

Philippine CHAMBAULT

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Presentation

I am a marine biologist with a broad interest in animal movement and thermal biology. I have expertise in quantitative analyses using diverse data sets to examine the movement ecology of marine megafauna species and the role that oceanographic processes and habitat play in species distribution and diving behaviour.

Education

DEPE - IPHC - CNRS - University of Strasbourg

PHD IN QUANTITATIVE ECOLOGY AND OCEANOGRAPHY

- Habitat use of the French Guianese sea turtles using satellite tracking and oceanographic data

Strasbourg - FRANCE

Jun 2014-Jun 2017

University of Pierre et Marie Curie (UPMC)

MSc IN PHYSICAL OCEANOGRAPHY AND MARINE ENVIRONMENT

- Conservation and modeling of marine ecosystems

Paris - FRANCE

Sep 2011-Jun 2013

École Supérieure d'Agriculture (ESA)

ENGINEERING DEGREE IN AGRONOMY

- Management of natural spaces, agriculture, agroforestry, animal zootechnics

Angers - FRANCE

Sep 2006-Jun.2011

Experiences

University of California Santa Cruz & Greenland Institute of Natural Resources

MARIE SKŁODOWSKA-CURIE FELLOW: PHYSIOLOGICAL AND BEHAVIORAL RESPONSES OF ARCTIC WHALES TO CLIMATE CHANGE

- Eco-physiology, Thermal biology (experimental design on captive whales), Movement ecology, Acoustics

Santa Cruz - United States

Oct 2021-Present

Aquarium La Rochelle

POST-DOCTORAL RESEARCHER: THERMAL ECOLOGY OF STRANDED JUVENILE LOGGERHEAD TURTLES

- Satellite tracking, Habitat use

La Rochelle - FRANCE

Jan 2021-Jul 2021

Greenland Institute of Natural Resources

POST-DOCTORAL RESEARCHER: PROJECTIONS OF CLIMATE CHANGE ON POLAR SPECIES

- Machine learning: classification (Random Forest, KNN), regression (logistic, additive), climate models (CMIP6)

Copenhagen - DENMARK

May 2020-Dec 2020

IFREMER - MARBEC

POST-DOCTORAL RESEARCHER: HABITAT USE OF JUVENILE GREEN TURTLES IN THE INDIAN OCEAN

- Habitat modeling: resource selection ratio, logistic models, pseudo-absences, predictions

Sète - FRANCE

Nov 2018-Apr 2020

University of the Azores - IMAR

POST-DOCTORAL RESEARCHER: INTERACTIONS BETWEEN MARINE LITTER AND JUVENILE LOGGERHEAD TURTLES

- Distance sampling and modeling: physical oceanography, mixed models, drifter data

Azores - PORTUGAL

Apr 2018-Oct 2018

Greenland Institute of Natural Resources

POST-DOCTORAL RESEARCHER: HABITAT AFFINITIES OF SATELLITE TRACKED BOWHEAD WHALES

- Habitat modeling: GAMs, GLMs, oceanographic and climate projection models

Paris - FRANCE

Oct 2017-Apr 2018

Institut Pluridisciplinaire Hubert Curien - CNRS

PHD STUDENT: INFLUENCE OF OCEANOGRAPHIC STRUCTURES ON SEA TURTLES MOVEMENTS IN THE NORTH ATLANTIC

- Habitat use: residence time, state space model, kernel density, biologging, diving behaviour

Strasbourg - FRANCE

Jun 2014-Jun 2017

Centre d'Études Biologiques de Chizé - CNRS

RESEARCH ASSISTANT: HABITAT USE OF THE BOTTLENOSE DOLPHIN OF THE NORMAND-BRETON GULF

- Geostatistics & habitat modeling: variogram, kriging, GAMs

Beauvoir-sur-Niort - FRANCE

Feb 2013-Jun 2013

Murdoch University

RESEARCH ASSISTANT: GROUP SIZE OF THE INDO-PACIFIC BOTTLENOSE DOLPHIN IN WESTERN AUSTRALIA

- Social structure: photo-ID, group size, season effect, boat surveys

Bunbury - AUSTRALIA

Apr 2012-Jun 2012

Communications

PUBLICATIONS (16 AS 1st AUTHOR, 2.6 ARTICLES/YEAR)

