

Gabriela Sosa, Ph.D.

INSTITUTE FOR WATER RESOURCES SCIENCE AND TECHNOLOGY
TEXAS A&M UNIVERSITY-SAN ANTONIO
SAN ANTONIO, TX 78224
PHONE: (210) 373-2124
E-MAIL: GSOSA@TAMUSA.EDU

ACADEMIC & RESEARCH EXPERIENCE

Texas Water Resources Institute, College Station, T.X.

Field Scientist (November 2019 – present)

Perform surface water quality monitoring activities in support of ongoing large-scale research projects at the Institute. Manage environmental data collection and assist an interdisciplinary team with maintaining online database. Train new incoming team members in the use of the multiparameter environmental data loggers.

Ecological Restoration Project, Texas A&M University, Houston, T.X.

Postdoctoral Research Associate (January 2019 – present)

Principally responsible for reporting the progress of a coastal prairie research project funded by Memorial Park Conservancy. Coordinate field operations and supervise the application chemical and mechanical treatments at the research site. This project is part of a citywide investment with the input of numerous local, state and national stakeholders.

Water Resources Science and Technology, Texas A&M University-San Antonio, San Antonio, T.X.

Adjunct Faculty (08/20/2020 – present)

I teach the Environmental Impact Assessment of Water Resources (WATR 5345) in the Department of Science & Mathematics in the College of Arts & Sciences at TAMUSA. This course provides graduate students with an overview of National Environmental Policy Act (NEPA) regulations. Students are given the opportunity to conduct example environmental impact reviews and ecological assessments of water resources.

National Hispanic Environmental Council, Alexandria, V. A.

Lead Instructor (August 2017 – present)

Principally responsible developing the curriculum for a hands-on environmental educational training program. Trained high school and undergraduate students how to conduct wildlife population surveys (e.g. birds, mammals), vegetation/habitat assessments, and water quality monitoring using a variety of field methods.

National Agrarian University, Lima, Peru

International Consultant and Research Associate (September 2017 – December 2017)

High proficiency in spoken and written Spanish allowed me to provide guidance to an international team conducting research projects in the high Andean region. Report was translated and prepared for publication in an international peer-reviewed journal.

Congressional Hispanic Caucus Institute (CHCI), Washington, D.C.

Energy Fellow, Government Affairs (February 2016 – June 2016)

I examined the impacts on the environment from energy production at the American Petroleum Institute (API). This fellowship had a focus on compliance, sustainability, and the implementation of controls that prevent, minimize, rehabilitate and offset industry activities on ecosystems.

U.S. House Committee on Natural Resources, Washington, D.C.

Congressional Fellow (August 2015 – February 2016)

Assisted with the review of legislation in the Federal Lands portfolio, I provided guidance on environmental policy issues related to the National Park System, USDA Forest Service, public lands and national monuments. The White Paper from my congressional briefing was selected for publication in the Harvard Journal of Hispanic Policy.

National Rangelands Management & Vegetation Ecology, USDA Forest Service, Washington, D.C.

Ecologist (February 2013 – September 2014)

During my appointment as Chief's Scholar, I provided guidance on policy issues related to ecosystem management, landscape ecology, restoration, watershed management and climate change. I was assigned to examine a presidential memorandum on the protection of pollinators on federal public lands.

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ACADEMIC & RESEARCH EXPERIENCE, CONT.

National Partnership Office, USDA Forest Service, Washington, D.C.

Policy Analyst (June 2012 – February 2013)

I prepared a comprehensive review of the fundraising, donation and donor recognition policies in an effort to improve transparency and guidelines across our federal public lands. I was selected to present this project to the Under Secretary for Natural Resources and Environment and awarded the USDA Certificate of Merit for Outstanding Performance.

National University of Singapore, South East Asia

NSF Research Fellow in the Dept. of Biological Sciences (June 2010 – Aug. 2010)

I was awarded an East Asia Pacific Summer Institutes (EAPSI) international research fellowship by the National Science Foundation (NSF) to examine restoration and reclamation strategies on a mangrove forest. Funding for this project designated me as the Principal Investigator (P.I).

EDUCATION

Texas A&M University, College Station, Texas

Doctor of Philosophy in Ecosystem Science and Management

2019

Area of Concentration: Interdisciplinary academic Ph.D. program

Dissertation: "Prescribed Fire as a Catalyst for Rangeland Ecosystem Restoration: Facilitating the Management and Control of Prickly Pear Cactus Encroachment"

American University, Washington, D.C.

Certificate from the College of Law

2016

Board Leadership Training

National University of Singapore, South East Asia

International Institute, Urban Ecology

2010

NSF Funded Project: "Insight Into Restoring a Mangrove Forest: Determining Ideal Salinity for *Sonneratia alba* Germination"

Texas A&M University, College Station, Texas

Master of Science in Rangeland Ecology and Management

2009

Areas of Concentration: Landscape Management

Thesis Research: "Restoring a Degraded Rangeland: The Use of Fire and Herbivory to Control *Opuntia* Cacti Encroachment"

University of Texas at San Antonio, San Antonio, Texas

Bachelor of Science in Environmental Science

2007

Areas of Experience: Field Data Analysis

Language Minor: Spanish

SKILLS & LANGUAGES

Microsoft Office Suite • Technical Writing • Public-Private Partnerships • Bilingual in English & Spanish • GIS • Data Analysis • SPSS Statistical Software • Development of Grant Proposals • Project Management

SELECTED PUBLICATIONS & PRESENTATIONS

- Smeins, F.E., Sosa, G. (2020). Ecosystem Assessment and Restoration: Coastal Prairie Restoration. Research Report, Memorial Park Conservancy, Houston, Texas.

