

CAMILO MATEO BOTERO SALTAREN



Explorer and Coastal Geographer. Expert in integrated coastal management, law of the sea and beach management. Doctor in Water and Coastal Management. Full member of the Academy of Geographical Sciences of Colombia. Member of the Coordination Council of the Ibero-American Beach Management and Certification Network - PROPLAYAS. Researcher at the Law School of the Sergio Arboleda University - Santa Marta (Colombia). Member of the Scientific Committee of the Costas Magazine of UNESCO, an evaluator in journals of the Editorial Elsevier and MDPI, Academic Peer of the Ministry of Education of Colombia. Author of more than 100 publications and lecturer in more than a hundred opportunities. Director and audiovisual producer on coastal and marine scientific issues, including the Webserie Beach Tourism in times of COVID.

GENERAL INFORMATION

Personal Info/Bio

Date and place of birth	14th March 1977 - Bogotá D.C., Colombia
Passport	AR039266
Canadian visa	Category V-1 valid through 10 th March 2024
Citizenship	Colombia
Corresponding address	Calle 19 8-44, Santa Marta, Colombia
Phone	+57.318.206.48.24
Marital status	Married

Education

Ph.D. (2013)

Geography, Cadiz University (Cadiz, Spain)

Topic: European Doctorate in Water and Coastal Management

Thesis Title: Evaluation of the beach certification schemes in Latin America and proposal of a mechanism for their homologation in a framework of sustainable tourism DOI:

10.13140/RG.2.2.29943.65440

M.Sc. (2008)

European Joint Master in Water and Coastal Management, Cadiz University (Cadiz, Spain) and Algarve University (Faro, Portugal)

Thesis Title: Proposal of Management Framework for Tourist Beaches based on Integrated Coastal Management

Erasmus Mundus scholarship of the European Commission

Specialist - postgraduate (2006)

Public Management, Superior School of Public Administration (Bogotá, Colombia)

Thesis Title: Fractal Networks as a management tool in integrated coastal management

Master (2005)

Port and Coastal Engineering, Center for Studies and Experimentation of Public Works – CEDEX (Madrid, Spain)

Grant from the Spanish Agency for International Cooperation

B.Sc. (2003)

Environmental and Sanitary Engineering, La Salle University (Bogotá, Colombia)

Thesis Title: Proposal of a model to measure environmental quality in tourist beaches

Awarded mention

Languages

Self-assessment	Understands				Speaks				Writes	
	Auditive comprehension		Reading		Oral interaction		Oral capacity			
<i>European level (*)</i>										
English	C1	Competent user	C1	Competent user	C1	Competent user	C1	Competent user	C1	Competent user
Portuguese	B1	Autonomous user	B1	Autonomous user	B1	Autonomous user	B1	Autonomous user	B1	Autonomous user
Italian	B1	Autonomous user	B1	Autonomous user	B1	Autonomous user	B1	Autonomous user	A2	Basic user
Esperanto	A2	Basic user	A2	Basic user	B1	Autonomous user	A2	Basic user	A2	Basic user

(*) Level of the Common European Framework of Reference (CEFR)

Academic and social networks

- ORCID: <https://orcid.org/0000-0001-6886-8920>
- SCOPUS: <https://www.scopus.com/authid/detail.uri?authorId=55851674100>
- RESEARCH GATE: <https://www.researchgate.net/profile/Camilo-Botero>
- GOOGLE SCHOLAR: https://scholar.google.com/citations?user=Y8yx_1AAAAAJ&hl=es
- LINKEDIN: <https://www.linkedin.com/in/camilo-m-botero-02b9199/>
- SSRN PROFILE: <http://ssrn.com/author=1673796>
- OCEAN EXPERT: <http://oceanexpert.org/viewMemberRecord.php?&memberID=10697>

TEACHING EXPERIENCE AND ACHIEVEMENTS

Master and doctorate teaching

1. MARITIME DELIMITATION. Doctorate in Marine Sciences, Naval Academy Admiral Padilla, Colombia. 48 hours. 2021.
2. CULTURAL HERITAGE. Master in Sustainable Development, La Costa University, Colombia. 36 hours. 2020.

3. BEACH MANAGEMENT. Training Course on Ocean Governance, Ocean Sciences and GeoEthics, International Ocean Institute. Training Centre for Latin America and the Caribbean, Colombia. 8 hours. 2019.
4. TOURIST BEACH CERTIFICATION. Postgraduate course, National University of Mar del Plata, Argentina. 12 hours. 2018.
5. INTEGRATED BEACH MANAGEMENT. Postgraduate course, University of Vale do Itajai, Brazil. 24 hours. 2016.
6. TOURIST BEACH CERTIFICATION. Postgraduate course, University of Puerto Rico, Puerto Rico. 8 hours. 2015.
7. RIVER BASINS MANAGEMENT. Postgraduate program in environmental management, La Costa University. 12 hours. 2013, 2014.
8. INTEGRATED COASTAL MANAGEMENT AND ECONOMIC ACTIVITIES. Postgraduate course, Federal University of Rio Grande do Sul, Brazil. 24 hours. 2013
9. INTEGRATED BEACH MANAGEMENT. Postgraduate course, University of the Republic, Uruguay. 36 hours. 2013.
10. INTEGRATED BEACH MANAGEMENT. Postgraduate course, Federal University of Rio Grande, Brazil. 12 hours. 2013.
11. TOURIST BEACH MANAGEMENT AND CERTIFICATION. Postgraduate course of the Faculty of the Sea, University of the Pacific. Ecuador, 2012.
12. INTEGRATED ANALYSIS AND COMPLEXITY. Master in Integrated Coastal Management, Magdalena University, Colombia. 24 hours. 2008, 2009, 2010.
13. INTEGRATED COASTAL MANAGEMENT IN IBERO AMERICA. Master in Integrated Coastal Management, Magdalena University, Colombia. 24 hours. 2009, 2010.
14. INTEGRATED COASTAL ZONE MANAGEMENT. Master in Environmental Sciences, University of La Guajira, Colombia. 12 hours. 2010.
15. IBERMAR DECALOGUE AS A TOOL FOR INTEGRATED COASTAL MANAGEMENT. Master in Integrated Coastal Zone Management, Eastern University, Cuba. 14 hours. 2010.
16. ENVIRONMENTAL IMPACT ASSESSMENT. Postgraduate program in environmental management, Magdalena University. 24 hours. 2010.
17. INTEGRATED COASTAL MANAGEMENT AT LOCAL SCALE. Master in Integrated Coastal Zone Management, University of the Republic, Uruguay. 2 hours. 2010.
18. INTEGRATED COASTAL MANAGEMENT FROM THE SYSTEMIC APPROACH. Postgraduate course of the Department of Geography, National University of Mar del Plata, Argentina. 30 hours. 2010.
19. COASTAL IMPACTS. Master in Integrated Coastal Management, Magdalena University, Colombia. 24 hours. 2008, 2009.

Degree teaching

1. GOVERNANCE ASSOCIATED WITH COASTAL RISK MANAGEMENT. Law. School of Law, University Sergio Arboleda. Santa Marta, Colombia. 51 hours - virtual. 2016 – Present
2. VALUATION AND SUSTAINABILITY OF THE COASTAL HERITAGE. Degree in Oceanographic Engineering. University of Antioquia. Turbo, Colombia. 32 hours. 2017 – Present
3. ENVIRONMENTAL MONITORING. Degree in Environmental and Sanitary Engineering, La Costa University. Barranquilla, Colombia. 51 hours. 2015 - 2016

4. INTEGRATED BEACH MANAGEMENT. Degree in Environmental and Sanitary Engineering, La Costa University. Barranquilla, Colombia. 2016 (virtual)
5. MARITIME LAW. School of Law, University Sergio Arboleda. Santa Marta, Colombia. 51 hours. 2016
6. ENVIRONMENTAL DIAGNOSIS. Degree in Environmental and Sanitary Engineering, Magdalena University. Santa Marta, Colombia. 51 hours. 2009 -2012
7. ENVIRONMENTAL MONITORING. Degree in Environmental and Sanitary Engineering, Magdalena University. Santa Marta, Colombia. 51 hours. 2009 -2012
8. ENVIRONMENTAL IMPACT STUDIES. Degree in Environmental and Sanitary Engineering, Magdalena University. Santa Marta, Colombia. 51 hours. 2009 -2012
9. RESEARCH PROJECT. Degree in Environmental and Sanitary Engineering, Magdalena University. Santa Marta, Colombia. 34 hours. 2009 -2012
10. ENVIRONMENTAL MANAGEMENT SYSTEMS. Degree in Environmental and Sanitary Engineering, Magdalena University. Santa Marta, Colombia. 51 hours. 2009
11. WATER AND COASTAL MANAGEMENT. Degree in Environmental and Sanitary Engineering, Magdalena University. Santa Marta, Colombia. 34 hours. 2005

