

EDNA LUZ PEDRAZA GARZÓN. Bsc.

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South America

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EDUCATIONAL EXPERIENCE

- 2016- Current PhD. Student in Ecology and Environmental Sciences. University of Maine. Orono Maine.
- 2012-2014 Specialist in natural resources preservation and conservation. Universidad Pontificia Bolivariana (Pontifical Bolivarian University). Bucaramanga City, Santander, Colombia.
- 2000-2005 Bachelor Degree of Biologist. Pontificia Universidad Javeriana (Pontifical Xaverian University). Bogotá City, Colombia.
- Thesis topic: Seasonal succession of phytoplankton community at Juan Amarillo Wetland (Bogotá, Colombia). Nominated for the Honours Award.

ADDITIONAL COURSEWORK

- Ago 11th2015 – Jul 20th 2016 Diploma in Integrated Water Resources Management, CATHALAC- UNITED NATIONS UNIVERSITY/Institute of Water, Environment and Health. Course On Line.
- Oct 22nd -23rd 2015 Mining: a crossroad between exploitation, restoration and conservation. Professional Board of Biology and National University of Colombia. Bogotá city.
- Sep 28th –Oct 1st 2015 International course “Biodiversity, Conservation and Ecology of Fluvial Systems: A look into Colombian rivers (ECOSIE). National University of Colombia, Science Faculty. Bogotá City.
- Nov 11th2014 Lake sediments and long-term environmental change: An introduction to the approaches and applications of paleolimnology. Limnology and Marine Science Institute, National Autonomous University of Mexico (UNAM) and The Mexican Association of Limnology. Mexico City. Mexico Tutor; John Smol
- May 19th– Jun 13th.2014 Ecology and Systematics of Diatoms. Iowa Lakeside Laboratory. Iowa. United States of America. Tutors: Mark Edlund and Sarah Spaulding.
- Jul 7th – Jul 14th 2013 Freshwater algae course. Field Studies Council. Kindrogan Field Centre. Enochdhu, Blairgowrie, Perthshire, Scotland. Tutors: Eileen Cox and Elliot Shubert.
- Mar 20th –Mar 22nd 2010 Internal Auditor course ISO/IEC 17025:2005. Société Générale de Surveillance (SGS). SA, Bucaramanga City, Colombia.
- Mar 27th –Apr 4th 2007 International Updating Course “Cyanobacteria and Chlorococcales” Practice and theory. National University of Colombia campus Amazonian, IMANI Institute in

Bogotá – Biology Department and Colombian Association of Limnology. Bogotá City, Colombia.

Sep 9th– Sep 11th 2006 Algal Community and Algal Biomass as Quality Indicators of Ecological Condition. University of Tolima – Colombian Association of Limnology. Ibagué City, Colombia.

Sep 9th–Sep 11th 2006 Ecology of Aquatic Microorganisms. University of Tolima – Colombian Association of Limnology. Ibagué City, Colombia.

Mar 27th– Mar 31st 2006 Biology and Ecology of Euglenophyta. SINCHI Institute – Pedagogical University of Colombia and Technology. Tunja City Colombia.

GRANDS AND AWARDS

COLCIENCIAS – FULBRIGHT Graduate Scholarship Program for Doctoral Studies in US Universities, 2016

OEA – CATHALAC Professional Development School Program – PDSP, Program of alliance for education and capacitation (PAEC)– Partial Development Scholarship Program award for the online course entitled “**Diploma in Integrated Water Resources Management.** 2015.
<http://www.oas.org/en/scholarships/professionaldev.asp>

PROFESSIONAL EXPERIENCE

Ago 2015 – Dic 2015 Professional in biological Science. Full time. Temporal Union“ Cuidemos los páramos” (Take Care Paramos). Bogotá City, Colombia.

- Contribute to the searching of scientific information and technical reports about Páramos in Colombia with the aim of understand the current and past situation of the Chingaza, Guerrero and Sumapaz Páramo ecosystems.
- Organize and develop a database about collected information according to guides.
- Participate in regional meetings and support events of local communities to protect Páramo Ecosystems (Guerrero, Chingaza, Sumapaz).

Ago 2015 Professional in Biology. Temporal Union Natfrac-DTH. Municipality of Piedecuesta, Santander, Colombia

- Interpreted hydrobiological information for the writing of technical reports about assessment of aquatic ecosystems.

Feb 2010-Feb 2015 Biology researcher. Colombian Petroleum Institute (ICP)– Ecopetrol (Colombian Petroleum Company). TIP, Temporal Union TIP LTDA. Municipality of Piedecuesta - Santander. Colombia.

Mission: Provided information for the construction of the water quality index for Colombian lotic ecosystems using diatoms under the **project “Innovation Project Bioindicators II: Diatoms”**

- Prepared of diatom samples by oxidation with hydrogen peroxide and
- Analyzed of diatom samples from different rivers of Colombia exposed to industrial and domestic pollution.
- Identified useful tropical diatom species for environmental assessment of lotic aquatic environments.
- Developed and maintained a catalogue with the tropical diatom flora of Colombia.
- Created a database with important taxonomic traits of the species

found from the samples.

- Updated technical diatom protocols.
- Wrote technical reports about environmental condition of the assessed ecosystems.
- Analyzed periphyton and phytoplankton communities exposed to mining and petroleum activities
- Conducted hydrobiological monitoring

Achievements: Publication of the articles “*Nupelaspecies* (Naviculales: Bacillariophyceae) from Colombian lowland waters including *N. acaciensis* nov. sp. and *N. catatumbensis* nov. sp” (Rev. Biol. Trop. 62 (1): 241-255)

Abr 2009 – Jan 2010 Environmental and Biological Consultant. E-Qual. Consulting and Environmental services. Bogotá City, Colombia.

