

# Tom P. Moore

QUANTITATIVE SCIENTIST · COMMUNITY ECOLOGIST

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*Philosophy: to use ecological theory to find applied solutions for managing environmental resources*

## Skills

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### Software

**R-statistics:** data management, univariate/multivariate (ordination), GLM(M), piecewise SEM, model-selection, Bayes (R-INLA), & data visualisation (R-markdown, ggplot2 & tables). **Microsoft:** Word, Excel, & Powerpoint. Inkscape. LaTeX.

### Qualifications

Full NZ drivers licence, 4WD training, backpack electric fishing certification, & Hamilton Land Search and Rescue training.

## Research Interests

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Employing ecological theory and statistical techniques to understand natural and anthropogenic processes affecting multiple levels of biological organisation from species to ecosystems. Development of applied solution-focused knowledge for freshwater management and conservation.

## Education

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### University of Waikato

Hamilton, NZ

PH.D. BIOLOGICAL SCIENCES. PRIMARY ADVISOR: KEVIN COLLIER, SECONDARY ADVISORS: IAN DUGGAN & SUE CLEARWATER.

2017–2021

### University of Canterbury

Christchurch, NZ

M.Sc. ECOLOGY (2:1 HONOURS). PRIMARY ADVISOR: JON HARDING, SECONDARY ADVISORS: CHRIS GLOVER & DAVID KELLY.

2012–2014

B.Sc. ECOLOGY

2009–2011

## Professional Experience

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### University of Waikato

Hamilton, NZ

TUTOR (DATA ANALYSIS & EXPERIMENTAL DESIGN, APPLIED FRESHWATER ECOLOGY, & PRINCIPLES OF ECOLOGY)

2017–2020

- Teach ecological and statistical theory, demonstrate practical skills (e.g., field survey and microscopy techniques), proof new course material, troubleshoot R-code, mark assignments, support the course coordinator(s), & provide student feedback

RESEARCH ASSISTANT

- Commercial fish survey and fish removal (boat, backpack and bank electrofishing) and proof-reading client reports (see other publications)

### EOS Ecology

Christchurch, NZ

AQUATIC ECOLOGY TECHNICIAN

Apr. 2015–May 2016

- Conducted freshwater ecological surveys and identified fish and macroinvertebrates according to standard operating procedures. Data entry

### University of Canterbury

Christchurch, NZ

RESEARCH ASSISTANT

May 2016–Nov. 2016

- Canterbury Waterway Rehabilitation Experiment: Periphyton biomass determination  
Oct. 2014–Apr. 2015
- Laboratory experiment: investigated the application of denitrifying bioreactors for nitrate removal from tile drains on the Canterbury Plains

## Honors & Awards

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### PRESENTATIONS

2019 NIWA: Vernon Pickett memorial award, School of Science Postgraduate Conference, \$300.

Hamilton, NZ

### RESEARCH GRANTS AWARDED

2017 Biological Heritage National Science Challenge, \$114,500 (stipend and fees for 3 years and 9 months).

2013 Environment Canterbury Postgraduate Scholarship, \$14,000.

2011 University of Canterbury Summer Scholarship, \$5,000.

## Academic Service

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Reviewer for Freshwater Biology (1).

## Extracurricular Activity

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### Land Search & Rescue New Zealand

ADVANCED OPERATIONAL TEAM MEMBER

Waikato, NZ

Nov. 2017–May 2021

- On-call volunteer for rescue operations. Training: first aid, search techniques, navigation, tracking, bushcraft, radio operation, & river safety

### Pillars Incorporated

MENTOR

Christchurch, NZ

2015–2017

- Provided emotional support to a young person whilst a parent was in prison: weekly catch-ups and activities

### Biological Society: BIOSOC

PRESIDENT AND CO-FOUNDER

Christchurch, NZ

2013–2014

- Led the committee and encouraged feedback, crafted the society vision, proposed events, delegated tasks, & supported an innovative culture

## Refereed Publications

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### IN PRINT

**Moore, T. P.**, McIntosh, A. R., Febria C. M., Warburton H.J., & Harding, J. S. (2021). Benthic invertebrate indices show no response to high nitrate-nitrogen in lowland agricultural streams. *Water, Air, and Soil Pollution*, 232:263. DOI: 10.1007/s11270-021-05169-1

**Moore, T.P.**, Clearwater S. J., Collier K. J., & Duggan, I.C. (2020). Context-specific effects of invasive macrophytes on temperature, oxygen, and pH in a hydropeaking reservoir. *River Research Applications*, 36, 1717-1729. DOI: 10.1002/rra.3674

**Moore, T. P.** & Clearwater S. J. (2019). Non-native fish as glochidial sinks: elucidating disruption pathways for *Echyridella menziesii* recruitment. *Hydrobiologia*. DOI: 10.1007/s10750-019-04035-w

**Moore, T.P.**, Collier K. J., & Duggan I. C. (2019). Interactions between Unionida and non-native species: A global meta-analysis. *Aquatic Conservation Marine and Freshwater Ecosystems*, 29, 1438-1451. DOI: 10.1002/aqc.3040

### UNDER REVIEW

**Moore, T.P.**, Clearwater S. J., Collier K. J., & Duggan I.C. Interactions between invasive macrophytes and freshwater mussels in a hydropeaking reservoir. Target publication: *Aquatic Ecology*.

### IN PREPARATION

**Moore, T.P.**. Modelling impacts of invasion intensity on mussels and implications for management. (Ph.D. Chapter 6).

## Other Publications

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### THESES

**Moore, T.P.** (2020). Interactions between freshwater mussels and non-native species. Ph.D. thesis. University of Waikato, Waikato, New Zealand.

**Moore, T.P.** (2014). Nitrate-nitrogen effects on benthic invertebrate communities in streams of the Canterbury Plains. M.Sc. Zoology thesis. University of Canterbury, Christchurch, New Zealand.

### REPORTS

Ling, N., **Moore, T.P.**, & Powrie W.S. (2020). Removal of perch from Roto Kawau, Zealandia Ecosanctuary.

Hicks, B.J., Powrie, W.S., **Moore, T.P.**, & Tempero G.W. (2019). Boat electrofishing and stable isotopes in fish in Lake Karapiro. ERI Report No. 125. Client report prepared for the Department of Conservation.

**Moore, T.P.**, & Harding, J.S. (2012). Preliminary investigations on nitrate-nitrogen effects on benthic invertebrate and fish communities in Canterbury streams. Short report prepared for Environment Canterbury.

## Conference Presentations (Selected)

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**Moore, T.P.**, Clearwater S. J., Collier K. J., & Duggan, I.C. (2019). Interactions between Unionida and non-native species. School of Science Postgraduate Conference, Hamilton, New Zealand.

**Moore, T.P.**, Clearwater S. J., Collier K. J., & Duggan, I.C. (2018). Non-native fish as glochidial sinks: elucidating disruption pathways for *Echyridella menziesii* recruitment. Freshwater Mollusk Conservation Society Conference, Verbania, Italy.

**Moore, T.P.**, Clearwater S. J., Collier K. J., & Duggan, I.C. (2018). Freshwater mussel and non-indigenous species interactions. Biological Heritage National Science Challenge Early Career Workshop, Lincoln.

**Moore, T. P.**, McIntosh, A. R., Febria C. M., Warburton H.J., & Harding, J. S. (2016). Nitrate-nitrogen triggers a range of responses in the macroinvertebrate community: a comparison of biotic indicators for small agricultural Canterbury Plains streams. New Zealand Freshwater Sciences Society Conference, Invercargill, New Zealand.