Open courses teaching

1. TRAINING IN THE INTERNATIONAL PROGRAM OF BEACH CERTIFICATION "BLUE FLAG". Eafit University and Magdalena University. Co-financed by the Erasmus+ Program (European Union). Medellin, Colombia. 16 hours. 2021
2. TRAINING ON INTEGRATED BEACH MANAGEMENT. Blue Flag Program Coordination of Puerto Rico. Añasco, Puerto Rico. 24 hours. 2015
3. COURSE-WORKSHOP: EROSION, RISK MANAGEMENT AND TOURISM IN LA GUAJIRA BEACHES. La Guajira University, Riohacha, Colombia. 16 hours. 2014
4. INTERNATIONAL COURSE ON INTEGRATED MANAGEMENT AND CERTIFICATION OF BEACHES. Corporación Biomunicipios y Red Proplayas. Cartagena, Colombia. 8 hours. 2009
5. LEVELING IN ECOLOGY AND SUSTAINABLE DEVELOPMENT. Specialization in Environmental Economy and Sustainable Development San Buenaventura University, Santiago de Cali, Colombia. 24 hours. 2008

Student supervision

Naval Academy Admiral Padilla (Cartagena, Colombia). PhD. in Marine Sciences

Ongoing *Student William Pedroza. Project: El régimen de las islas oceánicas Colombianas [The regime of the Colombian oceanic islands]*

University of Rio Grande Do Sul, Geosciences Institute (Porto Alegre, Brasil). PhD. in Geosciences

2019 *Student Luidgi Marchese. Project: Desenvolvimento de um Mecanismo de Gestão para Integrar os Esquemas de Certificações de Praias ao Projeto Orla [Development of a Management Mechanism to Integrate Beach Certification Schemes into the Orla Project]*

Cadiz University (Cadiz, Spain). Master in Integrated Management of Coastal Areas

- ongoing *Student* Elaine Oliveira. *Project:* Trabajo final de pasantía académica en Turismo Científico en Playas Urbanas [*Final report of the academic internship in Scientific Tourism in Tourist Beaches*]
- 2017 *Student* Teodora Boiu. *Project:* Trabajo final de pasantía académica en manejo costero en Patrimonio Costero [*Final report of the academic internship in Coastal Heritage*]
- 2016 *Student* Piergiuseppe Lasalandra. *Project:* Trabajo final de pasantía académica en Seguridad en Playas y SIG [*Final report of the academic internship in Beach Safety and GIS*]
- 2015 *Student* Andrea di Tomassi. *Project:* Trabajo final de pasantía académica en Certificación de Playas [*Final report of the academic internship in Beach Certification*]
- 2013 *Student* Clara Rodríguez. *Project:* Trabajo final de pasantía académica en manejo costero en el golfo de Cupica, Océano Pacífico de Colombia [*Final report of the academic internship in Coastal Management in the Cupica Gulf, Colombian Pacific Ocean*]

Istituto Universitario di Studi Superiori (Pavia, Italy). Expo Master in Coastal-Marine Integrated Management

- 2014 *Student* Andrea Carolina Yanes Guerra. *Project:* *Maritime spatial planning as a tool for beach management: case study Playa Grande Beach, Santa Marta, Colombia.* Co-advisor.
- 2014 *Student* Cristina I. Pereira P. *Project:* *Application of geospatial techniques for the study of recreational quality in tourist beaches.* Co-advisor.
- 2014 *Student* Seweryn Zielinski. *Project:* *Pre-feasibility study for application of a beach certification scheme on river bathing areas in the State of Meta, Colombia.* Co-advisor.

Magdalena University (Santa Marta, Colombia). Master in Integrated Coastal Management

- 2012 *Student* Alcides Daza. *Project:* Propuesta de un instrumento de evaluación para la playa turística de la zona urbana de Riohacha mediante el uso de variables ambientales, socioculturales y de infraestructura [*Proposal of an evaluation instrument for the tourist beach of the urban area of Riohacha through the use of environmental, socio-cultural and infrastructure variables*]
- 2011 *Student* Jair Mendoza. *Project:* Diseño Metodológico del Órgano Gestor de Playas, Caso de estudio Playa Blanca Barú, Cartagena, Colombia [*Methodological Design of the Beach Management-Body, Case study Playa Blanca Barú, Cartagena, Colombia*]
- 2010 *Student* Yuri Hurtado G. *Project:* Determinación de Capacidad de Carga como herramienta para el manejo integrado costero en la Bahía del Rodadero [*Determination of Carrying Capacity as a tool for integrated coastal management in Rodadero Bay*]

Magdalena University (Santa Marta, Colombia). Degree in Biology

- 2018 *Student* Cesar Andrés González Rodríguez. Research Internship in alliance with the Coastal Systems Research Group of Playas Corporación Ltda. *Project:* Calibración del parámetro olor para su medición en las playas del caribe norte colombiano como parte del indicador de calidad ambiental y recreativa del modelo ICAPTU [*Calibration of the odor parameter for its measurement on the beaches of the Colombian north Caribbean as part of the environmental and recreational quality indicator of the ICAPTU model*]

2018 *Student* Mayra Andrea Calderón Gutiérrez. Research Internship in alliance with the Coastal Systems Research Group of Playas Corporación Ltda. *Project:* Calibración del Parámetro Ruido para su Medición en las Playas del Caribe Norte Colombiano como parte del Indicador Calidad Ambiental Recreativa del Modelo ICAPTU [*Calibration of the Noise Parameter for Measurement in the Beaches of the Colombian North Caribbean as part of the Recreational Environmental Quality Indicator of the ICAPTU Model*]

Sergio Arboleda University (Santa Marta, Colombia). School of Law

2017 *Student* Lina Marquez y Dinelly Navarro. *Project:* Análisis del trámite legislativo de los proyectos de ley relacionados con ordenamiento territorial marino costero, en el periodo 1997 - 2016, a la luz de la Ley 5 de 1992 [*Analysis of the legislative process of bills related to coastal marine land use planning, in the period 1997 - 2016, in light of Law 5 of 1992*]

Magdalena University (Santa Marta, Colombia). Degree in Environmental and Sanitary Engineering

2018 *Student* Landa Zamara Montero Angarita. Research Internship in alliance with the Coastal Systems Research Group of Playas Corporación Ltda. *Project:* Calibración del parámetro residuos sólidos para su medición en las playas del caribe norte colombiano como parte del indicador de calidad ambiental y recreativa del modelo ICAPTU [*Calibration of the solid waste parameter for its measurement on the beaches of the Colombian north Caribbean as part of the environmental and recreational quality indicator of the ICAPTU model*]

2011 *Student* Cristina I. Pereira P. Research Internship. *Project:* Actualización del Modelo para la Determinación de la Calidad Ambiental de Playas Turísticas- ICAPTU - Fase I de III [*Update of the Model for the Determination of the Environmental Quality of Tourist Beaches - ICAPTU - Phase I of III*]

2011 *Student* Laura A. Noguera. Research Internship. *Project:* Evaluación de los esquemas de certificación de playas en América Latina y propuesta de un mecanismo para su homologación en un marco de turismo sostenible [*Evaluation of beach certification schemes in Latin America and proposal of a mechanism for their homologation in a sustainable tourism framework*]

2010 *Student* Andrea Carolina Yanes Guerra. *Project:* Análisis de los impactos ambientales generados por la ejecución de los proyectos formulados en el plan estratégico de turismo de Santa Marta 2009-2011 [*Analysis of the environmental impacts generated by the execution of the projects formulated in the Santa Marta tourism strategic plan 2009-2011*]

La Salle University (Bogotá, Colombia). Degree in Environmental and Sanitary Engineering

2008 *Student* Carmen Luisa Reyes. *Project:* Propuesta metodológica para la priorización de impactos ambientales generados en la operación de los terminales portuarios de Cartagena [*Methodological proposal for the prioritization of environmental impacts generated in the operation of the port terminals of Cartagena*]

2004 *Student* Lorna Ximena Aristizabal Clavijo. *Project:* Diseño de un modelo matemático para evaluar el impacto ambiental generado por la instalación de arrecifes artificiales en el Caribe Colombiano [*Design of a mathematical model to evaluate the environmental impact generated by the installation of artificial reefs in the Colombian Caribbean*]

