Participant Biosketches

Julio Eduardo Cañón Barriga

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Julio Eduardo Cañón Barriga is an associate professor at the Universidad de Antioquia, Medellín, Colombia. He is a Civil Engineer with a M.Sc. in Water Resources from the Universidad Nacional de Colombia and a Ph.D. in Hydrology from the University of Arizona. His research concerns the multivariate analysis of extreme events, such as floods and droughts, with a particular interest in modeling climate/human impacts on water and natural resources at different spatial and temporal scales. His research involves integrative computational approaches of social, economic, environmental and engineering factors to understand the implications of environmental change, mostly at the regional and local scale. Currently, Dr. Cañón Barriga works with master and doctoral students in topics such as: the uncertainty and non-stationary analysis of hydrological models using Bayesian networks; agentbased dynamic of systems modeling of ecosystem resiliency in tropical-Andean environments under climate change scenarios; the impacts of climate change on irrigation districts and reservoir operation; the social and economic implications of adaptation to climate change; the analysis of air quality issues in mountainous areas; and the reduction of greenhouse gas emissions based on green energy lifecycle assessments. He is the principal investigator of the PEER project "Impacts of Variability and Climate Change on Tropical Wetlands: Tracking the Evolution of Two Andean Lakes and a Floodplain Cienaga in Colombia."

Guarino Rinaldi Colli

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Dr. Colli has been a professor in the Department of Zoology of University of Brasília since 1992. He is also the Curator of the Herpetological Collection of the University of Brasília and an Affiliate Research Associate of the University of Oklahoma. He received his B.Sc. from the Federal University of Juiz de Fora (1984), his MSc from the University of Brasília (1989), and his PhD from the University of California, Los Angeles (1996). As a herpetologist, his interests are focused on the ecology, evolution, and conservation of the herpetofauna of the South American Cerrado, the largest and most biodiverse of the tropical

savannas. He leads a large research group with extensive international collaboration and coordinates several projects to assess biodiversity patterns and processes in the Cerrado aimed at promoting its conservation.

Gabriela Procópio Camacho

PhD Candidate, research assistant in NSF-PEER project Universidade Federal do Paraná, Departamento de Zoologia Programa de Pós-Graduação em Entomologia CEP 81531-980 Curitiba, Paraná Brazil

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Gabriela Procópio Camacho is a Ph.D. candidate in Entomology at the Federal University of Paraná, Brazil, working with integrative taxonomy, molecular phylogenetics and morphometry of ants, under the supervision of Dr. Rodrigo Feitosa. Dr. Feitosa has recently started on the NSF-PEER project entitled "Biodiversity Conservation and Scientific Capacity Development in the Brazilian Amazon using Ants as Bioindicators and Ecosystem Health Indicators", in which she participates as a research assistant. She has a masters degree in Entomology from the Federal University of Viçosa, working on taxonomic revision of *striatula* group of the genus *Gnamptogenys* Roger (Hymenoptera: Formicidae: Ectatomminae). She graduated in Biological Sciences from the Federal University of Uberlândia, where she participated in a research project on ecological services provided by ants in agricultural systems and developed a research project regarding the "Ant fauna of the Panga Ecological Station." She has experience in ecology and entomology with an emphasis on systematics and the taxonomy of ants, including the topics of taxonomic revisions and identification of ants, entomological collections, collection methods, sample processing, and inventories of ant fauna.

Juan Mauricio Castaño Rojas

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Juan Mauricio Castaño Rojas is an associate professor at the Universidad Tecnologíca de Pereira. He joined the school of Environmental Sciences in 2006 as a faculty member. He received his B.Sc. in Chemical Engineering and an M.Sc. in Sanitary and Environmental Engineering from Colombian Universities. In 2012, he earned a Ph.D. in Ecological Engineering from Ohio State University, United States. In 2005 he established a local weather network in cooperation with several governmental and private institutions and has worked in several fields related with integral water resource management including the application of constructed wetlands for wastewater treatment, hydrological modeling and climate change. In 2012-2013 Dr. Castaño began to study the effect of climate change on mountain

wetlands with the NSF-PEER funded project. This work includes the instrumentation of a small basin, hydrological modeling, ecosystem characterization, and local capacities creation.

