

Héctor Esparra-Escalera

Ph.D. Candidate in Biology and Urban Sustainability

Wayne State University

Department of Biological Sciences

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Detroit MI, 48202

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Areas of interest: Environmental sciences, aquatic ecology, urban sustainability, and zoology of invertebrates.

EDUCATION:

Ph.D., Biological Sciences & Urban Sustainability

August 2018- Present

Wayne State University

PhD thesis' title: *Evaluation of Impacts and Drivers in Stream Ecosystems: Urbanization, nutrient pollution, and road salt exposure through responses in benthic communities*

Anticipated graduation date: May 2024

Current G.P.A: 3.40/4.00

Advisor: Donna R. Kashian, Ph.D.

M.Sc., Biology (Aquatic Biology)

August 2014 – May 2018

University of Puerto Rico-Mayagüez

G.P.A: 3.69/4.00

Master thesis' title: *Nutrient Release and Grazing Effects by Two Exotic Thiaridae Snails on Periphyton Biomass under Artificial Conditions*

Advisor: Carlos J. Santos-Flores, Ph.D.

B.Sc., Biology

August 2009 - December 2013

University of Puerto Rico-Mayagüez

G.P.A: 3.29/4.00

RELEVANT COURSEWORK AT WSU (Ph.D.):

BIO 7110 (Aquatic Ecology)

BIO 7060 (Evolutionary and Developmental Biology)

BIO 7310 (Urban Sustainability Seminar)

BIO 6420 (Ecotoxicology & Risk Assessment)

BIO 7440 (Terrestrial Ecology)

UP 6700 (Introduction to G.I.S)

COM 7170 (Health and Risk Communication)

GS 0900 (Essential Research Practices: Responsible Conduct of Research)

BIO 7540 (Landscape Ecology)

SOC 7200 (Advanced Research Methods Techniques in Sociology)

ANT 5060 (Urban Anthropology)

RELEVANT COURSEWORK AT UPRM (B.Sc/M.Sc.):

BIOL 4335 (Evolution)

EDPE 3129 (Use of computers in classroom)

BIOL 3300 (Genetics)

BIOL 6610 (Tropical Limnology)

BIOL 3770 (General Microbiology)

BIOL 5585 (Medical & Veterinary

BIOL 3425 (Zoology)

Entomology)

BIOL 3125 (Ecology)

AGRO 5005 (Biometry)

BIOL 3010 (Cell Physiology)

AGRO 6600 (Advanced Biometry)

BIOL 3417 (Botany)

BIOL6993/6997 (Special Topics: Freshwater

ZOOL 5005 (Invertebrates of PR)

Phycology)

BIOL 4426 (Animal Parasitology)

BIOL6993/6997 (Special Topics:

EDFU 3001 (Human Development 1)

Protistology)

EDFU 3007 (Social Foundations of Education)

BIOL6689 (Research Methods in Biology)

BIOL 6993/6997 (Special Topics: Introduction to

BIOL 3055 (Bibliography in Biological

Biological Sequence Analysis)

Sciences)

WORK & RESEARCH EXPERIENCE:

Graduate Research Assistant

August 2018- Present

Aquatic Ecology Laboratory

Department of Biological Sciences, Wayne State University

Research Supervisor: Donna R. Kashian, Ph.D.

Committee members: Thomas Dowling, Ph.D.,

Glen Hood, Ph.D. & Alonso Ramírez, Ph.D.

Student Member & Researcher
Society for Environmental Engineering and Sustainability – **Detroit AirNet**
Department of Civil and Environmental Engineering
Main Leader: Brendan F. O’Leary, M.Sc.
Main Advisor: Timothy Dittrich, Ph.D.

February 2020-May 2023

River Walker Project – Eat Safe Fish (Internship)
Detroit, MI.
Supervisor: Jeremy Waechter, M.P.A

July 2019-September 2019

Tech Assistant, Biology Department Computer Center

October 2017- February 2018

Graduate Research Assistant
Howard Hughes Medical Institute (H.H.M.I)
Biology Department, University of Puerto Rico-Mayagüez
Research Supervisor and P.I: Carlos J. Santos-Flores, Ph.D.
Committee members: David Sotomayor-Ramírez, Ph.D. & Carlos Rodríguez-Minguela, Ph.D.