- 2004 *Student* Luz Astrid Calvo Acosta. *Project:* Funcionalidad del Subprograma “Océanos y Clima” de la Comisión Oceanográfica Intergubernamental (COI) en Colombia [*Functionality of the “Oceans and Climate” Subprogram of the Intergovernmental Oceanographic Commission in Colombia*]
- 2004 *Student* Dora Marcela Hormaza Rodríguez. *Project:* Funcionalidad del Programa Sistema Global de Observación de los Océanos - GOOS (Global Ocean Observing System), creado por la Comisión Oceanográfica Intergubernamental – COI en Colombia y propuesta de estrategias para su optimización [*Functionality of the Global Ocean Observing System - GOOS, created by the Intergovernmental Oceanographic Commission in Colombia and proposal of strategies for its optimization*]
- 2004 *Student* Paula Catalina Romero. *Project:* Funcionalidad del Programa Intercambio Internacional de Datos Oceanográficos – IODE de la Comisión Oceanográfica Intergubernamental (COI) en Colombia [*Functionality of the Program “International Oceanographic Data Exchange - IODE of the Intergovernmental Oceanographic Commission in Colombia*]

Awards

1. National Academy Award, for the results of Scientific Research and Development. Ministry of Environment, Science and Technology. (Cuba). 2021.
2. Honorable Mention as Distinguished Teacher. Sergio Arboleda University - Santa Marta (Colombia). 2017.
3. Scholarship for the international course Marine Spatial Planning and Management. University of Nantes. (France). 2015.
4. Provincial Academy Award, for the results of Scientific Research and Development. Ministry of Environment, Science and Technology. (Cuba). 2015.
5. Researcher Links Grant. British Council. (Colombia). 2014.
6. Scholarship for the international Multilateral Environmental Agreements course. University of Eastern Finland and United Nations Environmental Program. (Grenada). 2012.
7. Marie Curie Grant- ECO-IMAGINE Project. European Commission. (Italy). 2007.
8. Erasmus Mundus Scholarship. European Commission. (Belgium). 2007.
9. Grant from the Spanish Agency for International Cooperation. Master in Port and Coastal Engineering. AECL. (Spain). 2005.
10. ICG / ITSU Training Program on Tsunami Warning Systems and the Tsunami Warning System in the Pacific Grant. International Tsunami Information Center - Intergovernmental Oceanographic Commission - UNESCO. (U.S). 2004.
11. Winner of the World Water Year Award of Merit. Colombian Society of Engineers. (Colombia). 2003.
12. Winner of the 2002 Development Cooperation Award. Belgian International Cooperation Agency. (Belgium). 2003.
13. Meritorious Degree Work. La Salle University. (Colombia). 2002.
14. Dragoon of the Marine Corps. The national army. (Colombia). 1995.
15. Two medals from the Scout Association of Colombia. (Colombia). 1994 and 1997.

... and another minor awards

Academic associations and networks

International academic networks

1. Ibero-American Network of Integrated Coastal Management – IBERMAR (<https://ibermar.org/>). National coordinator for Colombia from 2008 to 2013. Funding Member since 2008.
2. Marine Research Forum – MARiNET (<http://tierra.rediris.es/marinet/>). Coordinator of the area of coastal pollution since 2010.
3. Ibero-American Network of Beach Management and Certification – PROPLAYAS (<https://proplayas.org>). Coordinator from 2012 to 2021. Member since 2007.
4. Marine Sciences for Society (<https://marine-sciences-for-society.blogspot.com/>). Colombian representative and member since 2010
5. Coastal Education and Research Foundation – CERF (<https://www.cerf-jcr.org/>). Editorial of the Journal of Coastal Research. Life member since 2018.
6. Association of students and graduates of the Erasmus Mundus program - EMA. Member since 2007

Professional and alumni associations

1. Colombian Geographic Society (<https://www.sogeocol.edu.co>). Associated member since 2018. Full member since 2020.
2. Colombian Association of Environmental and Sanitary Engineering – ACODAL (<https://www.acodal.org.co>). Member since 1996.
3. Maritime League of Colombia. Member from 2004 to 2020
4. Colombian Network of Marine-Coastal Jurists - JURIMARCO. Founding member and coordinator since 2019.
5. Colombian Society of Engineers - SCI. Member in 2004
6. Network of Colombian Students and Professionals Abroad. Ministry of Foreign Relations, Colombia Nos Une Program. Moderator Node Madrid in 2005.
7. Colombian Network of Science, Technology, and Innovation in Tourism - RICTITUR. Founding member since 2018.
8. National Coastal Network of Colombia - Redcostera. Member since 2004.

RESEARCH EXPERIENCE AND ACHIEVEMENTS

Scientific journal papers

1. **Botero, C.M.**, Tamayo, D., Zielinski, S., Anfuso, G. 2021. Qualitative and Quantitative Beach Cleanliness Assessment to Support Marine Litter Management in Tropical Destinations. *Water* 2021, 13, 3455. DOI: 10.3390/w13233455
2. Bates, A.E. (...) **Botero, C.M.**, et al. 2021. Global COVID-19 lockdown highlights humans as both threats and custodians of the environment. *Biological Conservation*, 263 (2021) 109175. DOI: 10.1016/j.biocon.2021.109175
3. Marchese, L., **Botero, C.M.**, Zielinski, S., Anfuso, G., Polette, M., Correa, I.C.S. 2021. Beach Certification Schemes in Latin America: Are They Applicable to the Brazilian Context? *Sustainability* 13, 934. ISSN: 2071-1050 DOI: 10.3390/su13020934
4. Soto, E.H., **Botero, C.M.**, Milanés, C.B., Rodríguez-Santiago, A., Palacios-Moreno, M., Díaz-Ferguson, E., Velázquez, Y.R., Abbehusen, A., Guerra-Castro, E., Simoes, N., Muciño-Reyes, M.,

- Souza Filho, J.R. 2021. How does the beach ecosystem change without tourists during COVID-19 lockdown? *Biological Conservation* 255: 108972. ISSN 0006-3207. DOI: 10.1016/j.biocon.2021.108972
5. **Botero, C.M.**, Pereira, C.I., Sheehan, L., Schnare, K.B., Zielinski, S. 2021. Evaluation Of The Coastal Scenery Of Nova Scotia's Most Promoted Beaches. *The Zone, CZCA newsletter*. Winter 2021 issue. www.coastalzonecanada.org/newsletter
 6. Pereira, C.I., Milanés, C.B., Sarda, R., Cuker, B., **Botero, C.M.** 2021. Challenges at the early stages of the environmental licensing procedure and potential contributions from geomorphology. *Geosciences Frontiers* 12: 101228. ISSN 1674-9871. DOI: 10.1016/j.gsf.2021.101228
 7. Perillo, G.M.E., **Botero, C.M.**, Milanés, C.B., Elliff, C.I., Cervantes, O., Zielinski, S., Bombana, B., Glavovic, B.C. 2021. Integrated coastal zone management in the context of COVID-19. *Ocean & Coastal Management* 210, 105687. ISSN 0964-5691. DOI: 10.1016/j.ocecoaman.2021.105687
 8. **Botero, C.M.**, Pereira, C. I., Milanés, C.B., Pranzini, E.. 2020. Dataset of human interventions as anthropogenic perturbations on the Caribbean coast of Colombia. *Data in Brief*: 31: 105847. ISSN: 2352-3409 DOI: 10.1016/j.dib.2020.105847
 9. Mestanza-Ramón, C., Anfuso, G., Chica-Ruiz, J.A., Mooser, A., **Botero, C.M.**, Pranzini, E. 2020. Coastal Scenic Evaluation of Continental Ecuador and Galapagos Islands: Human Impacts and Management Issues. *J. Mar. Sci. Eng.* 2020, 8(6): 468; ISSN: 2077-1312 DOI:10.3390/jmse8060468
 10. Zielinski, S., **Botero, C.M.** 2020. Beach Tourism in Times of COVID-19 Pandemic: Critical Issues, Knowledge Gaps and Research Opportunities. *Int. J. Environ. Res. Public Health* 2020,17, 7288; ISSN: 1660-4601 DOI:10.3390/ijerph17197288
 11. Mestanza-Ramón, C., Chica-Ruiz, J.A., Anfuso, G., Mooser, A., **Botero, C.M.**, Pranzini, E. 2020. Tourism in Continental Ecuador and the Galapagos Islands: An Integrated Coastal Zone Management (ICZM) Perspective. *Water* 12: 1647 ISSN: 2073-4441 DOI: 10.3390/w12061647
 12. **Botero, C.M.**, Zielinski, S., Pereira, C.I., León, J.A., Dueñas, L.F. Puentes, V. .2020. The first report of deep-sea litter in the South-Western Caribbean Sea. *Marine Pollution Bulletin* 157: 111327. ISSN: 0025-326X DOI: 10.1016/j.marpolbul.2020.111327
 13. **Botero, C.M.**, Zielinski, S. 2020. The implementation of a world-famous tourism ecolabel triggers political support for beach management. *Tourism Management Perspectives* 35: 100691 ISSN: 2211-9736 DOI: 10.1016/j.tmp.2020.100691
 14. Mestanza-Ramón C., Pranzini E., Anfuso G., **Botero C.M.**, Chica-Ruiz J.A., Mooser A. 2020. An Attempt to Characterize the "3S" (Sea, Sun, and Sand) Parameters: Application to the Galapagos Islands and Continental Ecuadorian Beaches. *Sustainability* 12, 3468. doi:10.3390/su12083468
 15. Pereira, C.I., Carvajal, A.F., Milanés C., **Botero, C.M.** 2019. Regulating human interventions in Colombian coastal areas: Implications for the environmental licensing procedure in middle-income countries. *Environmental Impact Assessment Review* 79: 106284 (1-10) DOI: <https://doi.org/10.1016/j.eiar.2019.106284>
 16. Pereira, C.I., Madrid, D., Correa, I.D., Pranzini, E., **Botero, C.M.** 2019. An evaluation of human interventions in the anthropogenically disturbed Caribbean Coast of Colombia. *Anthropocene* 27: 100215 (1-11) DOI: <https://doi.org/10.1016/j.ancene.2019.100215>
 17. Zielinski, S., **Botero, C.M.**, Yanes, A. 2019. To clean or not to clean? A critical review of beach cleaning methods and impacts. *Marine Pollution Bulletin* 139: 390–401. DOI: 10.1016/j.marpolbul.2018.12.027
 18. Milanés, C., Pereira, C.I., **Botero, C.M.** 2019. Improving a decree law about coastal zone management in a small island developing state: The case of Cuba. *Marine Policy* 101: 93-107. DOI: 10.1016/j.marpol.2018.12.030

