Aisling Lilian Rayne

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3 Google Scholar

R⁶ ResearchGate

Expertise

biocultural approaches \bullet conservation genomics \bullet data sovereignty \bullet freshwater ecology \bullet mixed methods research \bullet Kindness in Science

Professional experience

CENTRE FOR SUSTAINABILITY, UNIVERSITY OF OTAGO

2022-present Research Fellow

Kindness in Science Project, Te Pūnaha Matatini

New Zealand's Biological Heritage National Science Challenge

2022-present Ngā Pī Ka Rere Co-lead, Early Career Scientist

Ngā Pī Ka Rere (Early Career Group)

University of Canterbury

Research Associate (Conservation Genomics)

School of Biological Sciences

2017–2020 Lab Demonstrator

School of Biological Sciences

2019 Teaching Assistant

School of Educational Studies and Leadership

Education

PHD in Biological Sciences, University of Canterbury (pending graduation in April 2022)

BSc(Hons, 1st Class) in Biological Sciences, University of Canterbury

BSc in Ecology, University of Canterbury

Services & affiliations

2022-present Secretary, Te Pūnaha Matatini Whānau, Te Pūnaha Matatini

₂₀₂₁-present Technical Advisor, **Te Pātaka a Tahu (MABx)**, Te Rūnanga o Ngāi Tahu

Member, High Quality Genomes and Population Genomics, Genomics Aotearoa
Member, Technical Advisory Group on Regenerative Farming Practices, MPI

2017–2020 Executive Member, Student Volunteer Army, University of Canterbury

Awards

2020	Bioheritage COVID-19 Extension Scholarship
2018	Roper Doctoral Scholarship for top-ranked domestic applicant in Science at UC
2017	UC Annual Biology Conference Best BSc/BSc(Hons) Presentation
2017	Todd Foundation Award for Excellence
2016	University of Canterbury Senior Scholarship
2016	LIC Patrick Shannon Scholarship
2016	Canterbury Branch New Zealand Federation of Graduate Women Trust Award
2015	UC Pilgrim Prize
2014	UC Emerging Leaders Development Program
2014	UC Undergraduate Entrance Scholarship
2013	Orion Selwyn District Centenary Educational Trust Scholarship
2013	Darfield High School Parent Teacher Student Association Prize for Dux

Research grants (contributing researcher)

2022	Investigator Seed Funding, Te Pūnaha Matatini (\$58K awarded to TE Steeves)
2021-2023	Vision Mātauranga Capability Fund (Connect), Ministry of Business, Innovation and Employment
	(\$250K awarded to Te Rūnanga o Ngāi Tahu)
2021-2023	Māori Agribusiness Extension (MABx) Phase I, Ministry for Primary Industries (\$60K awarded to
	Te Rūnanga o Ngāi Tahu)
2019-2020	Research Linkages Seeding Grant, College of Science, UC (\$20K awarded to TE Steeves)
2017	Data Deficient Research Grant, Department of Conservation (\$3.8K awarded to TE Steeves)

Publications & talks

PEER-REVIEWED ARTICLES

Rayne A, Blair S, Dale M, Flack B, Hollows J, Moraga R, Parata RN, Rupene M, Tamati-Elliffe P, Wehi PM, Wylie MJ, Steeves TE. Weaving place-based knowledge for culturally significant species in the age of genomics: Looking to the past to navigate the future. Evolutionary Applications. [DOI]

Rayne A, Byrnes G, Collier-Robinson L, Hollows J, McIntosh A, Ramsden M, Rupene M, Tamati-Elliffe P, Thoms C, Steeves TE. Centring Indigenous knowledge systems to re-imagine conservation translocations. People and Nature. 2: 512–526. [DOI] [PDF]

Collier-Robinson L, Rayne A, Rupene M, Thoms C, Steeves TE. Embedding indigenous principles in

genomic research of culturally significant species: a conservation genomics case study. *NZ Journal of Ecology*. 43: 3389. [DOI] [PDF]

Pre-prints & Papers in Preparation/Review/Revision

Forsdick N, Adams CI, Alexander A, Clark AC, Collier-Robinson L, Cubrinovska I, Croll Dowgray M, Dowle E, Duntsch L, Galla SJ, Howell L, Magid M, Rayne A, Verry AJF, Wold J, Steeves TE. Current applications and future promise of genetic/genomic data for conservation in an Aotearoa New Zealand context. *EcoEvoRxiv*. [DoI]

Parker KA, Ewen JG, Weiser EL, Rayne A, Steeves TE, Seddon PJ, ... Armstrong DP. Contemporary conservation translocations are foundational to Predator-Free aspirations in Aotearoa New Zealand: a review. *EcoEvoRxiv*. [DOI]

OTHER FORMS OF DISSEMINATION

Interview for RNZ's Our Changing World podcast *Collaborating to move freshwater species* [HTML]

Interview for RNZ's Our Changing World podcast Collaborating to move freshwater species [html]
Invited article for Wiley Centring Indigenous ways of knowing to enhance resilience [html]
The Conversation When rehoming wildlife, Indigenous leadership delivers the best results [html]
Bioheritage student blog How can we best use genomics to enhance conservation translocations? [html]
Securing sustainable kai: a conservation genomics approach for UC annual Research Report [pdf]
Featured in UCMe campaign for the University of Canterbury [html]
Contributed to expert commentary on new biodiversity strategy Te Koiroa O Te Koiora

Bioheritage blog Cutting-edge technology to help mahinga kai species [HTML]

SELECTED TALKS

2019

2021

2019

2019

2019

2018

Invited virtual keynote Looking to the past to navigate the future: Weaving place-based knowledge for culturally significant species in the age of genomics. MAPNET, Plant & Food Research.

Invited talk Weaving ways of knowing to enhance biocultural resilience in a mahinga kai species-at-risk. Waterways, University of Canterbury.

Invited virtual talk on Applied Genomics & NZ Indigenous Engagement, AGTA. [WATCH ONLINE]

Invited virtual talk Enhancing biocultural resilience in a mahinga kai species-at-risk. IAGLR, Canada.

Re-imagining conservation translocations through Two-Eyed Seeing. Hawai'i Conservation Alliance.

Have your kēkēwai and eat it too: Bridging species and ecosystem recovery. New Zealand Ecological Society Conference, Lincoln University.

New knowledge, old legislation: An integrative approach for enhancing resilience in Aotearoa New Zealand's threatened freshwater biota. International Congress for Conservation Biology, Malaysia.

Underwater, out of mind? A call for integrative legislation reform, Crazy & Ambitious 2 Symposium, Te Papa, Wellington.

Critical first steps toward enhancing resilience in two threatened freshwater endemics, UNVEIL Symposium, U.S.A. (co-presented with Levi Collier-Robinson).