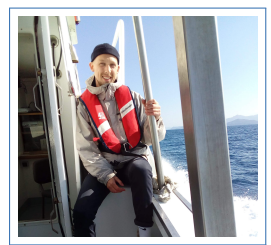


# François Leroy

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25 years old - Driver licence  
[GitHub](#) (FrsLry)



Keywords: Numerical Ecology, Modeling, Programing

## Education

2020-2024 **PhD. Modeling spatio-temporal biodiversity changes across scales**  
Ongoing *Faculty of Environmental Sciences, CZU, dept. of Applied Geoinformatics and Spatial Planning, Prague*



- Modeling biodiversity using machine learning, frequentists and bayesian methods
- Programming
- English communication skills (both oral and writing)
- Supervised by [Dr. Petr Keil](#)

2018-2020 **Marine Sciences MSc, Sorbonne University, Paris (France, graduated September 2020)**  
*Numerical Ecology, modelling, geostatistics, GIS, oceanography, marine ecology, biogeochemistry, database management*



2017-2018 **3<sup>rd</sup> year of Bachelor of Science, South Brittany University, Vannes (France)**  
Specialized in Coastal Ecosystems and Management, [GIS](#)



2015-2017 **1<sup>st</sup> and 2<sup>nd</sup> year of Bachelor of Science, Rouen Normandy University, Rouen (France)**  
Specialized in Botanic



## Internships

2020 **Community modelling**, *DYNECO-LEBCO, IFREMER, Brest (France)*  
(6 months) Dr. M. Marzloff, Dr. S. Dubois, Dr. A. Boyé, in collaboration with P. Wu (QUT, Australia)



- **Objective:** develop a simulation tool to assess dynamic communities accompanying biogenic reefs built by *Sabellaria alveolata* (Linnaeus, 1767) (honeycomb worm)
- Explore the community topology using **qualitative modelling** (Dambacher *et al.* 2002, Marzloff *et al.* 2016)
- Infer a **Dynamic Bayesian Network** (BN) from a large database ([REEHAB project](#))

2019 **Numerical ecology study, UMR BOREA - MNHN - LOCEAN**, Paris (France)  
(2 months) MC. Céline Ellien, MC Stéphane Pous



- **Objective:** spatiotemporal recruitment variability of *Sicyopterus lagocephalus* (Pallas 1770) (Teleostei : Gobiidae : Sicydiinae), amphidromous species of the Indian Ocean
- Pelagic Larval Duration (PLD) determination by otolithometry
- **Statistical analysis** to observe spatial (rivers) and temporal (season/year) differences of those PLD
- Larval dispersion **modelling** using the Ichthyop lagrangian model in backward to assess larval provenance

2018 **Ecological study, Géoarchitecture Laboratory, Vannes (France)**  
(2 months) Pr. Philippe Maes

- **Objective:** use the opportunistic feature of the European shag to assess fish biodiversity
- Rejection pellets dissection and harvesting
- Fish identification using otoliths, data analysis

2017 **Mapping, Photogrammetry, Géosciences Océans Laboratory, Vannes (France)**  
(5 months) Dr. Guillaume Brunier

- **Objective:** study the coastal dynamic of a beach in order to distribute sediment at the most relevant place
- Three dimensional modelling of a beach to observe its evolution
- Production of DEM (*i.e.* Digital Elevation Model) to exploit in [GIS](#) software

## Computer skills

Basic Julia, Shell, MATLAB, HTML5, CSS

Intermediate Python, MySQL, Creative Cloud, ArcGIS, LaTeX

Advanced R, Git, QGIS, Agisoft Metashape

## Languages

French (mothertongue), English (fluent speaking, reading, writing), Spanish (basic)