

School of Applied BioSciences Macquarie University, Sydney, Australia Katarina.Stuart@mq.edu.au | +61420693788



Google Scholar Website GitHub

# RESEARCH INTERESTS

My interests are in evolutionary genomics and exploring the proximate mechanisms that facilitate local adaptation. Some of my research focuses on commonly understudied elements of the genome, including structural variation and transposable elements, to examine holistic patterns of genomic variation and adaptive potential.

My projects and interests cover a range of fields, including genomics, bioinformatics, ecological statistics, and field ecology. I am hugely supportive of open science, including publication of underlying code for <u>each of my lead author manuscripts</u>, regularly develop freely accessible <u>code vignettes</u> and full workshops (<u>example 1</u>, example 2) with the aim to increase science collegiality, transparency, reproducibility.

## **EDUCATION**

### DOCTOR OF PHILOSOPHY (BIOLOGY)

2018-2022

University of New South Wales

Thesis Title: A genetic perspective on rapid adaptation in the globally invasive European

starling (Sturnus vulgaris)

Supervisors: Lee A Rollins, Richard J Edwards, & William B Sherwin

# **BACHELOR OF SCIENCE (ADVANCED) (HONOURS)**

2013-2017

University of Sydney

Thesis Title: Mechanisms generating geographic divergence in phenotypic traits within

the invasive cane toad in Australia

Supervisors: Richard Shine & Gregory Brown

# PROFESSIONAL APPOINTMENTS

Postdoctoral Research Fellow Sept 2024 - present

Macquarie University

Visiting Fellow August 2022 - present

University of New South Wales

Research Fellow May 2022 - Sept 2024

University of Auckland

Research Assistant 2020-2022

University of New South Wales

Research Assistant August 2017

Deakin University

# GRANTS, SCHOLARSHIPS, & AWARDS

### MAJOR RESEARCH GRANTS

2025-2027 Macquarie University Strategic Research Initiative | Role: CI.

Unlocking the full potential of eDNA - novel approaches to estimating organism abundance in the environment using single pollen grain genotyping.

Field, D., Encinas-Viso, F., Le Roux, J., Asadnia, M., Sofronov, G., Chariton, A., Dudaniec, R., Stuart, K., Taylor, P. & Beggs, P.

This project aims to develop novel eDNA methods integrating target

This project aims to develop novel eDNA methods integrating target capture sequencing, cell sorting and Single Pollen Grain (SPG) genotyping with deep learning approaches generate modelling tools to help track invasive organism spread and interactions within the environment.

### SCHOLARSHIPS & RESEARCH GRANTS

SCHOLARSE	11PS & RESEARCH GRANTS	
2025	MQ Pollinator Futures Research Centre staff research grant	2,000 AUD
2024	Genomics Aotearoa ECR Grant	8,000 NZD
2024	UoA FoS Research Fellow Society Publishing Grant	1,000 NZD
2022	GSA Workshop Support Program	1,000 AUD
2022	AES ECR Networking Grant	2,000 AUD
2022	UNSW Science PhD Writing Grant	7,500 AUD
2019-2021	Holsworth Wildlife Research Endowment	13,875 AUD
2018-2022	Australian Government Research Training Program Scholarship	≈27,000 AUD
		p.a.
AWARDS		
2023	Bioprotection Aotearoa/Genomics Aotearoa ECR Talk Prize	250 NZD
2022	Dean's Award for Outstanding PhD Theses	-
2022	SMBE Invasomics Conference Oral Presentation Award	250 NZD
2021	GSA 2021 Mayo Prize for best student presentation	-
2021	Outstanding E&ERC Postgraduate Researcher	-
2020	Australasian Evolution society student talk award (2 <sup>nd</sup> Place)	200 AUD
2019	The Outstanding Evolution and Ecology Presentation EERC talk	200 AUD
2018	COMBINE 2018 Symposium 3 <sup>rd</sup> place best oral presentation	50 AUD
2018	The Outstanding Evolution and Ecology Presentation EERC (2 <sup>nd</sup> place)	-
TRAVEL GR		
2024	UoA FoS Research Fellow Society Travel Fund	1000 NZD
2023	Genomics Aotearoa - He taonga tuku iho scholarship	600 NZD

