

## EDUCATION

---

<b>Degree</b>	<b>Period</b>	<b>Major</b>	<b>Institution</b>
BA	August/2010 – December/2013	Environmental Technology Engineer	Universidad Politécnica de Chiapas
Master	August/2015 – August/2017	Coastal Oceanography	Universidad Autónoma de Baja California
PhD	August/2017 – Present	Oceanography	Old Dominion University

## Research Interest

---

Nitrogen cycling in coastal systems. Determine the variables that control the occurrence and magnitude of the different pathways of the nitrogen cycle; Nitrogen legacy in coastal sediments. The residence time of nitrogen in sediments and its role as source of primary production; Algal bloom triggers and behavior. The variables that control bloom initiation and those who control the transport and endurance of the bloom; Tidal flooding effects in water quality of adjacent water bodies. Characterization of flooding water during extreme tidal events, estimation of nutrient transport to adjacent water bodies, and evaluation of the biochemical effects of these events.

## RESEARCH EXPERIENCE

---

<b>Project</b>	<b>Period</b>	<b>Institution</b>
Water quality monitoring on the Valle Jovel basin	Jun/2012– Jun/2013	El Colegio de la Frontera Sur (ECOSUR)
Water quality evaluation in La Venta river	August/2013– September/2013	El Colegio de la Frontera Sur (ECOSUR)
Wastewater characterization on the urban zone of the San Cristobal de las Casas city.	January/2014	El Colegio de la Frontera Sur (ECOSUR)
Research-related projects at the University of California-Davis	May/2014	University of California-Davis
Integral study of nitrogen cycle in a coastal lagoon in Baja California.	Jun/2014– Julio/2014	Instituto de Investigaciones Oceanológicas(IIO)
Design a treatment and reutilization wastewater system in a common.	September/2014	El Colegio de la Frontera Sur (ECOSUR)

Macías-Tapia Alfonso  
 PhD student – Research Assistant  
 OCNPS building room 429, Old Dominion University, Norfolk, VA.  
[amaciaast@odu.edu](mailto:amaciaast@odu.edu)

Participation in Austral Summer Institute XVI – Eutrophication and microbial process in the coastal ocean	January/2016	Universidad de Concepción, Chile
Research cruise - Nitrogen fixation in the Eastern Tropical North Pacific oxygen deficient zone	April-May/2016	Old Dominion University
Research cruise – Cyanate in the Sea: Sources, Sinks, and Quantitative Significance	August/2016	Old Dominion University

## RELEVANT EXPERIENCE

---

Activities	Period	Institution
Soil analysis	August/2011– September/2011	El Colegio de la Frontera Sur (ECOSUR)
Water quality monitoring program	August/2012 – December/2013	El Colegio de la Frontera Sur (ECOSUR)
Development and implementation of a rainwater craft purification system	September/2013– December/2013	El Colegio de la Frontera Sur (ECOSUR)
Field work and analysis for a geochemical characterization on sediments of Bahía Falsa, Baja California.	March – August/2015	Instituto de Investigaciones Oceanológicas (IIO)
Exchange research semester	August/2016– December/2016	Old Dominion University
Teacher assistant for OEAS-106: Introductory Oceanography.	August/2017– December/2017	Old Dominion University
Research assistant for HRSD - Measure the Muck grant.	January/2018 – April/2018	Old Dominion University
Research Assistant for HRSD – Bloom initiation grant	May/2018 - present	Old Dominion University

## PARTICIPATION AT MEETINGS

---

Macías-Tapia, A., B. Song, L. W. Daesslé, and V. F. Camacho-Ibar. Potencial de desnitrificación en el subsistema bentónico de una laguna costera influenciada por ostricultura (*Crassostrea gigas*) y dominada por praderas de pastos marinos (*Zostera marina*). **Oral presentation** in IV Congreso Nacional Estudiantil de Ciencias del Mar y Medio Ambiente, May/2017, at Universidad Autónoma de Baja California, México.

Macías-Tapia Alfonso  
PhD student – Research Assistant  
OCNPS building room 429, Old Dominion University, Norfolk, VA.  
[amaciaast@odu.edu](mailto:amaciaast@odu.edu)

Macias-Tapia, A., B. Song, L. W. Daesslé, and V. F. Camacho-Ibar. Benthic denitrification potential in a costal lagoon influenced by oyster culture (*Crassostrea gigas*) and dominated by eelgrass beds (*Zostera marina*). **Poster and flash presentation** in XIV International Estuarine Biochemistry Symposium, June/2017, at Université du Québec a Rimouski, Canada.

Macias-Tapia, A., M. Mulholland, and D. Loftis. “Measure the Muck”: a citizen-engaging project to determine water quality impacts from tidal flooding events (**Poster**); and Loftis, J. D., D. Forrest, A. Macias-Tapia, and M. Mulholland. Comparison of Tidewater inundation predictions and Citizen-Science Observation data during the 2017 King Tide in Tidewater Virginia (**Oral presentation**) in 2018 Chesapeake Community Research and Modeling Symposium, June/2018, Crowne Plaza Hotel Annapolis, MD

Macias-Tapia, A., M. Mulholland, and D. Loftis. “Water quality impacts from tidal flooding in the lower Chesapeake Bay”. **Oral presentation** in 2018 American Geophysical Union meeting, Dec/2018, Washington, D.C.

## PUBLICATIONS

---

Hernández-López J., Camacho-Ibar V.F., Macías-Tapia A., Mcglathery K.J., Daesslé L.W., Sandoval-Gil J.M. 2017. Benthic nitrogen fixation in *Zostera marina* meadows in an upwelling-influenced coastal lagoon. *Ciencias Marinas* 43(1):35-53. doi.org/10.7773/cm.v43i1.2700.

Macías-Tapia A., Camacho-Ibar V.F., and Song B. **In preparation**. Benthic Denitrification Potential Rates (DNFpr) in a coastal lagoon influenced by oyster culture (*Crassostrea gigas*) and dominated by eelgrass beds (*Zostera marina*).

Macías Tapia, A., D. Loftis, and M. Mulholland. **In preparation**. “Measure the Muck”: a citizen-engaging project to determine water quality impacts from tidal flooding events.