19. Zielinski, S., **Botero, C.M.** 2019. Myths, misconceptions and the true value of Blue Flag. *Ocean and Coastal Management* 174: 15 – 24 DOI: 10.1016/j.ocecoaman.2019.03.012
20. Mestanza, C., **Botero, C.M.**, Anfuso, G., Chica-Ruiz, J.A., Pranzini, E., Mooser, A. 2019. Beach litter in Ecuador and the Galapagos islands: A baseline to enhance environmental conservation and sustainable beach tourism. *Marine Pollution Bulletin* 140: 573–578 DOI: 10.1016/j.marpolbul.2019.02.003
21. Pereira, C., **Botero, C.M.**, Correa, I., Pranzini, E. 2018. Seven good practices for the environmental licensing of coastal interventions: Lessons from the Italian, Cuban, Spanish and Colombian regulatory frameworks and insights on coastal processes. *Environmental Impact Assessment Review* 73: 20–30. DOI: 10.1016/j.eiar.2018.06.002
22. Zielinski, S., Kim, S., **Botero C.M.**, Yanes, A. 2018. Factors that facilitate and inhibit community-based tourism initiatives in developing countries. *Current Issues in Tourism*, 21 DOI: 10.1080/13683500.2018.1543254
23. Enriquez-Acevedo, T., **Botero, C.M.**, Cantero-Rodelo, R., Pertuz, A., Suarez, A. 2018. Willingness to pay for Beach Ecosystem Services: The case study of three Colombian beaches. *Ocean and Coastal Management* 161: 96–104. DOI: 10.1016/j.ocecoaman.2018.04.025
24. Milanés, C., Suarez, A., **Botero, C.M.**, 2017. Novel method to delimitate and demarcate coastal zone boundaries. *Ocean & Coastal Management*, 144:105-119. DOI: 10.1016/j.ocecoaman.2017.04.021
25. Anfuso, G., Williams, A.T., Casas, G., **Botero, C.M.**, Cabrera, J.A., Pranzini, E., 2017. Evaluation of the scenic value of 100 beaches in Cuba: Implications for coastal tourism management. *Ocean & Coastal Management*, 142:173-187. DOI: 10.1016/j.ocecoaman.2017.03.029
26. **Botero, C.M.**, Anfuso, G., Milanés, C., Cabrera, J.A., Casas, G., Pranzini, E., Williams, A.T. 2017. Litter assessment on 99 Cuban beaches: A baseline to identify sources of pollution and impacts for tourism and recreation. *Marine Pollution Bulletin*, 188:437-441. DOI: 10.1016/j.marpolbul.2017.02.061
27. Pranzini, E., Anfuso, G., **Botero, C.M.**, Cabrera, J.A., Apin, J., Casas, G., Williams, A.T. 2016. Sand colour at Cuba and its influence on beach nourishment and management. *Ocean and Coastal Management* 126: 51-60 ISSN: 0964-5691 DOI: 10.1016/j.ocecoaman.2016.03.013
28. Williams A.T., Rangel-Buitrago N., Anfuso G., Cervantes O., **Botero C.** 2016. Litter Impacts on Scenery and Tourism on the Colombian North Caribbean Coast. *Tourism Management* 55: 1-16 DOI:10.1016/j.tourman.2016.02.008
29. Planas J.A, Milanés C., Fanning L.M., **Botero C.M.** 2016. Validating Governance Performance Indicators for Integrated Coastal and Ocean Management in the Southeast Region of Cuba. *Open Journal of Marine Science*, Vol.6 No.1: 49-65 ISSN: 2161-7384 DOI: 10.4236/ojms.2016.61006
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31. Zielinski, S. **Botero, C.** 2015. Are eco-labels sustainable? Beach certification schemes in Latin America and the Caribbean. *Journal of Sustainable Tourism* 23:(10) 1550-1572. DOI: 10.1080/09669582.2015.1047376
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38. **Botero, C.**, Anfuso, A., Williams, A.T and Palacios, A. 2013. Perception of coastal scenery along the Caribbean littoral of Colombia. In: Conley, D.C., Masselink, G., Russell, P.E. and O'Hare, T.J. (eds.), *Proceedings 12 International Coastal Symposium (Plymouth, England)*, *Journal of Coastal Research*, Special Issue No. 65, pp. 1733-1738, ISSN 0749-0208 DOI: 10.2112/SI65-293.1 (http://ics2013.org/papers/Paper4001_rev.pdf)

... and other 29 publications in not indexed journals

Scientific books and chapters

1. **Botero, C.M.**, Tamayo, D. 2021. Calidad ambiental recreativa en playas turísticas [*Recreational Environmental Quality of Tourist Beaches*]. Coastal Systems Research Group, Playas Corporación. Santa Marta, Colombia. ISBN: 978-958-53064-2-4
2. **Botero, C.M.**, Mercadé, S., Cabrera, J.A., Bombana, B. (Eds). 2020. El turismo de sol y playa en el contexto de la COVID-19 Escenarios y recomendaciones [*Sun and beach tourism in the context of COVID-19 Scenarios and recommendations*]. Publication within the framework of the Ibero-American Network of Beach Management and Certification – PROPLAYAS. Santa Marta, Colombia. ISBN: 978-958-53064-0-0
3. **Botero, C.M.** 2019. MAREMTORIO: Descubrimiento de una Colombia invisible [*MAREMTORIO: Discovery of an invisible Colombia*]. Serie Exposiciones Geográficas N° 17. Geographical Society of Colombia. Bogotá D.C. ISBN: 978-958-521-0219
4. **Botero C.M.**, da Silva C.P. 2018. Beach Management Tools. In: Finkl C., Makowski C. (eds) *Encyclopedia of Coastal Science. Encyclopedia of Earth Sciences Series*. Springer, Cham, DOI: 10.1007/978-3-319-48657-4_398-1
5. **Botero, C.M.** 2018. Beach Awards and Certifications. In: Finkl C., Makowski C. (eds) *Encyclopedia of Coastal Science. Encyclopedia of Earth Sciences Series*. Springer, Cham DOI: 10.1007/978-3-319-48657-4_399-1
6. Williams A.T., Rangel-Buitrago N.G., Pranzini E., Anfuso G., **Botero C.** 2018. Coastal Scenery. In: Finkl C., Makowski C. (eds) *Encyclopedia of Coastal Science. Encyclopedia of Earth Sciences Series*. Springer, Cham, DOI: 10.1007/978-3-319-48657-4_387-1

