

# CURRICULUM VITÆ — Alberto De Rosa

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Edmonton, October 29, 2025

## Current Position

**Postdoctoral Fellowship** February 2023 — December 2026.

University of Alberta — Edmonton, AB, Canada.

*Supervisors:*

Professor Matina Kalcounis-Rueppell — University of Alberta, Edmonton.

Professor Erin Bayne — University of Alberta, Edmonton.

*Main Topics:* student mentoring, teaching, bioacoustics, conservation biology, passive acoustic monitoring, habitat suitability, ultrasonic, landscape ecology.

## Education

**Doctorate** (Zoology), August 2022.

Massey University — Palmerston North, Aotearoa New Zealand.

*Supervisors:*

Professor Isabel Castro — Massey University, Palmerston North

Professor Stephen Marsland — Victoria University of Wellington, Wellington

A/P Weihong Ji — Massey University, Albany

*Dissertation:* “On Kiwi (*Apteryx mantelli*, Bartlett) vocal behaviour and activity: relations to population densities, and applications to conservation”

*Main Topics:* statistical ecology, bioacoustics, conservation biology, passive acoustic monitoring, behavioural ecology, paired sampling, playback technique

**Master of Science** (Biodiversity and Evolution), March 2014

University of Bologna — Bologna, Italy. Final score: 110/110 *cum laude*

*Supervisor:* A/P Maria Vallisneri

*Dissertation:* “Inter-specific foraging behaviour analysis in a mixed group of birds, in a semi-natural area in the Wild Birds Recovery Centre of Faenza (RA), Italy”

*Main Topics:* avian population ecology, foraging ecology, biodiversity monitoring, conservation acts, population genetics (SSR) of mediterranean corals (*Balanophyllia europaea*, Risso)

**Bachelor of Science** (Biological Sciences), October 2007

University of Bologna — Bologna, Italy. Final score: 91/110

*Supervisor:* Professor Francesco Zaccanti

*Dissertation:* “The Wolves in the Monti Sibillini National Park: a snowtracking survey”

*Main Topics:* wolves (*Canis lupus*, Linnaeus) population ecology, snowtracking, anthropic environmental impact, movement ecology, biogeography

**High School Diploma** (Technical High School — Information Technology), June 2004

ITIS “Montani” — Fermo, Italy. Final score: 84/100

*Final project:* high- and low- level software development to control a step-by-step motor driven mechanical arm over the internet with webcam integration

## Research Interests

Conservation Biology, Statistical Ecology, Citizen Science with special interest on collaboration and work with local community groups, Passive Acoustic Monitoring, Bioacoustics, Evolution, Speciation and Adaptation.

## Research Outputs

### Articles Published

De Rosa, A., Castro, I., Marsland, S., 2021. The playback technique in avian fieldwork contexts: a systematic review and recommendations for best practice. *Ibis*. <https://doi.org/10.1111/ibi.13033>.

Castro, I., De Rosa, A., Priyadarshani, N., Bradbury, L., and Marsland, S., 2019. Experimental test of birdcall detection by autonomous recorder units and by human observers using broadcast. *Ecology and Evolution*; 9: 2376–2397. <https://doi.org/10.1002/ece3.4775>.

### Conferences Proceedings

De Rosa, A., Hurtado, C., Bayne, E., and Kalcounis-Rueppell, M. — Modelling Bat Echolocation Data at Provincial Scales: Structure: Signal Uncertainty, and Spatial Grain — North American Society of Bat Research Conference — Edmonton, Alberta – Canada. October 2025.

De Rosa, A., Hurtado, C., Bayne, E., and Kalcounis-Rueppell, M. — Model Structure Selection to Minimise Uncertainty in Modelling Hoary Bat Echolocation Detections in Alberta — The Wildlife Society — Edmonton, Alberta — Canada. October 2025.

De Rosa, A., Castro, I., Marsland, S. — Implementing Spatial Mark Resight Models With Acoustic Activity Data Described Through Environmental Covariates. International BioAcoustic Congress — Sapporo, Hokkaido – Japan. November 2023.

De Rosa, A., Hurtado, C., Kalcounis-Rueppell, M., Bayne, E. — Landscape level correlates of bats in the boreal region of Alberta, Canada. North American Society of Bat Research Conference — Winnipeg, Manitoba – Canada. October 2023.

