

GRACIELA MEDINA-MADARIAGA

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Berlin, Germany

RESEARCH AND WORK INTERESTS

Ecological models and forecasting
Marine spatial planning
GIS (Remote sensing)
Data Science
Species distribution Models

EDUCATION

MSc University of the Highlands and Islands, University of Crete, University of Nantes, **Aquaculture Environment and society** **August 2020**

Thesis: "GIS-based site selection for offshore seaweed aquaculture, a case study in the north Atlantic (France)"

Advisor: Laurent Barillé, Pierre Gernez

Award: Distinction

BSc Autonomous University of Yucatan, **Marine biology** **December 2017**
Graduated Cum Laude

HONOURS AND AWARDS

Erasmus Mundus Scholarship for Master's studies **2018**
Scholarship provided by the EU to pursue studies in Aquaculture

Confucius Institute scholarship **2017**
Scholarship to learn chinese as a second language in Sun Yat Sen University, Guangzhou, China

Jaguar Summer Programme Grant **2016**
Grant to undergo research training at a national level research centre, CICESE, Ensenada, México

Summer Research Grant UADY **2013**

Grant to get first insights of scientific research at a regional level research centre, CIR Hideyo Noguchi, Mérida, México

RESEARCH EXPERIENCE

PhD research, IGB, Humboldt University, Berlin Germany

2021-2024

Supervisor: Pr. Sonja Jähnig

- Collecting and cleaning up geographic and environmental data on the North Coast of France
- Handling large datasets in Python and R
- Academic writing, statistical analysis, elaboration of visual elements for scientific products (R, Graphpad Prism, SPSS, OriginPro, Photoshop)
- Analysis of oyster samples (*Crassostrea gigas*) for growth assessment
- Spectrophotometric quantification of R-phycoerythrin in various species of macroalgae
- Spatial data analysis and satellite image processing (SNAP, QGIS)
- Development of a tool for Aquaculture decision making

Dissertation, University of Nantes, France

2020

Supervisor: Pr. Laurent Barillé, Pr. Pierre Gernez

- Collecting and cleaning up geographic and environmental data on the North Coast of France
- Handling large datasets in Python and R
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- Development of a tool for Aquaculture decision making

University of Crete, Heraklion, Crete, Greece

May 2019 to Aug 2019

Research Intern, Fish physiology lab. Supervisor: Pr. Michalis Pavlidis

- Management of the animal house (Supervising tanks system and animals).
- Formulation and preparation of a diet based on microalgae for the improvement of the coloration in *Pagrus pagrus*' skin
- Analysis of tissue coloration in image processing software (Photoshop, ImageJ)

- Extraction and quantification of cortisol from blood samples. Melanin extraction in epithelial tissue (*Pagrus pagrus*)
- Assessment of aggressive behaviour in zebrafish (*Danio reiro*)

CICESE, Ensenada, México

May 2016 to August 2016

Research Intern, Aquaculture Department. Supervisor: Dr. Beatriz Cordero

- Preparation of growth medium
- Quantification of microalgae population
- Obtention of chemical profile of microalgae (lipids and carbohydrates)
- Statistical analysis
- Report writing

CIR Hideyo Noguchi, Mérida, México

May 2013 to August 2013

Research Intern, Immunology lab. Supervisor: MSc. Erika Sosa

- Animal house management and behavioural assessment of *Peromyscus yucatanicus*
- DNA extraction of *Leishmania (L.) mexicana* and *Peromyscus yucatanicus* samples
- PCR for DNA isolation and quantification
- Gel electrophoresis and result analysis
- Report writing

OTHER WORK EXPERIENCE

Environmental consultant, Environmental balance, Mérida, México **2017-2018**

- Elaboration of EIA and environmental impact reports
- Creation, organization and management of GIS database of the Yucatan Peninsula for use in private projects
- Negotiation with clients
- Development of proposals
- Monitoring and supervision of on-going projects
- Report writing

Administrative assistant, MyM Snacks, Mérida, México

2017-2018

- Development of innovation proposals
- Basic accounting (invoicing, balance sheets)
- Negotiation with clients
- Management of personnel
- Organizing paperwork
- Elaborating and reviewing manuals and protocols for certification of the company (Including Good Manufacture Practices, quality assessment etc)

PUBLICATIONS

Offshore aquaculture site selection of the brown seaweeds *Saccharina latissima* and *Laminaria digitata* in Northern France. *Submitted*

Multiple-stressor effects on leaf litter decomposition in freshwater ecosystems: A meta-analysis. *Under review*

The role of species tolerances and modelling method in determining the transferability of freshwater macroinvertebrate SDM before and after extreme events. *In prep*

PROFESSIONAL DEVELOPMENT TRAINING

2020: Data science specialization

Coursera, Online, Audit

2019- Open Water Diver. International association of nitrox and technical divers. Certificate number: 194632.

2016- Ecology and phytogeography of tropical western Atlantic macroalgae -

Course of the National Autonomous University of Mexico with the collaboration of the Center for Marine Research of Havana Cuba

EXTRACURRICULAR ACTIVITIES

2019- Student representative of the master's degree in Environmental Aquaculture and Society of the Erasmus Mundus Programme

2016- Instructor of the Program "Science Roots" for the promotion of research in high school Students of the Yucatan's State Government

2015- Student representative of the bachelor's degree in Marine Biology from the Autonomous University of Yucatan

2015- Table chairman of the WHO committee for the 1st UN Model of the Autonomous University of Yucatan

2014-2017- Volunteer for the HIV and AIDS awareness program of the Autonomous University of Yucatan

LANGUAGES

English: Second language (IELTS-C1), Advanced Listener and Speaker, Advanced Reading and Writing

Spanish: Native language, Advanced Listener and Speaker, Advanced Reading and Writing

French: Third language (B1), Intermediate Listener and Speaker, Advanced Reading and Intermediate Writing

Chinese: Third language (HSK3- A1), Intermediate Listener and Speaker, Intermediate Reading and Writing

OTHER SKILLS AND COMPETENCES

Highly proficient in the use of Microsoft package - Good Knowledge of programming in R - Very good field and desk skills - Strong statistical skills - Very good organizational skills - Excellent communication skills - Team player - Experience and high interest in transdisciplinary research - Experience in working with multicultural teams - Very resilient