# **AMANDINE GAMBLE**

## PhD DVM MSc

amandine.gamble@gmail.com | +1-310-866-5696 | amandinegamble.github.io

# **EDUCATION**

PhD in Population Biology and Ecology - Montpellier University, France	2018			
<b>Doctorate of Veterinary Medicine</b> –Alfort National Veterinary School, France Erasmus Exchange Program – School of Veterinary Science, University of Liverpool, UK	2016			
MSc in Ecophysiology and Animal Behavior – Strasbourg University, France				
RESEARCH EXPERIENCE				
Multiscale modeling of infectious disease dynamics in multihost systems Postdoctoral researcher – Department of Ecology and Evolutionary Biology, University of California Los Angeles (UCLA), CA, USA – Supervisor: James Lloyd-Smith (UCLA)	2019-2022			
Large gulls as sentinels to track infectious agent circulation  Postdoctoral researcher – Center for Evolution and Functional Ecology, National Center for Scientific Research (CNRS) / Montpellier University, France – Supervisor: Craig Hebert (Environment and Climate Change Canada) and Thierry Boulinier (CNRS)	2018-2019			
Ecology of infectious agent circulation in colonial birds: inference using serological approaches PhD student – Center for Evolution and Functional Ecology, CNRS / Montpellier University, France – Supervisor: Thierry Boulinier (CNRS)	2015-2018			
Impact of the nutritional state after a prolonged fast on the foraging trip efficiency in king penguin MSc and DVM theses – Hubert Curien Pluridisciplinary Institute, CNRS – Strasbourg University, France – Supervisors: Yves Handrich and Jean-Patrice Robin (CNRS)	2015			

## **GRANTS AND FELLOWSHIPS**

**FUNDING METRICS** Cumulated funding > 510,000 US dollars as principal investigator (PI) or co-PI

Darwin Plus, The Overseas Territories Environment and Climate Fund – 'Pathogens as a threat to seabirds in the Falkland Islands' – \$128,000	Short-listed
Newton International Fellowship, The Royal Society – 'Contribution of introduced species to multi-host epidemiological dynamics' – $\$89,100$	2022-2024
Collaboratory Fellowship, Institute of Quantitative and Computational Biosciences (UCLA) – \$24,000	2021-2022
3R Grant, UCLA Animal Research Committee – 'More insights from fewer experiments: modernizing the use and re-use of animal data in virology' (role equivalent to co-PI but not eligible) – $$10,000$	2021
Coronavirus Rapid Response Grant, UCLA AIDS Institute – 'Quantitative tools to maximize insights from small-sample virological studies of SARS-CoV-2' (role equivalent to co-PI but not eligible) – \$50,000	2020
Small Research Grant, British Ecological Society – 'Circulation of infectious agents in the world population of an endangered penguin and implications for conservation' – \$6,970	2020

Research Grant, French Polar Institute – ECOPATH 1151 'Circulation of infectious agents in (sub)antarctic colonial vertebrate populations: surveillance, understanding and management implications' (role equivalent to co-PI but not eligible) – \$250,000	2019-2023
Academic Grant, Shackleton Scholarship Fund – 'Infectious diseases as a threat to wildlife in the Southern Ocean' – \$6,970	2018
Exploration Fund Grant, The Explorer Club – 'Infectious diseases as a threat to wildlife in the Southern Ocean' – \$1,200	2018
Workshop Participation Grant, NSF Infectious Disease Evolution Across Scales Network – Immunity across scales workshop, UK – \$500	2018
Exchange Grant, NSF Infectious Disease Evolution Across Scales Network – Research visit at UCLA, CA, USA – \$3,320	2018
Immersion Grant, Mediterranean Center for the Environment and Biodiversity – Research visit at Colorado State University and US Department of Agriculture National Wildlife Research Center, CO, USA – \$530	2018
Travel Grant, International Arctic Science Committee – POLAR 2018 meeting, Switzerland – \$720	2018
Training and Travel Grant, British Ecological Society – Ecology and Evolution of Infectious Diseases Meeting, UK – \$630	2018
Environmental Studies Budget Grant, Falkland Islands Government – 'Infectious diseases as a threat to seabirds on New Island' (role equivalent to PI but not eligible) – \$5,570	2017
Teaching Scholarship, Montpellier University – \$6,470	2016-2018
Doctoral Scholarship, French Ministry of Research and Doctoral College of Montpellier University – Fully funded PhD – \$53,735	2015-2018
Erasmus Scholarship, European Union – 3-month exchange at University of Liverpool, UK – $$1,250$	2014
Bourse aux Idées, Mérial – 'Impact of captivity and human handling on the stress level of bobtail lizards' – \$1,190	2013
AWARDS	
Dissertation Prize from the Doctoral College of Montpellier University for the PhD dissertation 'Ecology of infectious agent circulation in colonial birds: inference using serological approaches'	2019
Silver Medal from the French Veterinary Academy for the veterinary thesis 'Impact of the nutritional	2016