August 2014- May 2018

Undergraduate Research Assistant
UPR-Agricultural Experimental Station &
Biology Department, University of Puerto Rico-Mayagüez
Research Supervisor: Carlos J. Santos-Flores, Ph.D.
Project Manager: David Sotomayor-Ramírez, Ph.D.

June 2013-February 2014

Undergraduate Research Assistant
Howard Hughes Medical Institute (H.H.M.I)
Biology Department, University of Puerto Rico-Mayagüez
Research Supervisor: Carlos J. Santos-Flores, Ph.D.
Project Managers: Gustavo Martínez, Ph.D. & David Sotomayor-Ramírez, Ph.D. (Project Z-247)

January 2012- May 2013

TEACHING & TUTORING EXPERIENCE:

Instructor; Biological Sciences Department, Wayne State University
Courses:

August 2018 – April 2019
*May 2020 – July 2020
*January 2021 – July 2022
*August 2023 - Present

BIO-1500Lab/1501 (Basic Life Diversity Laboratory)
Supervisor: Michelle Serreyn (F & W 2018-2019) & Dr. Madelyn Tucker
(S 2020, W 2021, F 2021, W 2022, S 2022, F 2023, W 2024)

ESG-5620 (Seminar in Environmental Justice in Detroit)
Course director: Dr. Donna R. Kashian (W 2022)

Tutor, Biology Department, University of Puerto Rico-Mayagüez
Course: General Biology I & II (BIOL-3051 and BIOL-3052)

November 2017- January 2018

Lab Instructor; Biology Department, University of Puerto Rico-Mayagüez
Courses:

August 2014 – June 2017

W 2016-W 2017: BIOL-4015L (General Zoology); Supervisor: Donato Seguí-Crespo

F 2015 * F & W 2016-2017: BIOL-3425L (Organismal Animal Biology); Supervisor: Dr. Sonia Borges (F 2015) & Donato Seguí-Crespo (F 2016-W 2017)

W 2015: CIBI-3032L (Introduction to Biological Sciences II); Supervisor: Donato Seguí-Crespo

F 2014: BIOL-3051L (General Biology I); Supervisor: Jeanine Vélez-Gavilán

Tutor; BEST Project Summer Camp

June 2011/June 2012

Courses:

2012: Cultural and Recreational Sports (K-6). Anastacio Santiago Elementary School; Coamo P.R.

2011: Mathematics (K-6). Rufino Huertas Elementary School; Coamo, P.R.

PRESENTATIONS:

Zeglin, L.*, Eiffler, D.*, **Esparra-Escalera, H.J.***, Richards, B.* & Roberts, D. Career Panel – ESA-SEEDS NATIONAL FIELD TRIP at KONZA PRAIRIE BIOLOGICAL STATION AND LTER. Manhattan, KS. October 2023.

[Esparra-Escalera, H.J.*. Macroinvertebrados bentónicos y su rol en el manejo y conservación de la calidad de agua en sistemas fluviales. A virtual seminar offered to AmandOcéano through Zoom and Facebook live - Host: AmandOcéano. June 2023.](#)

Esparra-Escalera, H.J.* & Kashian, D.R. Land use effects on nutrient pollution and benthic macroinvertebrate assemblages in Michigan streams. IAGLR- International Association of the Great Lakes Research, Annual Meeting. May 2023. ORAL PRESENTATION.

Gopalakrishnan, K.*, **Esparra-Escalera, H.J.*** & Kashian, D.R. Harnessing the Power of Algae for Innovative Wastewater Treatment through Algal Cultivation. April 2023. Science Fair with a Twist; Science Policy Network – Detroit. April 2023. POSTER PRESENTATION WITH A PROTOTYPE.

Esparra-Escalera, H.J.* & Kashian, D.R. Land Use Effects on Nutrient Pollution and Benthic Macroinvertebrate Assemblages in Michigan Streams. WSU Graduate Research Symposium (Virtual). March 2023. POSTER PRESENTATION.

