

Elizabeth A. Del Rosario, M.S.

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Portfolio: <https://www.taskstream.com/ts/delrosario12/CCMEPlaceBasedConservation>

Education

- Dec. 2020
Expected **PhD, Coastal Marine System Science**, Advisors: Dr. Richard McLaughlin, Dr. Paul Montagna
Texas A&M University-Corpus Christi, TX
NOAA Center for Coastal and Marine Ecosystems EPP/MSI Graduate Research Scholar, 2016-present
- July 2017 **Intern Certificate, Science Grades 7-12 (Composite)**
Texas Teachers Alternative Certification Program
- May 2016 **MS, Environmental Sciences**, Advisor: Dr. Paul Montagna
Texas A&M University-Corpus Christi, TX
NOAA ECSC (Environmental Cooperative Science Centers) Fellow, NOAA Advisor: Dr. Hae-Cheol Kim
- Dec 2013 **BS, Fisheries and Wildlife**, Advisor: Dr. John Jones
BA, Biology, Advisors: Dr. Reginald Cocroft, Dr. John Holladay
Minor, Natural Resources
University of Missouri, Columbia, MO
- June 2009 **Certificate, Medical Claims and Billing**
U.S. Career Institute, Fort Collins, CO

Research Experience

- Aug 2016 - Present **Doctoral Research with Dr. Richard McLaughlin, Policy and Law Group, Harte Research Institute for Gulf of Mexico Studies, Texas A&M University, Corpus Christi, TX**
<https://www.harteresearchinstitute.org/people/elizabeth-del-rosario>
- Freshwater resources policy and regulations, Texas Senate Bill 3 – Environmental flows for downstream bays and estuaries.
 - Determining the economic impact and value of water resources allocated for Environmental flows.
- Jan 2015 - Aug 2016 **Masters Thesis Research with Dr. Paul Montagna, Ecosystem Model Group, Harte Research Institute for Gulf of Mexico Studies, Texas A&M University-Corpus Christi, TX**
In Review
- Forecasting and modeling of freshwater inflow in to Rincon Bayou, Texas.
 - Using SAS to determine optimal pumping strategies for the release of 3000 ac/ft per month of freshwater by the City of Corpus Christi via the Edwards Pumping Stations at the Calallen saltwater barrier, San Patricio Municipal Water District.
 - Used benthic macrofauna as biological indicators of ecosystem health based on salinity and depth.
- Feb 2013 - May 2014 **Undergraduate Research in Biochemistry, David W. Emerich, University of Missouri, Dept. of Biochemistry, Columbia, MO**
Unpublished
- The allelopathic effect of Virginia Rye (*Elymus virginicus*) root exudates on seed germination of *Lactuca sativa* and *Acer saccharinum*.
 - Conducted assays to determine the effects on seed germination from allelopathic properties of the native Virginia Rye vs. the introduced South Dakota rye root exudates and lyophilized concentrated root. Recorded days till 1st seed germination and number of seeds germinated.
 - Tested the effects of removing soaked lettuce seeds from the concentrated exudates
 - Tested the effect of the exudates and concentrates on silver maples seedlings, recorded length, and days survived.
 - The affects of Virginia Rye (*Elymus virginicus*) and South Dakota Rye (*Secale cereal*) on algal growth.
 - Ran PLFA analysis of algae grown in the root exudates.
 - Added lyophilized concentrated exudates as treatments.
 - Skills obtained: Project development, research, data collection, data analysis, worked under minimal supervision, GC usage, following laboratory procedure

Aug 2013 - May 2014
Unpublished

Research Assistant, SHCL, MU, Environmental Engineering Dept. Columbia, MO

- Conducted research with soil active carbon using 2.5g vs. 5g of soil and determined a threshold range of the spectrophotometer reading where the amount of the KMnO_4 in the sample is insufficient to determine an accurate soil active carbon concentration value.