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9. **Botero C.**, Cervantes O., Finkl C. (eds). 2018. Beach Management Tools - Concepts, Methodologies and Case Studies. Coastal Research Library, vol 24. Springer, Cham. ISBN: 978-3-319-58303-7 <https://doi.org/10.1007/978-3-319-58304-4>
10. Cervantes O., **Botero C.M.**, Finkl C.W. 2018. State-of-the-Art Beach Ecosystem Management from the Tree of Science Platform. In: Botero C., Cervantes O., Finkl C. (eds) Beach Management Tools - Concepts, Methodologies and Case Studies. Coastal Research Library, vol 24. Springer, Cham
11. Cervantes O., **Botero C.M.**, Finkl C.W. 2018. State-of-the-Art Beach Geomorphology from the Tree of Science Platform. In: Botero C., Cervantes O., Finkl C. (eds) Beach Management Tools - Concepts, Methodologies and Case Studies. Coastal Research Library, vol 24. Springer, Cham DOI: 10.1007/978-3-319-58304-4_9
12. Pranzini E., Anfuso G., **Botero C.M.** 2018. Nourishing Tourist Beaches. In: Botero C., Cervantes O., Finkl C. (eds) Beach Management Tools - Concepts, Methodologies and Case Studies. Coastal Research Library, vol 24. Springer, Cham DOI: 10.1007/978-3-319-58304-4_15
13. Cervantes O., **Botero C.M.**, Finkl C.W. 2018. State-of-the-Art Users' Risk Assessment on Beaches from the Tree of Science Platform. In: Botero C., Cervantes O., Finkl C. (eds) Beach Management Tools - Concepts, Methodologies and Case Studies. Coastal Research Library, vol 24. Springer, Cham DOI: 10.1007/978-3-319-58304-4_17
14. Pranzini E., Pezzini G., Anfuso G., **Botero C.M.** 2018. Beach Safety Management. In: Botero C., Cervantes O., Finkl C. (eds) Beach Management Tools - Concepts, Methodologies and Case Studies. Coastal Research Library, vol 24. Springer, Cham DOI: 10.1007/978-3-319-58304-4_20
15. **Botero C.M.**, Cervantes O., Finkl C.W. 2018. State-of-the-Art Innovative Beach Management Tools from the Tree of Science Platform. In: Botero C., Cervantes O., Finkl C. (eds) Beach Management Tools - Concepts, Methodologies and Case Studies. Coastal Research Library, vol 24. Springer, Cham DOI: 10.1007/978-3-319-58304-4_25
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17. **Botero C.M.**, Cervantes O., Finkl C.W. 2018. State-of-the-Art Beach Environmental Quality from the Tree of Science Platform. In: Botero C., Cervantes O., Finkl C. (eds) Beach Management Tools - Concepts, Methodologies and Case Studies. Coastal Research Library, vol 24. Springer, Cham DOI: 10.1007/978-3-319-58304-4_39
18. Cervantes O., **Botero C.M.**, Finkl C.W. 2018. State-of-the-Art Users' Perception on Beaches from the Tree of Science Platform. In: Botero C., Cervantes O., Finkl C. (eds) Beach Management Tools - Concepts, Methodologies and Case Studies. Coastal Research Library, vol 24. Springer, Cham DOI: 10.1007/978-3-319-58304-4_44
19. Pranzini, E. 2017. La playa: instrucciones para su uso seguro [*The beach: instructions for its safe use*]. Editor: **Botero, C.M.** Editorial Universidad de La Costa. Barranquilla
20. **Botero C.M.** 2017. El programa Bandera Azul en Colombia. Guía para la certificación internacional de las playas turísticas [*The Blue Flag program in Colombia. Guide for the international certification of tourist beaches*]. Ministry of Commerce, Industry and Tourism,

- National Tourism Fund – FONTUR. Contract FNT N° 256 de 2016. Editorial Gente Nueva. ISBN: 978-958-48-2098-3
21. **Botero, C.M.**, Milanés, C. (compiladores). 2015. Aportes para la gobernanza marino-costera: gestión del riesgo, gobernabilidad y distritos costeros [*Contributions to marine-coastal governance: risk management, governance and coastal districts*]. Fondo Editorial de la Universidad Sergio Arboleda. Bogotá D.C. 554 pp. ISBN: 978-958-8866-67-3
 22. **Botero, C.**, Williams, AT, Cabrera, JA. 2014. Advances in Beach Management in Latin America: an overview from certification schemes. In: C.W. Finkl and C. Makowski (eds.), *Environmental Management Governance: Advances in Coastal and Marine Resources*, Coastal Research Library, 8, DOI 10.1007/978-3-319-06305-8_2, Springer International Publishing Switzerland. ISBN 978-3-319-06305-8
 23. **Botero, C.**, Díaz, M., Milanés, C. 2013. ICZM and international instruments: a general overview and two Latin American perspectives from Colombia and Cuba. In: Couzens, E., Honkonen, T., Lewis, M. *International Environmental Law-making and Diplomacy Review 2012*. University of Eastern Finland – UNEP Course Series. Joensuu, Finland. 121-136 ISBN 978-952-61-1226-8
 24. **Botero, C.**, Monserrat, A.L., Pereira, C. (eds). 2014. Radiografía de la costa. Múltiples miradas científicas de los sistemas socio-naturales costeros de iberoamérica y el Norte de África. Editorial Académica Española. Saarbrücken, Alemania. 265 pag. ISBN 978-3-659-08226-9
 25. **Botero, C.**, Anfuso, G., Rangel-Buitrago, N., Correa, I. 2013. Coastal erosion monitoring in Colombia: overview and study cases on Caribbean and Pacific coasts. In: Luigi E. Cipriani (Ed). *Coastal erosion monitoring, a network of regional observatories*. Regione Toscana, Florencia, Italia: 199-214
 26. Zielinski, S. & **Botero, C.** 2012. Guía básica para certificación de playas turísticas. [*Basic guide for certification of tourist beaches*]. Editorial Gente Nueva. Santa Marta, Colombia. 86 pp. ISBN 978-958-8704-25-8 www.sistemascosteros.org
 27. **Botero, C.**, Hurtado, Y. 2009. *Tourist Beach Sorts as a classification tool for Integrated Beach Management in Latin America*. En: *Coastline Reports*. EUCC The Coastal Union – Deutschland. Vol 13: 133-142 ISSN 0928-2734. ISBN 978-3-9811839-5-5. www.eucc-d.de
 28. Palacios, M. **Botero C.** 2002. Cartilla ambiental para el manejo de los cayos del Archipiélago de San Andrés, Providencia y Santa Catalina y el Santuario de Fauna y Flora de Malpelo [*Environmental booklet for the management of the keys of the Archipelago of San Andrés, Providencia and Santa Catalina and the Malpelo Fauna and Flora Sanctuary*]. Dirección General Marítima.
 29. **Botero, C.** 1996. Manual ecológico y guías botánicas de los cayos del Archipiélago de San Andrés y Providencia [*Ecological manual and botanical guides of the keys of the Archipelago of San Andrés and Providencia*]. Centro de Investigaciones Oceanográficas e Hidrográficas.

... and over 20 publications in local editorials or in a language different from English.

Research Grants

- Joint Grant of the Scientific and Technological Research Council of Turkey and The Ministry of Science, Technology and Innovation of Colombia. Project "Coastal scenery as core element to calculate vulnerability and support normative regulation of the coastal zones of Colombia and Turkey". Sergio Arboleda University (Colombia), and Middle East Technical University (Turkey). 2022-2023

- Colombian Department of Science, Technology and Innovation Postdoctoral Research Grants. Project "Knowledge Management of Scientific Tourism in Remote Beaches". Playas Corporacion (Colombia). 2020-2021.
- Colombian Department of Science, Technology and Innovation Research Grant. Project "Construction of an indicator of ecosystem environmental quality on the tourist beaches of the Colombian North Caribbean". University of La Guajira (Colombia), Playas Corporacion (Colombia), University of La Costa (Colombia), Autonomous University of the Caribbean (Colombia), Comfenalco Technological University (Colombia). 2017-2019.
- Colombian Department of Science, Technology and Innovation Research Grant. Project "Risk Management as a Governance Factor in Coastal Cities". Sergio Arboleda University (Colombia), Playascol Corporation (Colombia), Public Ministry Research Institute (Colombia), La Guajira Environmental Corporation (Colombia), and Eastern University (Cuba). 2013-2014.
- Canada-Latin America and the Caribbean Research Exchange Grant (LACREG). Project "Indicators of effectiveness in territorial planning, governance and integrated management of the coastal area of eastern Cuba and the Colombian Caribbean". Dalhousie University (Canada), Sergio Arboleda University (Colombia), and Eastern University (Cuba). 2014 - 2015

