QUINN ASENA

PhD candidate at the University of Auckland studying regime shifts in terrestrial ecosystems. Incorporating palaeoecological techniques and modelling. Investigating a range of resilience indicators / early warning signals and their application to palaeoecological data. Developed a multi-species-response model for investigating regime shifts.

Previously researched environmental monitoring using sensor networks and robotics.

🎓 EDUCATION

PhD. Candidate, Environmental Science
Present | 2017
University of Auckland   📍 Auckland, NZ

· Working on regime shift modelling and palaeoecology
· Supervised by George Perry and Janet Wilmshurst

MEnv. Environmental Science
2016 | 2012
University of York   📍 York, UK

· 1st class degree: Integrated masters degree in environmental science
· Courses included: Ecological Principles; Biogeography, Applied Ecology and Environmental Management; Protected Areas; Design and Implementation; Climate Change: Science, Observation & Impacts; Research Skills and Statistical Methods

Music School
2010 | 2005
Royal Academy of Music   📍 London, UK

· Study in performance, composition and musical theory. Multiple competition awards
· ABRSM Grade 8 Piano Performance
· ABRSM Grade 5 Music Theory

📖 SELECTED POSITIONS

Graduate Teaching Assistant and Assistant Coordinator
2019
University of Auckland   📍 Auckland, NZ

· GTA and assistant coordinator for Discovering Environmental Modelling
· Guest lecturer on population growth
· Developed application as a teaching aid: shiny app for lecture and lecture slides

Graduate Teaching Assistant
2019 | 2018
University of Auckland   📍 Auckland, NZ

· GTA: Natural and Human Environmental Systems; Discovering Environmental Modelling; and, Environmental Science and Management

Research Assistant
2017 | 2016
Stockholm Environment Institute   📍 York, UK

· Assisting in the reconstruction of fire regimes in the North York Moors
· Core preparation and microscope analysis for charcoal and SCPs
· Statistical analysis and compilation of data

Student Ambassador
2016 | 2013
University of York   📍 York, UK

IT Services Media Development Intern
2015
University of York   📍 York, UK

· Filming, editing, scripting and directing a series of short educational films
· Creating posters

CONTACT

✉ qase352@aucklanduni.ac.nz

🐦 QuinnAsena

🐙 github.com/QuinnAsena

📞 `+64 21 085 44986

ONLINE RESOURCES

`fisheR`: R package for calculating Fisher's Information on time-series available at github.

`app` Population growth

`app` Population growth for lecture

`lecture` slides

REFERENCES

Professor George Perry

george.perry@auckland.ac.nz

Associate Professor Janet M Wilmshurst

janet.wilmshurst@auckland.ac.nz

Associate Professor Giovanni Coco

g.coco@auckland.ac.nz

Made w/ pagedown.
Source code:
github.com/nstrayer/cv.

♟ ARTICLES AND PUBLICATIONS

2019 · **Guidelines for Reporting and Archiving 210Pb Sediment Chronologies to Improve Fidelity and Extend Data Lifecycle**
Quaternary Geochronology
· Courtney-Mustaphi et al.

2019 · **Response to comment on Peatland carbon stocks and burn history: Blanket bog peat core evidence highlights charcoal impacts on peat physical properties and long-term carbon storage by Evans et al.**
GEO: Geography and Environment
· Heinemeyer et al.
· Role: core preparation and microscopy - charcoal and spheroidal spheroidal carbonaceous particles

2018 · **Peatland carbon stocks and burn history: Blanket bog peat core evidence highlights charcoal impacts on peat physical properties and long-term carbon storage**
GEO: Geography and Environment
· Heinemeyer et al.

2018 · **Population viability analyses in New Zealand: a review**
New Zealand Journal of Ecology
· Simpkins et al.

2018 · **Assessing the links between resilience, disturbance and functional traits in paleoecological datasets**
New Zealand Journal of Past Global Changes Magazine, vol. 26(2), 87
· Hamilton et al.

Courses

Attended several courses during my PhD to improve my software proficiency and scientific understanding including:

Software courses:

   - Software Carpentry
   - Winter Bootcamp
   - Research Bazaar

University Papers/Modules:

   - Environmental Data Analysis
   - Modelling of Environmental Systems

Skills

   - ℝ programming
   - High performance computing
   - Microscopy
   - ITRAX core scanning
   - Peat core preparation

🤖 PACKAGES AND APPS

2019 · **fisheR**
R package
· Translation of python script for calculating Fisher's Information on time-series data
· Code available on github

2019 · **Population growth app**
Shiny app
· Population growth app exploring different population growth equations for educational purposes

2019 · **Population growth lecture aid app**
Shiny app
· App to accompany population growth lecture and help students through population growth calculations

📖 SELECTED WORKSHOPS AND CONFERENCES

2019

INQUA
International Union For Quaternary Research

📍 Dublin, Ireland

· Presentation on resilience

2019

Durham
Durham University

📍 Durham, UK

· Invited speaker on modelling resilience in ecosystems

2019

Biological Heritage Science Challenge
University of Canterbury

📍 Christchurch, NZ

· Speaker

2018

International Swiss Climate Summer School Earth systems variability through time: processes, observations and models
University of Bern

📍 Bern, Switzerland

· Poster presentation and participant
· Accredited course worth 3 ECTS credits

2018

Te Punaha Matatini Biomaths
University of Auckland

📍 Auckland, NZ

· Speaker

2018

EcoRe3: Resistance, Recovery and Resilience in Long-term Ecological Systems
PAGES - University of Utah

📍 Utah, USA

· Speaker

2018

Paleodata Demo Derby Workshop
University of Wisconsin

📍 Wisconsin, USA

· Participant

2017

Biological Heritage Science Challenge
University of Canterbury

📍 Christchurch, NZ

· Speaker

⚖️ VOLUNTEERING AND OTHER EXPERIENCE

2016

Database Work for Literature Review

📍 York, UK

· Literature review work for Assoc. prof. Andy Marshal (unpublished)

2015

NightSafe Volunteer
University of York

📍 York, UK

· Student organisation taking care of student safety throughout the night in the City of York

2015

Science and Outreach – York Institute for Tropical Ecosystems
University of York

📍 York, UK

· Developed short films and interviews overviewing the work done by the York Institute for Tropical Ecosystems (KITE)
· Link to film
· Link to short

George Perry Lab

Interested in the lab group? Visit George Perry's lab group: Spatial Ecology Group

Hobbies and Interests

Keen musician improving my piano skills

Rock climber, if I'm not working I'm probably up a mountain. Been teaching rock climbing safety in the university club for two years

2014 **York Students in Schools Volunteer**
University of York   ● York, UK

· Volunteering as an assistant in school teaching a range of sciences

2012 **Flood Defences – certified course**
University of York   ● York, UK

· Design a flood defence plan for the City of York
· Team won first place

2012 **Environment Department Media Development**
University of York   ● York, UK

· Filming and editing a series of interviews of academics in the environment
  department for open-day presentations