# PEER-REVIEWED PUBLICATIONS

state after a prolonged fast on the foraging trip efficiency in king penguins'

**PUBLICATION METRICS** Web of Science: 4,432 citations, H-index of 8 · Google Scholar: 9,534 citations, H-index of 10 \* indicates equal contribution

- 20. Ruiz-Aravena M.\*, McKee C.\*, **Gamble A.**, Lunn T., Morris A., Snedden C.E., Yinda K.C., Port J., Buchholz D.W., Yeo Y.Y., Faust C., Jax E., Dee L., Jones D., Kessler M., Falvo C., Crowley D., Bharti N., Brook C.E., Aguilar H.C., Peel A.J., Restif O., Schountz T., Parrish C.R., Gurley E.S., Lloyd-Smith J.O., Hudson P., Munster V.J. & Plowright R.K. (2021). Ecology, evolution, and spillover of coronaviruses from bats. *Nature Reviews Microbiology*, in press @
- 19. Ponchon A., **Gamble A.**, Ahtiainen I.V., Tornos J., Delord K., Barbraud C., Travis J.M.J., Weimerskirch H. & Boulinier T. (2021). Similar at-sea behaviour but different habitat use between failed and successful breeding albatrosses. *Marine Ecology Progress Series* 678, 183-196

- 18. **Gamble A.**, Yeo Y.Y.\*, Butler A.A.\*, Tang H., Snedden C.E., Mason C.T., Buchholz D.W., Bingham J., Aguilar H.C. & Lloyd-Smith J.O. (2021) Drivers and distribution of henipavirus-induced syncytia: what do we know? *Viruses* 13, 1755