- 2023 **P. Chambault**, et al. Extremely low seasonal prey capture efficiency in a deep diving whale, the narwhal. (IF: 3.812, cites: 0). doi.org/10.1098/rsbl.2022.0423 *Bio. Lett.*
- 2022 Heide-Jørgensent, **P. Chambault**, et al. A regime shift in the Southeast Greenland marine ecosystem. 29(3). 668-685. (IF: 10.863, cites: 1). doi.org/10.1111/gcb.16494 *Glob. Chang. Bio.*
- 2022 **P. Chambault**, et al. Future seasonal changes in habitat for Arctic whales during predicted ocean warming. 8(29). (IF: 14.136, cites: 2). [10.1126/sciadv.abn242](https://doi.org/10.1126/sciadv.abn242) *Sci. Adv.*
- 2021 **P. Chambault**, et al. Ecological trap or favorable habitat? First evidence that immature sea turtles may survive at their range-limits in the North-East Atlantic. (IF: 4.435, cites: 1). doi.org/10.3389/fmars.2021.736604 *Front. Mar. Sci.*
- 2021 **P. Chambault**, et al. A methodological framework to predict the individual and population-level distributions from tracking data. 11(3). 1432-1445. (IF: 6.5, cites: 6). doi.org/10.1111/ecog.05436 *Ecography*
- 2021 **P. Chambault**, et al. Predicting seasonal movements and distribution of the sperm whale using machine learning algorithms. 44(5). 766-777. (IF: 3.17, cites: 9). doi.org/10.1002/ece3.7154 *Ecol. Evol.*
- 2020 **P. Chambault**, et al. The impact of rising sea temperatures on an Arctic top predator, the narwhal 10(1). 1-10. (IF: 4.996, cites: 19). doi.org/10.1038/s41598-020-75658-6 *Sci. Rep.*
- 2020 F. Siegwalt, [...], **P. Chambault**, et al. High site fidelity of immature green turtles (*Chelonia mydas*) to their foraging grounds revealed by satellite tracking and capture-mark-recapture and consequences for key marine conservation areas. (IF: 5.99, cites: 15). doi.org/10.1016/j.biocon.2020.108742 *Biol. Conserv.*
- 2020 **P. Chambault**, et al. Contrasted habitats and individual plasticity drive the fine scale movements of juvenile green turtles in coastal ecosystems. 8(1). 1-15. (IF: 3.6, cites: 15). [10.1186/s40462-019-0184-2](https://doi.org/10.1186/s40462-019-0184-2) *Mov. Eco.*
- 2019 M. Bonola, [...], **P. Chambault**, et al. Fine scale geographic residence and annual primary production drive body condition of wild immature green turtles (*Chelonia mydas*) in Martinique Island (Lesser Antilles). 8(12). (IF: 2.33, cites: 6). [10.1242/bio.048058](https://doi.org/10.1242/bio.048058) *Bio. Open*
- 2019 **P. Chambault**, et al. Swirling in the ocean: immature loggerhead turtles seasonally target old anticyclonic eddies at the fringe of the North Atlantic gyre. 175. 345-358. (IF: 3.95, cites: 14). [10.1016/j.pocean.2019.05.005](https://doi.org/10.1016/j.pocean.2019.05.005) *Prog. Oceanogr.*
