

Etienne ROUBY

Curriculum Vitae

Institute of Arctic and Alpine Research (INSTAAR)
University of Colorado Boulder
Boulder, CO, 80303, U.S.A.

+1 (508) 524 4005
✉ etienne.rouby@colorado.edu
🌐 etiennrouby.com

RESEARCH INTERESTS

I am an award-winning ecologist specializing in population dynamics and conservation biology, with expertise in advanced statistical modeling and Bayesian inference. I develop innovative methodologies to assess population health and viability in data-poor species facing anthropogenic pressures and climate change. I focus on extracting demographic insights from non-traditional data sources, enabling conservation assessments for threatened wildlife across terrestrial and marine ecosystems. Through collaborations with conservation agencies, I translate complex ecological findings into evidence-based management strategies and early warning systems for biodiversity conservation. As lead instructor for Conservation Biology at CU Boulder's top-five nationally ranked program, I bridge cutting-edge quantitative ecology with real-world conservation applications.

EDUCATION

Ph.D. IN POPULATION ECOLOGY | [Ph.D materials here](#) 2019–2022
Centre d'Études Biologiques de Chizé, Observatoire PELAGIS, La Rochelle Université, France

MASTER'S DEGREE IN MARINE ECOLOGY 2016–2018
Sorbonne Université & Université Pierre et Marie Curie, Paris, France

BACHELOR'S DEGREE IN BIOLOGY & POPULATION ECOLOGY 2013–2016
Université de Nice Sophia Antipolis, Nice, France

PROFESSIONAL EXPERIENCE

POSTDOCTORAL ASSOCIATE 2024–present
Institute of Arctic and Alpine Research (INSTAAR), University of Colorado Boulder

POSTDOCTORAL INVESTIGATOR 2023–2024
Biology Department, Woods Hole Oceanographic Institution

POSTDOCTORAL INVESTIGATOR 2022–2023
Observatoire Pelagis, La Rochelle Université, France

RESEARCH ASSISTANT 2018–2019
Observatoire Pelagis, La Rochelle Université, France

PUBLICATIONS

ARTICLES UNDER REVIEW

Rouby, E., Van de Walle, J., Plard, F., Delord, K., Aubry, L.M., Barbraud, C., Bonnet, T., Weimerskirch, and H., Jenouvrier, S. (2025). Sex-specific recruitment dynamics in the wandering albatross (*Diomedea exulans*): interplay of natal conditions, density dependence, and mate availability. *Journal of Animal Ecology*.

Sun, R., **Rouby, E.**, Weimerskirch, H., Barbraud, C., Delord, K., Ummenhofer, C., and Jenouvrier, S. (2025). Subtropical anticyclone impacts life-history traits of a marine top predator. *Ecology Letters*.

PEER-REVIEWED JOURNAL ARTICLES

Rouby, E., Plard, F., Mauchamp, A., Spitz, J., Dabin, W., Ridoux, V., and Authier, M. (2025). Longevity collapse in dolphins: A growing conservation concern in the Bay of Biscay. *Conservation Letters*. <https://doi.org/10.1111>

Rouby, E., Authier, M., Cam, E., Siebert, U., and Plard, F. (2024). Addressing temporal trends in survivorship from cross-sectional sampling designs: A modelling framework with applications for megafauna conservation. *Ecological Modelling*, 490, 110647. <https://doi.org/10.1016/j.ecolmodel.2024.110647>

★ **2024-2025 Best Young Researcher Award** ★

Rouby, E., Dubroca L., Cloatre, T., Demaneche, S., Genu, M., K., Cohen, H., Peltier, H., Ridoux, V., and Authier, M. (2022). Estimating Bycatch from non-representative samples (II): A case study of pair-trawlers and common dolphins in the Bay of Biscay. *Frontiers in Marine Science*, 8. <https://doi.org/10.3389/fmars.2021.795942>

Gilbert, L., **Rouby, E.**, Tew-Kai, E., Spitz, J., Peltier, H., Quilfen, V., and Authier, M. (2022). Spatiotemporal models highlight influence of oceanographic conditions on common dolphin bycatch risk in the Bay of Biscay. *Marine Ecology Progress Series*, 679, 195-212. <https://doi.org/10.3354/meps13894>

Authier, M., **Rouby, E.**, and MacLeod, K. (2021). Estimating cetacean bycatch from non-representative samples (I): a simulation study with regularized multilevel regression and post-stratification. *Frontiers in Marine Science*, 8. <https://doi.org/10.3389/fmars.2021.719956>

Rouby, E., Ridoux, V., and Authier, M. (2020). Flexible parametric modeling of survival from age at death data: A mixed linear regression framework. *Population Ecology*, 63(1), 108-122. <https://doi.org/10.1002/1438-390X.12069> ★ **2022 Best Young Author Award** ★

REPORTS FOR FUNDERS

Jenouvrier, S., Brooks, C., **Rouby, E.**, et al. (2025). Understanding Organismal Behavioral Responses to Climate Change to Forecast Eco-evolutionary Dynamics of Albatrosses Populations. *National Science Foundation (NSF) ORCC Report*.

