

LEILA FOUDA

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EDUCATION

- 2022 | 2017
- **PhD, Queen Mary, University of London (*Biology*)**
Evolutionary Ecology of Feeding Strategies in Loggerhead Sea Turtles (*Caretta caretta*) from Movement to Conservation

2012 | 2011

 - **MSc, Imperial College London (*Conservation Science*)**
Noisy Neighbours - using Automatic Identification System (AIS) and passive acoustic monitoring data to measure individual vessel source levels in critical whale habitat.

2009 | 2005

 - **BSc (Hons), University of St. Andrews (*Marine Biology*)**
Echolocation clicks of cetaceans - variation due to cetacean size, social and prey preferences.

RELEVANT EMPLOYMENT

- Current | 2024
- **Postdoctoral Fellow**
Murphy Family Postdoctoral Fellow in Ocean Conservation, University of New Brunswick
 - Investigating how dynamic management practices protect North Atlantic right whales. Utilising AIS data to explore vessel speeds in shipping channels to determine if current conservation management practices move vessel strike threat to other areas. Modelling whale vocalisation and movement behaviours with acoustic glider flight to estimate whale detection probability.

2024 | 2022

 - **Postdoctoral Associate**
Yale University
 - Explored the links between mechanistic drivers and animal movement in a dynamic environment. Served as a steering committee member for Yale's collaboration with the NASA Internet of Animals initiative.

2022

 - **Research Associate**
British Antarctic Survey
 - BAS 'Whales From Space' project and South Georgia acoustic monitor program on recovering baleen whale populations

2017

 - **Faculty Research Assistant**
Chesapeake Biological Laboratory, The University of Maryland Center for Environmental Science
 - Led analysis of the effects of background noise levels on dolphin acoustic communications using passive acoustic data. Coordinated fieldwork efforts for all aspects of acoustic equipment deployment in offshore and Chesapeake Bay sites. Directed marine mammal aerial survey operations in Chesapeake Bay.

PUBLICATIONS

- In Review
- **How ocean-going vessels respond to mandatory dynamic speed restriction zones aimed at protecting whales**
Marine Policy
 - L. Fouda, A. Mayette, K. Indeck, K.T.A. Davies

2025

 - **Vulnerability of marine megafauna to global at-sea anthropogenic threats**
Conservation Biology
 - M. VanCompernolle, and 302 co-authors [including L. Fouda]

2025

 - **Perceived and observed biases within scientific communities: a case study in movement ecology**
Proc. Royal Soc. B
 - A.K. Shaw, L. Fouda, and 45 co-authors

- 2024
- Productive foraging grounds enhance maternal condition and offspring quality in a capital breeding species.
[Ecology and Evolution](#)
 - L. Fouda, S.R.B Negus, E.C. Lockley, K. Fairweather, A. Lopes, A. Lopes, S.M. Correia, A. Taxonera, G. Schofield, C. Eizaguirre
- 2020
- Long-term survey of sea turtles (*Caretta caretta*) reveals correlations between parasite infection, feeding ecology, reproductive success and population dynamics.
[Scientific Reports](#)
 - E.C. Lockley, L. Fouda, S.M. Correia, A. Taxonera, L.N. Nash, K. Fairweather, T. Reischig, J. Durao, H. Dinis, S.M. Roque, J.P. Lomba, L. dos Passos, S.J.K. Cameron, V.A. Stiebens, C. Eizaguirre
- 2020
- Seasonal productivity drives aggregations of killer whales and other cetaceans over submarine canyons of the Bremer Sub-Basin, south-western Australia.
[Australian Mammalogy](#)
 - C. Salgado Kent, P. Bouchet, R. Wellard, I. Parnum, L. Fouda, C. Erbe
- 2019
- Cetacean sightings within the Great Pacific Garbage Patch.
[Marine Biodiversity](#)
 - S.E. Gibbs, C. Salgado Kent, B. Slat, D. Morales, L. Fouda, J. Reisser
- 2018
- Dolphins simplify their vocal calls in response to increased ambient noise.
[Biology Letters](#)
 - L. Fouda, J.E. Wingfield, A.D. Fandel, A. Garrod, K.B. Hodge, A.N. Rice, H. Bailey
- 2018
- Validating automated click detector dolphin detection rates and investigating factors affecting performance.
[The Journal of the Acoustical Society of America](#)
 - A. Garrod, A.D. Fandel, J.E. Wingfield, L. Fouda, A.N. Rice, H. Bailey
- 2016
- Killer Whale (*Orcinus orca*) Predation on Beaked Whales (*Mesoplodon spp.*) in the Bremer Sub-Basin, Western Australia.
[PLOS ONE](#)
 - R. Wellard, K. Lightbody, L. Fouda, M. Blewitt, D. Riggs, C. Erbe.
- 2015
- Vocalisations of Killer Whales (*Orcinus orca*) in the Bremer Canyon, Western Australia.
[PLOS ONE](#)
 - R. Wellard, C. Erbe, L. Fouda, M. Blewitt.

