

Paul Efreñ

Hi! I'm a **Paul Efreñ Santos Andrade**. Plant Ecologist and data scientist. I am a Peruvian biologist from the Universidad Nacional de San Antonio Abad del Cusco - Peru



Download CV as a PDF

CONTACT

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🐙 github.com/PaulESantos
🐦 [PaulEfreñSantos](https://twitter.com/PaulEfreñSantos)

SKILLS

📊 R
🐍 Python
🌐 ArcGIS
📄 CSS
🔗 Git
🗄️ SQL
AutoCAD
Photoshop

Made with the R package
pagedown.

Source code available:
github.com/PaulESantos/cv.

Updated: 2022-01-10.

EDUCATION

- 2018 | **MSC., IN ECOLOGY & ENVIRONMENTAL MANAGEMENT**
Universidad Nacional San Antonio Abad 📍 Cusco, Peru
- 2012 | **B.S., BIOLOGY**
2008 | Universidad Nacional San Antonio Abad 📍 Cusco, Peru

RESEARCH & DATA SCIENCE EXPERIENCE

- 2020 | **RESEARCH ASSISTANT**
2019 | **Universidad de Arizona**
Universidad de Bergen 📍 Cusco, Peru
· **Project:**
Roles of inter and intra specific variability in the composition and functional diversity of high Andean plants of the Puna in the Manu National Park
- 2017 | **RESEARCH ASSISTANT**
2016 | **University of Miami**
Department of Biology 📍 Cusco, Peru
· **Project:**
Vulnerability to forest drought dominated by Bamboo: Detection with remote sensing and functional adaptation of the plant community in the Amazon - Andean gradient compared to forest without bamboo
- 2016 | **RESEARCH ASSISTANT**
University of Oxford 📍 Cusco, Peru
GEM Global Ecosystems Monitoring Network
· **Project:**
RAINFOR - GEM: A project to understand the carbon balance in the Andean and Amazonian forests

2015

● **RESEARCH ASSISTANT**

The Open University

Department of Environment, Earth & Ecosystems

Centre for Earth, Planetary, Space & Astronomical Research

CEPSAR

· **Project:**

Evaluate the contribution of tree- stem CH₄ and N₂O emissions to the total ecosystem emissions from a range of tropical rainforests on the south-eastern slopes of the Andes

📍 Cusco, Peru

2015

● **RESEARCH ASSISTANT**

University of Oxford

Environmental Change Institute

University of Leeds

James Cook University

· **Project:**

T- Forces: Changes of tropical forests in the land system

📍 Cairns QLD, Australia

2015
|
2013

● **RESEARCH ASSISTANT**

University of Miami

Department of Biology

· **Project:**

Factors that influence the dynamics and location of the forest line between the forest and the Puna on Parque Nacional del Manu – Peru at Acjanaco, Qurqurpampa and Tres Cruces (4ta Period)

📍 Cusco, Peru

2014

● **RESEARCH ASSISTANT**

University of Oxford

Environmental Change Institute

University of Leeds

· **Project:**

T- Forces: Changes of tropical forests in the land system

📍 Oxapampa, Peru

2013
|
2010

● **RESEARCH ASSISTANT**

University of Aberdeen

Institute of Biological and Environmental Sciences

· **Project:**

Are tropical uplands regional hotspots of methane and nitrous oxide?

📍 Cusco, Peru

2013

● **RESEARCH ASSISTANT**

University of Oxford

Environmental Change Institute

Pontificia Universidad Católica del Perú

Instituto de Ciencias de la Naturaleza Territorio y Energía Renovables

📍 Cusco, Peru

· CHAMBASA Project - CHallenging Attempt to Measure Biotic Attributes along the Slope of the Andes

2012
|
2011

RESEARCH ASSISTANT

University of Edinburgh
School of Geo Sciences

📍 Cusco, Peru

· Project:

Respiration of soil with the Multiplexer Licor along a gradient of elevation of the Andes to the Amazon



TEACHING AND PROJECT MANAGEMENT

2021

INTRODUCCIÓN A LA PROGRAMACIÓN CON R TIDYVERSE

Online workshop

📍 Remote

· Taught an introduction to R with Tidyverse.

2021

VISUALIZACIÓN DE DATOS

Online workshop

📍 Remote

2019

MANIPULACION DE DATOS

Museo De Historia Natural

📍 Cusco, Peru

2019

UNA INTRODUCCION A LA VISUALIZACION DE DATOS

Museo De Historia Natural

📍 Cusco, Peru



TALKS

2021

ASSESING LONG-TERM SHIFTS IN FUNCTIONAL COMPOSITION AND IMPACTS ON CARBON AND WATER CYCLING IN THE SOUTHERN ROCKY MOUNTAINS

AGU Fall Meeting 2021

📍 New Orleans, LA
Online Everywhere

· Julia Chacon-Labelle, Cesar Hinojo Hinojo, **Paul Efren Santos**, Lindsay Backhaus, Sandra Milena Duran, Lorah Seltzer, Alex Brummer, Amanda Henderson, Charles F. Rick Williams, Nicola Falco, Haruko M Wainwright, Eoin Brodie, Susan S. Hubbard, Kenneth Hurst Williams, Vigdis Vandvik and Brian Joseph Enquist

2020

INTRODUCCIÓN A LA ECOLOGÍA BASADA EN RASGOS FUNCIONALES

ZOE Asociación para la Investigación y Conservación

📍 Remote

I have taught in higher education settings, using intuitive and data-driven instruction.