Higher Education Experience

Jan 2015 - Aug 2016

**Graduate Research Assistant with Dr. Paul Montagna,
Harte Research Institute for Gulf of Mexico Studies, Texas A&M University, Corpus Christi, TX**

- Forecasting and Modeling of Freshwater inflow into Rincon Bayou to provide management recommendations to the City of Corpus Christi, Coastal Bend Bays & Estuaries Program and the Texas Water Development Board.
 - Utilized skills in: SAS programming, Python, Research, data analysis, data management, GIS, NOAA mission related research

June 2014 - Dec 2014

**Graduate Research Assistant, Benthic Laboratory,
Harte Research Institute for Gulf of Mexico Studies, Texas A&M University, Corpus Christi, TX**

- Sorted macrofaunal benthic organisms by taxa for Natural Resource Damage Assessment (NRDA) and the Deepwater Horizon projects
- In compliance with BP non disclosures agreement
- Washed sediment samples through sieves following established procedures
- Stained samples using Rose Bengal dye
 - Skills gained: Laboratory, dissecting microscope, sample handling, taxa identification, specimen preservation and staining
- Assisted in the collection of sediment cores samples and water quality data in Corpus Christi Bay
 - Skills gained: Sampling, data recording, syringe filtering, secchi disc, sonde

Aug 2013 - June 2014

**Research Assistant / Student Assistant Professional, Soil Health & Characterization Laboratory,
College of Agriculture Food & Natural Resources, University of Missouri, Columbia, MO**

- Conducted PLFA extractions following laboratory procedure, used a GC and Sherlock software program
- Performed Soil Active Carbon analyses following published research using KMnO_4 , used a Cary 60 spectrophotometer and winUV software program, recorded data in excel, preformed data analysis using excel, prepared reports of clients
- Conducted wet aggregate stability following laboratory procedure using a hand sieving method
- Prepared soil samples for: Cation Exchange Capacity, Bulk Density, Mineralizable Nitrogen, and Plant Available Phosphorus analyses
- Sieved and ground soil samples
- Maintained and made improvements to Excel data sheet files and Access database Soil Health records
- Created a potential client database
- Data entry with Access and Excel, upkeep of the SHCL database, client records, and client sample results
- Followed scientific literature protocols and procedures from the National Soil Lab to process samples
- Complied with EPA regulations.
- Demonstrated soil activities to students at Prairie Fork Conservation Area's Earth Day event.
- Other skills obtained: Laboratory, sample handing, sample preparation and storage, data entry, chemical handling, scale, research, presentation, washing glassware, organization

May 2013 - Jan 2014

**Student Research Assistant for Dr. Robert Kremer, USDA Soil Biology Laboratory,
Environmental Sciences Department, University of Missouri, Columbia, MO**

- Conducted Gravimetric Soil Moisture Content using drying ovens
- Performed Water Aggregate Stability using an automated sieving apparatus
- Sieved, dried, and ground soil samples
- Conducted enzyme assays following laboratory procedure: β -Glucosidase, Dehydrogenase, Glucosaminidase, FDA Hydrolysis; used a spectrophotometer
- Performed Total Carbon and Nitrogen analysis using LECO total carbon / nitrogen analyzer with software
- Prepared root samples for Arbuscular Mycorrhizal Fungi detection
- Prepared Rhizobim Isolation soybean nodules samples
- Obtained the University of Missouri Environmental Health and Safety Chemical Workers training
- Entered data into Excel for analysis
- Assisted graduate students with the above sample analyses, filtered soil samples with syringe filters

- Other skills obtained: Laboratory, sample handling, sample preparation and storage, data entry, sample procedures, chemical handling and disposal, washing glassware, organization

Teaching Experience

- Aug 2018 – Jan 2019 **High School Science Teacher, West Oso ISD, Corpus Christi, TX**
- 11th and 12th Grade, Aquatic Science and Forensic Science teacher
- Jan. 2018 – May 2018 **Science Tutor, Early Childhood Development Center-TAMUCC, CCISD, Corpus Christi, TX**
- 4th and 5th Grade Science working as co-teacher
- Jan. 2017 – May 2018 **Substitute Teacher, Paraprofessional II, Clerk IV, Corpus Christi Independent School District, TX**
- Middle and High School: Science (General, Biology, Chemistry, Physics), Math, Special Education
 - Elementary: K-5 P.E., 1st Grade (all subjects), PALS (Special Education)
- Mar. 2017- Aug 2018 **Girl Scout Troop Leader/Advisor, #96054 Woodlawn Elementary, Corpus Christi, TX**
- Create plans and activities for 2 hour meeting that follow Girl Scout guidelines.
 - Plan and organize events to promote parent/child participation and education.
 - Follow online lesson plans established by Girl Scouts of America and tailor to fit troop needs.
- May 2017 **Field Based Observations (30 hrs), Woodlawn Elementary and King High School, Corpus Christi, TX**
- May - Aug 2017 **Educator (Part-Time), Corpus Christi Museum of Science and History, TX**
- Deliver focus programs rooted in the relevant TEKS standards to visiting school and Scout groups.
 - Biology, Geology, Paleontology, Physics, Astronomy
- 2013 - 2014 **Guest Science Teacher, Cedar Fall School - Homeschool program, Canton, MO**
- Conducted a Science course for middle and high school students.