📁 PREPRINTS AND MANUSCRIPTS IN REVIEW AND PREP

- Dive classification technique for sea turtles demonstrates complexity in the diving behaviour of loggerhead sea turtles (*Caretta caretta*).
In Prep
 - L. Fouda, E.C. Lockley, S.R.B. Negus, S.J.K. Cameron, A. Taxonera, K. Fairweather, J. Patino-Martinez, T. Reischig, C. Eizaguirre
- Novel GSM-relayed trackers reveal fine-scale movement of nesting loggerhead turtles.
In Prep
 - L. Fouda, S.J. Shrimpton, E.C. Lockley, S.R.B. Negus, K. Fairweather, A. Taxonera, C. Eizaguirre (*shared first authorship)

📁 REPORTS

- 2018
- Determining habitat use by marine mammals and ambient noise levels using passive acoustic monitoring offshore of Maryland
Bureau of Ocean Energy Management Report
 - H. Bailey, A. Rice, J.E. Wingfield, K.B. Hodge, B.J. Estabrook, D. Hawthorne, A. Garrod, A.D. Fandel, L. Fouda, E. McDonald, E. Grzyb, W. Fletcher, A.L. Hoover

2017

- Quantification of Medium and Large Debris in the Great Pacific Garbage Patch Using Visual Observations from Aerial Surveys

Technical report

• C. Salgado Kent, J. Reisser, S.E. Gibbs L. Fouda, D. Morales, H. Kniest

2017

- Habitat preferences and distribution of killer whales (*Orcinus orca*) in the Bremer Sub-Basin, Australia

The National Environmental Science Programme Report

• C. Salgado Kent, I. Parnum, R. Wellard, C. Erbe, L. Fouda



PRESENTATIONS

2025

- How do area-restricted dynamic ocean management measures affect risky activities in contiguous areas? A case study on whale-vessel strikes

L. Fouda, K. Indeck, A. Mayette, K.T.A. Davies. Contributed Talk - *Ship/Whale Collisions Workshop - OCEANS Conference, Brest, France.*

2024

- Vessel speed responses to near real-time slow-down periods implemented to protect whales

L. Fouda, K. Indeck, A. Mayette, K.T.A. Davies. Contributed Talk - *North Atlantic Right Whale Consortium, Providence, RI.*

2023

- Do protected areas drive movement choices? A research proposal in three parts.

L. Fouda, S. Yanco, R. Oliver, D. Ellis-Soto, W. Jetz. Contributed Poster - *Movement Ecology of Animals - Gordon Research Conference, Barga, Italy.*

2022

- Novel GSM-relayed trackers reveal fine-scale movement and protected area use of nesting loggerhead turtles

L. Fouda, E.C. Lockley, S.R.B Negus, S.J. Shrimpton, K. Fairweather, A. Taxonera, C. Eizaguirre. Contributed Poster - *Internet of Animals Symposium, Connecticut, CT.*

2021

- Diving behaviour and energy expenditure of loggerhead turtles (*Caretta caretta*) using accelerometers in a globally important nesting aggregation.

L. Fouda, E.C. Lockley, S.R.B. Negus, A. Taxonera, K. Fairweather, G. Schofield, C. Eizaguirre. Contributed Talk - *The 7th International Bio-Logging Science Symposium (Virtual).*

2021

- Feeding ecology and maternal effects impact reproductive success in loggerhead sea turtles (*Caretta caretta*).

L. Fouda, S.R.B. Negus, E.C. Lockley, A. Taxonera, K. Fairweather, G. Schofield, C. Eizaguirre. Contributed Poster - *Ecological Society of America - Annual Meeting (Virtual).*

2020

- Evaluating the use of marine protected areas by sea turtles in the Cabo Verde Archipelago.

L. Fouda, S.R.B Negus, E.C. Lockley, A. Kerley, A. Taxonera, E. Eizaguirre. Contributed Talk - *SBCS Symposium, London, England.*

2019

- Local feeding and its influence on reproductive investment in a highly migratory species.

L. Fouda, S.R.B. Negus, E.C. Lockley, A. Taxonera, K. Fairweather, E. Eizaguirre. Contributed Poster - *SBCS Symposium, London, England.*

2019

- Fitness impact of local feeding in loggerhead sea turtles (*Caretta caretta*).