2024	UoA FoS Research Fellow Society Travel Fund	1000 NZD
2023	Genomics Aotearoa - He taonga tuku iho scholarship	600 NZD
2023	Queenstown Research Week's Genomics satellite scholarship	1180 NZD
2022	School of Biological Science support scheme	1,500 NZD
2022	SMBE Invasomics Conference	400 NZD
2022	University of Auckland FoS Research Fellow Society	500 NZD
2021	Postgraduate Research Student Support (PRSS) Scheme	1,000 AUD
2020	Genetic Society of Australia Smith-White Travel award	-
2018	ABACBS National Conference CSL travel award	200 AUD

### **PUBLICATIONS**

Underlined numbers indicate first or senior authorship

### PREPRINT & UNDER REVIEW/REVISION

23. Atsawawaranunt K, <u>Stuart KC</u>, Whibley A, Ewart KM, Rollins LA, Johnson RN, Santure AW (2025) Missing or mis-telling the story? Trade-offs for restriction-site associated compared to whole genome sequencing. *Molecular Ecology*, under review.

- 22. Tram V, <u>Stuart KC</u>, Tan HZ, Brekke P, Lloret-Villas A, Santure AW (**2025**) Assessing imputation methods in populations with differing relatedness and inbreeding levels for low-coverage sequencing data. *Molecular Ecology Resources*, under revision.
- 21. Stuart KC, Oomen R, Tigano A, Wellenreuther M, Wold J, Field DL, Mérot C (2025) A Beginner's Guide to Structural Variants in Eco-Evolutionary Population Genomics: Everything You Wanted to Know. Molecular Ecology (invited review), under revision.

  Preprint at Authorea: https://doi.org/10.22541/au.174853973.36642913/v2
- 20. Zhou J, Nelson TM, Lopez CR, Zhou SJ, Ward-Fear G, Stuart KC, Rollins LA (2021) Microbial function is related to behavior of an invasive anuran. *BioRXIV*, https://doi.org/10.1101/2020.11.16.385690

### PEER REVIEWED ARTICLES

- 19. Tan HZ, <u>Stuart KC</u>, Tram V, Whibley A, Bailey S, Brekke P, Santure A (**2025**) High imputation accuracy can be achieved using a small reference panel in a natural population with low genetic diversity. *Molecular Ecology Resources*, Accepted.
- 18. Atsawawaranunt K, <u>Stuart KC</u>, Whibley A, Ewart KM, Major RE, Johnson JN, Santure AW (**2025**) Parallel signatures of diet adaptation in the invasive common myna genome, *Molecular Ecology*, 34(2), e17607. http://doi.org/10.1111/mec.17607
- 17. Stuart KC, Tan HZ, Whibley A, Brekke P, Ewen JG, Santure AW, (2024) Lifetime fitness is correlated more strongly with structural variant than SNP mutational load in a threatened bird species, *Molecular Ecology*, e17631. https://doi.org/10.1111/mec.17631
- 16. Thompson B, Atsawawaranunt K, Nehmens M, Pearman W, Perkins E, Tan HZ, Whibley A, Santure AW, Stuart KC (2024) Population genetics of the invasive European Starling across Aotearoa, New Zealand, Molecular Ecology, e17579. https://doi.org/10.1111/mec.17579
  - Featured in Molecular Ecology News and Views: https://doi.org/10.1111/mec.70016
- 15. Tan HZ, Scherer P, Stuart KC, Bailey S, Lee KD, Brekke P, Ewen JG, Whibley A, Santure AW (2024) A high-density linkage map allows investigation of fine-scale heterochiasmy in an avian system, Heredity, 1-14. https://doi.org/10.1038/s41437-024-00711-3
- 14. Stuart KC, Atsawawaranunt K, Johnson R, Major R, Ewart KM, Rollins LA, Santure AW, Whibley A (2024) The genome of a globally invasive passerine, the common myna (*Acridotheres tristis*), *DNA Research*, 31 (2), dsae005. https://doi.org/10.1093/dnares/dsae005
- 13. McGaughran A, Dhami MK, Parvizi E, Vaughan AL... <u>Stuart KC</u>,... (2024) Genomic tools in biological invasions: current state and future frontiers, *Genome Biology and Evolution*, 16: evad230. https://doi.org/10.1093/gbe/evad230
- 12. Miller SM, <u>Stuart KC</u>, Burke NW, Rollins LA, Bonduriansky R (**2024**) Genetic and phenotypic consequences of local transitions between sexual and parthenogenetic reproduction in the wild. *American Naturalist*, 203. https://doi.org/10.1086/727511
  - 2024 The American Naturalist Student Paper Award
- 11. Hofmeister NR, Stuart KC, Warren WC, Werner SJ, Bateson M, Ball GF, Buchanan KL, Burt DW, Cardilini APA, Cassey P, De Meyer T, George J, Meddle SL, Rowland HM, Sherman CDH, Sherwin WB, Berghe WV, Rollins LA, Clayton DF (2023). Concurrent invasions by European starlings (Sturnus vulgaris) suggest selection on shared genomic regions even after genetic bottlenecks. *Molecular Ecology*, e17195. https://doi.org/10.1111/mec.17195
- 10. Li-Williams S<sup>†</sup>, Stuart KC<sup>†</sup>, Comte S, Forsyth DM, Dawson M, Sherwin WB, Rollins LA. (2023) Genetic analysis reveals spatial structure in an expanding introduced rusa deer population, *Wildlife Research*, WR22128. <a href="https://www.publish.csiro.au/WR/WR22128">https://www.publish.csiro.au/WR/WR22128</a> (†joint first authorship)