Ana Ruth Escoto Castillo

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Ana Escoto recently earned a Ph.D. in Population Studies from the Center for Demographic Urban and Environmental Studies at the El Colegio de México. She is a Salvadoran economist with previous work experience in data collection and statistical analysis. In her academic career, she has focused on the socio-demographic analysis of labor markets, working conditions, income distribution, and household welfare. She is currently working as a research assistant on the PEER project "Poverty and Climate change in Mexico. The implications of mitigation policy, climate impacts and development pathways for household welfare". In this project, she collaborates in the analysis of food and energy consumption patterns, their change over time, and variations across population groups. She will also work on

understanding how environmental change affects household income, particularly through price shocks.



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Aristóteles Góes-Neto earned a BSc in Biology from the Federal University of Bahia in Brazil in 1995 and a Ph.D. in Botany from the Federal University of Rio Grande do Sul in 2002. Currently, he is a full professor in the Department of Biology at the State University of Feira de Santana in Brazil and a researcher at the Brazilian National Science Foundation (CNPq). His research lines include Fungal Biology, Biotechnology, and Metagenomics. He has published 67 peer-reviewed articles, 12 book chapters, one book, and applied for three patents. Dr. Góes-Neto has supervised nice PostDocs, six Ph.D. and 17 M.Sc. students in botany and biotechnology graduate programs). He has been Principal Investigator of 12 research and technological development projects financed by Brazilian Scientific agencies (CNPq, CAPES, FAPESB), private enterprises (Michelin), and is currently PI of four scientific projects financed by CNPq, CAPES (Brazil) and the American National Science Foundation (NSF).



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Jorge Huete-**Pérez** received his PhD in Biochemistry/Molecular Biology through a joint program at the University of Sao Paulo, Brazil and the University of California San Francisco, USA. Jorge has received numerous scholarships from diverse organizations, including a Pew Latin American Fellowship for postdoctoral research in the U.S. For the past 15 years, Prof. Huete-**Pérez** has been the Director of the Molecular Biology Center at the University of Central America. He was a postdoctoral fellow at Harvard University and a Research Fellow at the Sandler Molecular Center of UC San Francisco. In 2009, Jorge became the Founding President of the Nicaraguan Academy of Sciences.

His lab currently performs research on molecular biology and bio-prospecting and has a collaborative program with New England Biolabs on industrial enzymes. Most recently, he has been working with various marine centers in building a project to create a genomic archive for his research on coastal marine organisms and funding a marine research program to identify the nation's aquatic resources for conservation and for industrial development. In coordination with U.S. partner Dr. Martin Polz, Prof. Huete-Pérez and colleagues lead the PEER funded program, "Marine biodiversity initiative for Central America." The goal of this initiative is to assemble an international network of scientists to train local researchers and assist them in the study of neglected Mesoamerican coastal marine biodiversity as well as the impact of climate change (e.g., via ocean acidification). A cross-disciplinary approach that integrates taxonomy, molecular biology, and genomic techniques with biodiversity conservation is used.

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Dr. Lagos is a Peruvian scientist with more than 30 years of experience in research programs on climate variability and El Niño phenomenon in the south east Pacific countries and more than 10 years of experience in the development of research activities related to the integrated assessment of climate change in the central Peruvian Andes. He is a full professor of physics at the National University of San Marcos, a member of the Peruvian National Academy of Science, and was recently the Scientific Director of the Geophysical Institute of Peru. Dr. Lagos has worked in the NOAA Office of Global Programs as a Senior International Science Fellow and was a member of the Task Group that developed the International Research Institute for Climate and Society (IRI) as well as a member of the Task Group that developed the Inter-American Institute for Global Change Research (IAI). Dr. Lagos has a Ph.D. in Meteorology from the Massachusetts Institute of Technology (MIT) and specialized in tropical meteorology as a Post doctorate at the National Center for Atmospheric Research (NCAR). He has served as a Visiting Scientist at the Florida State University and Universidad de Washington, and as Senior Associate Scientist at the University of Miami.

