

# Mauro Lepore

Software developer / data scientist

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I'm most experienced in software development, teaching/mentoring and research. I implement software solutions to help researchers work in an efficient, transparent, and reproducible way. I created and maintain a number of R packages now hosted on GitHub and CRAN. I often contribute as a developer or teacher to popular open software projects or communities (<https://maurolepore.github.io/>).

## EXPERIENCE

### **IT Specialist, R-package developer (~ software engienier, data scientist)**

ForestGEO

2017-08 - present

National Museum of Natural History, Smithsonian Institution, Washington DC, USA

I implement software solutions to help researchers work in an efficient, transparent, and reproducible way. These are my main responsibilities. I mainly develop new software (R packages) and update a legacy code base. I also help researchers and students in the use of R, Git and GitHub.

### **Postdoctoral research fellow**

O'Dea Lab: Change and Variation in Tropical Seas

2016-02 to 2017-06

Smithsonian Tropical Research Institute, Panama City, Panama

Researcher on a project looking at changes in coral reefs through time. Also supervised two interns (one undergraduate and one postgraduate student).

### **Teaching assistant for field-research program (five days) for GEOS 405, Texas A&M University**

O'Dea Lab: Change and Variation in Tropical Seas

2016-12

Smithsonian Tropical Research Institute, Bocas del Toro Research Station, Panama

I delivered lectures and advised students in the development of their independent research projects. I was also responsible for snorkeling safety and for translating guided tours from Spanish to English.

### **Lecturer / demonstrator / trainer for science camps**

The University of Queensland

2011-04 to 2015-06 Tutor

Moreton Bay Research Station, North Stradbroke Island, Australia

Lecturer and demonstrator for groups of high school students (> 50). Responsible for liaising with school teachers and coordinating less experienced tutors in running lab- and field based activities.

**Teaching assistant for field-research program (one week) for students from Stanford University**

International Programs, The University of Queensland  
2014-11  
Moreton Bay Research Station, North Stradbroke Island, Australia

Teaching assistant including marking assignments. Also responsible for boating and snorkeling safety, field and lab gear and driving groups of students (> 10).

**Teaching assistant for UQ Experience Science**

The University of Queensland  
2014-06  
St Lucia, Brisbane, Australia

Teaching assistant. Responsible for supervising lab activities of high school students during promotional two-days visits to the University of Queensland.

**Teaching assistant for field-research program (two weeks) for MARS2005, The University of Queensland**

The University of Queensland  
2014-04  
Heron Island Research Station, Heron Island, Australia

Teaching assistant including mentoring groups of students (> 5) in the development of independent projects. Responsible for lab- and field based activities.

**Teaching assistant for field-research program (two groups, three days each) for MARS2005, The University of Queensland**

The University of Queensland  
2014-03  
Moreton Bay Research Station, North Stradbroke Island, Australia

Teaching assistant including marking exams and mentoring groups of students (> 5) in the development of independent research projects. Responsible lab- and field gear and activities, and for boating and snorkeling safety.

**Teaching assistant for MARS2014 (one semester), The University of Queensland**

The University of Queensland  
2014-03  
St Lucia, Brisbane, Australia

Teaching assistant. Responsible for delivering introductory lectures during field activities and for mentoring groups of students in the development of independent research projects on campus.

**Teaching assistant for field-research program (one week) for students from Stanford University**

International Programs, The University of Queensland  
2013-09  
Moreton Bay Research Station, North Stradbroke Island, Australia

Teaching assistant. Responsible for boating and snorkeling safety, field and lab gear and driving groups of students ( $> 10$ ).

**Teaching assistant for field-research program (10 days) for students from the University of California**

The University of Queensland  
2012-09

Moreton Bay Research Station, North Stradbroke Island, Australia

Teaching assistant. Responsible mentoring groups of students ( $> 5$ ) in the development of independent research projects.

**Teaching assistant for MARS2014 (one semester), The University of Queensland**

The University of Queensland  
2012-04  
St Lucia, Brisbane, Australia

Teaching assistant including marking students presentations, mentoring their independent research projects and for supervising field activities.

**Lecturer for guided tours at the “Museo Argentino de Ciencias Naturales, Argentina”**

Museo Argentino de Ciencias Naturales, Argentina  
2004-04 to 2004-08, and 2003-07 to 2003-12  
Parque Centenario, Buenos Aires, Argentina

Responsible for explaining the exhibition at the national museum of natural history in Buenos Aires, Argentina, to engage the general public, from kids to adults, and primary school groups.

## **EDUCATION**

**The University of Queensland, Australia**

PhD, Ecology, Environmental Sciences, Geochemistry  
2011-2015

School of Biological Sciences, ARC Center of Excellence for Coral Reef Studies

My PhD research looked at historical changes over the past 8,000 years in coral reefs in the southern Great Barrier Reef (Australia).

Thesis: “Long term dynamics of coral reefs in the inshore southern Great Barrier Reef”.

I examined three issues:

1. The potential of a reef system to constitute a refuge for coral reefs from global warming.
2. The accretion rate of the reef flat and reef slope environment through time.
3. Changes in coral community structure through time, and the mechanisms of community assembly.

**Universidad de Buenos Aires, Argentina**

Licentiate degree, Biological Sciences, Marine Ecology  
1999-2008

Faculty of Natural Sciences

Thesis: “Estudio del crecimiento de la almeja amarilla Argentina *Mesodesma mactroides* por marcaje fluorescente in situ y comparación con el método de análisis de distribuciones de frecuencias de tallas”.

I compared a novel and traditional method to study the growth rate of a clam.