- 15. Snedden C.E.\*, Makanani S.K.\*, Schwartz S.T., **Gamble A.**, Blakey R.V., Borremans B., Helman S.K., Espericueta L., Valencia A., Endo A., Alfaro M.E. & Lloyd-Smith J.O. (2021). SARS-CoV-2: cross-scale insights from ecology and evolution. *Trends in Microbiology* 29, 593-605
- 14. Morris D.H.\*, Yinda K.C.\*, **Gamble A.\***, Rossine F.W., Huang Q., Bushmaker T., Fischer R.J., Matson M.J., van Doremalen N., Vikesland P.J., Marr L.C., Munster V.J. & Lloyd-Smith J.O. (2021). Mechanistic theory predicts the effects of temperature and humidity on inactivation of SARS-CoV-2 and other enveloped viruses. *eLife* 10, e65902
- 13. Barbosa A., Varsani A., Morandini V., Grimaldi W., Vanstreels R.E.T., Diaz J.I., Boulinier T., Dewar M., González-Acuña D., Gray R., McMahon C.R., Miller G., Power M., **Gamble A.\*** & Wille M.\* (2021). Risk assessment of SARS-CoV-2 in Antarctic wildlife. *Science of the Total Environment* 755, 143352
- 12. **Gamble A.**, Weimerskirch H. & Boulinier T. (2020). Seabirds blinded by ticks. *Frontiers in Ecology and the Environment* 18, 322
- 11. Borremans B., **Gamble A.**, Prager K.C., Helman S.K., McClain A.M., Cox C., Savage V. & Lloyd-Smith J.O. (2020). Quantifying antibody kinetics and RNA shedding during early-phase SARS-CoV-2 infection. *eLife* 9, e60122 @
- 10. Fischer R.J.\*, Morris D.H.\*, van Doremalen N., Sarchette S., Matson J., Bushmaker T., Yinda C.K., Seifert S., **Gamble A.**, Williamson B., Judson S., de Wit E., Lloyd-Smith J.O. & Munster V.J. (2020). Effectiveness of N95 respirator decontamination and reuse against SARS-CoV-2 virus. *Emerging Infectious Diseases* 26, 2253 @
- 9. Jaeger A.\*, **Gamble A.\***, Lagadec E.\*, Lebarbenchon C., Bourret V., Tornos J., Barbraud C., Delord K., Weimerskirch H., Thiebot J.-B., Boulinier T. & Tortosa P. (2020). Impact of annual bacterial epizootics on albatross population on a remote island. *EcoHealth*, 17, 194-202
- 8. van Doremalen N.\*, Bushmaker T.\*, Morris D.H.\*, Holbrook M.G., **Gamble A.**, Williamson B.N., Tamin A., Harcourt J.L., Thornburg N.J., Gerber S.I., Lloyd-Smith J.O., de Wit E. & Munster V.J. (2020). Aerosol and surface stability of SARS-CoV-2 as compared with SARS-CoV-1. *New England Journal of Medicine* 382, 1564-1567
- 7. **Gamble A.**, Bazire R., Delord K., Barbraud C., Jaeger A., Gantelet H., Thibault E., Lebarbenchon C., Lagadec E., Tortosa P., Weimerskirch H., Thiebot J.-B., Garnier R., Tornos J. & Boulinier T. (2020). Movements of an apex consumer among and within endangered seabird colonies: opportunities for pathogen spread. *Journal of Applied Ecology* 57, 367-378
- 6. **Gamble A.**, Garnier R., Chambert T., Gimenez O. & Boulinier T. (2020). Next-generation serology: integrating cross-sectional and capture-recapture approaches to infer disease dynamics. *Ecology* 101, e02923
- 5. Sanz-Aguilar A., Payo-Payo A., Rotger A., Moutailler S., Igual J.M., Miranda M.A., Torres M., Picorelli V., **Gamble A.** & Boulinier T. (2019). Infestation of small seabirds by *Ornithodorus maritimus* ticks: effects on chick body condition, reproduction and associated infectious agents. *Tick and Tick-borne Diseases* 11, 101281
- 4. **Gamble A.**, Garnier R., Jaeger A., Thibault E., Gantelet H., Tortosa P., Bourret V., Thiebot J.-B., Delord K., Weimerskirch H., Tornos J., Barbraud C. & Boulinier T. (2019). Exposure of albatrosses to the avian cholera agent leads to a short-lived immune response: implications for disease surveillance and management. *Oecologia* 189, 939-949
- 3. **Gamble A.**, Ramos R., Parra-Torres Y., Mercier A., Galal L., Pearce-Duvet J.M.C., Villena I., Montalvo T., Gonzalez-Solis J., Hammouda A., Oro D., Selmi S. & Boulinier T. (2019). Exposure of yellow-legged gulls to *Toxoplasma*

- *gondii* along the Western Mediterranean coasts: tales from a sentinel. *International Journal for Parasitology:* Parasites & Wildlife 8, 221-228 *❷*
- 2. Bourret V., **Gamble A.**, Tornos J., Jaeger A., Delord K., Barbraud C., Tortosa P., Kada S., Thiebot J.-B., Thibault E., Gantelet H., Weimerskirch H., Garnier R. & Boulinier T. (2018). Vaccination protects endangered albatross chicks against avian cholera. *Conservation Letters* 11, e12443
- 1. Boulinier T., Kada S., Ponchon A., Dupraz M., Dietrich M., **Gamble A.**, Bourret V., Duriez O., Bazire R., Tornos J., Tveraa T., Chambert T., Garnier R. & McCoy K. D. (2016). Migration, prospecting, dispersal? What host movement matters for infectious agent circulation? *Integrative and Comparative Biology* 56, 330-342