Publications and Reports

- Wu, D. and **Del Rosario, E.A.** In Review 2019. Exploration of Citizen Science Data and Potential Application to the National Water Model. (JAWRA-19-0109-P). Journal of the American Water Resources Association.
- Wu, D. and **Del Rosario, E.A.** 2018. Chapter 7: Applications of Citizen Science Data for National Water Model Streamflow Forecasts. *National Water Centers Innovators Program Summer Institute Report*. Consortium of Universities for the Advancement of Hydrologic Science, Inc. Technical Report No 15, 101-135.
<http://doi.org/10.4211/hs.c7ee150767114d3a927b67a94f0edc04>
- Del Rosario, E.A.** and McLaughlin, R. 2018. Economic Valuation of Environmental Flows in Texas U.S.A. *World Environmental & Water Resources Congress; Watershed Management, Irrigation and Drainage, and Water Resources Planning and Management*, 185-195. <https://doi.org/10.1061/9780784481400.017>
- Montagna, P., Chaloupka, C., **Del Rosario E.**, Gordon, A., Kalke, R., Palmer, T., and Turner, E. 2018. Managing Environmental Flows and Water Resources. *Environmental Impact 2018*. <https://doi.org/10.2495/EID180161>
- Del Rosario, E.A.** and P.A. Montagna. 2018. Effects of the Rincon Bayou Pipeline on Salinity in the Upper Nueces Delta. *Texas Water Journal*. 9(1), 30-49. <https://twj.media/wp-content/uploads/2018/05/Del-Rosario-with-cover-optimized.pdf>
- Del Rosario E.A.** 2016. Ecosystem Response to Freshwater Inflow: Determining a Link between Freshwater Pumping Regimes, Salinity, and Benthic Macrofauna [Masters Thesis]. Texas A&M University-Corpus Christi, Corpus Christi, Texas, USA. https://tamucc-ir.tdl.org/tamucc-ir/bitstream/handle/1969.6/681/DelRosario_Thesis.pdf?sequence=1
- Montagna, P.A., L. Adams, C. Chaloupka, **E. DelRosario**, R.D. Kalke, and E.L. Turner. 2016. Determining Optimal Pumped Flows to Nueces Delta. Final Report to the Texas Water Development Board, Contract # 1548311787. Harte Research Institute, Texas A&M University-Corpus Christi, Corpus Christi, Texas, 75 p.
https://www.twdb.texas.gov/publications/reports/contracted_reports/doc/1548311787_TAMUCC.pdf
- Montagna, P.A., C. Chaloupka, **E. DelRosario**, A. Gordon, and E.L. Turner. 2016. Effects on Benthic Macrofauna from Pumped Flows to Rincon Bayou. Final Report to the Coastal Bend Bays & Estuaries Program for Project # 1617.

Harte Research Institute, Texas A&M University-Corpus Christi, Corpus Christi, Texas, 61 pp.

http://www.cbbep.org/manager/wp-content/uploads/CBBEP-1617-Final-Report_web.pdf

Montagna, P.A., L. Adams, C. Chaloupka, **E. DelRosario**, A. Gordon, M. Herdener, R.D. Kalke, T.A. Palmer, and E.L. Turner. 2015. Effects of Pumped Flows into Rincon Bayou on Water Quality and Benthic Macrofauna. Final Report to the Coastal Bend Bays & Estuaries Program for Project # 1417. Harte Research Institute, Texas A&M University-Corpus Christi, Corpus Christi, Texas, 46 pp. <http://www.cbbep.org/freshwater-inflow-publications/>