Jenouvrier, S., Brooks, C., **Rouby, E.**, et al. (2024). Understanding Organismal Behavioral Responses to Climate Change to Forecast Eco-evolutionary Dynamics of Albatrosses Populations. *National Science Foundation (NSF) ORCC Report*.

Rouby, E. (2024). Impact of Climate change on the age at first reproduction of wandering albatross. *Fowler Research Grant Fellowship Report, Woods Hole Oceanographic Institution*.

Rouby, E. (2022). Common dolphin (*Delphinus delphis*) population state in the Bay of Biscay. *Département de l'Eau et de la Biodiversité Report*.

Rouby, E. (2021). Bycatch quantification of the common dolphin (*Delphinus delphis*) in the Bay of Biscay. *Département de l'Eau et de la Biodiversité Report*.

Rouby, E. (2020). New methodology to quantify survival rates in stranded marine mammals. *Département de l'Eau et de la Biodiversité Report*.

REPORTS FOR CONSERVATION STAKEHOLDERS

Rouby, E. (2024). Viability of the common dolphin population in the North-East Atlantic Ocean. *International Whaling Commission (IWC) Bycatch Group Report*.

Rouby, E. (2018-2022). Harbor porpoise and common dolphin populations states and conservation actions. *Ministère de la transition Ecologique et Solidaire*.

AWARDS

Best Young Researcher of 2024 - 2025, Ecological Modeling, Science direct 2025

Best Young Author Publication of 2021, Population Ecology, Wiley 2022

Best Ph.D Candidate Talk, Wildlife Biology and Ecology Doctoral School, La Rochelle Université, France 2021

Best Ph.D candidate talk, Wildlife Biology and Ecology Doctoral School, La Rochelle Université, France 2020

FUNDING & GRANTS

NSF AOE Program	<i>Under Review</i> \$650,000	2025-2026
Albert II de Monaco Foundation	<i>Under Review</i> \$250,000	2025-2026
Marine Mammal Commission	<i>Finalist</i> \$75,000	2024-2025

TEACHING EXPERIENCE

RESPONSIBLE OF TEACHING INSTRUCTOR		2025–2026
<i>Conservation Biology and Ecology, University of Colorado Boulder</i>		
TEACHING ASSISTANT		Summer 2024
<i>Introduction to R for Reproducible Scientific Analysis, Woods Hole Oceanographic Institution</i>		
TEACHING ASSISTANT		2019–2021
<i>Animal Biology and Physiology (focus on mammals), La Rochelle Université</i>		
TEACHING ASSISTANT		2019–2021
<i>Plant Biology and Physiology, La Rochelle Université</i>		
INSTRUCTOR		July 2022
<i>How to use LaTeX and Overleaf for dissertation writing, La Rochelle Université</i>		
INSTRUCTOR		June 2022
<i>R and Rmarkdown for wildlife ecology studies, La Rochelle Université</i>		

PROFESSIONAL SERVICE & LEADERSHIP

GUEST EDITOR – BMC Environmental Science, “Conservation of marine and coastal ecosystems” Details here		2025–2026
TEACHER – R for Reproducible Scientific Analysis Workshop, WHOI Materials here		2024
WoGEMS (Women and Gender Minorities) annual meeting, Woods Hole Oceanographic Institution 2024		
BAJEDI (Belonging, Accessibility, Justice, Equity, Diversity, and Inclusion) workshop, Polar Science Early Career Community Office, University of Colorado Boulder, Thrive Lifeline 2024		
CO-COORDINATOR – French Marine Mammal Stranding Network, Observatoire Pelagis		2019–2021
MENTOR – Alumni meetings for graduate students, Sorbonne Université, Paris, France		2023–2025