Day, S.*, **Esparra-Escalera, H.J.*** & Hunt, D.S.* Panel – AM Session: Conservation of urban aquatic systems: Interdisciplinary solutions to complicated problems. Joint Aquatic Science Meeting (Grand Rapids, MI). May 2022.

Esparra-Escalera, H.J.* & Kashian, D.R. Land use and canopy cover effects on benthic macroinvertebrate assemblages in impacted watersheds. Joint Aquatic Science Meeting (Grand Rapids, MI). May 2022. ORAL PRESENTATION.

Dabney, B.L.*, **Esparra-Escalera, H.J.***, Lewandowski, K.*, Siddiqua, Z.*, Pitts, D., & Kashian, D.R. Societal, Cultural and Environmental Impacts of Green Stormwater Infrastructure in Urban Centers of Detroit-Metropolitan Area. T-RUST Advisory Board Meeting. April 2022. ORAL PRESENTATION.

Esparra-Escalera, H.J.* & Kashian, D.R. The use of periphyton and benthic macroinvertebrates to assess impairment in two urban streams in Southeast Michigan (USA). Society for Freshwater Science Annual Meeting (Virtual). May 2021. POSTER PRESENTATION.

O'Leary, B.F*, **Esparra-Escalera, H.J.***, Lucas, A.*, Raoufi, G.*, Dittrich, T.M. 2021. Detroit AirNet: A Community Science Platform against Air Pollution in a Highly Industrialized City. Environmental Design Research Association – 52th edition (Virtual). ORAL PRESENTATION.

Pruett, A., Dabney, B.L.*, **Esparra-Escalera, H.J.***, Weyhrauch, J., Lewandowski, K.*, Siddiqua, Z*. Societal Cultural & Environmental Impacts of Green Stormwater Infrastructure in Detroit. GLIER/T-RUST Seminar Series. Wayne State University (Detroit, Michigan – USA) & the University of Windsor (Windsor, Ontario – CA). April 2021. RECORDED PRESENTATION.

Dávila-Santiago, L.*, Bayrón-Arcelay, M., Cuebas-Irizarry, M.F., **Esparra-Escalera, H.J.** Panel - Analysis of Microbial Communities & Environmental Injustice in PR. Virtual seminar offered to UPR students – Host: Rhianna Smith. April 2021.

Esparra-Escalera, H.J. La importancia de los macroinvertebrados bentónicos en el control de la calidad del agua en los ríos. Virtual seminar offered to UPR students – Host: Rhianna Smith. April 2021.

Pruett, A., Dabney, B.L.*, **Esparra-Escalera, H.J.***, Weyhrauch, J., Lewandowski, K.*, Siddiqua, Z*. Societal Cultural & Environmental Impacts of Green Stormwater Infrastructure in Detroit, MI. USA. T-RUST SPRING 2021 Advisory Board Meeting. Wayne State University. March 2021. RECORDED PRESENTATION.

Esparra-Escalera, H.J.* & Kashian, D.R. Assessment of Benthic Macroinvertebrates and Primary Productivity in Streams with Green Infrastructure Components in Detroit-Metropolitan and Surrounding Areas. Biological Sciences Department Retreat-Wayne State University. Detroit, Michigan-USA. November 2019. POSTER PRESENTATION.

Pruett, A., Dabney, B.L.*, **Esparra-Escalera, H.J.***, Weyhrauch, J.*, Blatchford, K.*, Lewandowski, K.*, Imam, K., Siddiqua, Z*. 2019. Societal, Cultural and Environmental Impacts of Green Infrastructure in Urban Centers. 2019 T-

RUST Fall Meeting. Wayne State University. October 2019. ORAL PRESENTATION.

Esparra-Escalera, H.J.* & Kashian, D.R. Assessment of Benthic Macroinvertebrates and Primary Productivity in Streams with Green Infrastructure Components in Detroit-Metropolitan and Surrounding Areas. 2019 C.P Lee Graduate Student Research Presentation Day-Wayne State University. Detroit, Michigan-USA. October 2019. POSTER PRESENTATION.

