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EDUCATION

- 2012 **Ph.D. Oceanography** - Old Dominion University
Dissertation: “Modeling the dispersion of eastern oyster larvae (*Crassostrea virginica*) and its effects on the movement of disease resistant genes in the Delaware Bay estuary.”
Research Advisors: Dr. John M. Klinck and Dr. Eileen E. Hofmann
- 2006 **M.S. Ocean and Earth Sciences** - Old Dominion University
Thesis: “Exchange hydrodynamics between an subestuary and its adjacent estuary”
Research Advisor: Dr. Arnolando Valle-Levinson
- 2000 **B.S. Oceanography** - Pontificia Universidad Católica de Valparaíso
Thesis: “Observations of mesoscale eddies off northern Chile” (In Spanish)
Research Advisors: Dr. Luis Soto and Dr. Oscar Pizarro

RESEARCH EXPERIENCE

- Present Postdoctoral research associate, Center for Coastal Physical Oceanography, Old Dominion University.
- 2007-2012 Graduate research assistant. NSF-funded Ecology of Infectious Diseases program. Research consisted in coupling a circulation model to an individual-based model to study the effects of physical and biological processes in the dispersion of oyster larvae. Estimations of exchange rates among oyster reefs were used in a population genetic model to determine changes in the allele frequency related to disease-resistant genes.
- 2005-2006 Graduate research assistant. Center for Coastal Physical Oceanography. Data processing and analysis of several time series (ADCP, wind and bottom pressure) and oceanographic cruises (CTD and ADCP) to study the hydrodynamics of an estuarine system.
- 2000-2004 Research assistant at Estación Costera de Investigaciones Marinas (ECIM), Pontificia Universidad Católica de Chile. Scientist in chief of several coastal cruises (biological and physical samples), mooring deployments, intertidal sampling of marine invertebrates, ADCP and CTD data collection and processing.

PEER-REVIEWED PUBLICATIONS

- Narváez, D. A., J. M. Klinck, E. N. Powell, E. E. Hofmann, J. Wilkin, D. Haidvogel. 2012b. Circulation and behavior controls on dispersal of eastern oyster (*Crassostrea virginica*) larvae in Delaware Bay. **Journal of Marine Research**. 70, 411-440.

- Narváez, D. A., J. M. Klinck, E. N. Powell, E. E. Hofmann, J. Wilkin, D. Haidvogel. 2012a. Modeling the dispersal of eastern oyster (*Crassostrea virginica*) larvae in Delaware Bay. **Journal of Marine Research**, 70, 381-409.
- Hofmann, E., D. Bushek, S. Ford, X. Guo, D. Haidvogel, D. Hedgcock, J. Klinck, C. Milbury, D. Narváez, E. Powell, Y. Wang, Z. Wang, J. Wilkin, L. Zhang. 2009. Understanding how disease and environment combine to structure resistance in estuarine bivalve populations. **Oceanography**, 22(4): 212-231.
- Narváez, D.A. and A. Valle-Levinson. 2008. Transverse structure of wind-driven flow at the entrance to an estuary: the Nansemond River. **Journal of Geophysical Research**, 113, C09004, doi:10.1029/2008JC004770.
- Vargas, C.A., D.A. Narváez, A. Piñones, S.A. Navarrete and N.A. Lagos. 2006. River plume dynamic influences transport of barnacle larvae in the inner shelf off central Chile. **Journal of the Marine Biological Association UK**, 86:1057-1065.
- Narváez, D.A., S.A. Navarrete, J.L. Largier, C.A. Vargas. 2006. Onshore advection of warm water, larval invertebrate settlement, and relaxation of upwelling off central Chile. **Marine Ecology Progress Series**, 309: 159-173.
- Piñones, M.A., A. Valle-Levinson, D.A. Narváez, C.A. Vargas, S.A. Navarrete, G. Yuras and J.C. Castilla. 2005. Wind-induced diurnal variability in river plume motion. **Estuarine Coastal and Shelf Science**, 65(3): 513-525.
- Vargas, C.A., D.A. Narváez, M.A. Piñones, R.M. Venegas, S.A. Navarrete. 2004. Internal tidal bore warm fronts and settlement of invertebrates in central Chile. **Estuarine Coastal and Shelf Science**, 61(4): 603-612.
- Narváez, D.A., E. Poulin, G. Leiva, E. Hernández, J.C. Castilla, S.A. Navarrete. 2004. Seasonal and spatial variation of nearshore hydrographic conditions in central Chile. **Continental Shelf Research**, 24(2): 279-292.
- Poulin, E., A.T. Palma, G. Leiva, D.A. Narváez, S.A. Navarrete, J.C. Castilla. 2002. Avoiding offshore transport of competent larvae during upwelling events: The case of the gastropod *Concholepas concholepas* in central Chile. **Limnology & Oceanography**, 47(4): 1248-1255.

SELECTED CONFERENCES

- 2011 Narváez, D.A., J.M. Klinck, E.N. Powell, E.E. Hofmann, J. Wilkin, D.B. Haidvogel. **Biophysical interactions driving the dispersal of oyster larvae in the Delaware Bay: A modeling study coupling an Individual-Based Model to the Regional Ocean Model System (ROMS)**. Gordon Research Conference, South Hadley, MA, USA. June 26-30. Poster Presentation.
- 2011 Narváez, D.A., J.M. Klinck, E.N. Powell, E.E. Hofmann, J. Wilkin, D.B. Haidvogel. **Interannual and intraseasonal variability in dispersion of oyster larvae: A numerical study coupling an Individual-Based model to a hydrodynamic model**. 5th International Zooplankton Production Symposium, Pucon, Chile. March 14-18. Oral Presentation.
- 2010 Narváez, D.A., J.M. Klinck, E.N. Powell, E.E. Hofmann, J. Wilkin, D.B. Haidvogel. **Coupling an Individual-Based Model to the Regional Ocean Model System (ROMS): Application on larval dispersal studies**. ROMS (Regional Ocean Modeling System) User Workshop, Honolulu, HI, USA. April 5-8. Oral Presentation.

- 2009 Narváez, D.A., J.M. Klinck, E.N. Powell, E.E. Hofmann, J. Wilkin, D.B. Haidvogel. **Dispersal patterns of oyster larvae at Delaware Bay: A modeling study**. National Shellfisheries Association Meeting, Savannah, GA, USA. March 22-26. Oral Presentation.
- 2005 Narváez, D.A. and A. Valle-Levinson. **Exchange hydrodynamics between a subestuary and a larger estuary**. Estuarine Research Federation Meeting, Norfolk, VA, USA. October, 11-15. Oral Presentation.

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