Mission: Technical support for hydrobiological assessment of aquatic ecosystems

- Analyzed periphyton and phytoplankton communities exposed to mining and petroleum activities
- Conducted hydrobiological monitoring

Dec 2007- Ago 2008 Research assistant. School of Science, National University of Colombia. Bogotá City, Colombia.

Mission: Completed the activities of diatoms component in the project “**Global change in fluvial systems: effects on biodiversity, the trophic network and system functioning**”.

- Supported descriptive and experimental phase of the of the project in regards of diatom component
- Produced partial and final reports
- Produced and submitted a scientific article with the results found from the study of diatoms from the river object of research
- Organized and participated in fieldwork campaigns

Achievements: Publication of the article “Diversity and distribution of diatoms in a high mountain stream from Colombian Andes

Feb 2006 –Feb 2007 Young researcher. School of Science, Pontifical Xaverian University. Bogotá City, Colombia.

Mission: Studied the diatom flora of the **project Diatom assemblages as biological indicators of domestic and agricultural pollution in some streams of Ecoregion Eje Cafetero, Colombia**

- Characterized the diatom flora or the tropical mountains rivers of the study
- Established a distribution pattern of the diatoms according to physical traits and agricultural activities of the basins

Achievements: Publication of the article “Effects of the productive systems on the water quality and diversity in streams of Coffe Ecoregion” (Language Spanish).

PUBLICATIONS

- Pedraza-Garzón E,L & Donato-Rondón, J.C. Guide to the identification of common diatoms from Tota River, Boyacá (In Progress)
- Rivera-Rondón, C.A; Zapata-Anzola, A.M; **Pedraza, E** & Sala, S. Effects of land use and habitat characteristics on diatom assemblages in tropical Andean streams (Submitted to Limnologia).
- Sala, S.E; Voulloud, A.A; Plata-Díaz, Y; **Pedraza, E** & Pimineta, A. 2015. Taxonomy and distribution of epilithic diatoms reported for the first time in Colombia I (Language: spanish) (Taxonomía y distribución de diatomeas epilíticas registradas por primera vez en Colombia I. Caldasia 37 (1):125-141. <http://dx.doi.org/10.15446/caldasias/v37n1.50814>

- Silvia Sala, Amelia Alejandra Vouilloud, Yasmin Plata-Díaz, **Edna Pedraza** & Astrid Pimienta. 2014. Nupela species (Naviculales: Bacillariophyceae) from Colombian lowland waters including *N. acaciensis* nov. sp. and *N. catatumbensis* nov. sp. RevBiolTrop. Mar;62(1):241-55. <http://www.ncbi.nlm.nih.gov/pubmed/24912356#>
- **Edna Pedraza-Garzón** & John Donato-Rondón. 2011. Diversity and distribution of diatoms in a high mountain stream of Colombian Andes. (Language: Spanish). (Diversidad y distribución de diatomeas en un arroyo de montaña de los Andes colombianos). Caldasia 33(1):81-95 http://www.farmacia.unal.edu.co/unciencias/data-file/user_16/file/caldasias/3301/cld330111.pdf .
- Rivera-Rondón, C. Valderrama, L.T. Baena, S. Prada-Pedrerros, S. Chará, J. Valdez, C. Díaz, Y. Gómez, M. Muñoz, S. **Pedraza, E.**, Pérez-Mayorga, A. Effect of production systems on water quality and diversity in streams of the coffee ecoregion. (Language: Spanish). 111-126p. En:Rodriguez J M., Camargo J C., Pineda A M., Echeverry M A., Miranda C L., (eds) 2009. Valoración de la biodiversidad en la Ecorregión Cafetera. CIEBREG. Pereira, Colombia. 111-126p. ISBN 978-958-44-4513-1. <http://media.utp.edu.co/ciebreg/archivos/biodiversidad-en-la-ecorregion-del-eje-cafetero/valoracion-de-la-biodiversidad-en-la-ecorregion-del-eje-cafetero.pdf>
- Ángela María Zapata-Anzola, Carlos Rivera-Rondón, Vladimir Páez, **Edna Pedraza**, Rocío Garcia. 2009. Factors Controlling Continual Cyanobacterial Blooms in a Tropical Urban Wetland. Verh. Internat.Verein. Limnol. vol. 30, Part 5, p. 813–816, Stuttgart, January 2009. https://www.researchgate.net/publication/236031226_Factors_controlling_continual_cyanobacterial_bloom_in_a_tropical_urban_wetland
- Rivera-Rondón. C. **Pedraza-G. E.** & Zapata-A. A. Preliminary approximation to dynamics of organic matter flux at Tota River (Language: Spanish). In: J. C Donato (Ed.) Ecology of a river of the Colombian Andes (Tota River, Boyacá. Colombia). Editorial Proceditor. 240 p.
- Carlos Rivera-Rondón, Edna Pedraza & Ángela María Zapata. 2008. Relationships Between Land Use And Diatom Community Structure In Tropical Andean Streams. Internationale Vereinigung Für Theoretische Und Angewandte Limnology. Vol 30 part 5.

PROFESSIONAL CONTRIBUTION

IDEAM. In Progress. Guide for the monitoring and sampling of diatoms in Colombia.

Pedraza Garzon, E. (2014). *Staurosirellamartyi*. In Diatoms of the United States. Retrieved March 04, 2015, from http://westerndiatoms.colorado.edu/taxa/species/staurosirella_martyi

SKILLS

Language skills: Spanish- Native speaker, English-Proficiency

Research skills: Preparation and mounting of diatom slides

Computer skills: Knowledge of Photoshop, Access

PROFESSIONAL AFILIATIONS

International Society for Diatom Research .(ISDR). Since January 2015.