INTERNATIONAL CONSERVATION BODIES AND POLICY MEETINGS

BOARD MEMBER		2025
<i>Ross Sea Research Coordination Network</i>		
INTERVENANT		2025
<i>Agreement for the Conservation of Albatrosses and Petrels species</i>		
GUEST SPEAKER		2020, 2022, 2024
<i>International Whaling Commission</i>		
GUEST SPEAKER		2020–2022
<i>International Council for the Exploration of the Sea, Working group on Bycatch</i>		
GUEST SPEAKER		2021
<i>International Council for the Exploration of the Sea, Working group on Marine mammal Ecology</i>		
GUEST SPEAKER		2019
<i>Expert panel on mitigation of human on marine mammals, World Marine Mammal Conference</i>		

CAMPUS TALKS & SEMINARS

Eco-evolutionary dynamics of albatrosses under climate change, University of Colorado Boulder, Department of Environmental Studies 2025

Eco-evolutionary dynamics of albatrosses under climate change, Colorado State University, Department of Fish, Wildlife and Conservation Biology 2025

From Stranding to Soaring: leveraging long-term data for marine megafauna conservation, Woods Hole Oceanographic Institution (WHOI), Department of Biology November 2024

From Stranding to Soaring: leveraging long-term data for marine megafauna conservation, Monterey Bay Aquarium Institute (MBARI), Moss Landing, California 2024

Changes in Albatross Age at First reproduction due to climate change, French National Albatross meeting, France 2024

The common dolphin population is not viable anymore in North-East Atlantic Ocean, insights from demography, International Whaling Commission, Working group on small cetaceans, Slovenia 2024

CONFERENCE ACTIVITY

TALKS

Environmental birth effects and mate availability as causes of changes in wandering albatross (*Diomedea exulans*) age at first reproduction. Ecological Society of America yearly conference. Baltimore, U.S. August 2025

Decline of viability in the common dolphin population of the North-East Atlantic Ocean. World Marine Mammal Conference. West Palm Beach, U.S. August 2022

How to highlight vital rates changes using cross-sectional monitoring? International Statistical Ecology Conference. Cape town, South Africa July 2022

POSTERS

Flexible parametric modeling of survival from age at death data: A mixed linear regression framework. World Marine Mammal Conference. Barcelona, Spain December 2019

Survivorship of two harbor porpoise (*Phocoena phocoena*) populations in French waters: an high spatial disparity. Ecological Modelling young researchers conference. Montpellier, France May 2018

OUTREACH

Elementary school outreach December 2024
Vineyard Haven

Ask a scientist July 2024
Woods Hole Oceanographic Institution

Science festival June 2022
Centre d'Etudes Biologiques de Chizé

Ma thèse en 180 secondes 2021
National contest, La Rochelle Université

Les têtes chercheuses February 2020
La Rochelle Université and Museum of Natural History

Scientific movie festival October 2019
La Rochelle Université and association of graduate students

PROFESSIONAL AFFILIATIONS

The Society for Marine Mammalogy (SMM)	2019–2025
The Ecological Society of America (ESA)	2024–2025
European Cetacean Society (ECS)	2019–2023
French Society of Ecology and Evolution (SFEE)	2018–2022

TECHNICAL SKILLS

PROGRAMMING	DATA ANALYSIS	FIELDWORK EXPERTISE
R, MATLAB, Python Git version control SQL for database	STAN, Nimble Bayesian inference Machine Learning	Marine mammal necropsy Env. DNA Sampling Capture-Mark-Recapture

LANGUAGES

English: Advanced reading, writing, speaking, scientific

French: Advanced reading, writing, speaking, native language

Italian: Basic notions

Spanish: Basic notions

REFERENCES

PHD REFERENCES

Vincent Ridoux

Emeritus of La Rochelle Université, France
Centre d'Etudes Biologiques de Chizé, France
vridoux@univ-lr.fr
 Office phone: *on demand*

Matthieu Authier

La Rochelle Université, France
Observatoire Pelagis, France
matthieu.authier@univ-lr.fr
 Office phone: *on demand*

POSTDOC REFERENCES

Stéphanie Jenouvrier

*Woods Hole Oceanographic Institution (WHOI),
 MA, USA*
*Massachusetts Institute of Technology (MIT),
 MA, USA*
Biology department, FLEDGE Lab
sjenouvrier@whoi.edu
 Office phone: *on demand*

Cassandra Brooks

*University of Colorado Boulder, Department of
 Environmental Studies*
Brooks Lab, CO, USA
Cassandra.Brooks@Colorado.EDU
 Office phone: *on demand*