## **TEACHING**

University of California Los Angeles (Los Angeles, CA, USA)	
Co-instructor – Statistical Tools & Concepts for Molecular Biologists (postgraduate class class; in person)	2022
Instructor – Introduction to MATLAB (workshop; hybrid)	2021-2022
Teaching assistant – Introduction to R & Data Visualization (workshop; online)	2021
Course design – Overview of statistics for ecology and behavior – For <i>Introduction to Ecology &amp; Behavior</i> (upper-division undergraduate class)	2021
Guest lecture – Infectious diseases: how do they emerge and become pandemic? – For <i>Biology &amp; Social Justice</i> (upper-division undergraduate class; online)	2021
Teaching Assistant – <i>Introduction to R in Ecology &amp; Evolutionary Biology</i> (postgraduate bootcamp; in person)	2020-2021
Guest lecture – Infectious diseases: how do they emerge and become pandemic? – For <i>Biology &amp; Social Justice</i> (upper-division undergraduate class; online)	2020
Montana State University (Bozeman, MT, USA)	
Guest lecture – Serological investigations in the time of COVID-19: insights from wildlife disease ecology and clinical studies – For <i>Disease Ecology &amp; Spillover</i> (undergraduate and postgraduate class; online)	2020
Guest lecture – Using serology to infer eco-epidemiological processes in wild populations – For <i>Disease Ecology &amp; Spillover</i> (undergraduate and postgraduate class; in person)	2019
Montpellier University (Montpellier, France)	
Teaching assistant – Integrative Biology (undergraduate class; in person)	2018
Teaching assistant - Descriptive Statistics (undergraduate class; in person)	2017-2018
Independent workshops	
Workshop – Wildlife Disease Surveillance: Epidemiology, Ecology, and Practical Tools (conservation partners; hybrid)	2018

## **MENTORING AND SUPERVISION**

## **GRADUATE STUDENTS**

Romain Bazire (MSc in Ecology and Biodiversity Management, Montpellier University; main 2016 supervisor: Thierry Boulinier) – 'Brown skua movements and avian cholera circulation on Amsterdam Island' (data analysis)