Marsland, S., De Rosa, A., Castro, I., — Animal-borne acoustic recorders can inform consistent abundance estimates based on passive acoustic monitoring. New Zealand Ecological Society Conference — Dunedin, Otago — Aotearoa New Zealand. November 2022.

Castro, I., Feenstra, E., De Rosa, A., Marsland, S. — Smile! You are on camera: use of trail cameras to estimate the abundance of a cryptic, unmarked species, Stewart Island kiwi/Rakiura tokoeka. New Zealand Ecological Society Conference — Dunedin, Otago — Aotearoa New Zealand. November 2022.

- De Rosa, A., Olsen, D., Castro, I., Marsland, S. — Pairing Community and Individual Vocal Activity Data can Inform Consistent Abundance Estimates Using Animal-Borne Acoustic Recorders. North American Congress for Conservation Biology — Reno, Nevada – United States of America. July 2022.
- De Rosa, A., Olsen, D., Castro, I., Marsland, S. — Animal-Borne Acoustic Recorders Inform Mark-Resight Models For Abundance Estimates In North Island Brown Kiwi (*Apteryx mantelli*). International Statistical Ecology Congress — Cape Town, South Africa. June 2022.
- De Rosa, A., Olsen, D., Castro, I., Marsland, S. — Using animal-borne acoustic recorders to inform abundance estimates in Kiwi (Apterygiformes). National Kiwi Hui – Lyttelton, Canterbury, Aotearoa New Zealand. June 2022.
- De Rosa, A., Castro, I., Olsen, D., Marsland, S. — Miniature animal-borne acoustic recording units as aids to investigate vocal behaviour and derive population density estimations. Australasian Ornithological Conference. Auckland, Aotearoa New Zealand. February 2022.
- De Rosa, A., Olsen, D., Castro, I., Marsland, S.— Miniature Acoustic Recorders Embedded Into Kiwi Transmitters: challenges and opportunities for behavioural ecology and conservation. Ecoacoustic Congress, Urbino, Italy. June 2021.
- De Rosa, A., White, A., Castro, I., Marsland, S., 2019. Hey, R. U. There? Autonomous Recording Units - ARUs - as means to monitor sounds in a spatially explicit fashion. Poster presentation at: Statistical Ecology and Environmental Management Conference, Wellington, , Aotearoa New Zealand. December 2019.
- Marsland, S., Priyadarshani, N., Juodakis, J., Castro, I., De Rosa, A., Listanti, V., Feenstra, E., 2019. AviaNZ: Software and Research into Acoustic Monitoring of Birds. Birds New Zealand Conference, Wellington, June 2019
- Castro, I., Marsland, S., Priyadarshani, N., Juodakis, J., De Rosa, A., Listanti, V., Feenstra, E., 2019. Unobtrusive monitoring of Kiwi. Birds New Zealand Conference, Wellington, June 2019

## Articles In Preparation

- De Rosa, A., Castro, I., Marsland, S.— Spatial Mark-Resight Models with Acoustic Data.
- De Rosa, A., Bayne, E., Kalcounis-Rueppell M. — Selecting Model Structures for Bat Habitat Suitability using Echolocation Data of Hoary Bats in Alberta.
- Hedley, R., Saini, A., De Rosa, A., Bayne, E. — Mapping anthropogenic noise at the provincial scale using passive acoustic monitoring data.
- Mason, K., Godoy, C., De Rosa, A., Castro, I. — Experimental comparison of methods to estimate avian diversity in vineyards.
- Zeller, A., De Rosa, A., Mahon, L., Bayne, E., — Pileated Woodpecker habitat use in the boreal forest of Alberta: The relative importance of response variables, land cover, and scale.
- De Rosa, A., Dami, B., Franceschini, A., Lebeuf-Taylor, I., Meyhoff, S., Martinez-Lanfranco, J.A., Leston, L., Bayne, E. — A Mathematical Comparison of Species Distribution Models for Ruffed Grouse (*Bonasa umbellus*).
- De Rosa, A., Hurtado, C., Kalcounis-Rueppell, M., Bayne, E. — Mitigating uncertainty in habitat suitability models employing multi-scale multi-source data for NABat formatted data in Alberta.
- De Rosa, A., Zeller, A., Bayne, E. — Including flexible interaction terms in ecological models: an empirical proof.
- De Rosa, A., Mugnier, L., Klute, J., Brown R., Castro, I., Marsland, S. — A, R Us There? Seeking sound source location with Acoustic Recording Units.
- De Rosa, A., Marsland, S., Castro, I. — Experimental test of acoustic playback as a monitoring enhancing tool in North Island Brown Kiwi (*Apteryx mantelli*, Bartlett).
- De Rosa, A., Castro, I. Marsland, S., — North Island Brown Kiwi (*Apteryx mantelli*, Bartlett) vocal activity in relationship to handling during annual transmitter change.