- 9. Stuart KC, Edwards, RJ, Sherwin WB, Rollins, LA. (2023) Contrasting patterns of single nucleotide polymorphisms and structural variations across multiple invasions. *Molecular Biology and Evolution*, 40(3): msad046. https://doi.org/10.1093/molbev/msad046
- 8. Stuart KC<sup>†</sup>, Hofmeister NR<sup>†</sup>, Zichello JM, Rollins LA. (2023) Global invasion history and native decline of the common starling: insights through genetics, *Biological Invasions*, 25, 1291-1316. <a href="https://doi.org/10.1007/s10530-022-02982-5">https://doi.org/10.1007/s10530-022-02982-5</a> († joint first author)
- 7. Stuart KC, Sherwin WB, Edwards RJ\*, Rollins LA\* (2023) Evolutionary genomics: Insights from the invasive European starlings, Frontiers in Genetics, 13, 1010456. https://doi.org/10.3389/fgene.2022.1010456 (\*indicates joint last authorship)
- 6. Stuart KC<sup>†</sup>, Edwards RJ<sup>†</sup>, Cheng Y, Warren WC, Burt DW, Sherwin WB, Hofmeister NR, Werner SJ, Ball GF, Bateson M, Brandley MC, Buchanan KL, Cassey P, Clayton DF, De Meyer T, Meddle SL, Rollins LA (2022). Transcript- and annotation-guided genome assembly of the European starling.

  Molecular Ecology Resources, 22(8), 3141-3160. <a href="https://doi.org/10.1111/1755-0998.13679">https://doi.org/10.1111/1755-0998.13679</a> († joint first author)
- 5. Stuart KC, Sherwin WB, Cardilini APA, Rollins LA (2022). Genetics and Plasticity Are Responsible for Ecogeographical Patterns in a Recent Invasion. Frontiers in Genetics, 13 824424. <a href="https://doi.org/10.3389/fgene.2022.824424">https://doi.org/10.3389/fgene.2022.824424</a>.
- 4. Stuart KC, Sherwin WB, Austin JJ, Bateson M, Eens M, Brandley MC, Rollins LA (2022). Historical museum samples enable the examination of divergent and parallel evolution during invasion.

