

QUINN ASENA

PhD candidate at the University of Auckland exploring ecosystem change using palaeoecological and modelling techniques. I develop ecological simulations to investigate underlying ecosystem dynamics and the reliability of statistical methods used in ecological analyses. I also get hands-on in the field and the lab.

Master's research involved environmental monitoring using sensor networks and robotics.

EDUCATION

- Present
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2017
- PhD. Candidate, Environmental Science**
University of Auckland
Auckland, NZ
 - Working on regime shift modelling and palaeoecology
 - Supervised by George Perry and Janet Wilmshurst
- 2016
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2012
- MEnv. Environmental Science**
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
- 2010
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2005
- Music School**
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

- Present
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2021
- Research Assistant**
University of Auckland
Auckland, NZ
 - Conducting a bibliometric analysis on the topic of climate justice
- Present
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2021
- Engagement Specialist**
Centre for e-Research
Auckland, NZ
 - Engaging with researchers to provide advice and resources for their data analysis and storage needs
 - Includes technical skills for virtual machines, high performance computing and version control
- 2019
- Graduate Teaching Assistant and Assistant Coordinator**
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](#)
- 2019
|
2018
- Graduate Teaching Assistant**
University of Auckland
Auckland, NZ
 - GTA: Natural and Human Environmental Systems; Discovering Environmental Modelling; and, Environmental Science and Management

CONTACT



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[QuinnAsena](https://twitter.com/QuinnAsena)



github.com/QuinnAsena



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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

- 2017
|
2016
 Research Assistant
 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
- 2016
|
2013
 Student Ambassador
 University of York
 📍 York, UK
- 2015
 IT Services Media Development Intern
 University of York
 📍 York, UK
 - Filming, editing, scripting and directing a series of short educational films
 - Creating posters



ARTICLES AND PUBLICATIONS

- 2019
 Guidelines for Reporting and Archiving ^{210}Pb 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 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

-  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
 - Presentation on resilience📍 Dublin, Ireland
- 2019 • **Durham**
Durham University
 - Invited speaker on modelling resilience in ecosystems📍 Durham, UK
- 2019 • **Biological Heritage Science Challenge**
University of Canterbury
 - Speaker📍 Christchurch, NZ
- 2018 • **International Swiss Climate Summer School Earth systems variability through time: processes, observations and models**
University of Bern
 - Poster presentation and participant
 - Accredited course worth 3 ECTS credits📍 Bern, Switzerland
- 2018 • **Te Punaha Matatini Biomaths**
University of Auckland
 - Speaker📍 Auckland, NZ
- 2018 • **EcoRe3: Resistance, Recovery and Resilience in Long-term Ecological Systems**
PAGES - University of Utah
 - Speaker📍 Utah, USA
- 2018 • **Paleodata Demo Derby Workshop**
University of Wisconsin
 - Participant📍 Wisconsin, USA
- 2017 • **Biological Heritage Science Challenge**
University of Canterbury
 - Speaker📍 Christchurch, NZ

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



VOLUNTEERING AND OTHER EXPERIENCE

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|------|---|----------|
| 2016 | <ul style="list-style-type: none">• Database Work for Literature Review | York, UK |
| | <ul style="list-style-type: none">• Literature review work for Assoc. prof. Andy Marshal (unpublished) | |
| 2015 | <ul style="list-style-type: none">• NightSafe Volunteer | York, UK |
| | <ul style="list-style-type: none">• University of York | |
| | <ul style="list-style-type: none">• Student organisation taking care of student safety throughout the night in the City of York | |
| 2015 | <ul style="list-style-type: none">• Science and Outreach - York Institute for Tropical Ecosystems | York, UK |
| | <ul style="list-style-type: none">• University of York | |
| | <ul style="list-style-type: none">• Developed short films and interviews overviewing the work done by the York Institute for Tropical Ecosystems (KITE) | |
| | <ul style="list-style-type: none">• Link to film | |
| | <ul style="list-style-type: none">• Link to short | |
| 2014 | <ul style="list-style-type: none">• York Students in Schools Volunteer | York, UK |
| | <ul style="list-style-type: none">• University of York | |
| | <ul style="list-style-type: none">• Volunteering as an assistant in school teaching a range of sciences | |
| 2012 | <ul style="list-style-type: none">• Flood Defences - certified course | York, UK |
| | <ul style="list-style-type: none">• University of York | |
| | <ul style="list-style-type: none">• Design a flood defence plan for the City of York | |
| | <ul style="list-style-type: none">• Team won first place | |
| 2012 | <ul style="list-style-type: none">• Environment Department Media Development | York, UK |
| | <ul style="list-style-type: none">• University of York | |
| | <ul style="list-style-type: none">• Filming and editing a series of interviews of academics in the environment department for open-day presentations | |