## Teaching Experience and Qualifications

**Skills:** Scholarship of Teaching, Course Alignment, Instructional Materials, Learning Outcomes and Assessment.

**Course:** Foundations of Teaching.

**Date:** 08/2021 – 10/2021

**Taught by:** A. Graeme Pate.

**Institution:** University of Alberta

**Address:** 5-02 Cameron Library, Edmonton, Alberta, Canada T6G 2J8.

**Website:** <https://www.ualberta.ca>

**Skills:** Andragogy, effective teaching, reflective writing.

**Course:** Advance Higher Education, Introduction to University Teaching Course — Associate Fellow.

**Date:** 07/2021 – 10/2021

**Accreditation awarded on:** 03/12/2021

**Taught by:** Linda Rowan and Fiona Murray.

**Institution:** Massey University

**Address:** Riddet Road – Palmerston North – 4410 – Manwatū–Whanganui – Aotearoa New Zealand

**Website:** <https://www.massey.ac.nz>

**From:** 1/08/2021 **To:** 13/10/2021

**Employer:** Massey University

**Address:** Riddet Road – Palmerston North – 4410 – Manwatū–Whanganui – Aotearoa New Zealand

**Website:** <https://www.massey.ac.nz>

**Position:** Guest Speaker

**Duties:** Teaching, Classes Preparation

**Skills:** engaging in interactive learning, evaluating student performance, student-centered learning

**From:** 1/08/2019 **To:** 30/11/2019

**Employer:** Massey University

**Address:** Riddet Road – Palmerston North – 4410 – Manwatū–Whanganui – Aotearoa New Zealand

**Website:** <https://www.massey.ac.nz>

**Position:** Lecturer

**Duties:** Teaching, Classes Preparation

**Skills:** management of availability of on-line class materials for students, interact with tertiary students

**From:** 03/10/2016 **To:** 30/06/2017

**Employer:** “G.U.S.” Gruppo Umana Solidarietà — Macerata, MC — Italy

**Address:** Via della Pace, 5 — 62100

**Website:** <http://www.gusitalia.it>

**Position:** Italian teacher

**Duties:** classes managing, preparation of individual study plans, teaching, social introduction

**Skills:** troubleshooting delicate social situations, class and individual study plan design, delivery, and management

## Funding

**Date:** 04/2021 — **Funder:** *The Ornithological Society of New Zealand*

**Website:** <https://www.birdsnz.org.nz/funding/david-medway-scholarship/dms-projects/>

**Project:** Kiwi (*Apteryx mantelli*, Bartlett) vocal behaviour and activity: population densities, and applications to conservation

**Amount:**5000 NZ\$

**Date:** 14/07/2020 — **Funder:** *Kiwis for Kiwi*

**Website:** <https://www.kiwisforkiwi.org>

**Project:** Translating numbers of calls into numbers of birds using cutting edge technology to improve Kiwi Call Counts