  Molecular Ecology, 31(6):1836-1852. <a href="https://doi.org/10.1111/mec.16353">https://doi.org/10.1111/mec.16353</a>.
- 3. Stuart KC<sup>†</sup>, Cardilini APA<sup>†</sup>, Cassey P, Richardson MF, Sherwin W, Rollins LA<sup>\*</sup>, Sherman CDH<sup>\*</sup>. (2021) Signatures of selection in a recent invasion reveal adaptive divergence in a highly vagile invasive species. *Molecular Ecology*, 30(6):1419-1434. <a href="https://doi.org/10.1111/mec.15601">https://doi.org/10.1111/mec.15601</a> (†joint first authorship, \*joint last authorship)
  - Featured in Molecular Ecology News and Views: <a href="https://doi.org/10.1111/mec.15794">https://doi.org/10.1111/mec.15794</a>
- 2. Stuart KC, Brown GP, Shine R. (2019) Proximate mechanisms underlying the rapid modification of phenotypic traits in cane toads (*Rhinella marina*) across their invasive range within Australia. *Biol J Linnean Soc.* 126(1):68-79. https://doi.org/10.1093/biolinnean/bly150
- 1. Hudson CM, Brown GP, <u>Stuart KC</u>, Shine R. (2018) Sexual and geographical divergence in head widths of invasive cane toads, *Rhinella marina* (Anura: Bufonidae), is driven by both rapid evolution and plasticity. *Biol J Linnean Soc.* 124(2):188-99. https://doi.org/10.1093/biolinnean/bly040

### PEER REVIEWED BOOK CHATPERS

- <u>2.</u> <u>Stuart KC</u>, Santure AW, Rollins LA. (2025) Structural variants and transposable elements as facilitators of rapid evolutionary change in invasive populations. in Rius, M. and Bock, D. Invasion Genomics. *In Production*.
- 1. Stuart KC, Woolnough AP, Rollins LA. (2023) Chapter 24: Invasive species detection and management using genomic methods. in Holleley, C.E., Berry, O. and Jarman, S. Applied Ecological Genetics. CSIRO Publishing, Canberra. https://doi.org/10.1071/9781486314935

# TEACHING EXPERIENCE

### **UNDERGRADUATE COURSES - LECTURES**

2024 BIOSCI210: Evolution and the Origin of Life Guest lecturer

UoA, New Zealand

## **UNDERGRADUATE COURSES - TUTOR**

2023 BIOSCI322: Evolution of Genes, Populations and Species

- UoA, New Zealand
- Lead for the populations genetics and simulating evolution lab for a third year undergraduate course.
- 2018- BABS3291: Genes, Genomes and Evolution

UNSW Sydney, AUS

- Laboratory demonstrator for a third-year biotechnology and biomolecular sciences subject, teaching students with a range of biological and coding knowledge. Key topics include introduction to evolutionary bioinformatics, fundamental genomic principles, and investigation into recent advancements in the field.
- 2021 BIOC2201: Principles of molecular biology

UNSW Sydney, AUS

Laboratory demonstrator and tutor for a second-year biochemistry subject, with key topics including an introduction to modern molecular biology, molecular mechanisms of gene expression, and fundamental aspects of recombinant DNA technology

2019- BABS2204: Genetics

UNSW Sydney, AUS

- Laboratory demonstrator for a second-year biotechnology and biomolecular sciences subject. Duties include supervising classes to ensure safely protocols are adhered to, marking assignments, and supervising assessable tasks. I was responsible for motivating constructive discussion among students, as well as explaining biological processed to students, and assisting with experimental procedures.
- 2021 BIOC2101: Principles of Biochemistry

UNSW Sydney, AUS

Laboratory demonstrator for a second-year biochemistry subject, with key topics including and introduction to modern biochemistry, and covers fundamental aspects of the structure-function relationships of proteins and an overall coverage of intermediary metabolism.

### **POSTGRADUATE & OTHER**

2022- Workshop - Genetic Outlier Analysis

New Zealand & Australia

- Developed <u>materials</u> for a two-day workshop, and successfully hosted six workshops to-date, with over 150 attendees over this time. This workshop covers the basics of PCAdapt, Fst, BayeScan, and BayPass, as well as key discussion around selection analysis on genomic data. Some workshops were hosted in-person and allowed for attendees to bring and analyse their own data. Press release from Australian BioCommons.
- 2022- Genomics Aotearoa Workshop Helper

New Zealand

- Assisted with coding workshops as a facilitator/helper. Courses included 'Introduction to Shell & Unix', and 'Introduction to RNA-seq' workshops.
- 2020 Science and Engineering Indigenous Preparatory Program
  Project Developer and Instructor for the Science and Engineering Indigenous Preparatory Program.

Prepared and delivered 3 hours (lectures and tutorials) of first year university level biology teaching content for incoming and prospective first year university students.