- 2018 **P. Chambault**, et al. Distribution and composition of floating litter off the Azores archipelago and Madeira (NE Atlantic) using opportunistic surveys. 141. 225-232. (IF: 3.13, cites: 23). [10.1016/j.marenvres.2018.09.015](https://doi.org/10.1016/j.marenvres.2018.09.015) *Mar. Environ. Res.*
- 2018 **P. Chambault**, et al. Connecting paths between juvenile and adult habitats in the Atlantic green turtle using genetics and satellite tracking. 8(24). 12790-12802. (IF: 3.17, cites: 18). doi.org/10.1002/ece3.4708 *Ecol. Evol.*
- 2018 **P. Chambault**, et al. Sea surface temperature predicts the movements of an Arctic cetacean: the bowhead whale. 8(1). 9658. (IF: 4.996, cites: 53). [10.1038/s41598-018-27966-1](https://doi.org/10.1038/s41598-018-27966-1) *Sci. Rep.*
- 2018 M. Nivière, **P. Chambault**, et al. Identification of marine key areas across the Caribbean to ensure the conservation of the critically endangered hawksbill turtle. 223. 170-180. (IF: 5.99, cites: 18). [10.1016/j.biocon.2018.05.002](https://doi.org/10.1016/j.biocon.2018.05.002) *Biol. Conserv.*
- 2017 **P. Chambault**, et al. The Gulf Stream frontal system: A key oceanographic feature in the habitat selection of the leatherback turtle? 123. 35-47. (IF: 2.955, cites: 23). [10.1016/j.dsr.2017.03.003](https://doi.org/10.1016/j.dsr.2017.03.003) *Deep. Sea Res. I*
- 2016 **P. Chambault**, et al. Habitat use and diving behaviour of gravid olive ridley sea turtles under riverine conditions in French Guiana. 165. 115-123. (IF: 2.96, cites: 5). [10.1016/j.jmarsys.2016.10.005](https://doi.org/10.1016/j.jmarsys.2016.10.005) *J. Mar. Syst.*
- 2016 **P. Chambault**, et al. Inter-nesting behavioral adjustments of green turtles to an estuarine habitat in French Guiana. 555. 235-248. (IF: 2.915, cites: 21). [10.3354/meps11813](https://doi.org/10.3354/meps11813) *Mar. Ecol. Prog. Ser.*
- 2016 **P. Chambault**, et al. The influence of oceanographic features on the foraging behavior of the olive ridley sea turtle *Lepidochelys olivacea* along the Guiana coast. 142. 58-71. (IF: 3.95, cites: 36). [10.1016/j.pocean.2016.01.006](https://doi.org/10.1016/j.pocean.2016.01.006) *Prog. Oceanogr.*
- 2015 **P. Chambault**, et al. Dispersal and diving adjustments of the green turtle *Chelonia mydas* in response to dynamic environmental conditions during post-nesting migration. 10(9). e0137340. (IF: 3.240, cites: 21). [10.1371/journal.pone.0137340](https://doi.org/10.1371/journal.pone.0137340) *PloS one*
- 2015 M. Baudouin, B. de Thoisy, **P. Chambault**, et al. Identification of key marine areas for conservation based on satellite tracking of post-nesting migrating green turtles (*Chelonia mydas*). 184. 36-41. (IF: 5.99, cites: 48). [10.1016/j.biocon.2014.12.021](https://doi.org/10.1016/j.biocon.2014.12.021) *Biol. Conserv.*