Pruett, A., Dabney, B.L., **Esparra-Escalera, H.J.***, Weyhrauch, J., Blatchford, K., Lewandowski, K.*, Imam, K., Siddiqua, Z*. 2019. Societal, Cultural and Environmental Impacts of Green Infrastructure in Urban Centers. T- RUST Students Exchange. Wayne State University. August 2019. ORAL PRESENTATION.

Pruett, A.*, Dabney, B.L.*, **Esparra-Escalera, H.J.**, Weyhrauch, J., Blatchford, K.*, Lewandowski, K.*, Imam, K., Siddiqua, Z. 2019. Societal, Cultural and Environmental Impacts of Green Infrastructure in Urban Centers. T-RUST SPRING 2019 Advisory Board Meeting. Wayne State University. ORAL PRESENTATION.

Esparra-Escalera, H.J.*, Sotomayor-Ramírez, D.R, Santos-Flores, C.J. Taxonomic Assessment and Periphyton Biomass in presence of Two Invasive Thiaridae Snails, contrasting with External Morphological Traits, on Freshwater Artificial Systems. 2019 ASLO-Aquatic Science Meeting. San Juan, Puerto Rico. February 2019. POSTER PRESENTATION.

Vázquez-Cardona, J.; **Esparra-Escalera, H.J.*** & Santos-Flores, C.J. Assessment of Exotic Snails Impact on Epilithonic Communities in a Subtropical Urban Stream. 2017 Ecological Society of America Annual Meeting. Portland, Oregon. August 2017. POSTER PRESENTATION.

Esparra-Escalera, H.J.* & Santos-Flores, C.J. Nutrient release and grazing effects of two exotic Thiaridae species and their interaction of resources competition in freshwater mesocosms. 2017 Ecological Society of America Annual Meeting. Portland, Oregon. August 2017. POSTER PRESENTATION.

Vázquez-Cardona, J.*; **Esparra-Escalera, H.J.** & Santos-Flores, C.J. Assessment of Exotic Snails Impact on Epilithonic Communities in a Subtropical Urban Stream. ASLO- Association for Sciences in Limnology & Oceanography Aquatic Science Meeting. Honolulu, Hawaii, U.S.A. February/March 2017. POSTER PRESENTATION.

Vázquez-Cardona, J.*; **Esparra-Escalera, H.J.** & Santos-Flores, C.J. Assessment of Exotic Snails Impact on Epilithonic Communities in a Subtropical Urban Stream. IX Caribbean Biodiversity Congress. Santo Domingo, DR. February 2017. POSTER PRESENTATION.

Esparra-Escalera, H.J.* & Santos-Flores, C.J. Effects of Grazing on Periphyton Biomass and Nutrient Release by Two Exotic Thiaridae Snails under Artificial Conditions. IX Caribbean Biodiversity Congress. Santo Domingo, DR. February 2017. POSTER PRESENTATION.

Esparra-Escalera, H.J.*; Viggiano-Beltrocco, M.V; Santos-Flores, C.J. & Sotomayor-Ramírez, D.R. *Taxonomic Assessment of Periphyton Community in Three Subtropical Streams of Puerto Rico*. Biology Department- UPRM. May 2014. ORAL PRESENTATION.

Esparra-Escalera, H.J.*; Rodríguez-Santiago, M; Sánchez-Santana, B.I; Santos-Flores, C.J. *Net- phytoplankton Survey in Guajataca Reservoir, a Mesotrophic Lake in Puerto Rico*. 40th SACNAS National Conference; San Antonio, Texas, U.S.A. October 2013. POSTER PRESENTATION.

Esparra-Escalera, H.J.*; Rodríguez-Santiago, M; Sánchez-Santana, B.I; Santos-Flores, C.J. *Net- phytoplankton Survey in Guajataca Reservoir, a Mesotrophic Lake in Puerto Rico*. ASLO- Association for Sciences in Limnology & Oceanography Aquatic Science Meeting; New Orleans, Louisiana, U.S.A. February 2013. POSTER PRESENTATION.

Roldan-Irizarry, D*; **Esparra-Escalera, H.J.**; Rodríguez-Santiago, M; Mulero, M.T.; Sánchez-Santana, B.I; Santos-Flores, C.J. 2012. Análisis de Fitoplancton de los Lagos Cerrillos, Guajataca y la Plata. 2nd Undergraduate Biology Symposium, vol.2. 2nd Undergraduate Biology Symposium, University of Puerto Rico-Mayagüez, Mayagüez, PR. ORAL PRESENTATION.