Presentations

- Del Rosario, E.A.**, and Flowers, T. (2020, May). *Reservoir Releases for Environmental Flows: A Comparative Study in Texas USA*. Environmental & Water Resources Congress (EWRI), Henderson, NV. Oral.
- Del Rosario, E.A.**, and Flowers, T. (2020, May). *Establishing Correlations in Reservoir Release Datasets: A Comparative Study between Texas and California, USA*. Environmental & Water Resources Congress (EWRI), Henderson, NV. Poster.
- Del Rosario, E.A.**, and Flowers, T. (2020, February). *Low Flow Reservoir Release Predictions for the National Water Model*. NOAA EPP/MSI 10th Biennial Education and Science Forum, Florida A&M University, Tallahassee, FL. Oral.
- Del Rosario, E.A.**, and Flowers, T. (2019, December). *Enhancement of the National Water Model Forecast Predictions by Establishing Correlations in Reservoir Release Datasets with Low Flow Conditions*. American Geophysical Union (AGU) Fall Meeting 2019, San Francisco, CA. Poster.
<https://agu.confex.com/agu/fm19/meetingapp.cgi/Paper/518255>
- Del Rosario, E.A.**, and Trey Flowers (2019, November). *National Water Center NERTO Experience: Low Flow Reservoir Release Predictions for the National Water Model*. Coastal and Estuarine Research Federation (CERF) 2019 25th Biennial Conference, Mobil, AL. Oral.
- Del Rosario, E.A.**, Wu, D. and Lowry, C. (2018, July). *Exploration of Citizen Science Data and Potential Application to the National Water Model*. Consortium of Universities for the Advancement of Hydrologic Science (CUAHSI) Biennial Colloquium, National Conservation Training Center, Shepherdstown, WV. Oral.
<<http://www.cvent.com/events/2018-cuahsi-biennial-colloquium/agenda-1d25561512fb4ae98afa66a42a50f560.aspx?cpc=Z2NY4ZHLTJ3>>
- Wu, D. and **Del Rosario, E.A.** (2018, July). *Applications of Citizen Science Data for National Water Model Streamflow Forecasts*. National Water Center Innovators Program Summer Institute, University of Alabama, Tuscaloosa, AL. Oral.
- Del Rosario, E.A.** and McLaughlin, R. (2018, June). *Economic Valuation of Environmental Flows in Texas U.S.A.* World Environmental & Water Resources Congress (EWRI), Minneapolis, MN. Oral.
<<https://www.eventscribe.com/2018/ASCE-EWRI/agenda.asp?pfp=agenda>>
- Del Rosario, E.A.** and McLaughlin, R. (2018, June). *Environmental Flows Management Strategy for the Coastal Zone in Texas*. World Environmental & Water Resources Congress (EWRI), Minneapolis, MN. Poster.
<<https://www.eventscribe.com/2018/ASCE-EWRI/posterspeakers.asp?pfp=posterPresenter>>
- Del Rosario, E.A.**, McLaughlin, R., and Montagna, P.A. (2018, March). *Environmental Flows Management Strategy for the Coastal Zone in Texas*. NOAA EPP/MSI 9th Biennial Education and Science Forum, Howard University Main Campus, Washington DC. Poster.
- Del Rosario, E.A.**, McLaughlin, R., and Montagna, P.A. (2018, March). *Managing for a "Sound Ecological Environment"*. 47th Annual Benthic Ecology Meeting, Corpus Christi, TX. Oral, Abstract page 32.
<http://www.bemsociety.org/uploads/4/2/1/5/42158527/bem2018_abstract_book.pdf>
- Del Rosario, E.A.** and McLaughlin, R. (2017, December). *Whose Water is it Anyways*. Oso Bay Wetland Preserve. Corpus Christi, TX. Harte Research Institute Presents Workshop Series.
- Del Rosario, E.A.**, Montagna, P.A., and McLaughlin, R. (2017, December). *Environmental Flows Management Strategy for the Coastal Zone in Texas*. The TAMU-CC Marine Science Graduate Student Organization 7th Annual Research Forum, Corpus Christi, TX. Short Oral. <<https://msgotamucc.wixsite.com/researchforum>>
- Del Rosario, E.A.**, Montagna, P.A., and Turner, E.L. (2017, April). *Determining an Environmental Flow Regime Using Benthic Macrofauna as Biological Indicators of Ecosystem Health*. 46th Benthic Ecology Meeting, Myrtle Beach, SC. Oral. <http://www.bemsociety.org/uploads/4/2/1/5/42158527/bems-seers_detailed_schedule_2.pdf>