Research Projects

1. *Marine-coastal geopolitics in Colombia from the legislative initiatives of the Congress of the Republic*. Sergio Arboleda University – Santa Marta, Santa Marta, Colombia. 2020-2021
2. *Knowledge management of scientific tourism on remote beaches*. Playas Corporación Ltda. Santa Marta, Colombia. 2019-2020
3. *Legal and geostrategic components for a marine-coastal land use law in Colombia*. Sergio Arboleda University – Santa Marta, Santa Marta, Colombia. 2018-2019.
4. *Conceptual and methodological design of an observatory of legislative initiatives in marine-coastal land use planning in Colombia*. Sergio Arboleda University – Santa Marta, Santa Marta, Colombia. 2017-2018.
5. *Construction of an indicator of ecosystem environmental quality in the tourist beaches of the Colombian North Caribbean*. Playas Corporación Ltda. Santa Marta, Colombia. 2017-2019
6. *Political and legal factors that have influenced the generation of legislative proposals related to the marine-coastal territorial order in Colombia between 1997-2015*. Sergio Arboleda University – Santa Marta, Santa Marta, Colombia. 2016.
7. *Valuation of ecosystem services and calculation of the quality index in three beaches in the department of Atlántico*. La Costa University, Barranquilla, Colombia. 2015-2016.
8. *Techno-legal analysis of the legislative initiatives of the Colombian parliament on marine-coastal territorial ordering*. Sergio Arboleda University – Santa Marta and Techno-legal unit of the honorable senator Andrés García Zuccardi - Bogotá D.C., Colombia. 2015.
9. *Indicators of effectiveness in territorial planning, governance and integrated management of the coastal area of eastern Cuba and the Colombian Caribbean*. Sergio Arboleda University (Colombia), Dalhousie University (Canadá) and Eastern University (Cuba). Funded by the Association of Universities and Colleges of Canada and Research Center for International Development (Canada), Santa Marta (Colombia), Halifax (Canadá) and Santiago de Cuba (Cuba), 2014-2015.
10. *Development of the river and beach tourism product - TRYP*. Coastal Systems Research Group, Playascol Corporation E.U. Santa Marta, Colombia. 2010-2020.
11. *Design of tools for integrated beach management - GIP*. Coastal Systems Research Group, Playascol Corporation E.U. Santa Marta, Colombia. 2010-2020.

12. *Design of instruments to optimize port environmental management in Colombia - GAP*. Coastal Systems Research Group, Playascol Corporation E.U. Santa Marta, Colombia. 2010-2020.
13. *Integrated Coastal Management from the sciences of complexity - GCI-COMPLEX*. Coastal Systems Research Group, Playascol Corporation E.U. Santa Marta, Colombia. 2010-2020.
14. *Risk Management as a Governance Factor in Coastal Cities*. Sergio Arboleda University, Regional Autonomous Corporation of La Guajira, Playascol Corporation, Research Institute of the Public Ministry; Funded by Colombian Department of Science, Technology and Innovation COLCIENCIAS. Santa Marta, Colombia, 2013-2014.
15. *Evaluation of the effectiveness of the certification schemes of tourist beaches for Integrated Coastal Management in three beaches of the District of Santa Marta, Colombia*. Magdalena University. Santa Marta, Colombia, 2011.
16. *Research Program on Environmental Quality of Tourist Beaches (CAPT) in the Colombian North Caribbean*. Magdalena University, Comfenalco Technological University Foundation- FUTCO and La Guajira University. Santa Marta, Colombia, 2010-2013.
17. *Project for the inclusion of Colombia in the SeagrassNet Global Seagrass Monitoring Network: Evaluation of the Thalassia testudinum grassland in Neguanje Bay PNNT*. Colombian Caribbean. Magdalena University, Tropical Research Institute - INTROPIC. Santa Marta, Colombia, 2008 - 2010.
18. *Evaluation of beach certification schemes in Latin America and proposal of a mechanism for their homologation in a framework of sustainable tourism - CERPAL*. Coastal Systems Research Group, Playascol Corporation E.U. Santa Marta, Colombia. 2008-2018.
19. *Determination of an environmental qualification and certification system for tourist beaches*. Magdalena University, Vice Ministry of Tourism and Maritime Authority of Santa Marta. Santa Marta, Colombia, 2007.
20. *Proposal of a model to measure environmental quality in tourist beaches*. National Maritime authority of Colombia. Bogotá D.C., 2002. Degree project directed by Captain Mario Palacios M.
21. *Analysis of the environmental conditions of the keys of the Archipelago of San Andrés and Providencia*. Oceanographic and Hydrographic Research Center. Cartagena de Indias, Colombia, 1996.
22. *Determination of the terrestrial flora of the keys of the Archipelago of San Andrés and Providencia*. Oceanographic and Hydrographic Research Center. Cartagena de Indias, Colombia, 1996.

Organization of academic events

1. Blue Flag Certification Panel for the beaches of Riohacha. La Guajira University. Riohacha (Colombia). 2018. Moderator
2. II Seminar on Science and Technology of the Sea in the Colombian Caribbean. Colombian Oceanic Commission and Sergio Arboleda University. Santa Marta (Colombia). 2018. Co-organizer.
3. IV International Congress in Environmental Quality of Tourist Beaches. La Costa University, Barranquilla (Colombia). 2018. Co-Organizer
4. III International Congress in Environmental Quality of Tourist Beaches. La Guajira University, Riohacha (Colombia). 2017. Co-Organizer.
5. Workshop Interdisciplinarity to Face Climate Change in Coastal Areas. British Council, University of Swansea and Sergio Arboleda University. Santa Marta (Colombia). 2014. General Coordinator.
6. VI Meeting by the Sea and the Coast. Sergio Arboleda University - Santa Marta. Santa Marta (Colombia). 2014. General Coordinator.

7. V Meeting by the Sea and the Coast – Governance and coastal risks. Sergio Arboleda University- Santa Marta. Santa Marta (Colombia). 2014. General Coordinator.
8. II International Congress in Environmental Quality of Tourist Beaches. Comfenalco Technological University Foundation- FUTCO, Cartagena de Indias (Colombia). 2013. Co-Organizer.
9. IV Meeting by the Sea and the Coast – Coastal Districts. Sergio Arboleda University - Santa Marta. Santa Marta (Colombia). 2013. General Coordinator.
10. International Congress in Environmental Quality of Tourist Beaches. Magdalena University, Santa Marta (Colombia). 2012. General Coordinator.
11. Ibero-American workshop in Coastal Systems. Magdalena University, Santa Marta (Colombia). 2009. Coordinator
12. I National Congress of Maritime and Coastal Development. Colombian Oceanic Commission. Bogotá D.C. (Colombia) 2004. Scientific Coordinator.
13. II Workshop Global International Water Assessment – Bogotá (Colombia). 2004. Coordinator

Presentations in academic events

1. *The potential of beach tourism in Nova Scotia based on a coastal scenery evaluation system.* Coastal Zone Canada 2021. CZC Association. Iqaluit (Canada). June 2021
2. *Recreational environmental quality: another perspective for measuring the human impact on tourist beaches.* 1º Argentine Congress of Geology Applied to Engineering and the Environment. San Luis (Argentina). August 2018.
3. *Legal weakness in a country with two seas and three coastal zones.* Coastal Zone Canada 2018 Conference. Saint John's (Canada). July 2018
4. *Blue Flag Certification of the Beaches of Riohacha.* III International Congress on Environmental Quality of Tourist Beaches. Riohacha, Colombia. March 2018
5. *PROPLAYAS Network: 10 years of exchange for the management and certification of Ibero-American beaches.* II Seminar in Marine and Coastal Sciences. Guatemala City (Guatemala). November 2017
6. *Beaches certified safe beaches. Experiences in the context of Latin America.* International Seminar "Risks of natural origin, anthropization and sustainability in the coastal zone". Valparaiso (Chile). May 2017.
7. *Ramblings of Colombia on a Law of Seas and Coasts.* VIII International Conference on Integrated Coastal Zone Management – CARICOSTAS. Eastern University. Santiago de Cuba, Cuba. May 2017.
8. *Proposal of a low-cost and time methodology for coastal and marine spatial planning in complex systems.* ECSA 56 Coastal systems in transition: From a 'natural' to an 'anthropogenically-modified' state. Bremen (Germany). September 2016
9. *Proposal of a low-cost and time-efficient methodology for marine-coastal land use planning: Example of the Gulf of Cupica (Colombian Pacific).* II Ibero-American Congress of Integrated Management of Coastal Areas - GIAL. Florianopolis (Brazil). May 2016.
10. *Economic drivers of coastal and marine planning and management: the Colombian Caribbean study case.* III International Congress of the Caribbean Economic History Association – AHEC. Port Spain (Trinidad and Tobago). November 2015.
11. *Method of measuring governance associated with coastal risk management.* XV Latin American Congress of Marine Sciences – COLACMAR. Santa Marta (Colombia). October 2015