2019 Workshop - Data Intensive Biology Summer Institute ANGUS 2019

UC Davis, USA

Teaching assistant at the ANGUS summer course held through the Data Intensive Biology Summer Institute and the Lab for Data Intensive Biology at UC Davis. Taught learners from varied backgrounds (undergraduate to professorial) genomic practices for analysing big shotgun sequencing data sets over the intensive two-week course, as well as working one on one with learners on their own data sets.

# SUPERVISION EXPERIENCE

### **CURRENT STUDENTS**

2025- PhD co-supervisor (associate supervisor) - Giorgio Muneretto, Macquarie University
Giorgio will be completing a project focused on improving management of native seed production
areas using genomic tools. This project will involve metagenomic sequencing, population genomics

- and genome assembly, common garden glasshouse experiments, as well as simulations and modelling with the aim to improve fitness and adaptive capacity in native Australian species.
- 2025- PhD co-supervisor (external supervisor) James Weppner, University of New South Wales
  James's project will be a continuation of his work for his undergraduate honour research year, for
  which I was an unofficial supervisor. James's work involved using landscape genomics and modelling
  to understand a species movement across a landscape, informing species management practices
  within the New South Wales Department of Primary Industries.
- 2025- Masters co-supervisor (associate supervisor)- Clara Schmidt, Macquarie University
  Clara will be completing a project that aims to generate genomically informed improvements in
  native seed production areas using genomic tools. This project will involve common garden
  glasshouse experiments coupled with population genomic sequencing to investigate how seed
  sourcing and genetic diversity impact fitness under stress conditions in Maireana brevifolia.
- 2024- PhD co-supervisor (external supervisor) Neve Kelly, University of New South Wales
  Neve's project is being run in conjunction with our industrial partners at Department of Primary
  Industries and Regional Development in Western Australia. Her work is focusing on putting recent
  ongoing starling incursions in Western Australia into context within the greater Australian starling
  population. Neve will also be using genomics to explore the basis of starling evolution and success
  across the globe.

### **PAST STUDENTS**

- 2023- Summer student (primary supervisor) Bryan Thompson
- Supervised a 3<sup>rd</sup> year undergraduate student of a 10-week summer period. Introduced the student to genomics using R and the UNIX command line. Student completed SNP variant calling and population genomics exploration of a reduced representation SNP dataset. Bryan's project has been featured in the University of Auckland Scientific and published in Molecular Ecology.
- NSW Year 12 high school Extension Science (Project Supervisor) Luke Amjah
  Primary supervisor for final high school year student on an extension science project. Work covered developing coding, analytical, writing, and general scientific skills to help them produce a report in fulfillment of their course outcomes. Assisted student in preparing a conference presentation, which Luke gave at the 2019 Australasian Evolution Conference.

# SCIENTIFIC PRESENTATIONS

INVITE	ED SEMINARS	
2024	University of Rennes, Ecobio department seminar   Rapid evolution & adaptive potential: perspectives from genomes, invasive species, & history.	Rennes, France
2024	The University of Sheffield, Ecology and Evolutionary Biology department seminar   Rapid evolution & adaptive potential: perspectives from genomes, invasive species, & history.	Sheffield, England
2023	<b>Zoology Seminar - Otago University</b>   Invasive species, and the secrets they can teach us about the genetics of local adaptation.	Virtual
2023	Sydney Bioinformatics Seminar Series - University of Sydney   A genetic perspective on rapid adaptation in the globally invasive European starling (Sturnus vulgaris)	Virtual
2021	Queensland Technologies and Innovations group seminar talk - University of Queensland   The draft genome assembly of the globally invasive common starling, Sturnus vulgaris	Virtual

