

# BAILET Bérangère Bonnie

## Doctorat biologie et écologie



### Contact information :

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I am very invested in the sustainable management and protection of aquatic ecosystems and I attach importance to the quality of my work. I am passionate about molecular biology, with a special interest for genomics. I am organized and efficient on my own, but I really enjoy collaborative studies. I am comfortable speaking in public and appreciate interacting with my colleagues.

## Degrees and Qualifications

**2021 PhD in Biology and Ecology** (Sveriges lantbruksuniversitet, Sweden)

*Molecular Biology, metabarcoding, traits, diatoms, environmental assessment of freshwater*

**2015 Oceanography master specialized in marine biology and ecology** (Aix-Marseille University, France)

*Advanced Microbiology, Genomic evolution and bioinformatics, Protection, Restoration and sustainable management.*

**2013 Marine and Freshwater Biology Bachelor degree** (Edinburgh Napier University, UK)

*Populations and communities' ecology, environmental toxicology, microbiology, marine mammals' biology.*

**2012 DUT in Biological Engineering** specialized in Environmental engineering (Aix-Marseille University, France)

## Other professional experience

### Conférences

11th Symposium for European Freshwater Sciences (Zagreb, 2019)

International Barcode of Life conference (Trondheim, 2019)

25th International diatoms symposium (Berlin, 2018)

DNAqua-Net EU COST Action Kick-off (Essen 2017)

**2020 Projet FRESHBAR (Barcoding of freshwater organisms for improved assessment of biodiversity).**

Creation and open access publication of new reference sequences of diatoms on long DNA markers. In collaboration with SLU (Sweden), Freie Universität Berlin (Germany) and the COST network DNAqua-Net.

**2015 Comparative study of the genetic diversity** of two inter-breeding species, one native and the other indigenous, in sympatry. Station Biologique de Roscoff (29, France) under the supervision of Frédérique Viard (CNRS)

**2012 Study of marine invertebrates and parasites:** comparison between polluted and non-polluted areas. Edinburgh Napier University under the supervision of Rueckert Sonja (Napier.ac)

**2011 Study of stomach content of an Antarctic fish *Pleuragramma antarcticum*.** Observatoire Océanologique de Villefranche sur Mer (06, France) under the supervision of Carolina Giraldo (UPMC)

## Detailed skills

**Molecular biology:** Metabarcoding, DNA extraction (NucleoSpin Soil kit, GenElute), PCR, Purification (magnetic beads), multi-marker (rbcL, 18S-V4), Sequencing (ABI, PGM, Illumina, Sanger), DNA quantification (Nanodrop, Bioanalyser Agilent, Qubit).

**Microbiology:** culture of bacteria and diatoms (liquid medium, solid medium)

**Field:** sampling of microorganisms and macroorganisms (Biofilm collection, Niskin bottle, CDT probe, Secchi disc, particle size analysis, Level 1 scuba diver)

**Chemistry:** lipids extraction, plate deposit, chromatography

**Data analysis and visualization:** Big dataset management, Bioinformatics (Mothur), Multivariate analyzes (R)

**Manuscript writing, review and publication**

**Languages:**



Professional Working Proficiency

Elementary Proficiency.

## Key publications

Bailet, B., Bouchez A., Franc A., Frigerio, J.M., Keck, F., Karjalainen S.M., Rimet F., Schneider, S. & Kahlert, M. (2019). **Molecular versus morphological data for benthic diatoms biomonitoring in Northern Europe freshwater and consequences for ecological status.** *Metabarcoding & Metagenomics* 3:21-35

Bailet, B., Apothéloz-Perret-Gentil, L., Baričević A., Chonova, T., Franc, A., Frigerio, J.M., Kelly, M., Mora, D., Pfannkuchen, M., Proft, S., Ramon, M., Vasselon, V., Zimmermann, J. & Kahlert, M. (2020). **Diatom DNA metabarcoding for ecological assessment: Comparison among bioinformatics pipelines used in six European countries reveals the need for standardization.** *Science of the Total Environment* 745, 140948.

Kahlert, M., Bailet, B., Chonova, T., Karjalainen, S.M., Schneider, S. & Tapolczai, K. **Same same, but different: The response of diatoms to environmental gradients in Fennoscandian streams and lakes – barcodes, traits and microscopic data compared.** *Ecological indicators* 130.