12. *Conceptual framework for land and marine planning in Caribbean Sea*. International Development Week. Dalhousie University. Halifax (Canada). February 2015.
 13. *Integration for risk management in coastal zones*. VII International Conference on Integrated Coastal Zone Management – CARICOSTAS. Eastern Universidad. Santiago de Cuba, Cuba. May 2015.
 14. *Measuring governance linked to risk management within ICZM framework in the Colombian Caribbean*. 3rd International Symposium on Integrated Coastal Zone Management. Antalya (Turkey). October 2014.
 15. *Indicators to measure governance linked to risk management in coastal cities of Colombian Caribbean*. Coastal Zone Canada 2014. Coastal Zone Canada Association. Halifax, Canada. June 2014
 16. *Recreational parameters as an assessment tool for beach quality*. 13th International Coastal Symposium. Coastal Education and Research Foundation. Durban, South Africa. April 2014.
 17. *LOCALMIC round table - Experiences of Integrated Coastal Management at the Local Level in Ibero America (panelist)*. Latin American Congress of Marine Sciences - COLACMAR. Universidad de La República - ALICMAR. Punta del Este, Uruguay. October 2013.
 18. *Risk management as a governance factor in coastal cities*. Latin American Congress of Marine Sciences - COLACMAR. Universidad de La República - ALICMAR. Punta del Este, Uruguay. October 2013.
 19. *Evaluation of environmental quality in certifications of beaches in Latin America*. International Congress of Environmental Quality in Tourist Beaches. Comfenalco Technological University Foundation - FUTCO. Cartagena, Colombia. April 2013.
 20. *From the tragedy of the commons to the utopia of integrated beach management. Social conflicts vs technical solutions*. I Ibero-American Congress of Integrated Management of Coastal Areas. Cádiz University, Spain. January 2012.
 21. *Integrated Coastal Management in Latin America*. Workshop La gestione integrata della fascia costiera e la gestione delle spiagge nell'America Latina e nel Mediterraneo. Cecina, Toscana, Italy. September 2012.
 22. *A Caribbean integration model for coastal management: the IBERMAR network*. IV International Workshop Our Caribbean in the new millennium. Eastern University. Santiago de Cuba, Cuba. April 2011.
 23. *The beach from the systemic perspective: an alternative way to understand and manage the coast*. XIV Latin American Congress of Marine Sciences – COLACMAR. Latin American Association of Researchers in Marine Sciences, Balneario Camboriú, Brazil. November 2011.
 24. *Carrying capacity of tourist beaches*. Ecoplata Program. Maldonado, Uruguay. April 2010.
 25. *Integrated Beach Management as an example of coastal management at the local level*. 4º International Seminar on Sustainable Coastal Development. National Technological University. Pinamar, Argentina. November 2010.
 26. *Usefulness of Beach Certification Schemes for Integrated Coastal Management. Evaluation of 8 certifications in Latin America*. IV International Conference on Integrated Coastal Zone Management. Eastern University. Santiago de Cuba, Cuba. May 2009.
 27. *Ibero-American Diagnosis of Integrated Coastal Management*. National Meeting of Cost Management – ENCOGERCO. Rio de Janeiro, Brazil. November 2009.
 28. *Determination of an environmental qualification and certification system for tourist beaches*. IX Spanish Conference on Coastal and Port Engineering. San Sebastian, País Vasco, Spain. 2007.
 29. *Vallega's lesson and methodology for ICM, in new developing countries*. ECO-IMAGINE Project, final conference. Genova, Italia. 2007. www.gisig.it
- ... and over 40 minor conferences in Colombian events and other 35 conferences abroad

Scientific and editorial committees

- Guest Editor of the Special Issue on Coastal Management in Times of COVID-19. Ocean and Coastal Management Journal (Elsevier). 2020 - 2021.
- Guest Member of the Editorial Committee Journal of Integrated Coastal Zone Management (Brazil – Portugal). Since 2014
- Member of the Editorial Committee of the Magazine VERBUM (ISSN 2145-387X) –Sergio Arboleda University (Colombia). Since 2014
- Member of the Scientific Committee. Journal Costas of UNESCO (Uruguay). Since 2011
- Academic Pair of Quality in Higher Education. Ministry of National Education (Colombia). Since 2008
- Peer Evaluator of Scientific Projects. Colombian Department of Science, Technology and Innovation - COLCIENCIAS (Colombia). 2012
- Peer Evaluator of Scientific Projects. National Agency for Research and Innovation (Uruguay). 2012

Indexed journals reviewing

- Ocean and Coastal Management Journal – OCMA (Elsevier)
- Marine Pollution Bulletin – MPB (Elsevier)
- Marine Policy – MARPOL (Elsevier)
- Ecological Complexity - ECOCOM (Elsevier)
- Environmental and Sustainability Indicators - INDIC (Elsevier)
- Applied Geography - JAPG (Elsevier)
- Land Use Policy - LUP (Elsevier)
- Regional Studies in Marine Science - RSMA (Elsevier)
- LAND (Multidisciplinary Digital Publishing Institute - MDPI)
- SUSTAINABILITY (Multidisciplinary Digital Publishing Institute - MDPI)
- WATER (Multidisciplinary Digital Publishing Institute - MDPI)
- Journal of Coastal Research - JCR (Coastal Education and Research Foundation - CERF)

Media and news

- 2003 El Tiempo newspaper (Colombia). Press profile “Un enamorado del mar” [*A sea’s lover*]. 24th June. <http://www.eltiempo.com/archivo/documento/MAM-1003363>
- 2012 El Tiempo newspaper (Colombia). Press news “Unimagdalena certifica aguas de Playas de El Rodadero y Playa Blanca” [*Unimagdalena certifies waters of beaches of El Rodadero and Playa Blanca*]. 12th July. <http://www.eltiempo.com/colombia/caribe/ARTICULO-WEB-NEW>
- 2015 Opinión Caribe magazine (Colombia). Press news “El boom sobre la ley de costas” [*The boom on the law of coasts*]. 8th August. <http://www.opinioncaribe.com/2015/08/26/el-boom-sobre-la-ley-de-costas>
- 2020 El Nuevo Día newspaper (Puerto Rico). Press news “Evalúan el impacto de la pandemia en los ecosistemas de las playas” [*Research network assess the impact of the pandemic on beach ecosystems*]. 19th July. <https://www.elnuevodia.com/ciencia->

[ambiente/otros/notas/evaluan-el-impacto-de-la-pandemia-en-los-ecosistemas-de-las-playas/](#)

- 2021 HOY Diario newspaper (Colombia). Press news "Cierre de playas disminuye stress ambiental" [*Closing beaches reduces environmental stress*]. 8th February. <https://www.hoydiariodelmagdalena.com.co/archivos/475781>

TELEMUNDO Channel (Puerto Rico). TV news "Realizan estudios en playas turísticas para evaluar cambios tras el confinamiento por el COVID-19" [*They carry out studies on tourist beaches to evaluate changes after confinement by COVID-19*]. 15th March <https://www.telemundopr.com/noticias/puerto-rico/realizan-estudios-en-playas-turisticas-para-evaluar-cambios-tras-el-confinamiento-por-el-covid-19/2190868/>

El Colombiano newspaper (Colombia). Press news "El cuidado de las tortugas en el mar de Necoclí" [*Caring for the turtles in the Necoclí sea*]. 29th April. <https://www.elcolombiano.com/medio-ambiente/tortugas-en-el-mar-de-necocli-asi-las-cuidan-pescadores-IK14966970>

General publications

1. López, G.I., Garzón, N., **Botero, C.M.** 2020. Uso de mascarilla en la playa. Guía Práctica 1 Nueva Normalidad [*Use of a mask on the beach. Practical Guide 1 New Normal*]. Publication within the framework of the Ibero-American Network of Beach Management and Certification - PROPLAYAS. Santa Marta, Colombia.

PROFESIONAL EXPERIENCE AND ACHIEVEMENTS

Private sector consulting

➤ **Foundation for the ethnic defense (Maicao, Colombia)**

Jan – May 2019. Consultant in Environmental Engineering. Advising the process of prior consultation and environmental compensation of the Wayuu indigenous communities of the Media Luna sector, within the framework of ruling T-704 of 2016 of the Constitutional Court

➤ **IKALA (Envigado, Colombia)**

Nov – Dec 2018. Advisor in carrying capacity. Reviewing and adjusting the tourist load report of the project "Community organization empowered and trained in the proper management of ecotourism in zone 11 of the municipality of Envigado"

➤ **Playas Corporacion (Colombia)**

Jan – May 2019. Project Director. Advising on the preparation of studies for the application of the Zuana Beach Resort to the Blue Flag Program

Jan – Dec 2018. Project Director. Developing for the National Tourism Fund (FONTUR), the planning study of seven (7) beaches in the Department of Atlántico (comprehensive diagnosis,

zoning, load capacity, conflict matrix, facility design, solid waste strategy, management plan of risks, thematic mapping and photogrammetry).

Sept 2015 – Mar 2016. Project Director. Developing for the Corporation for the Sustainable Development of Urabá - CORPOURABA, the Study of Ecological and Environmental Risk in the Coastal Zone of the Department of Antioquia, which mainly contains the assessment of vulnerability due to the effects of climate change, floods, storm surge, erosion, and other coastal threats from rising sea levels and extreme events.