ARTICLES/SCIENTIFIC DOCUMENTS:

Esparra-Escalera, H.J., Gopalakrishnan, K. & Kashian, D.R. (2023). Land use differential effects on nutrient inputs and benthic invertebrate communities: Contextualizing long-term datasets from streams affected by land

development in Michigan (USA). **Manuscript in preparation.**

Esparrá-Escalera, H.J. & Santos-Flores, C.J. (2023). Interaction of Two Invasive Thiarid Snails with Approach on Nutrient Release and Periphyton Biomass in Freshwater Mesocosms. **Manuscript in preparation.**

Kashian, D.R., Febria, C.M., **Esparrá-Escalera, H.J.**, Hunt, D.S., Lewandowski, K.L., Lucas, A., ... & Willsie, J. (2023). Ten simple rules for effective and meaningful science communication in an interdisciplinary space. **Manuscript in preparation.**

[Febria, C.M., Kashian, D.R., Bertrand, K.R.T., Dabney, B.L., Day, M., Dugdale, M., Ekhatior, K.O., **Esparrá-Escalera, H.J.**,... & Wallen, M.W. \(2022\). Early career researchers benefit from inclusive, diverse & international collaborations: Changing how academic institutions utilize the seminar series. *Journal of the Great Lakes Research*. <https://doi.org/10.1016/j.jglr.2022.03.017>.](https://doi.org/10.1016/j.jglr.2022.03.017)

[O'Leary, B.F., Hill, A.B., Akers, K.G., **Esparrá-Escalera, H.J.**, Lucas, A.R., Raoufi, G... & Dittrich, T.M. \(2022\). Air Quality Monitoring and Measurement in an Urban Airshed: Contextualizing Datasets from Detroit, MI area from 1952-2020. *Science of the Total Environment* \(809\): 13pp.](https://doi.org/10.1016/j.scitotenv.2022.161333)

Esparrá-Escalera, H.J. (2018). Nutrient release and grazing effects by two exotic Thiaridae snails on periphyton biomass under artificial conditions (Master dissertation).

UNDERGRADUATE STUDENTS MENTORING:

UPRM: Jazzie Pérez (W 2015), Isolina Vargas (W 2015), Juleyska Vázquez (W 2016-W 2017), Bredwin Padilla (W 2016-W 2017) and Jomar Lisboa (W 2016-W 2017).

WSU: Michael Hadous (F, 2018), Ali Alzady (W, 2019), Molly McKeon (W 2019-F 2019), Michael Kaleita (S 2019), Miriam DeWolf (F 2022), Yara Saad (F 2022), Xavier Sterling (S 2022 – Present).

SCIENTIFIC MEETINGS ATTENDED:

IAGLR Annual Meeting. Toronto, ON (Canada). **May 8-12, 2023.**

T-RUST Spring 2023 Advisory Board Meeting. Wayne State University, Detroit MI. **March 9, 2023.**

2022 Joint Aquatic Science Meeting (Grand Rapids, MI). **May 14-20, 2022.**

T-RUST Spring 2022 Advisory Board Meeting. Wayne State University, Detroit MI. **April 7, 2022.**

2021 Annual Meeting – Society for Freshwater Sciences (VIRTUAL). **May 23-27, 2021.**

Environmental Design Research Association (52nd annual meeting), Detroit MI. **May 19-23, 2021**

T-RUST Spring 2021 Advisory Board Meeting. Wayne State University, Detroit MI. **March 24-25 2021.**

T-RUST Fall 2019 Advisory Board Meeting. Wayne State University, Detroit MI. **October 30, 2019.**

T-RUST Spring 2019 Advisory Board Meeting. Wayne State University, Detroit MI. **April, 2019**

ASLO-Aquatic Sciences Meeting. Puerto Rico Convention Center; San Juan, Puerto Rico. **22 February- 2 March, 2019.**

T-RUST Fall 2018 Advisory Board Meeting. Wayne State University, Detroit MI. **October 12, 2018.**