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Luis F. Macea earned his B.Sc. degree in Civil Engineering from the University of Cartagena, Colombia (2011) and a B.Sc. in Computer Sciences from the University of Córdoba (2014). He received his M.Sc. in Civil Engineering from University of Norte (2012). He is co-author of several research articles published in referred journals. Currently, Luis F. is a Ph.D. student at the University of Norte, Colombia and has been working as researcher in several projects related to roads, transport engineering, and logistics. He is member of the Transport Research Group at University of Norte. His doctoral thesis proposes an Integrated Humanitarian Logistics System including social costs.

Rodrigo Medeiros

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Dr. Rodrigo Medeiros is Vice President of Conservation International Brazil (CI Brasil). Prior to this position, he served as Senior Director for Science of Conservation International Americas Field Division from 2013-14. He has served as an Associate Professor at the Federal Rural University of Rio de Janeiro in the Department of Environmental Sciences/Institute of Forests since 2005 with an academic career marked by technical-scientific knowledge production in areas related to protected areas, biodiversity, and sustainable development, focusing on policy, governance, management, assessment, and social inclusion. At UFRRJ, he created and was the first Dean of the International Center for Sustainable Development Studies (2013). He also created and was the first coordinator of the Master's Program in Sustainable Development Practices (2010) – a global international graduate program in cooperation with 32 universities. He is represents the Latin America chapter of the Academic Steering Committee of the Global Association of Master's in Development Practice; co-chair of the Brazil's United Nations Sustainable Development Solutions Network (SDSN Brazil), and a member of the National Institute of Science and Technology in Public Policies, Strategies and Development (CNPq), where he served as a member of the steering committee and coordinator of the research line "Biodiversity, Natural Resources and Culture". He has published 10 books (including a novel for children) and several book chapters, scientific papers and technical reports.

Thiago Estevam Parente

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Thiago Estevam Parente is a postdoctoral fellow at the Environmental Toxicology Laboratory of the Oswaldo Cruz Foundation (FIOCRUZ, Rio de Janeiro, Brazil), where he serves as the Principal Investigator of the PEER/USAID sponsored project "Biodiversity and Adaptations of CYP enzymes in the Amazon Loricariidae fishes". He has a Bachelor degree in Biological Sciences (major in genetics) from the Universidade Federal do Rio de Janeiro (UFRJ, 2006), obtained his M.Sc. in Cellular and Molecular Biology from Fundação Oswaldo Cruz (2008), and his Ph.D. in Biophysics from UFRJ (2012). From 2011 to 2013, Dr. Parente worked as a Temporary Professor at the Biochemistry Department of the Chemistry Institute (UFRJ). He has also worked at the French National Center for Scientific Research (CNRS), at Gif-

sur-Yvette, France and at the Woods Hole Oceanographic Institute in Massachusetts, where he currently holds a guest investigator appointment. Thiago's main interest areas are the molecular mechanisms of species adaptation to variations in the chemical composition of their environments. This includes research in complementary fields such as genetics, molecular biology, biochemistry, evolution, toxicology, and ecology.

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Tomás Quispe is an agricultural engineer, with a Masters in Environmental Sciences from the Universidad Nacional Agraria La Molina in Lima, Peru. He has extensive experience in sustainable development in rural areas, with experience in the design, planning, and implementation of programs and projects related to adaptability to climate change and comprehensive basic sanitation, in the framework of national and international policies. He also has experience in the development of studies and research projects in hydrology and glaciology and their relationship to climate change in the southern Peru basin of Ocoña.

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Julio is a Chemical-Industrial Engineer at the Universidad Autonoma de Yucatan (UADY), Mexico. In 2008, he obtained his Ph.D. in Chemical Engineering from the University of Manchester, UK. During his time as a postgraduate student, he completed a series of trainings on Evaluation of Sustainability offered by the EU's Marie Curie Actions: "EASY-ECO" and "STaR City of the Future" programs. Currently he is a researcher and lecturer at the Faculty of Chemical Engineering, Universidad Autonoma de Yucatan, Mexico, where he leads the Process Engineering Research Group. He has been appointed a member of the Researchers National System in Mexico. Dr. Sacramento constantly participates as a scientific reviewer of project proposals for the National Council for Science and Technology of Mexico (CONACYT) and as a peer-reviewer of scientific publications of various international journals. He currently coordinates the Postgraduate Programme in Chemical and Biochemical Sciences at UADY and is a member of the Steering Committee of the RCN Pan American Biofuels and Bioenergy Sustainability. His main research interest is on the design of sustainable processes, an area in which he has directed multidisciplinary projects with national and international funding. He has directed graduate and postgraduate theses related to bioprocess design within a biorefinery framework, including

photobioreactor design, optimization of microalgal-oil production, and sustainability evaluation of biorefinery systems.