## **UNDERGRADUATE STUDENTS**

UNDERGRADUATE STUDENTS	
Caitlin Cox (UCLA) – 'Improving dispersal estimation in wild populations using serological data' (modeling study and data analysis), and 'titeR: Bayesian titer inference with R' (software development)	2021-2022
Aubrey Butler (UCLA) – 'Mapping henipavirus-induced syncytium formation in vivo' (literature review)	2020
Hubert Tang (UCLA) – 'Mapping henipavirus-induced syncytium formation in vivo' (literature review)	2020
Augustin Clessin (Ecole Normale Supérieure, Lyon, France; main supervisor: Thierry Boulinier) – 'Assessing the costs and benefits of different management strategies in an epidemiological context: the case of avian cholera on Amsterdam Island' (modeling study)	2018-2020
Jessica Kasamoto (John Hopkins University, MD, USA), via the Bruins in Genomics Program (UCLA) – 'Using mathematical models to investigate the infection dynamics of henipaviruses in cell culture' (modeling study)	2019
Natashia Benjamin (University of the District of Columbia, DC, USA), via the Bruins in Genomics Program (UCLA) – 'Using mathematical models to investigate the infection dynamics of henipaviruses in cell culture' (modeling study)	2019
RESEARCH ASSISTANTS	
Multiple overwintering field assistants on Amsterdam Island (Indian Ocean)	Since 2016
Multiple field assistants on Hornøya (Barents Sea)	2017-2018
Multiple field assistants on the Mediterranean coasts	2017-2018
PRESENTATIONS AND MEETING PARTICIPATIONS	
Invited conference talks	
Using serology to infer eco-epidemiological processes in seabird communities. 3 <sup>rd</sup> World Seabird Conference, Australia (online)	2021
Diseases of albatrosses on Amsterdam Island: the interest of combining approaches. POLAR 2018, Switzerland	2018
Opportunistic feeders as sentinels for the circulation of infectious agents in spatial contexts. Waterbird Society annual meeting, Iceland	2017
CONTRIBUTED CONFERENCE TALKS	
Investigating native and introduced predators' involvement in pathogen maintenance and spread within and among endangered seabird colonies. 3 <sup>rd</sup> World Seabird Conference, Australia (online)	a 2021
Are introduced rodents involved in disease outbreaks threatening subantarctic wildlife. 69th Wildlife Disease Association Meeting, Spain (online)	2021
Integrating demographic and epidemiological data improves dispersal quantification. EUropean Union for Bird RINGing Analytical Meeting, Canada (online)	or 2021
Circulation of avian cholera among endangered seabirds: the predating and scavenging brown skua as a epidemiological bridge on Amsterdam Island? Seabird Group Conference, UK	n 2018
Diseases threatening polar seabirds: from immuno-ecology to conservation. POLAR 2018, Switzerland	2018
Optimization of sampling designs in eco-epidemiological studies based on antibody detection in sentinel species: the case of large gulls. $4^{th}$ Young Natural History Scientists' meeting, France	2017
Exposure of yellow-legged gulls to <i>Toxoplasma gondii</i> along the Western Mediterranean coasts: tales fro a sentinel. Sfécologie, France	m 2016

# CONTRIBUTED POSTERS AND TWITTER PRESENTATIONS

Are introduced rodents involved in disease outbreaks threatening subantarctic wildlife? Ecology Across Borders, UK (online)	2021
SARS-CoV-2 exposure dose predicts incubation time in a mouse model. World Microbe Forum (online)	2021
Modeling the relationship between pathogen dose and symptomatology: illustration with SARS-CoV-2 in humanized mice. Ecology and Evolution of Infectious Diseases Meeting, France (online)	2021
Migration, foraging, prospecting, dispersal What host movement matters for infectious agent circulation? 6th World Seabird Twitter Conference (online) @	2020
Next Generation Serology: integrating cross-sectional and capture-recapture approaches to infer disease dynamics. 68th Wildlife Disease Association Meeting, CA, USA	2019
Integrating data across scales to model the within-host dynamics of emerging viruses. Ecology and Evolution of Infectious Diseases Meeting, NJ, USA	2019
Combining approaches to understand avian cholera dynamics in seabirds: implications for conservation. Ecology and Evolution of Infectious Diseases Meeting, UK	2018
Optimization of sampling designs in eco-epidemiologic studies based on the detection of antibodies in colonial vertebrates. Ecological Research Network and LTER-France joint conference, France	2017
Optimization of sampling designs in eco-epidemiologic studies based on the detection of antibodies in colonial vertebrates. EUropean Union for Bird RINGing Analytical Meeting, Spain	2017
Influence de l'état nutritionnel après un jeûne prolongé sur l'efficacité du voyage alimentaire chez le manchot royal. $2^{nd}$ Colloque d'ÉcoPhysiologie Animale, France	2015
Invited seminars	
Muddy boots and mechanistic inference: integrated approaches for innovative solutions to infectious disease, Department of Public and Ecosystem Health, Cornell University, NY, USA	2022
From muddy boots to mechanistic inference: advancing disease ecology through quantitative approaches, Department of Ecology and Evolutionary Biology, University of Connecticut, CT, USA (online)	2022
From muddy boots to mechanistic inference: modeling infectious diseases in lab and field systems. Institute for Modeling Collaboration and Innovation, University of Idaho, ID, USA (online)	2022
A mechanistic model predicts the effect of exposure dose on disease development: an illustration with SARS-CoV-2 in mice. AIDS Institute, University of California Los Angeles, CA, USA (online)	2022
Muddy boots and integrated models: finding innovative solutions to seabirds' infectious diseases with quantitative ecology. School of Natural Resources and the Environment, University of Arizona, AZ, USA (online)	2022
Investigating multi-host pathogen dynamics on Subantarctic islands: an open-sky laboratory. Institute of Ecology and Environmental Sciences, France (online)	2021
Advancing disease ecology through quantitative approaches. State University of New York, College of Environmental Science and Forestry, NY, USA (online)	2021
Linking exposure dose to infectious disease development using mechanistic models. Institute for Quantitative and Computational Biosciences, University of California Los Angeles, CA, USA (online) @	2021
Linking data across scales to identify determinants of viral fitness and pathogenicity: benefits, challenges and solutions. National Health Institute Rocky Mountain Laboratories, MT, USA	2019
Combining approaches to understand avian cholera dynamics in an albatross colony. Fish, Wildlife, and Conservation Biology Department, Colorado State University, CO, USA	2018
Combining experimental and simulation-based approaches to manage avian cholera dynamics in albatross colonies. US Department of Agriculture National Wildlife Research Center, CO, USA	2018