- 2020 • **INTRODUCTION TO TIDYVERSE**
Plant Functional Trait Course - PFCT5  Cusco, Peru
- 2020 • **ASSESSING HOW LONG-TERM SHIFTS IN SPECIES AND FUNCTIONAL COMPOSITION HAVE IMPACTED CARBON AND WATER CYCLING THE SOUTHERN ROCKY MOUNTAINS**
AGU Fall Meeting 2020  Online
· Julia Chacon-Labelle, Connor Wilson, Lindsay Backhaus, **Paul Efren Santos - Andrade**, Sandra Milena Duran, Alex Brummer, Amanda Henderson, Lorah Seltzer, Nicola Falco, Haruko M. Wainwright, Eoin Brodie, Charles F. Williams, Susan S. Hubbard, Vigdis Vandvik, Brian Joseph Enquist, Kenneth Hurst Williams
- 2020 • **ASSESSING THE SENSITIVITY OF EVAPOTRANSPIRATION TO SHIFTS IN PLANT TRAITS, CHANGING CLIMATE, AND EARLIER SNOWMELT: LONG-TERM OBSERVATIONS FROM A 1,000M ELEVATION GRADIENT IN THE EAST RIVER WATERSHED, COLORADO, USA**
AGU Fall Meeting 2020  Online
· Brian J. Enquist, Julia Chacon-Labelle, Alex Brummer, Sandra Milena Duran, **Paul Efren Santos-Andrade**, Nicola Falco, Amanda Henderson, Haruko Murakami Wainwright, Vigdis Vandvik, Eoin Brodie, Susan S Hubbard, Kenneth Hurst Williams



PUBLICATIONS

- 2021 • **TROPICAL TREE GROWTH SENSITIVITY TO CLIMATE IS DRIVEN BY SPECIES INTRINSIC GROWTH RATE AND LEAF TRAITS**
Global Change Biology
· Bauman, D., Fortunel, C., Cernusak, L. A., Bentley, L. P., McMahon, S. M., Rifai, S. W., Aguirre-Gutiérrez, J., Oliveras, I., Bradford, M., Laurance, S. G. W., Delhaye, G., Hutchinson, M. F., Dempsey, R., McNellis, B. E., **Santos-Andrade, P. E.**, Ninantay-Rivera, H. R., Chambi Paucar, J. R., Phillips, O. L., & Malhi, Y.
- 2021 • **REDUCED TREE DENSITY AND BASAL AREA IN ANDEAN FORESTS ARE ASSOCIATED WITH BAMBOO DOMINANCE**
Forest Ecology and Management
· Belen Fadrique, **Paul Santos-Andrade**, William Farfan-Rios, Norma Salinas, Miles Silman, Kenneth J. Feeley

2018

TROPICAL FOREST LEAVES MAY DARKEN IN RESPONSE TO CLIMATE CHANGE

Nature Ecology & Evolution

· Christopher E. Doughty, **Paul Efren Santos-Andrade**, Alexander Shenkin, Gregory R. Goldsmith, Lisa P. Bentley, Benjamin Blonder, Sandra Díaz, Norma Salinas, Brian J. Enquist, Roberta E. Martin, Gregory P. Asner, Yadvinder Malhi

2017

CAN LEAF SPECTROSCOPY PREDICT LEAF AND FOREST TRAITS ALONG A PERUVIAN TROPICAL FOREST ELEVATION GRADIENT?

Journal of Geophysical Research: Biogeosciences

· Doughty C.E., **Santos Andrade P.E.**, Goldsmith G.R., Blonder B., Shenkin A., Bentley L.P., Chavana Bryant C., Huaraca Huasco W., Díaz S., Salinas N., Enquist B.J., Martin R., Asner G.P., Malhi Y.



POSTER PRESENTATIONS

2021

EVALUATING THE EFFECT OF SAMPLING SCALE TO QUANTIFY DIFFERENT COMPONENTS OF PLANT BIODIVERSITY WITH IMAGING SPECTROSCOPY.

AGU Fall Meeting 2021

📍 New Orleans, LA
Online Everywhere

· Sandra M Duran, Nicola Falco, **Paul Efren**, Jesus N Pinto Ledezma, Haruko M Wainwright, Heidi Steltzer, Eoin Brodie, Brian Joseph Enquist and Jeannine Cavender-Bares.

2021

HYPERSPECTRAL DERIVED TRAITS AND VEGETATION INDICES PREDICT RATES OF ABOVE- AND BELOW-GROUND CARBON FLUXES IN ALPINE MEADOWS

AGU Fall Meeting 2021

📍 New Orleans, LA
Online Everywhere

· Sandra M Duran, Nicola Falco, Sergio Marconi, **Paul Efren**, Amanda Henderson, Haruko M Wainwright, Heidi Steltzer, Eoin Brodie, Scott R Saleska and Brian Joseph Enquist.