Claire Guérin

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Date of birth: 27/02/1994
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Objective: *second year master research project in Harvard*

EDUCATION

Since 2015: **Erasmus Mundus Master Programme in Evolutionary Biology**
Expected to graduate in August 2017. Host universities up to now:
- Ludwig-Maximilians Universität, Munich, Germany
- University of Groningen, Netherlands

2014 - 2015: **National University of Singapore – Faculty of Science**
One-year Exchange Program included within the BSc Degree. Main courses:
- Behavioral Biology
- Animal Reproduction
- Urban, Aquatic & Terrestrial Ecology
- Taxonomy, Systematics & Phylogenetic Analysis

2012 - 2015: **Université Pierre et Marie Curie – Station Biologique de Roscoff, France**
BSc Double major in Mathematics and Biology. Graduated in June 2015. Three-year highly selective and intensive programme establishing strong working knowledge and integrative approaches of the following:
- Biochemistry
- Fundamental Biology
- Statistics and Bio-statistics
- Mathematics and Bio-mathematics
- Computer Sciences and Bio-computing

2012: **Lycée François Rabelais – Saint-Brieuc, France**
Baccalauréat (equivalent to High School Diploma) with the highest distinction
- Majored in Sciences with an elective in dance
- Minored in 'European class' (*i.e.* History and Geography taught in German)

RESEARCH EXPERIENCE

Currently: **Research Group Goerlitz – Max Planck Institute for Ornithology – Seewiesen**
Short-term research project: Modelling Sonar Jamming Confusion in Bat Aggregations. Summary:
In most bat species, echolocation is the main tool for spatial orientation: they produce ultrasounds, and the returning echoes enable them to visualize and explore the surrounding environment, or soundscape. When bats fly in groups, each of them is echolocating in order to find its way around and yet does not get confused by others. I want to model the underlying mechanisms that allow a bat to deal with uproars of calls and echoes from their congeners.

2015: **Evolution of Biomineralizations and Adaptations to Environmental Constraints team – Musée National d'Histoire Naturelle Dinard, France**
One-month volunteer student internship: Role of *Lanice conchilega* (polychaete annelid) in controlling its morphosedimentary environment.

- Carried out granulometry of substrate & performed statistical analysis

Frank Rheindt Laboratory – Department of Biological Sciences – National University of Singapore
Two volunteer research projects while studying:

- Sequenced genetic material extracted from the feces of a snipe individual in order to assess for the presence of the rare *Gallinago megala* species in Singapore.
- Barcoded feather samples of Hornbills in order to determine the species of two individuals newly acquired by Singapore Zoological Gardens.

2014: **Sclerochronology team – Laboratoire des sciences de l'Environnement MARin – Institut Universitaire Européen de la Mer – Plouzané, France**
Two-months volunteer student internship: Study of the growth of the population of King Scallops *Pecten maximus* (L.) in the Bay of Morlaix (Brittany, France)

- Prepared the shells to track the daily growth in shell striae using Visilog
- Extrapolated a general growth pattern of the population, integrated it along a latitudinal gradient of different populations in Europe and determined the Bay of Morlaix (Brittany, France) as a North-South limit
- Analysed high-throughput environmental data to account for unexpected growth patterns

2013: **Marine Chemistry Team – Station Biologique de Roscoff, France**
Five-week volunteer student internship: Dynamics of coastal systems and observation of the littoral environment

- Analysed the physicochemical properties of sea water (dissolved dioxygen, NH4, nitrites and nitrates, silicates, phosphate, suspended matter, particulate organic carbon, chlorophyll a rates, salinity, temperature, pH, alkalinity measurements) & assisted laboratory work by preparing buffer solutions, titrations, re-calibrating the material
- Analysed High-Frequency temporal data
- Undertook frequent independent sea excursions to collect samples of seawater:
  - ✓ regular sea excursions for the SOMLIT monitoring program
  - ✓ missions on ferry (offshore) for the "Armorique" Ferrybox research project

WORK EXPERIENCE AND PERSONAL ACHIEVEMENTS

2015: **Project AIESEC EDISON – Prague, Czech Republic**
Leader of a team of 7 international students.
Six-weeks volunteer leadership project to increase awareness of 6 to 15 years old pupils to cultural differences and world opening. Activities in English for weekly school programmes.

Since 2012: **"Petits Débrouillards" activity leader (intermittent)**
- Worked independently or in team to promote greater interest in science through workshops with both children and adults
- Conducted both English and French workshops for foreigners and locals respectively

Other jobs have also included: waitressing, tutoring Mathematics for High School students.

SKILLS

Computer: Good working command of R, Python and Unix Shell languages, & software:
- Statistic: Sigmaplot
- Remote Sensing Analysis: ERDAS, ArcGIS
- Bioinformatics: FastQC, Bedtools, Samtools
- Phylogenetic Analysis: MEGA, MrBayes, PAUP, FigTree
- Other: Nerve Simulation, Neuromuscular Junction Simulation, Visilog

Languages: English: advanced proficiency in speaking and writing
- TOEFL (2015): 106/120
- CEFRL (2016): C1/2

German: intermediate proficiency in speaking and writing
French: native speaker

2011: **Klaus-Harms-Schule, Kappeln, Germany**
Two-month German language exchange program (Brigitte-Sauzay Program)

2010: **London, Great-Britain** One-week English language study trip
Elly-Heuss-Schule, Wiesbaden, Germany One-week exchange programme

HOBBIES AND INTERESTS

Hobbies: Languages, world cuisine, jazz and modern dance, snorkelling and scuba-diving (PADI Open-Water certificate).

Interests: Ancient Celtic, Greek and Roman mythology, passion for evolutionary theory in general and social interactions & sexual selection in particular.