- Del Rosario, E.A.**, Turner, E.L., and Montagna, P.A. (2017, January). *Effects of the Rincon Bayou Pipeline on Salinity in the Upper Nueces Delta*. Annual Meeting of the Texas Chapter American Fisheries Society, Corpus Christi, TX. Poster.
- Del Rosario, E.A.**, Turner, E.L., and Montagna, P.A. (2016, November). *Ecosystem Response to Freshwater Inflow: Determining a Link between Freshwater Pumping Regimes and Ecological Benefit*. Texas A&M University System 13th Annual Pathways Student Research Symposium, Prairie View, TX. Poster.
- Del Rosario, E.A.**, Turner, E.L., and Montagna, P.A. (2016, October). *Ecosystem Response to Freshwater Inflow: Determining a Link between Freshwater Pumping Regimes and Ecological Benefit*. SACNAS National Diversity in STEM Conference, Long Beach, CA. Poster.
- Del Rosario, E. A.** and Montagna, P.A. (2016, August). *Ecosystem Response to Freshwater Inflow: Determining a Link between Freshwater Pumping Regimes and Ecological Benefit*. NOAA EPP/MSI 8th Biennial Education and Science Forum, New York, NY. Poster, Extended Abstract pages 270-271.
<http://noaacrest.org/eppforum2016/uploaded/FORUM_Proceedings_FINAL.pdf>
- Montagna, P.A., Chaloupka, C., **Del Rosario, E.**, Gordon, A., Palmer, P.A., and Turner, E.L. (2016, June). *Hydrological Restoration of Rincon Bayou, Nueces Marsh*. Society of Wetland Scientist Annual Meeting, Corpus Christi, TX.
- Del Rosario, E.A.**, Turner, E.L., and Montagna, P.A. (2016, March). *Ecosystem Response to Freshwater Inflow: Determining a Link between Freshwater Pumping Regimes and Ecological Benefit*. 45th Benthic Ecology Meeting, Portland, ME. Poster. <http://www.bemsociety.org/uploads/4/2/1/5/42158527/poster_abstracts_for_web.pdf>
- Turner, E.L., **Del Rosario, E.A.**, and Kalke, R. (2015, November) *Forecasting Benthic Fauna Response in a Shallow Marsh Using the Benthic Ecology Model (BEM)*. The 23rd Biennial Coastal and Estuarine Research Federation (CERF) Conference, Portland, OR. <https://cerf.memberclicks.net/assets/2015_Conference/cerf2015_program_web.pdf>
- Del Rosario, E.A.**, Montagna, P.A., and Turner, E.L. (2015, October). *Ecosystem Response to Freshwater Inflow: Determining a Link between Freshwater Pumping Regimes and Ecological Benefit*. Texas A&M University System 12th Annual Pathways Student Research Symposium, Corpus Christi, TX. Poster.
- Del Rosario, E.A.**, Montagna, P.A., and Turner, E.L. (2015, October). *Ecosystem Response to Freshwater Inflow: Determining a Link between Freshwater Pumping Regimes and Ecological Benefit*. The 69th Annual Southeast Association of Fish and Wildlife Agencies Conference, Asheville, NC. Poster.
- Del Rosario, E.A.**, Delphin, S., Emerich, D.W., Brandt, D. (2014, October). *The Effects of Root Exudates on Algal Growth*. Poster presented at the NOAA Educational Partnership Program 7th Biennial Education and Science Forum, Princess Anne, MD. Poster.
- Del Rosario, E.A.**, Delphin, S., Emerich, D.W., Kermer, R., Veum, K., and Brandt, D. (2013, July). *The Allelopathic Effect of Virginia Rye (*Elymus virginicus*) Root Exudates on Seed Germination of *Lactuca sativa**. University of Missouri Summer Undergraduate Research and Creative Achievement Forum, Columbia, MO. Poster.

Awards

- 2016-2019 NOAA EPP CCME Fellowship
- 2015-2017 AGEP Scholar (Alliance for Graduate Education and the Professoriate)
- 2015-2016 NOAA EPP ECSC Fellowship
- 2017 Nominated to attend the 24th SREB (Southern Regional Educational Board) Institute on Teaching and Mentoring
- 2016 Abstract accepted for the 2017 WIT Water Resources Management International Conference
- 2016 USDA Graduate - Career Preparation Institute (CULTIVAR) Fellowship
- 2015 Golden Key International Honour Society Membership
- 2015 Minorities in Natural Resources & Conservation (MINRC) Scholar
- 2014 TAMUCC Graduate Scholarship
- 2014 College of Science and Engineering Conrad Blucher Scholarship
- 2014 NOAA EPP ECSC Student Forum Travel Award
- 2014 South Central SAS Users Group Scholar Travel Award
- 2013 Minorities in Natural Resources & Conservation (MINRC) Scholar