# **INVITED CONFERENCE TALKS**

2023	<b>Genomics Aotearoa Annual Meeting</b>   A whole genome perspective on genetic variation and rapid adaptation.	Dunedin, NZ
2023	Queenstown Research Week: He taonga tuku iho - Bioprotection Aotearoa   A whole genome perspective on genetic variation and rapid adaptation.	Queenstown, NZ
2020	<b>Genetics Society of AustralAsia Award Symposium</b>   Whole transcripts in genome assembly, annotation, and assessment: the draft genome assembly of the globally invasive common starling, Sturnus vulgaris	Virtual
SELECT	TALKS	
2025	<b>Genetics society of Australasia  </b> Embracing the Mess: Real Learner Data in Bioinformatics Training	Auckland, NZ
2024	<b>3rd Joint Congress on Evolutionary Biology</b>   Structural variants and transposable elements as hidden components of whole genome variation	Montreal, Canada
2024	<b>Genetics society of Australasia</b>   Structural variants and transposable elements as hidden components of whole genome variation	Sydney, Australia
2023	<b>International Congress of Genetics</b>   A whole genome perspective on genetic variation and rapid adaptation.	Melbourne, Australia
2022	<b>Australasian Evolution Society National Conference</b>   Genetics and plasticity are responsible for ecogeographical patterns in a recent invasion.	ANU, Australia
2022	<b>NZ Molecular Ecology Conference</b>   Contrasting patterns of single nucleotide polymorphisms and structural variations across multiple invasions.	Auckland, NZ
2022	<b>SMBE Invasomics Conference</b>   Contrasting patterns of single nucleotide polymorphisms and structural variations across multiple invasions.	UoW, NZ
2022	<b>ComBio/Genetics Society of Australasia</b>   Genetics and plasticity are responsible for ecogeographical patterns in a recent invasion.	UoM, Australia
2021	<b>Australasian Evolution Society Conference</b>   A genetic perspective on rapid adaptation in the globally invasive European starling (Sturnus vulgaris).	Virtual
2021	<b>Genetics Society of AustralAsia Conference</b>   A genetic perspective on rapid adaptation in the globally invasive European starling (Sturnus vulgaris).	Virtual
2020	<b>Australasian Evolution Society Conference</b>   Rapid Adaptation in invasive species: Using historical museum samples to examine evolution in an invasive passerine.	Virtual
2020	<b>Postgraduate Research Forum</b>   Investigating evolution using invasive species and historical museum samples.	Virtual
2020	<b>ABACBS Virtual Conference</b>   Whole transcripts in genome assembly, annotation, and assessment: the draft genome assembly of the globally invasive common starling, Sturnus vulgaris.	Virtual
2019	<b>Postgraduate Research Form</b>   Evolution in invasive species: exploring adaptive divergence and selection across the Australian landscape.	UNSW, Australia
2019	<b>Australasian Evolution Society National Conference</b>   Local signatures of founding populations confound identification of adaptive divergence in invasive populations.	UNSW, Australia

2018	<b>COMBINE Symposium</b>   Evolution in invasive populations: using genomics to reveal drivers of invasion success in the Australian European starling (Sturnus vulgaris) introduction across Australia.	UMelb, Australia	
2018	<b>Postgraduate Research Form, University of New South Wales</b>   Evolution in invasive populations: using genomics to reveal drivers of invasion success in the Australian European starling (Sturnus vulgaris) introduction across space and time.	UNSW, Australia	
POSTER	S S		
2025	Genetics society of Australasia   From Genes to Green: The role of genomics in native seed production	Auckland, NZ	
2022	<b>Lorne Genome Conference</b>   A genetic perspective on rapid adaptation in the globally invasive European starling (Sturnus vulgaris).	Lorne, AUS	
2019	<b>GIW/ABACBS International Conference</b>   Using genomics to reveal drivers of invasion success.	USYD, AUS	
2019	COMBINE/AYRCOB Symposium   Using genomics to reveal drivers of invasion success.	USYD, AUS	
2018	<b>ABACBS National Conference</b>   Evolution in invasive populations: using genomics to reveal drivers of invasion success in the Australian European starling (Sturnus vulgaris) introduction across Australia.	UM, AUS	
SERVICE, OUTREACH & MEDIA			
SERVIC	<u> </u>		
2025- onwards	Macquarie University Applied BioSciences Research Committee		
2024- onwards	Genetics Society of Australaisa - ECR representative		
2023- onwards	Landscape Genomics Journal Club - Lead Organising a fortnightly discussion group which discusses key papers within the field of genomics.	landscape	
2023- 2024	Centre for Computational Evolution - Seminar Series Organiser  Co-running the CCE seminar series at the University of Auckland and a hybrid in-person and online seminar series.		
2023	International Congress of Genetics conference 2023 - Symposia Organiser and Chair Organised and chaired the 'Invasion Genomics' session, which included appointing a co-chair, inviting international speakers, and appraising abstracts for inclusion into the scientific program.		
2021	GSA 2021 Virtual Conference Committee - Committee Member Assisted with the organisation of the 2021 Genetics Society of AustralAsia Virtual Conference.		
2018- 2020	Sydney Society for Conservation Biology - President, Communications Responsible for managing the society board committee, overseeing finances and event organisation and execution. Additionally, responsible for maintaining the social media pages (Facebook and Twitter), and organised and wrote a monthly newsletter for society members.		
2019	COMBINE General Committee - Symposium Coordinator I was responsible for assembling the 2019 COMBINE symposium committee, and overseeing the organisation of all aspects of the 100+ person event with a \$10K+ budget. Key roles include		