2017 ESA Annual Meeting. Oregon Convention Center; Portland, Oregon. **6-11 August, 2017**

IX Caribbean Biodiversity Congress. Santo Domingo, D.R. **31 January- 3 February, 2017.** 2013

SACNAS National Conference- *Strengthening the Nation through Diversity, Innovation & Leadership in STEM*. Henry B. Gonzalez Convention Center; San Antonio, TX. **3-6 October, 2013**

ASLO-Aquatic Sciences Meeting, Learning for the Future. Ernest N. Morial Convention Center; New Orleans, Louisiana. **17-22 February, 2013.**

SACNAS 180: Regional Meeting. University of Puerto Rico-Mayagüez. **2-3 March, 2012.**

FELLOWSHIPS & AWARDS:

Society for Freshwater Sciences – EMERGE Program (2024-2025 cohort) 2024

WSU Graduate School - Summer Dissertation Award (\$5,000 USD) 2024

Third Place Presentation: Harnessing the Power of Algae for Innovative Wastewater Treatment through Algal Cultivation. Science Fair with a Twist; Science Policy Network – Detroit. 2023

Health Equity Challenge – Honorable mention award (\$2,500 USD) Group: H.J. Esparra-Escalera (Leader), A. Shakoor, S. Pickering, C. Zundel, B.F. O’Leary, A. Lucas, G. Raoufi, H. Salah, N. Mariscal	2022
Graduate Teaching Assistant Award – Biological Sciences WSU	2022
Eugene Perrin Scholarship in Medical and Natural Sciences and Peace (\$2,000 USD)	2022
Thomas C. Rumble Fellowship Award (\$20,000 USD)	2022
Optimize Wayne Pitch Competition – Detroit AirNet (\$20,000 USD) Group: N. Mariscal (Leader), B.F. O’Leary, A. Lucas, H.J. Esparra-Escalera, B. Dabney, G. Raoufi	2021
Ford College Community Challenge Award (\$25,000 USD) Group: K. Lewandowski, H.J. Esparra-Escalera, and J. Weyhrauch	2021
First Place Recorded Presentation: Societal Cultural & Environmental Impacts of Green Stormwater Infrastructure in Detroit. GLIER/T-RUST Seminar Series.	2021
WSU- STEAM Challenge (Detroit-Air Net) – 1 st Place (Award: \$14,500 USD) Group: B. O’Leary (Leader), A. Lucas, A. Diehl, D. Kakaris, H.J. Esparra-Escalera & R. Akers	2020
NSF-NRT T-RUST Program. Wayne State University	2019-2020
ESA SEEDS Graduate Alumni Award (Annual meeting)	2017
Dean of Arts & Sciences (UPRM) - Funding Assignment to attend the IX CBC.	2017
ESA-SEEDS Travel Award. 2016 National Fieldtrip at Mark Twain National Forest (Award: \$1,000 USD)	2016
SACNAS Chapter Outstanding Communication and Membership Recruitment (CoHemis-SACNAS UPRM)	2014
Advancing Hispanics/Chicanos & Native Americans in Science Travel Scholarship	2013
SACNAS Chapter Outstanding Community Service Role Model Award (CoHemis-SACNAS UPRM)	2013
Association for Sciences in Limnology & Oceanography 2013 Multicultural Program - Travel Scholarship	2013
SACNAS Chapter Outstanding Leadership Role Model Award (CoHemis- SACNAS UPRM)	2012
SACNAS Chapter of the Year (CoHemis-SACNAS UPRM)	2011

SERVICE & OUTREACH:

Teaching Committee Representant, WSU-BSGSA	2023-Present
Student Member & Researcher, Detroit AirNet	2020-2023
President, CoHemis-UPRM SACNAS Chapter	2014
Board Member, CoHemis-UPRM SACNAS Chapter	2013
Vicepresident, CoHemis-UPRM SACNAS Chapter	2012-2013
Historian, CoHemis-UPRM SACNAS Chapter	2012

ORGANIZING ROLES:

ESA-SEEDS Alumni (Staff). National Fieldtrip at Konza Prairie Biological Station, Manhattan, KS	2023
Judge – Student selection for the SEEDS National Fieldtrip at Hubbard Brook LTER in New Hampshire, USA	2022
JASM 2022 Session: Conservation of urban aquatic systems: Interdisciplinary solutions to complicated problems	2022
GLIER/T-RUST Transformative Change in Environmental Sustainability – An International Seminar Series	2020-2021
Student worker, ASLO-Aquatic Science Meeting	2019
SEEDS Graduate Alumni Mentor, 2017 ESA-Annual Meeting Portland, Oregon.	2017
Session Presider, 2017 ESA-Annual Meeting Portland,	

Oregon	2017
Judge, Fifth Biology Undergraduate Research Symposium (URS5) Category: Microbiology III	2015
Planning Committee Member, <i>Science & Tecnology: Innovation Through Research; 2nd SACNAS UPRM Symposium.</i>	2014
Planning Committee Member, <i>Science & Tecnology: Innovation Through Research; 1st SACNAS UPRM Symposium</i>	2013
Student worker, ASLO-Aquatic Science Meeting	2013
Promotion Committee Member, <i>SACNAS 180, Transform your Future</i> ; First UPRM SACNAS Regional Meeting	2011-2012

MEMBERSHIPS, PROFESSIONAL AFFILIATIONS & ORGANIZATIONS:

EDRA – Environmental Design Research Association
 IAGLR – International Association for Great Lakes Research
 Society for Environmental Engineering and Sustainability-Detroit AirNet
 T-RUST- Transformative Research in Urban Sustainability Training
 ASLO-Association for Sciences of Limnology & Oceanography
 CoHemis- Center for Hemispherical Cooperation in Research & Education in Engineering & Applied Sciences
 HHMI- Howard-Hughes Medical Institute
 SACNAS-Advancing Hispanics/Chicanos & Native Americans in Science
 ESA- Ecological Society of America
 SFS- Society for Freshwater Sciences

RELEVANT WORKSHOPS ATTENDED:

Mussel ID Workshop – hosted by Friends of the Rouge	2023
Community Engagement-NCI/MSU Extension Leadership Workshop	2022
Green Infrastructure for Coastal Resilience – University of Michigan-Dearborn	2019
NOAA, Michigan Coastal Zone Management, Michigan Sea Grant. Contact Hours: 7	
Principles & Techniques of Electrofishing (CSP 2201) U.S. Fish & Wildlife Service - National Conservation Training Center	2017
HHMI: Ecology of Inland Fishes of Puerto Rico. Contact hours: 16.	2016
ESA-SEEDS: National Fieldtrip at Mark Twain National Forest.	2016
HHMI: Can an Invasive Plant Increase Insect Diversity? Contact hours: 8	2015
HHMI: Effects of Snail Invasion on Stream Dynamics. Contact hours: 8.	2015
HHMI: Stream Ecology. Contact hours: 16	2014
HHMI: Bioassessment Techniques in Aquatic Ecology. Contact hours: 18.	2013
MARC & Sloan Program: Microscopy Research. Contact Hours: 24.	2011

SKILLS & ABILITIES: Use of statistical programs: Info-Stat, SAS (Basic), R (Basic), JMP (Basic) & PAST. Microscopy: SEM, LEICA DMI 3000, Nomarski, among others. Conduct individual and teamwork research, taxa assessments of algae, cyanobacteria and macroinvertebrates in reservoirs and streams. Bioinformatics (Basic): Contigs assembling, DNA editing, create phylogenetic trees (Using different BLAST options, Bio-edit, MEGA6), water quality monitoring, spectrophotometer (UV-5200 UV/VIS), turbidimeter (LaMotte), YSI 5: Chlorophyll-a extraction, TKN (NH4-N/NO3-N) and TP analyses, phosphate, and nitrogen oxides levels, DO, turbidity, etc. Proficient with Microsoft Office, Field research, webpage development (Dreamweaver, Weebly), community science. Map creation: ARGGIS Pro 2.2 / ARCMap 10.8.1 / Q-GIS.

LANGUAGES: Spanish & English (fully bilingual: speaking and writing); basic speaking knowledge of Portuguese

CITIZENSHIP: USA