Community Outreach, Community Service, and Volunteer Activities

- 2017-2018 *Girl Scout Troop # 96054 Leader/Advisor, Woodlawn Elm., Corpus Christi, TX*
 - K-5 grade
 - 2018 Annual Meeting Delegate

- 2017 **Moody High School Citgo Innovation Academy Robotics, Corpus Christi, TX**
- Planned and organized presentations and tour of students
- 2017 **Invited Speaker, Oso Bay Wetlands Workshop, Corpus Christi, TX**
- Water resources, water laws.
- 2017 **Judge, Coastal Bend Regional Science Fair, Corpus Christi, TX**
- 6-12 grade judge in Environmental Science
- 2017 **Invited Speaker, Incarnate Word Academy, Corpus Christi, TX**
- Presenter at HS Care of Creation Expo for CCME table, demonstrated water runoff
- 2016 - 2018 **Volunteer, FIRST Tech Challenge, Corpus Christi, TX**
- Certified Head Referee & Referee for Middle and High school robotics competition
- 2016 **Judge, TAMU System 13th Annual Pathways Student Research Symposium, Prairie View, TX**
- Undergrad and Masters Posters in Social Science
- 2016 **Invited Speaker, Baker Middle School, Corpus Christi, TX**
- SACNAS Islander Talks about STEM research
- 2016 **Volunteer, Blue on Tour, Corpus Christi, TX**
- Registration desk
- 2015 **Judge, Coastal Bend Regional Science Fair, Corpus Christi, TX**
- 6-12 grade judge in Environmental Science, Environmental Management, Energy and Transportation
- 2013 - 2014 **Guest Science Teacher, Cedar Fall School - Homeschool program, Canton, MO**
- Conducted a Science course for middle and high school students.
- 2013 **Volunteer, Fish Lab, Dr. Doug Noltie, University of Missouri, Columbia, MO**
- Pick, identified, and photographed invertebrates from water samples for the production of a guide for Prairie Fork Conservation Area.
- 2012 - 2013 **Volunteer, U.S. Fish and Wildlife Service, Columbia, MO**
- Assisted in sampling of the Missouri River for Pallid Sturgeon using fyke nets, recorded water quality data.
- 2012- 2013 **Volunteer, Missouri Department of Conservation, Columbia, MO**
- Assisted with sampling of Blind Pony Lake for catfish species using hoop nets and stinky cheese.
 - Assisted with data collection: fish weight and length measurements, species ID's, water quality data

Conferences Attended

- Dec. 9-13, 2019 **AGU Fall Meeting (American Geophysical Union), San Francisco, CA**
- Nov. 3-7, 2019 **CERF 25th Biennial Conference (Coastal & Estuarine Research Federation), Mobil, AL**
- Jan. 23-25, 2019 **Water for Texas 2019 Conference, Hosted by the Texas Water Development Board, Austin, TX**
- Mar. 27-30, 2018 **47th Benthic Ecology Meeting, Corpus Christi, TX**
- Mar. 18-21, 2018 **NOAA EPP/MSI 9th Biennial Education and Science Forum, Howard University, Washington DC**
- Nov. 5 - 9, 2017 **CERF (Coastal & Estuarine Research Federation), Providence, RI**
- Oct. 26-29, 2017 **24th SREB (Southern Regional Educational Board) Institute on Teaching and Mentoring, Atlanta, GA**
- Apr. 12-16, 2017 **46th Benthic Ecology Meeting, Myrtle Beach, SC**
- Jan. 23-25, 2017 **Water for Texas 2017 Conference, Hosted by the Texas Water Development Board, Austin, TX**
- Jan. 19-21, 2017 **Annual Meeting of the Texas Chapter American Fisheries Society, Corpus Christi, TX**
- Nov. 3 - 4, 2016 **Texas A&M University System 13th Annual Pathways Student Research Symposium, Prairie View, TX**
- Nov. 3 - 5, 2016 **4th Annual TAMUS E&S AGEP Conference (Energy & Sustainability - Texas Alliance for Graduate Education and the Professoriate), Prairie View A&M University, Prairie View, TX**
- Oct. 13-15, 2016 **SACNAS Advancing Chicano/Hispanics & Native Americans in Science, National Conference, Long Beach, CA**
- Aug.29-31, 2016 **NOAA EPP/MSI 8th Biennial Education and Science Forum, The City College of New York, NY**
- Mar.16-19, 2016 **45th Benthic Ecology Meeting, Portland, ME**
- Mar.10-12, 2016 **American Association of Hispanics in Higher Education (AAHHE), Costa Mesa, CA**
- Nov. 1 - 4, 2015 **Southeast Association of Fish and Wildlife Agencies Conference (SEAFWA), Asheville, NC**
- Oct. 29-31, 2015 **SACNAS Advancing Chicano/Hispanics & Native Americans in Science, National Conference, Washington, DC**
- Nov.10-11, 2014 **South Central SAS User Group (SCSUG) Educational Forum, Austin, TX**
- Oct. 30-31, 2014 **Gulf Estuarine Research Society (GERS) Biennial Meeting, Port Aransas, TX**
- Oct. 26-29, 2014 **NOAA Educational Partnership Program (EPP) 7th Biennial Education and Science Forum, University of Maryland Eastern Shore, Princess Anne, MD**
- Oct. 13-16, 2013 **Southeast Association of Fish and Wildlife Agencies Conference (SEAFWA), Oklahoma City, OK**