Infectious diseases in albatrosses: from basic immuno-ecology to perspectives for conservation. South Atlantic Environmental Research Institute, Falkland Islands	2018
SYMPOSIUM AND THEMATIC SESSION ORGANIZATION	
What determines host species roles in multi-host disease dynamics? Ecology Across Borders, UK (hybrid)	2021
The ecology of host-parasite interactions in seabirds: combining approaches to understand ecoepidemiological dynamics and inform conservation decisions, 3 <sup>rd</sup> World Seabird Conference, Australia (online)	2021
Polar Wildlife Health Webinar of the Scientific Committee for Antarctic Research (online)	2020
INVITED PARTICIPATIONS IN WORKSHOPS AND WORKING GROUP MEETINGS	
Polar Wildlife Health Webinar of the Scientific Committee for Antarctic Research (online)	2020
Durable Interaction Ecology Network, Immuno-ecology Group Meeting, France	2017
Durable Interaction Ecology Network, Tick and Tick-borne Diseases Group Meeting, France	2016
Professional service	

### **PEER-REVIEW**

**JOURNAL REVIEWER** 47 reviews for 21 journals: *Journal of Applied Ecology · Journal of Animal Ecology · Journal of Wildlife Diseases* · *Epidemics* · *Epidemiology and Infection* · *Pathogens and Disease* · *Viruses* · ... (more on Publons *∅*)

**GRANT REVIEWER** Swiss National Science Foundation (2) · Croatian Science Foundation (1)

**AWARD COMMITTEE MEMBER** 69th Wildlife Disease Association Meeting (Student Poster Presentation Award)

## WORKING GROUPS AND ADVISING

Wildlife Health Monitoring Group of the Scientific Committee for Antarctic Research	Since 2020
External Advisor for the 10-year Management Plan of the French Southern Lands National Nature	2017
Reserve and the National Action Plan for the Amsterdam Albatross	

## PROFESSIONAL SOCIETIES AND ORGANIZATIONS

Ecological Society of America · British Ecological Society · Société Française d'Ecolgie et d'Evolution · Wildlife Disease Association (core member of the UCLA Chapter) · American Society for Microbiology · R Ladies

## **INSTITUTIONAL SERVICE**

Advisory Board of the Institute of Quantitative and Computational Biosciences (UCLA) – Postdoctoral	2021-2022
representative	
Advisory Board of the Mediterranean Environment Research Observatory (Montpellier University) –	2016-2018
Doctoral student representative	

## **O**UTREACH

M	VITED	BIOC	DOCTC	AND	NEWCDA	DED	ARTICLES

Tracking predator movements to understand pathogen spread. Nature Research Ecology and Evolution Community, 1 November $@$	2020
Next-generation serology: integrating cross-sectional and capture-recapture approaches to infer disease dynamics. <i>The Bulletin of the Ecological Society of America</i> 101, e01670 @	2020