**Amount:**15895 NZ\$

**Date:** 26/01/2018 — **Funder:** Te Pūnaha Matatini

**Website:** <https://www.tepunahamatatini.ac.nz>

**Project/role:** PhD Scholarship

**Amount:** 81900 NZ\$ + University Fees

**Date:** 26/07/2014 — **Funder:** Utah State University

**Website:** <http://www.usu.edu>

**Project/role:** Research assistantship — 12 months

**Amount:** 24000 US\$

## Professional Organisations

International Bioacoustic Society — since 14/04/2023

North American Society for Bat research — since 01/05/2023

The Wildlife Society — since 02/07/2025

## Other Relevant Job Experiences and Skills

**Course:** Bat Acoustic Identification Workshops

**From:** 27/01/2025 **To:** 31/01/2025

**Taught by:** Vesper Bat Detection Services

**Course:** H2S Awareness

**From:** 05/08/2023

**Taught by:** Canada Safety Training Centre

**Course:** Defensive and Four Wheel Driving Accreditation

**From:** 19-21/06/2023

**Taught by:** Kenji Kinoshita

**Address:** Human Resources, Health, Safety + Environment – University of Alberta.

**Course:** Bear Awareness and Safety

**From:** 16/05/2023

**Taught by:** Erin Bayne

**Address:** Field Research Office – 3-36 Tory Building. University of Alberta.

**Course:** Wilderness First Aid

**From:** 26-28/04/2023

**Taught by:** Kris Porlier

**Address:** Field Research Office – 3-36 Tory Building. University of Alberta.

**Course:** ATV Driving

**From:** 04/2023

**Taught by:** Kenji Kinoshita

**Address:** Human Resources, Health, Safety + Environment – University of Alberta.

**Course:** Intermediate First Aid with CPR C & AED

**From:** 01-02/04/2023

**Taught by:** James Garnet

**Address:** St. Mark James Training – 7915 104 St NW #200, Edmonton, AB T6E 4E1.

**Skills:** use trail cameras to evaluate biodiversity in agricultural settings

**From:** 05/2022

**Employer:** Plant & Food Research

**Address:** Batchelar Road, Fitzherbert, Palmerston North 4474

**Position:** Consultant

**Duties:** Experimental design, data extraction, delivery of results

**Skills:** advanced project management, deadlines time management, RCpp programming

**From:** 05/2022

**Employer:** Victoria University of Wellington

**Address:** Kelburn, Wellington

**Position:** Research Assistant

**Duties:** translate R to Rcpp, version control

**Skills:** agricultural fieldwork, agricultural practices, teamwork

**From:** 02/2022 **To:** 06/2022

**Employer:** Plant & Food Research

**Address:** Batchelar Road, Fitzherbert, Palmerston North 4474

**Position:** Casual Technician

**Duties:** Crops Harvesting, Seed cleaning

**Skills:** post-1080 drop monitoring work, advanced bush fieldwork, rat and possum lines laying

**From:** 15/07/2020 **To:** 22/07/2020

**Employer:** Tauahika Ltd

**Address:** 265 Ngaere Park Road – Turitea – Palmerston North - RD2 – 4474 – Manwatū–Whanganui – Aotearoa New Zealand

**Position:** Fieldworker

**Duties:** Post-1080 Drop Monitoring

**Skills:** working with strict deadlines, teamwork, client-oriented work

**From:** 1/08/2019 **To:** 30/11/2020

**Employer:** Michael and Paul Weber

**Address:** Clearwater – FL – USA

**Position:** Translator (English to Italian)

**Duties:** Translating Patents

**Skills:** Kiwi catching, handling, measuring, transmitterising, egg candling

**Date:** 03/2019

**Trained by:** Isabel Castro (all but egg candling), Emma Bean (egg candling).

**Kiwi Accredited Handler #:** 0403

**Date:** 01/12/2020

**Course:** Operation Nest Egg Candling Course at the National Kiwi Hatchery in Rotorua – Bay of Plenty – Aotearoa New Zealand

**Skills:** Bayesian inference, L<sup>A</sup>T<sub>E</sub>X, Science communication, English language proficiency

**From:** 26/07/2014 **To:** 31/07/2015

**Institution:** Utah State University

**From:** 01/03/2012 **To:** 30/06/2014

**Role:** Italian Red Cross Volunteer — Emergencies Ambulance Driver and First Responder

**Institute:** Italian Red Cross, Porto Potenza Picena Section — Potenza Picena, MC — Italy

**Skills:** C Programming, Descriptive statistics, advanced office suite usage, High and Low level computer programming, Unix/Linux

**From:** 15/09/2001 **To:** 15/06/2004

**Institution:** ITIS “Montani” — Fermo, Italy

## Linguistic proficiencies

Italian – Mother Tongue	French – Rudimentary	Papiamentu – Rudimentary
English – ToEFL 109/120 - 2018	Spanish – Advanced	Te Reo Māori – Beginner