CONFERENCES

Dec. 2021	P. Chambault , Narwhals in a sauna. NAMMCO Working Group on Narwhal in West Greenland (invited speaker).	Talk-CANADA
Oct. 2021	P. Chambault , Arctic whales in warming waters: demographic and behavioural consequences? BLS7 th International Biologging Society (invited speaker).	Plenary-Virtual
Dec. 2019	P. Chambault , Sea surface temperature drives narwhals' movements in the Arctic. World Marine Mammal Conference.	Oral-SPAIN
Nov. 2018	P. Chambault , Argos and genetics reveal connecting paths between juvenile and adult habitats in green turtles. Argos conference. Collecte Localisation Satellite.	Oral-FRANCE
Oct. 2016	P. Chambault , Distribution and diving behavior of the French Guianese sea turtles satellite tracked via Argos. Argos conference. Collecte Localisation Satellite.	Oral-FRANCE
Mar. 2016	P. Chambault , The influence of oceanographic features on the foraging behavior of the olive ridley sea turtle <i>Lepidochelys olivacea</i> along the Guiana coast. 36 th Annual Sea turtle Symposium.	Oral-PERU
Mar. 2016	P. Chambault , Developmental habitat and migratory pathways: identifying key areas to protect future breeding green turtles across the Caribbean. 36 th Annual Sea turtle Symposium.	Poster-PERU
May. 2015	P. Chambault , Dispersal and diving adjustments of green turtles in response to dynamic environmental conditions during post-nesting migration. 11 th Ecology & Behaviour meeting.	Oral-FRANCE
Apr. 2015	P. Chambault , Post-nesting migration of green turtles to their foraging grounds: Dispersal and diving adjustments in response to dynamic environmental conditions. 35 th Annual Sea turtle Symposium.	Oral-TURKEY
Apr. 2015	P. Chambault , Migration over the Guyana continental shelf: distribution and diving behavior in relation to mesoscale features. 35 th Annual Sea turtle Symposium.	Poster-TURKEY

Awards

2021	Marie Sklodowska-Curie grant , Global fellowship of 3 years, €289,000	DENMARK-USA
2018	Finalist category Biodiversity and Oceans , Young researchers award by the Foundation for the Research on Biodiversity (FRB)	FRANCE
2016	Finalist - 1st place , Regional final of the "3 minutes thesis" (3MT®)	FRANCE
2016	Finalist - 1st place , Best poster at the 36 th International Sea Turtle Symposium	PERU
2016	Finalist , Travel grant for the 36 th International Sea Turtle Symposium	PERU
2010	Finalist - Erasmus Fellowship , Mobility grant to study one year in a foreign country (Denmark)	DENMARK

Skills

Programming	R, R Markdown, LaTeX, ArcGIS, Matlab
Languages	French (native), English (fluent), Spanish and Portuguese (beginner)

Supervising

Jan-May 2017	Voluntary lecturer , Organizing and giving bi-monthly R lessons to students and researchers	Strasbourg - FRANCE
Jan-Jun 2016	Co-Supervisor , Lucie GIRAUDOU, MSc student (2 nd year)	Strasbourg - FRANCE
Jan-Jun 2016	Co-Supervisor , Manon NIVIERE, MSc student (2 nd year)	Strasbourg - FRANCE
Apr-May 2014	Co-Supervisor , Marc BONOLA, MSc student (2 nd year)	French Guiana - FRANCE
Apr-May 2014	Co-Supervisor , Benjamin MARVALIN, MSc student (1 st year)	French Guiana - FRANCE
Apr-May 2014	Co-Supervisor , Eugénie TESSIER, MSc student (1 st year)	French Guiana - FRANCE
Apr-May 2014	Co-Supervisor , Mégane PINSON, MSc student (1 st year)	French Guiana - FRANCE

Referees

Mads Peter Heide-Jørgensen

PROFESSOR

- Greenland Institute of Natural Resources, Copenhagen, Denmark

mhj@ghs.dk

DENMARK

Damien Chevallier

RESEARCHER

- DEPE - IPHC - CNRS, Strasbourg

Damien.Chevallier@iphc.cnrs.fr

FRANCE

Jean-Benoît Charrassin

PROFESSOR

- Muséum National d'Histoire Naturelle de Paris, Paris

Jean-Benoit.Charrassin@locean-

ipsl.upmc.fr

FRANCE

Extracurricular Activities

Water activities: scuba diving (Advanced Open Water (PADI) and CMAS level II, 40 dives), snorkelling

Indoor activities: yoga (vinyasa, 3 times a week)

Outdoor activities: skiing (since I am 4 years old!), Horse riding (dressage and jumping for 12 years, 8 years in competition)

Art: drawing, painting (alcohol inks), photography

Travelling