approaching sponsors, meeting outcome deadlines, ensuring budget restraints were met and invoiced, and assisting to organise the conference schedule and guest careers panels.

- 2019- E&ERC Postgraduate Committee Committee Member
- My job was to provide a lively, inclusive, fun and academically enriching experience for all postgraduates in the E&ERC. I organise formal and informal centre gatherings, two seminar speakers, encourage student participation in centre activities and help integrate new students.
- 2019 GIW/ABACBS 2019 Conference Committee COMBINE Representative
  Liaised between the ABACBS conference committee and COMBINE symposium committee to ensure budget and time restraints were met.
- 2019 **AES 2019 Conference Committee** *Committee Member*Assisted with the organisation of the 2019 Australasian Evolution Society Conference.

### **OUTREACH & MEDIA**

- 2025 **Greening Australia** *Article feature*"How plant DNA will help shape the future of native seed production areas." [Link]
- The Science Writer Interview subject
  "More Than a Murmur: The competitive advantage of starling genetics." [Link]
- 2020, Boiling Point Science Podcast (EastSide 89.7 FM) Guest
- 2022 Spoke about ecological research and invasive species

  <u>Understanding Invasive Species, May 2022</u>

  <u>Invasive Species Special, August 2020</u>
- 2014- Australian National Museum Volunteer(Science Week)
- 2019 Assisted with events, school group tours, and science demonstrations.
- 2016 Friends of Fogg Dam *Invited Speaker*Presented honours research to a local community restoration group.

# PROFESSIONAL DEVELOPMENT & TRAINING

PROFESSIONAL MEMBERSHIP & REVIEWS

2022	Carpentries Instructor Training and Certification	University of Auckland, NZ
2020	UNSW Women in Maths and Science Champions Program	UNSW Sydney, AUS
2020	Sessional Staff Development Program	UNSW Sydney, AUS
2018	Bioconductor Hands-on Training Day 4th Bioconductor Asia meeting	University of Melbourne, AUS
2018	Sample Size and Power Calculations Stats Central	UNSW Sydney, AUS
2018	ANGUS - Analysing Sequencing Data Data Intensive Biology Summer Institute	UC Davis, USA
2018	Software Carpentry Workshop - R, Unix shell, Git	Curtin University, AUS

# MEMBERSHIP

European Society for Evolutionary Biology (ESEB)
 Society for Molecular Biology and Evolution (SMBE)
 Genetics Society of AustralAsia (GSA)
 AustralAsian Evolution Society (AES)
 Australian Bioinformatics and Computational Biology Society (ABACBS)
 Ecological Society of Australia (ESA)

### **REVIEWS (26)**

2021

Animal Conservation, Biological Conservation, Biological Invasions, Biological Reviews, Ecology and Evolution, European Journal of Wildlife Research, Evolutionary Applications, Molecular Ecology, Molecular Ecology Resources, PeerJ, Scientific Reports, Wellcome Open Research.

# REFERENCES

Associate Professor Anna Santure School of Biological Sciences, University of Auckland, Auckland, NZ Direct supervisor during University of Auckland employment	Details on request
Professor Lee Ann Rollins   Scientia Fellow School of Biological, Earth and Environmental Sciences, University of New South Wales, Sydney NSW 2052 Direct supervisor during University of New South Wales PhD	Details on request

**Dr Rich Edwards** | Ocean Genomes Laboratory Lead Minderoo OceanOmics Centre, University of Western Australia. *Direct supervisor during University of New South Wales PhD*