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SELECTED PUBLICATIONS & PRESENTATIONS, CONT.

- Sosa, G. Rogers, W. E., Taylor, C. A., Twidwell D. Re-introducing high-intensity prescribed fire to restore a semi-arid rangeland ecosystem degraded by prickly pear cactus encroachment. *Restoration Ecology Journal* (under review, March 2020).
- Sosa, G. (2017). An Emerging and Diverse Workforce to Reclaim Abandoned Mine Lands. *Harvard Journal of Hispanic Policy* (Volume 29).
- Palacios, M., Sosa, G. (2017). A Call to Action: Engage, Educate, and Empower Politically Disenfranchised Communities to Advocate for Environmental Justice. *Applied Biodiversity Science, Perspective Series* (Volume 7).
- Sosa, G. Academic Readiness of Hispanics: An Emerging Workforce To Reclaim Abandoned Mine Lands. Congressional Hispanic Caucus Institute Policy Briefing, U.S. House of Representatives. April 26, 2016.
- Sosa, G. Invited Panelist. "What I Know Now That I Wish I Had Known" With Recent Doctoral Graduates and Senior Graduate Students. Alfred P. Sloan PhD Program Directors Conference at the 21st Institute on Teaching and Mentoring. Atlanta, GA. October 30-November 2, 2014.
- Sosa, G. Strategies for Restoring Degraded Rangelands: Addressing Cacti Encroachment. Research and Development (R&D) Seminar, USDA Forest Service. Washington, D.C. August 2, 2012.
- Sosa, G. Invited Speaker. Degraded Rangelands: Land Management Practices in a Changing World. Special Briefing by the Hispanic Leaders in Agriculture and the Environment Program to System Regent and Chancellor. Texas A&M University. November 29, 2011.
- Sosa, G., P.L. Mullins, G. Miculka. The economic and ecological impacts of a *Dipteryx micrantha* management plan in the native community of Infierno, Peru. Association for Tropical Biology and Conservation (ATBC). Bali, Indonesia. July 19-23, 2010.
- Sosa, G. Restoring a Degraded Rangeland: The Use of Fire and Herbivory to Control *Opuntia* Cacti Encroachment (Master's thesis). Texas A&M University Theses & Dissertation database. Accepted Dec. 2009.

HONORS, AWARDS & SPECIAL RECOGNITIONS

- Career Development Grant, Sloan Scholars Mentoring Network, Alfred P. Sloan Foundation **2020**
- Academic Scholarship, Office of Graduate and Professional Studies, Texas A&M University **2018**
- White Paper from congressional briefing selected for publication in the *Harvard Journal of Hispanic Policy* **2017**
- Acceptance and participation in the Japan's Friendship Ties Program "KAKEHASHI Project" **2016**
- Certificate in Board Leadership Training from the American University College of Law **2016**
- Congressional Fellow in the U.S. House Committee on Natural Resources, Awarded a Graduate Energy Fellowship by the Congressional Hispanic Caucus Institute (CHCI) and the American Petroleum Institute (API) **2015**
- Academic Excellence Award Scholarship, Texas A&M University **2012**
- Awarded USDA Certificate of Merit for Outstanding Performance **2012**
- Chief's Scholar, USDA Forest Service, National Headquarters, Washington, D.C. **2012**

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HONORS, AWARDS & SPECIAL RECOGNITIONS, CONT.

- Harry W. Springfield Research Award in Rangeland Ecology **2011**
- Received membership to Gamma Sigma Delta, International Honor Society of Agriculture
- Distinguished Fellow for international research project, experience profiled on NSF website
- National Science Foundation (NSF) Research Fellowship, East Asia Pacific Summer Institutes (EAPSI), Principal Investigator **2010**
- Sloan Scholar, Alfred P. Sloan Foundation, Awarded Doctoral Scholarship
- Awarded Master's Student of the Year, Dept. of Ecosystem Science and Management **2009**
- Awarded Ph.D. Diversity Fellowship, Texas A&M University
- Selected for the NSF-IGERT Amazon Field School administered by the Applied Biodiversity Science (ABS) Program, Madre de Dios, Peru **2008**
- Awarded Master's Diversity Fellowship, Texas A&M University **2007**
- Received the Amy Shelton and V.H. McNutt Endowed Presidential Scholarship
- Awarded College of Science Presidential Scholarship, University of Texas at San Antonio
- Awarded the Amy Shelton and V.H. McNutt Endowed Presidential Scholarship **2006**
- U.S. Department of Education Fellowship (ED), Undergraduate Summer Research Position in the MORE Science Program

MEMBERSHIPS & ACADEMIC AFFILIATIONS

- Congressional Hispanic Caucus Institute (CHCI), Alumni Network (2016–present)
- Alfred P. Sloan Foundation, Scholars Mentoring Network (2010–present)
- Applied Biodiversity Science Program, NSF-IGERT, Affiliated Member (2008-present)
- Society for Ecological Restoration (SER) (2009-present)
- Hispanic Graduate Student Association, Texas A&M University, President (2011-2012)

SERVICE & OUTREACH

- Reviewer and interviewer to help select Congressional Hispanic Caucus Institute Fellows (2018-present).
- Volunteer at the Good Neighbor Settlement House in the U.S./Mexico border (2019-present).