Management Experience

- Aug 2014 - Aug 2016 **Shift Manager, REE McDonald's, Corpus Christi, TX**
- Oversaw a team of 15 to 20 people
 - Completed accredited management courses
 - Skills obtained: customer service, troubleshooting of equipment
- Sept 2008 - June 2009 **Office Manager, Mid Kansas Co-op, Bennington, KS**
- Oversaw 6+ employees, approved temporary employees time cards for the temp agency
 - Implemented a MSDS program for the location
 - Skills obtained: forklift operation, completed drivers safety course, EPA chemical compliance
- Oct 2003 - Oct 2006 **Manager on Duty / Relief Manager, Motel 6, Columbia, MO and Salina, KS**
- Oversaw 15+ employees, training, hiring and termination, performance reviews, inventory, payroll, etc.
 - Completed online business management courses
 - Skills obtained: customer service, organization, teamwork, cash handling, credit card sales, troubleshooting of equipment

Additional Professional Experience

- Oct 2006 - Sept 2008 **Zoo Keeper, Rolling Hills Wildlife Adventure / Zoo, Salina, KS**
- Established training program for the animals in my care
 - Assisted in veterinary procedures
 - Skills obtained: knowledge of species, operation of a Kubota, communication and presentation

Professional Memberships

- 2017-2018 **American Society of Civil Engineers (ASCE), Environmental & Water Resources Institute (EWRI)**
- 2017-2018 **Coastal & Estuarine Research Federation (CERF)**
- 2017-2018 **Girl Scouts of America, Greater South Texas (GSGST)**
- 2016-2018 **Golden Key International Honour Society**
- 2015-2017 **Alliance for Graduate Education and the Professoriate (AGEP)**
- 2014-2017 **Society for Advancement of Hispanics/Chicanos and Native Americans in Science (SACNAS)**
- TAMUCC Chapter Vice President (2016 & 2017)
- 2016-2017 **American Fisheries Society, Southern Division**
- 2014-2017 **Marine Science Graduate Student Organization (MSGSO) – TAMUCC**
- 2013-2017 **Minorities in Natural Resources & Conservation (MINRC)**
- 2016 **Connecting Underrepresented Latinos to Integrate Values and Academic Resources (CULTIVAR)**
- 2016 **Coastal Conservation Association (CCA)**
- 2014 **Gulf Estuarine Research Society (GERS)**

Coursework

Aug. 2014 – Aug. 2017 Graduate:

Statistics I and II - Experimental Design - Thesis Proposal - Professional Skills for Scientists - Environmental Research Seminar - Foundations of GIS for Environmental Science - Directed Independent Study on Freshwater Inflow - Thesis Research - Computer Programming in Environmental Science - Coastal Management and Ocean Law - Spatial Systems Science - Systems Analysis - Environmental Sustainable Economics - Coastal & Marine Systems - Modeling of Natural Systems – Seminar – Dissertation Research

- Utilized skills in: Computer programs: SAS, Python, R studio, ArcGIS, Esri GIS, Excel data management

June 2000 - Dec. 2013 Undergraduate:

Biology	General Zoology,	Community Biology,	Herpetology,	Mammalogy,
Intro Biology,	General Ecology,	Ecology of Fishes,	Ichthyology,	Dendrology,

General Botany, Fish Genetics, General Genetics, Intro Cell Biology, Mammalian Reproductive Biology Chemistry Organic Chemistry I/II, General Chemistry I/II, Chem. Life Sciences	Environmental Science Physical Geology, Intro Meteorology Natural Resources NatRes Biometrics, NatRes Policy & Administration Fisheries & Wildlife	Techniques in Fisheries Mgmt & Conservation, Conservation Biology, Animal Population Dynamics & Mgmt, Wildlife Mgmt Planning Human Dimensions in Fisheries & Wildlife ConservationA	Math Intermediate Algebra, College Algebra, Elementary Statistics, Calculus Nat. Sciences, Intro Computer Science & Programming Other	Domestic Animal Metabolism, Agricultural Microeconomics, General Psychology, Abnormal Psychology
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Gained experience in:

- Fisheries Management and Conservation Techniques: fish age estimations based on scale and otolith samples, invertebrate and plankton sampling techniques, gastric lavage/gastric irrigation, gear types, measurement, deployment, and bias, boat based electroshocking procedures and protocols, fish tagging procedures, and conducting fish population estimates.
- Population Dynamics and Management: population modeling and model variables, basic modeling equations, experimental design and analysis, model development.
- Wildlife Management and Conservation: writing of management plans, implementation, budget, research.
- Human Dimensions: Collaborative Institutional Training Initiative (citi) - SBR basic curriculum completion training for Investigators and staff involved primarily in Social/Behavioral Research with human subjects.

Texas Teachers Alternative Certification Courses (Summer 2017)

The Teacher: Preparing for the Profession, Characteristics of Effective Teachers, Educator Professionalism, Community of Learners, Communication and Collaboration, The Texas Educator Code of Ethics.

The Learner: Meet Your Students, Child Development and Motivation to Learn, Special Populations in the Classroom, Mental Health Issues in Schools, Substance Abuse in Children and Adolescents, Youth Suicide Prevention.

Planning Instruction: Bloom's Taxonomy, Understanding the TEKS, Components Of Effective Lesson Planning, Teaching Strategies that Work, Overview of Texas Teacher Evaluation and Support System, Components Of Effective Instruction, Differentiating Instruction, Technology In the Classroom, Designing A Personalized Learning Environment, Reading for the Secondary Teacher, Questioning Strategies and Feedback, Formal Assessment, Using Data To Inform Instruction, Special Education In the General Education Classroom, Inclusive Education, English Language Learners (Elps), Teaching English Language Learners, Teaching In A Diverse Classroom.

The Learning Environment: Theories of Classroom Management, Techniques of Classroom Management, Applying Cl Mgmt. Strategies and Techniques, Developing a Respectful Learning Environment.

NOAA Courses

- May 19-26, 2019 **NOAA Environmental Cooperative Science Centers - Center Wide Core Competency (CCME CWCC) Short Course.** Multidisciplinary Techniques in Marine Science & Policy. University of Texas-Brownsville, South Padre Island, TX
- July 19-26, 2015 **NOAA Environmental Cooperative Science Centers - Center Wide Core Competency (ECSC CWCC) Short Course.** Multidisciplinary Techniques in Marine Science & Policy. University of Texas Marine Science Institute, Port Aransas, TX
- Sept. 9-12, 2014 **NOAA Bioindicators of Ecosystem Health Workshop,** University of Texas, Brownsville, TX

Other Courses

- 2016 **Substitute Teacher** - 12 hour Continuing Education Course, Del Mar College, Corpus Christi, TX
- 2015 **BoatU.S. Foundations - Texas Online Boating Safety Course**
- 2015 **TAMUCC Undergraduate and Graduate Student Workshop for Professional Conference Skills and Grants-In-Aid**
- 2013 **IRB - Collaborative Institutional Training Initiative (citi)** - SBR basic curriculum completion training for Investigators and staff involved primarily in Social/Behavioral Research with human subjects.

Professional Development

- 2019 **COMPASS Science Communication Workshop**
- 2018 **EPA's Watershed Academy** Webcast: Using the Surface Water Toolbox (Feb 8th)
- 2017 **COMPASS Science Communication Workshop**
- 2015 **Communicating Science** training session by Don Luna