François Leroy

Key topics: Numerical Ecology, Modelling, Mapping
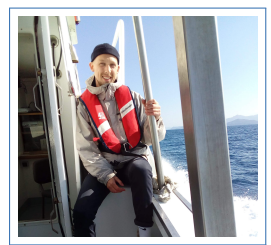
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25 years old - Driver licence
GitHub (FrsLry)

Education

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

2017–2018 **3rd year of Bachelor of Science**, *South Brittany University*, Vannes (France).
Specialized in Coastal Ecosystems and Management, GIS

2015–2017 **1st and 2nd year of Bachelor of Science**, *Rouen Normandy University*, Rouen (France).
Specialized in Botanic

Internships

Ongoing - 2020
(6 months) **Community modelling** , *DYNECO-LEBCO, IFREMER*, Brest (France).
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 Bayesian Network (BN) from a large database (REEHAB project)
- Develop a Dynamic Bayesian Network (DBN) of the community

2019
(2 months) **Numerical ecology study**, *UMR BOREA - MNHN - LOCEAN* , Paris (France).
MC. Céline Ellien, MC Stéphane Pous.
- **Objective:** spatiotemporal recruitement 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
(2 months) **Ecological study**, *Géoarchitecure Laboratory*, Vannes (France).
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
(5 months) **Mapping, Photogrammetry**, *Géosciences Océans Laboratory*, Vannes (France).
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

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Computer skills

Basic Python, MySQL, Linux, MATLAB, HTML5

Intermediate Creative Cloud, QGIS, ArcGIS, LaTeX

Advanced R, Microsoft Windows, OpenOffice, Agisoft Metashape

Languages

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

Scientific referees

- **Dr. Stanislas Dubois**, director of DYNECO-LEBCO Laboratory (IFREMER Brest, France)
  ✉ Stanislas.Dubois@ifremer.fr | ☎ +33 (0)2 98 22 49 18
- **Dr. Céline Ellien**, assistant professor at Sorbonne Université (SU), BOREA Laboratory
  ✉ celine.ellien@upmc.fr | ☎ +33 (0)1 40 79 57 48