

# Aisling Lilian Rayne

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🔗 <http://aislingrayne.github.io>  
🐦 [@aisrayne](https://twitter.com/aisrayne)  
🐙 [github.com/rayne95](https://github.com/rayne95)  
🔍 [Google Scholar](#)  
R<sup>6</sup> [ResearchGate](#)

## Expertise

conservation genomics • biocultural diversity • Indigenous data sovereignty • bioinformatics •  
freshwater ecology • Kindness in Science

## Professional experience

2021–present	UNIVERSITY OF CANTERBURY, ŌTAUTAHU NZ Research Associate (Conservation Genomics) <b><i>School of Biological Sciences</i></b>
2017–2020	Lab Demonstrator <b><i>School of Biological Sciences</i></b>
2019	Teaching Assistant <b><i>School of Educational Studies and Leadership</i></b>
2021	TE RŪNANGA O NGĀI TAHU, ŌTEPOTI NZ Key Researcher <b><i>Kā Ara Tīpuna, Vision Mātauranga Capability Fund Programme</i></b>

## Education

2021	PHD in Biological Sciences, University of Canterbury
2017	BSc(HONS, 1ST CLASS) in Biological Sciences, University of Canterbury
2016	BSc in Ecology, University of Canterbury

## Services & affiliations

2021–present	Technical Advisor, <b>Te Pātaka a Tahu (MABx)</b> , Te Rūnanga o Ngāi Tahu
2020–present	Member, <b>High Quality Genomes and Population Genomics</b> , Genomics Aotearoa
2020–present	Member, <b>Technical Advisory Group on Regenerative Farming Practices</b> , Ministry for Primary Industries
2019–present	Member, <b>Te Pūnaha Matatini Whānau</b> , Te Pūnaha Matatini
2017–2020	Executive Member, <b>Student Volunteer Army</b> , 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)

2021–2023	Vision Mātauranga Capability Fund (Connect), Ministry of Business, Innovation and Employment (\$250K awarded to <i>Te Rūnanga o Ngāi Tahu</i> )
2021–2023	Māori Agribusiness Extension (MABx) Phase I, Ministry for Primary Industries (\$60K awarded to <i>Te Rūnanga o Ngāi Tahu</i> )
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

2020	<b>Rayne A</b> , 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. <i>People and Nature</i> . 2: 512–526. <a href="#">[DOI]</a> <a href="#">[PDF]</a>
2019	Collier-Robinson L, <b>Rayne A</b> , Rupene M, Thoms C, Steeves TE. Embedding indigenous principles in genomic research of culturally significant species: a conservation genomics case study. <i>NZ Journal of Ecology</i> . 43: 3389. <a href="#">[DOI]</a> <a href="#">[PDF]</a>

### PRE-PRINTS & PAPERS IN PREPARATION/REVIEW/REVISION

In Revision	<b>Rayne A</b> , 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. <i>Evolutionary Applications</i> .
In Revision	Collier-Robinson L, <b>Rayne A</b> , Hudson M, Stott MB, Steeves TE. Realising benefits for Indigenous Peoples in genomic research of culturally significant species. <i>Nature Genetics</i> .
2021 pre-print	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, <b>Rayne A</b> , Verry AJF, Wold J, Steeves TE. Current applications and future promise of genetic/genomic data for conservation in an Aotearoa New Zealand context. <i>EcoEvoRxiv</i> . <a href="#">[DOI]</a>
2021 pre-print	Parker KA, Ewen JG, Weiser EL, <b>Rayne A</b> , Steeves TE, Seddon PJ, ... Armstrong DP. Contemporary conservation translocations are foundational to Predator-Free aspirations in Aotearoa New Zealand: a review. <i>EcoEvoRxiv</i> . <a href="#">[DOI]</a>

### OTHER FORMS OF DISSEMINATION

2021	Interview for RNZ's Our Changing World podcast <i>Collaborating to move freshwater species</i> <a href="#">[HTML]</a>
2021	Invited article for Wiley <i>Centring Indigenous ways of knowing to enhance resilience</i> <a href="#">[HTML]</a>
2020	The Conversation <i>When rehoming wildlife, Indigenous leadership delivers the best results</i> <a href="#">[HTML]</a>

2020 Bioheritage student blog *How can we best use genomics to enhance conservation translocations?* [\[HTML\]](#)  
 2019 *Securing sustainable kai: a conservation genomics approach* for UC annual Research Report [\[PDF\]](#)  
 2019 Featured in UCMc campaign for the University of Canterbury [\[HTML\]](#)  
 2019 Contributed to expert commentary on new biodiversity strategy *Te Koiroa O Te Koiroa*  
 2019 Bioheritage blog *Cutting-edge technology to help mahinga kai species* [\[HTML\]](#)

#### SELECTED TALKS

2021 invited virtual talk on *Applied Genomics & NZ Indigenous Engagement*, AGTA. [\[WATCH ONLINE\]](#)  
 2021 invited virtual talk *Enhancing biocultural resilience in a mahinga kai species-at-risk*. IAGLR, Canada.  
 2020 *Re-imagining conservation translocations through Two-Eyed Seeing*. Hawai'i Conservation Alliance.  
 2019 *Have your kēkēwai and eat it too: Bridging species and ecosystem recovery*. New Zealand Ecological Society Conference, Lincoln University.  
 2019 *New knowledge, old legislation: An integrative approach for enhancing resilience in Aotearoa New Zealand's threatened freshwater biota*. International Congress for Conservation Biology, Malaysia.  
 2019 *Underwater, out of mind? A call for integrative legislation reform*, Crazy & Ambitious 2 Symposium, Te Papa, Wellington.  
 2018 *Critical first steps toward enhancing resilience in two threatened freshwater endemics*, UNVEIL Symposium, U.S.A. (co-presented with Levi Collier-Robinson).