L. Fouda, S.R.B. Negus, K. Fairweather, A. Taxonera, G. Schofield, C. Eizaguirre. Contributed Talk - *Dynamic Earth: The Joint-DTP Conference, London, England.*



TEACHING EXPERIENCE

Current
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2025

- Co-Supervisor of Honours Student - Charlie Carbunescu

Project Title: Acoustic Analysis of Sheldiac Valley Baleen Whale Presence

Current
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2025

- Co-instructor on BIOL 4645 - Biology and Conservation of Marine Mammals

Writing, adapting, and delivering lectures introducing upper-level biology students to the biology and ecology of marine mammals. Covering topics including evolution and adaptation, morphology, physiology, behaviour, abundance and distribution of marine mammals as well as management and conservation.

- 2021 | 2018
- **Co-Supervisor of MSc Students**
Provided guidance, support, and instruction to MSc students conducting thesis research in my PhD lab.
 - **Teaching Assistant on virtual MSc Ecology and Evolution field course**
Developed and delivered a workshop on marine mammal whistle analysis. Delivered a lecture on CV presentation development. Panel member for discussion group on scientific opportunities in and outside of academia.
 - **Teaching Assistant on MSc Ecology and Evolution field course**
Wrote and delivered lectures, guided small discussion groups, supervised and assisted student work and managed logistics at remote field sites in Cabo Verde.
 - **Demonstrator for undergraduate modules**
BIO111 Cell Biology and BMD219 Techniques in Biomedical Sciences. Engaged and taught students to develop new laboratory skills (e.g. pipetting, microscope use, scientific drawing). Graded and providing feedback.

RESEARCH GRANTS AND FELLOWSHIPS

- 2024
- **Murphy Family Postdoctoral Fellowship in Ocean Conservation**
North Atlantic Right Whale Conservation research on the impacts of human activity.
 - **London NERC DTP studentships (GBP 86,768)**
PhD Studentship in the natural sciences
 - London NERC Doctoral Training Partnership Funding. UKRI studentship for doctoral research (tuition fees and stipend).
 - **SeaWorld and Busch Gardens Conservation Fund (USD 25,000)**
Bremer Canyon Killer Whales - Bioacoustics and population study.
 - Grant Recipient with Dr. C. Erbe at the Centre for Marine Science and Technology.

ACADEMIC SERVICE

- **Grant Reviewer**
Graduate Women In Science Fellowship
- **Journal Reviewer**
Methods in Ecology and Evolution, Endangered Species Research, Ecosphere
- **Representative**
NERC DTP Management Board Cohort Representative
- **Organiser**
Planning committee for two week NERC DTP Fieldtrip to California (2018), Eizaguirre Lab Festival of Communities organising committee (2018, 2019).

SKILLS

- **Fieldwork Skills**
Animal Tagging (Sea Turtle); Marine Mammal Observations (Boat and Land based); Aerial observations; Line-Transect Surveys and Focal Follows; Tissue Sample and Morphometry Data Collection; Sample Processing and Preservation; Cetacean Photo-ID; Hydrophone and Acoustic Recorder Operation and Deployment; Theodolite Operation and Use; Marine Prey Sampling; Data Management; Binocular use.
- **Laboratory Skills**
DNA Extraction; PCR; Stable Isotope Sample Preparation and Processing; Mass Spectrometer set up (calibration, liner and column changes).

- **Software Skills**

Data Analysis, Visualization, and Modelling (R, R Markdown); Movement and Spatial Analysis (R, ArcGIS, QGIS, Google Earth Engine); DNA Alignment (UGENE, DNAsp); Acoustic Analysis (Raven, Pamguard, Audacity, R, MATLAB), Academic writing (MS Office, Rmarkdown, LaTeX); High Performance Computing (HPC) Cluster (Command Line, Bash, basic Linux); Fieldwork Software (CyberTracker, VADAR); Web Design (R Markdown, GitHub, Netlify, Wordpress); Data Management.