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Prof. Eduardo David Sagredo Robles is Vice Rector of Science and Technology at the Universidad Tecnológica de Santiago (UTESA). He began his technical studies at the Loyola Polytechnic Institute in the area of Steam Power Plants (1956-1959) and continued his professional studies at the Universidad de Santo Domingo in the field of Civil Engineering (1959-1962). During this time, he transferred to the University of Puerto Rico at its College of Agriculture and Mechanical Arts (CAAM) in Mayaguez and graduated with a BSc in Mechanical Engineering in 1965. He served as an Instructor continuing as a postgraduate student in Nuclear Engineering at the nuclear experimental reactor. In 1966, he obtained a scholarship for the Massachusetts Institute of Technology (MIT) and graduated with an M.Sc. in Nuclear Engineering in 1968. He returned to the DR to work at the Electric Public Utility, where became President of the Board of Directors in 1990. At the same time, he began his academic career as a Professor of Thermal Sciences (Thermodynamics and Heat Transfer) at UASD. In 1972, he founded the Instituto Dominicano Tecnología (IDT), a non-profit, private technical vocational evening institute for underprivileged workers in the electromechanical fields. In 1990, he began work at Miami Community College as a Professor of Engineering until 1994. During this time, he studied as a Ph.D. student at the Florida International University (FIU) in the College of Electrical Engineering and Computer Sciences. In 1994, returned to the DR and worked as a Mechanical Engineering Professor at UTESA (1998-2015), as Vice-Rector, and foundered the Center for Energy Research Institute of UTESA. At present, Prof. Sagredo is the Principal Investigator of a NSF-USAID-PEERS project that studies the possible installation of a Sea Water Air Conditioning System at the city of Puerto Plata in the Dominican Republic.

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Luis Suarez-Salas is a chemical engineer with a M.Sc. in Applied Ecology. At his first stages of research work he was involved in the monitoring of the ozone layer over the Andean region of Peru where it presents natural low values of ozone and thus records the highest UV radiation levels in the world. He presented research data to promote awareness about health care against excessive sun exposure. He then moved to evaluate the importance of the tropics in the global atmospheric chemistry, focusing on the role of biomass burning on the production of tropospheric ozone and transport of aerosols over the Andean and Amazon regions of Peru. Through satellite data, the strong dispersion of pollutants over the Amazon was identified and its presence over big areas of Peruvian territory. Luis Suarez-Salas has received multiple international grants to research in-situ monitoring of the elemental chemical composition of aerosols at three locations of Amazon. This was followed by aerosol sampling and evaluation at the Peruvian Antarctic Station during the austral summer 2007/2008. In addition to his aerosol research, Luis Suarez-Salas has conducted research about fire effects of CO2 emissions from soils in Amazon sites. Through the PEER Science program, he is directly involved in implementing monitoring systems for evaluating the impacts of fires over aerosols and tropospheric ozone at two Peruvian sites. This project is in cooperation with Dr. Detlev Helmig from Institute of Arctic and Alpine Research (INSTAAR) at the University of Colorado, United States.

Bram Leo Willems

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Dr. Bram Willems is a professor in the Physics Faculty of the UNMSM, Lima Peru. He is a founding member of the "Centro de Competencias del Agua" (Water Competence Center), a multidisciplinary center that articulates the scientific, public, and private sectors, with the main objective to carry out applied research, technological development, and innovation (R+D+I) in the field of integrated water resources management to add value to enterprises and society. Dr. Willems is the PI of the PEER funded project, "Strengthening resilience of Andean river basin headwaters facing global change", with U.S. partner Dr. Christopher Scott from the University of Arizona.