

Chero Guillaume

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EDUCATION

THINKR

SHINY AND DOCKER
DEPLOYMENT
2025

CREATION OF SHINY
2025

CREATION OF R PACKAGE
2024

DATASCIENTEST

DATA SCIENTIST ENGINEER
WITH PYTHON (400H)
2022

SORBONNE UNIVERSITY

MASTER'S DEGREE IN
ECOLOGY, BIODIVERSITY
AND EVOLUTION
2017 | Paris

SOUTH BRITTANY UNIVERSITY - UQAR

BACHELOR'S DEGREE IN
ENVIRONMENTAL BIOLOGY
2015 | Vannes | Quebec

SKILLS

PROGRAMMING

R • Python • Shell • HTML •
LaTeX

DATA SCIENCE

R package • R Shiny • Data
management • Git • Data
wrangling • Docker • Quarto •
RMarkdown

STATISTICS

Modelling • Statistics (DSM,
GAM, GLM) • Machine learning
• Deep Learning • CMR

OTHERS

Teaching • Scientific Writing •
Video/photo production

LINKS

Github
LinkedIn

EXPERIENCE IN RESEARCH

OBSERVATOIRE PELAGIS / CNRS | DATA SCIENTIST ENGINEER

April 2024 - Present | La Rochelle

Atlantic Whale Deal Project (Interreg)

European project to study the risk of collisions between whales and maritime traffic

- Collection and management of AIS data - very large size (with Python) and biological data (scientific and opportunistic)
- Analyses: mapping, distance sampling models, ESW (with R)
- Shiny App **AWD Viz**
- Creation of communication media (posters)
- Presentations at European workshops
- Project management with partners of various sizes

Megascope Project

Annual monitoring of megafauna on French Oceanographic Fleet vessels in partnership with IFREMER

- Database cleaning and manipulation: 2003-2024 (with R)
- Creation of the **pelascope R package**. From the database to the visualization of sea campaign distribution: automation of analyses
- GAM / Effective Strip Width / Prediction and visualization
- Shiny App **Getsegment**

Other project

- LLM (Large Language Model) with Python: **Pelachat**

IZW (INSTITUTE FOR ZOO AND WILDLIFE RESEARCH) | PHD STUDENT

August 2018 – August 2020 | Berlin

Study of the effects of climate change on population dynamics by developing a population simulation model based on survival and reproduction (matrix model)

- Statistical analysis and model creation using R (**on github**)
- Project management: funding, conference organisation.
- Science communication: science days and open days.

CEFE AND IRD | INTERN

February 2017 – July 2018 | Nouméa and Montpellier

Estimating the reproductive capacity of humpback whales in the South Pacific by developing a CMR model to estimate the birth rate of the population and understand population dynamics.

- Programming and statistical analysis with E-SURGE and R
- Scientific mediation for the general public (public meeting)

OPÉRATION CÉTACÉS | VOLONTEER

June 2017 – August 2017 | Nouméa

Participation in a marine monitoring programme for the humpback whale population in the southern lagoon of New Caledonia

- Tracking whales at sea for 3 months
- Production of a **mini-documentary**

REFERENCES

MATTHIEU AUTHIER

Ingénieur de Recherche
PELAGIS UAR 3462, CNRS-La
Rochelle Université, La Rochelle
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CHARLOTTE LAMBERT

Chargée de Recherche
LIENSs, UMR 7266 CNRS-La
Rochelle Université, La Rochelle
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EXPERIENCE IN VULGARIZATION

DARWIN STUDIO | VIDEO MAKER

January 2021 - September 2023 | Saint Malo

Production of the documentary "20 Days on the Atlantic"

- Production of a **documentary**
- Transportation of a racing boat (Antilles - Brittany)
- Presentation of the documentary at a conference

Establishment of a photo/video production company

- Video and photo production (e.g. Mariage, Air Caraïbe)
- Project management with associations and local authorities
- Business development, Business management, administration and accounting

PUBLICATIONS

- Radchuk, V., [...] **Chero**, G., et al., (in press) Changes in phenology mediate vertebrate population responses to temperature globally. *Nature Communication*.
- **Chero**, G., Pradel, R., Derville, S., Bonneville, C., Gimenez, O., & Garrigue, C. (2020). Reproductive capacity of an endangered and recovering population of humpback whales in the Southern Hemisphere. *Marine Ecology Progress Series*, 643, 219-227.
- **Chero**, G., Plard, F., Virgili, A., Lambert, C. & Authier, M. Dealing with data heterogeneity in strip width estimation for rare species - the advantage of fusion models for basin-scale data collations (in preparation).

CONFERENCES

- **Chero**, G., Clobert, J., Jenouvrier S., Reed, T., Kramer-Schadt, S. & Radchuk, V. (2019). Effect of population characteristics on population stability in a fluctuating environment: simulation study. *Mathematical Models in Ecology and Evolution*. Lyon, France. Poster
- **Chero**, G., Pradel, C., Gimenez, O., & Garrigue, C. (2017). Could increased rates explain the recovery of the New-Caledonian humpback whales? *Society of Marine Mammalogy*, Halifax, Canada. Poster

REPORTS

- Authier, M., Ballutaud, M., Brevet, M., **Chero**, G., Doray, M., Dubroca, L., Genu, M. (2024) Cartes des zones de co-occurrence des dauphins et de leurs principales proies dans le golfe de Gascogne. Ref. WP2. Livrable L.231. DELMOGES
- G. **Chero**, F. Plard, M. Authier, M. Correia, E. De Loose, M. Fernandez, E. Hamard, R. Valente, A. Virgili and C. Lambert, Geopackages of ship lanes per season in the Atlantic, 2025, Atlantic Whale Deal Project (InterReg Atlantic Area)
- Plard F., **Chero** G., Authier M., Virgili A., Correia M., De Loose E., Díaz López B., Fernandez M., Magalhaes S., Hamard E., Rodríguez-Juncá A., Lambert C., Geopackages of fin, minke, sperm and beaked whales' density distributions per season in the Atlantic, 2025, Atlantic Whale Deal Project (InterReg Atlantic Area)