RESEARCH EXPERIENCE

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|-------------------|---|
| 2017 | <ul style="list-style-type: none">● Research Assistant
The Ocean Cleanup Foundation<ul style="list-style-type: none">• Conducted aerial survey operations on ocean debris in the Great Pacific Garbage Patch. Cleaned and analysed data - resulting in one technical reports and a peer-reviewed publication. |
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2016 | <ul style="list-style-type: none">● Research Assistant
Centre for Marine and Renewable Energy, University College Cork<ul style="list-style-type: none">• Land-based surveys using theodolites to map the location of marine mammals. |
| 2016

2015 | <ul style="list-style-type: none">● Research Assistant
Centre for Marine Science and Technology, Curtin University<ul style="list-style-type: none">• Developed a bioacoustics and population ecology study on Australian populations of killer whales. |
| 2013 | <ul style="list-style-type: none">● Research Assistant
Centre for Marine Science and Technology, Curtin University<ul style="list-style-type: none">• Part of a broad study looking at temporal and geographical variability in underwater soundscapes. |
| 2013 | <ul style="list-style-type: none">● Research Assistant
Behavioural Response of Australian Humpback whales to Seismic Surveys (BRAHSS). Joint Industry Partners<ul style="list-style-type: none">• Marine mammal observer and research assistant on a multi-year project which examined the effect of seismic surveys on humpback whales. |
| 2013 | <ul style="list-style-type: none">● Research Assistant
Oceans Initiative - Science for the Sea<ul style="list-style-type: none">• Photo-identification capture, processing, and data management for 30-year Pacific white-sided dolphin catalogue. Conducted data collection for marine conservation toolkit development - including marine mammal line transects and hydrophone operations. |
| 2010 | <ul style="list-style-type: none">● Research Assistant
Sperm Whale Research Project, Pinniped and Cetacean Ecology - New Zealand Research Partnership. University of Canterbury<ul style="list-style-type: none">• Key member of a four-person team undertaking boat and land based surveys for sperm whales in the Kaikoura Canyon hot spot. |
| 2009 | <ul style="list-style-type: none">● Intern
Research Department, Pacific Whale Foundation.<ul style="list-style-type: none">• Conducted photo-identification processing for long-term humpback whale catalogue. Investigated public coral reef interactions and engaged with eco-tour team on marine mammal encounters. |
| 2008 | <ul style="list-style-type: none">● Intern
Marine Research Internship Program - Society for Ecological and Coastal Research. University of Victoria Whale Lab<ul style="list-style-type: none">• Conducted boat based cetacean and avian research focused on gray whale presence, behaviour and foraging. |
| 2007 | <ul style="list-style-type: none">● Research Assistant
Sediment Ecology Research Group. University of St. Andrews.<ul style="list-style-type: none">• Independently conducted sediment sample collection, processing, and data entry in laboratory and field. |

PUBLIC ENGAGEMENT

- 2019
 - **Ten Turtle Years - the past, present and future of sea turtle conservation**
Pint of Science - A public talk on community-based approach to conservation.
- 2018
 - **Meet the Scientist talk**
Westcliff High School for Girls - Engagement with A Level students about studying and working in the marine sciences.
 - **New Study Reveals Effects of Boat Noise on Dolphins**
Cheddar News - *Passive Acoustic Monitoring Of Marine Mammals*. Short interview.
- 2017
 - **Dolphin sightings on the rise in the Chesapeake Bay**
WUSA9 Washington DC - *Chesapeake Bay DolphinWatch*. Short article and news segment
 - **Dolphin Watchers Wanted: Researchers Ask For Help Tracking Sightings In The Chesapeake**
Dcist - *Chesapeake Bay DolphinWatch*. [News article](#).
 - **Researchers need your help to study dolphins in the Chesapeake Bay**
ABC2 News Baltimore - *Chesapeake Bay DolphinWatch*. [News article and segment](#).
 - **Dolphin sightings in the Chesapeake Bay becoming more frequent**
ABC7 Washington DC - *Chesapeake Bay DolphinWatch*. [News article and segment](#).
- 2015
 - **Curtin orca-strates vital killer whale research**
Curtin University Media Release - *Bremer Canyon Killer Whale Research*. [Media release](#).
 - **Australian town a killer place to see orcas**
Australian Geographic - *Bremer Canyon Killer Whale Research*. [News article](#).
 - **Bremer Canyon turns on orca feast**
The West Australian - *Bremer Canyon Killer Whale Research*. [News article](#).
- 2013
 - **How to start out in marine biology?**
Conservation Careers - [Interview](#).

REFERENCES

- **Dr Kimberley Davies** - kim.davies@unb.ca
Postdoctoral Supervisor, University of New Brunswick Saint John
- **Professor Christophe Eizaguirre** - c.eizaguirre@qmul.ac.uk
PhD Supervisor. Professor, Queen Mary, University of London.
- **Dr Helen Bailey** - helenbailey@bluewaveconsultinggroup.com
Director, Blue Wave Consulting. Adjunct Professor, University of Maryland Center for Environmental Science
- **Dr Sarah Marley** - sarah.marley@sruc.ac.uk
Associate Professor, Scotland's Rural College