Predator and scavenger movements as opportunities for pathogen spread among endangered seabirds. The Applied Ecologist's Blog, 21 January	2020
Tracking predator and scavenger movements to understand pathogen spread among endangered seabirds. Blog of the Zone Atelier Antarctique LTSER, 9 January $@$	2020
Investigating the cause of seabird deaths on New Island. Penguin News, 10 August	2018

### PUBLIC TALKS AND SCHOOL PRESENTATIONS

delivery of scientific presentations and workshops in K-12 schools in the Los Angeles agglomeration	2021-2022
Skype a Scientist – Presentation of the work of a scientist in K-12 schools (Ontario Pathfinders Girl Guides, Ontario, Canada $\cdot$ Alice King Community School Albuquerque, New Mexico, USA $\cdot$ St. Francis de Sales, Lake Zurich, Illinois, USA)	Since 2020

Café des Science – Comprendre et contrôler les pandémies zoonotiques en intégrant écologie, virologie	2020
et mathématiques, Consulate General of France in Los Angeles, California, USA (online) 🔊	

Infectious diseases in seabirds: from basic eco-immunology to conservation. Falkland Islands Chamber	2019
of Commerce, Falkland Islands	

### MEDIA COVERAGE AND INTERVIEWS

In the Press – National Geographic  $\cdot$  The New York Times  $\cdot$  The Telegraph  $\cdot$  Hakai Magazine  $\cdot$  Reuters  $\cdot$  Ars Technica  $\cdot$  abc10  $\cdot$  Sciences et Avenir  $\cdot$  Science et Vie  $\cdot$  Information.dk  $\cdot$  El Ágora  $\cdot$  ...

ON THE RADIO AND PODCASTS – Science Vs (scientific advising) · KNX (scientific advising)

**ON TELEVISION** – *France 2* (interview) · *BBC Brasil* (scientific advising)

## SKILLS

 $\label{eq:modeling-and-data} \begin{tabular}{l} Modeling and DATA ANALYSIS Bayesian inference and maximum likelihood estimation $\cdot$ Hierarchical models $\cdot$ Compartmental models and ordinary differential equations $\cdot$ Capture-recapture modeling $\cdot$ Occupancy modeling $\cdot$ Integrated modeling $\cdot$ Tracking data analysis $\cdot$ Data simulation $\cdot$ Capture-recapture modeling $\cdot$ Capture-recapture-recapture modeling $\cdot$ Capture-recapture-recapture-recapture-recapture-r$ 

**PROGRAMMING AND SOFTWARE**  $R \cdot STAN \cdot MATLAB \cdot LaTeX \cdot MARK$  (capture-recapture)  $\cdot E$ -SURGE (capture-recapture)  $\cdot PRESENCE$  (occupancy)

 $\label{eq:Fieldwork} \textbf{Fieldwork} \ \textbf{Isolated sites} \cdot \textbf{Capture and handling of wild animals} \cdot \textbf{Animal tagging} \cdot \textbf{Biologger deployment} \cdot \textbf{Biological sample collection from wild animals (blood, swabs, etc.)} \cdot \textbf{Animal necropsy} \cdot \textbf{Electronic notebook development}$ 

## Main field campaigns:

2019	New Island, Falkland Islands, Southern Atlantic Ocean (6 weeks, leader)
2019	Kerguelen Islands, Southern Indian Ocean (9 weeks, co-leader)
2018	New Island, Falkland Islands, Southern Atlantic Ocean (6 weeks, solitary)
2017	Crozet Islands, Southern Indian Ocean (9 weeks, co-leader)
2017	Hornøya, Barents Sea (6 weeks, co-leader)
2016	Amsterdam Island, Southern Indian Ocean (9 weeks, co-leader)
2016	Hornøya, Barents Sea (7 weeks, assistant)

**LABORATORY** Immunoassays · Microbiology

**LANGUAGES** French (native) · English (fluent)