Jul 2015 – Nov 2016. Project Director. Estimating for the Corporation for the Development of Playa Blanca Barú - CORPLAYA, the recreational carrying capacity of Playa Blanca-Barú.

Nov – Dec 2015. Technical coordinator. Carrying out for the port company TERLICA S.A.S. an educational-environmental campaign, on the beach of Taganga Bay, as a compensation measure for the deterioration to which this ecosystem is exposed in the high tourist seasons.

Jul – Ago 2015. Project Director. Structuring for the port company Sociedad Portuaria Palermo S. A., the geographic database for Environmental Impact Assessment of the Libertadores Project, and the Environmental management plan for the environmental compensation measure of dredging Caño El Torno.

Apr – Jun 2015. Technical coordinator. Organizing for the port company TERLICA S.A.S. the cleaning of Taganga Beach for the Worldwide day of the Oceans.

Jul 2015. Project Director. Providing logistic support for professional association ACODAL during the realization of the international course on management of urban and tourist beaches in Santa Marta.

Mar – Dec 2015. Project Director. Updating for the geographic data structure (GEODATABASE) for the Environmental Compliance Report of the following port companies: Palermo Sociedad Portuaria; Tayrona Shorebase; Operadora de Carbón De Santa Marta Ltda. (CARBOSAN); and Sociedad Portuaria Regional De Santa Marta S.A. (SPSM).

Oct 2014. Technical coordinator. Organizing for the port company TERLICA S.A.S. the cleaning of Taganga Beach for the Worldwide day of the Oceans.

Apr – Jul 2014. Project Director. Extending and structuring the geographic database (GEODATABASE) for the Environmental Compliance and control process of the following port companies: Operadora de Carbón De Santa Marta Ltda. (CARBOSAN) and Sociedad Portuaria Regional De Santa Marta S.A. (SPSM).

Apr – Nov 2014. Project Director. Performing a study for the Corporation for the Development of Playa Blanca Barú - CORPLAYA, about environmental attitudes and users' perception in Playa Blanca – Barú island (Cartagena); advising the conceptual design of the integrated management of the beach Playa Blanca; and accompanying the the process of prior consultation with the ethnical communities of Playa Blanca regarding the beach management.

Sept – Dec 2013. Project Director. Developing for the Meta Tourism Institute the river and beach tourism product (TRyP) in the department of Meta

Jul – Sept 2013. Project Director. Structuring for the port company Sociedad Portuaria Palermo S. A., the geographic database for Environmental Impact Assessment of the solid bulk project.

Jul - Oct 2013. Project Director. Organizing for the port company PRODECO S.A. the cleaning of underwater and emerged beach in their direct influence area.

Apr – Ago 2013. Project Director. Performing for the port company Sociedad Portuaria Palermo S. A., the Environmental Impact Assessment (EIA) for the products aggregates, fertilizers, minerals, and construction materials; and another EIA to modify the current environmental licensing for managing new products.

Apr – May 2013. Project Director. Performing for EAFIT University the environmental baseline of Barú island and corporate review of ecosystem services.

Apr – Nov 2013. Project Director. Performing for the Colombian Maritime Authority (DIMAR) and the Pacific Oceanographic and Hydrographic research center, the study and geological characterization and zoning of the coastal fringe of the Cupica Gulf.

Feb – Jun 2013. Project Director. Performing for the Corporation for the Sustainable Development of the Archipelago of San Andrés, Providencia and Santa Catalina – CORALINA, the design of a network for monitoring superficial water resources in two coastal basing of San Andres and Providencia Islands.

May – Ago 2012. Project Director. Modifying for the port company Palermo Sociedad Portuaria S.A, the compensation measures of 1% investment plan (of water resources management); and performing the environmental impact assessment for solid bulk type coke.

May – Jul 2011. Project Director. Performing for the port company TERAMAR S.A.S. the contingency plan of the private logistic support dock of COREMAR Group.

May 2018– Jun 2017. CEO. Providing strategic direction for the company.

Public sector consulting

➤ **Ministry of Commerce, Industry and Tourism (Colombia)**

Jan – Oct 2018. Beach certification advisor. Supporting the implementation of the Blue Flag program in Colombia in coastal municipalities, as well as providing technical assistance in beach management to the Local Beach Organization Committee.

➤ **National Tourism Fund – FONTUR (Colombia)**

Dec 2016 – Mar 2018. Beach certification advisor. Carrying out feasibility studies for the implementation of the Blue Flag program in Colombia, in the Spanish and English languages and submitting a proposal for an action plan for its implementation.

➤ **Corporation for the Sustainable Development of the Archipelago of San Andrés, Providencia and Santa Catalina – CORALINA (Colombia)**

Jul 2015 – Jan 2016. Beach certification advisor. Providing Professional Services as a specialist in administration and management of beaches, leading the preparation of studies on carrying capacity, functional zoning of beaches and providing support to the project team to strengthen the management and administration of tourist beaches on the islands tending to its certification

Jul 2014 – Oct 2015. Consultant in management and certification of tourist beaches. Providing Professional Services as an Environmental Engineer expert in Water and Coastal Management, within the framework of the project "Protection and conservation of resources, biodiversity and strategic ecosystems within the Seaflower Biosphere Reserve" (biodiversity) and the Convention 073 of 2013 between the Department and Coralina.

➤ **Public Agency Puertos del Estado (Spain)**

Apr – Jun 2005. Intern in the area of environmental policy. Developing an internship in port environmental policy issues in the governing body of the port administration of Spain.

➤ **United Nations Educational, Scientific and Cultural Program - UNESCO**

Apr – Oct 2004. National Oceanic Portal Editor. Designing and managing the United Nations Ocean Portal, Latin America region.

➤ **Colombian Oceanic Commission – CCO**

Apr 2003 – Nov 2004. Consultant. Providing Professional Services as an Environmental Engineer to support the national technical committees on tsunami, marine pollution, El Niño phenomenon, and support for the Executive Secretariat.

Apr 2003 – Nov 2004. Environmental Advisor. Providing Professional Services as an Environmental Engineer to support the national technical committees on tsunami, marine pollution, El Niño phenomenon, and design of the National Oceanic and Coastal Information System.

OTHER SKILLS

Audiovisual production

- **2018. Executive producer** of the short film "**Ley de Mares y Costas. Tarea legislativa pendiente en Colombia**" [*Law of Seas and Coasts. Legislative task pending in Colombia*]. Financed by University Sergio Arboleda. Directed by Hernan Vasquez. Published in YouTube: https://www.youtube.com/watch?v=7ug_5xS5INw
- **2019. Executive producer** of the short film "**Maremtorio, un juego de niños**" [*Maremtory, a kids' game*]. Financed by University Sergio Arboleda. Directed by Luz Polo. Published in YouTube: <https://www.youtube.com/watch?v=wD2HNzvbCA0>
- **2020. Director and producer** of the webserie "**Nova Scotia Beaches**". Published in YouTube: https://www.youtube.com/watch?v=IDfzIkfdHpM&list=PLzMy09Tu1zJZ-iQc8FoHu83_4cmNELcvf
- **2020. Director and producer** of the webserie "**Turismo de playas en tiempos de COVID**" [*Beach tourism in covid times*]. Financed by Proplayas Network, Ministry of Sciences,

Technology, and Innovation (Colombia), Geographic Colombian Society (Colombia), Beach Trotters Ltd. (Spain), Playas Corporacion Ltd. (Colombia), University of the Pacific (Ecuador), Comfenalco Technological University (Colombia), and personal donors. Codirection and production with Dr. Briana Bombana (Brasil) and Bianca Suárez (Colombia). Published in YouTube:

<https://www.youtube.com/playlist?list=PLJENfAng3INJLiNKDANE2yOrfdIQ3SQvp>

- **2021-2022. Director and producer of the webserie “Debates Proplayas”** [*Proplayas Debates*]. Financed by University of Puerto Rico. Codirection and production with Dr. Maritza Barreto. Published in YouTube: https://www.youtube.com/watch?v=JuF5dIv1nMY&list=PLJENfAng3INIWMOL63I9XbevYidZUZ_iF

Scientific tourism

- **2020-2021. Director of the project “Knowledge Management of Scientific Tourism in Remote Beaches”**. Playas Corporacion Ltd. Co-financed by the Ministry of Science, Technology and Innovation. Santa Marta, Colombia. <https://www.remonautas.com/>
- **2021-ongoing. Tourist guide and creator of the product “Scientific tourism in remote beaches”**. Financed and organized by the Coastal Systems Research Group. <http://www.sistemascosteros.org/oper-to-science/>