasts (Nature, Danmarks Radio), national newspapers (Politiken, Berlingske Tidende) and regional television (TV2 Østjylland). Most recently, I spoke at Naturmødet 2024, which is a public meeting about Danish nature attended by politicians, companies, institutions and private citizens.

Field work

2012-2024 Collection of aquatic samples (incl. eDNA, chlorophyll, isotopes) in Denmark and Qatar