

Denéchère Rémy - PostDoc

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RESEARCH POSITION

Nov 2022 - Now

PostDoc. Top-down effect of high trophic level on zooplankton and phytoplankton biogeography and carbon pump. Petrik Lab. SCRIPPS INSTITUTE OF OCEANOGRAPHY (SIO). University of California San Diego.

EDUCATION

Sep 2019 - Sep 2022

Ph.D. Scaling from life history traits to population dynamic of the fast living squids. TECHNICAL UNIVERSITIY OF DANMARK. DTU Aqua. Supervised by Ken H. Andersen and P. Daniël van Denderen.

2017-2019

Master Ecology, Biodiversity and Evolution, SORBONNE UNIVERSITÉ (UPMC), Paris.
SPECIALISATION IN THEORETICAL ECOLOGY AND MODELLING.
Ecology, evolution, mathematical modelling, classic and Bayesian statistics, programming.

2014-2017

Double Bachelor's degree: Biology & Mathematics, UNIVERSITÉ PIERRE ET MARIE CURIE (UPMC), Paris.

PUBLICATIONS

- **R. Denéchère**, P.D. van Denderen, K. H. Andersen (2024). "The role of squid for food web structure and community-level metabolism". *Ecological Modelling*, 493, 110729.
- **R. Denéchère**, P.D. van Denderen, K. H. Andersen. "Deriving population scaling rules from individual-level metabolism and life history traits". In Press. *Am. Nat.* 2022. <https://doi.org/10.1086/718642>.
- Liu, G., Chuine, I., **Denéchère, R.**, ... & Delpierre, N. (2021). "Higher sample sizes and observer inter calibration are needed for reliable scoring of leaf phenology in trees". *Journal of Ecology*, 109(6): 2461-2474.
- **Denéchère R.** et al. (2021). "The within-population variability of leaf spring and autumn phenology is influenced by temperature in temperate deciduous trees." *International journal of biometeorology*, 65(3): 369-379.

COMPUTER SKILLS

SKILLED

FORTRAN MATLAB (Modelling), R (Statistics and data analysis),
L^AT_EX, Excel, Word and PowerPoint.

FAMILIAR

Julia, Scilab, ArcGis and Python.

REVIEW

2024

Paper Review - Ecological Modelling.

2023

Paper Review - Ecological Modelling.

2022

Paper Review - Deep-Sea Research.

2021

Paper Review - Ecosphere.

TEACHING

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| <i>Spring 2022</i> | Introduction to ecology (2.5 ECTS). DTU Aqua. |
| <i>Spring 2021</i> | Introduction to ecology (2.5 ECTS). DTU Aqua. |
| <i>Fall 2019</i> | Mathematical biology (5 ECTS). DTU Aqua. |
| | Models in ecology (5 ECTS). DTU Aqua. |
| <i>2015-2017</i> | Mathematics teaching: Mathematics courses for high school students. |

RESEARCH DISSEMINATION

Workshop organised

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| <i>Dec. 2021</i> | Ocean Life Annual Retreat. Höllviken. Sweeden. DTU AQUA. |
| <i>Oct. 2021</i> | Research Communication workshop. Silkeborg. Denmark. DTU AQUA. |

Conferences

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| <i>Jan. 2022</i> | Fifth traits workshops. POSTER: “Integrating squids in the model of fish food-web FEISTY”. |
| <i>Jun. 2021</i> | ASLO Aquatic Sciences Meeting. TALK: “Deriving population scaling rules from individual-level metabolism and life history traits”. |

Invited talks

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| <i>May 2022</i> | The size-based approach in marine ecology. ALLAN ECOLOGY LAB. University of Bern, Switzerland |
| <i>Dec. 2020</i> | Deriving population scaling rules from individual-level metabolism and life history traits. FOREL FOR ENVIRONMENTAL AND AQUATIC SCIENCES. University of Geneva, Switzerland. |

Research Stay

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| <i>March - April 2022</i> | JEREMY S. COLLIE'S LAB. Graduate School of Oceanography. University of Rhodes Island. USA. |
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OTHER RESEARCH EXPERIENCES

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| <i>Jan-Jun 2019</i> <i>5 months</i> | MASTER THESIS: CENTRE FOR OCEAN LIFE, DTU AQUA, LYNGBY, DENMARK. Impact of density dependence on fishing-induced evolution assessment (supervised by Ken Haste Andersen). Implemented a population dynamic size-based model. Evaluated the impact of three forms of density-dependence (early-life density dependence, competition and cannibalism) on fishing-induced evolution. Invaders-resident approach used for evolution calculation. This study has shown that density dependence play a key role for fishing induced assessment, which should be wildly integrated in models and calculations. |
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