

Enrique Montes-Herrera

Curriculum Vitae

University of South Florida - College of Marine Science
140 7th Ave. South, St. Petersburg, FL 33701
727-553-1103 (Office) / 727-512-1744 (Cel.)
emontesh@mail.usf.edu

Education:

- Fall 2011: Ph.D in Oceanography. University of South Florida, College of Marine Science. Advisor: Frank Muller-Karger
- 1998: B.S. in Biology. Universidad Central de Venezuela (UCV), Caracas, Venezuela

Employment:

- 2012-present: Postdoctoral Research Associate at the Institute for Marine Remote Sensing. University of South Florida.
- 2009- 2011: Research Assistant for the CARIACO Ocean Time-series Program. University of South Florida.
- 2008-2009: Research Assistant. Marine Biogeochemistry Lab, School of Marine Science and Technology, University of Massachusetts Dartmouth.
- 2006-2008: Fulbright fellow. Marine science Master's program, USF.
- 2002-2006: Pharmacia/Pfizer pharmaceuticals. Training and performance manager.
- 1998-2002: Environmental consulting and research assistant at UCV.

Research Interests:

Marine carbon and nitrogen cycling, effects of climate variability and human impacts on marine ecosystems and biogeochemistry, stable isotope geochemistry, paleoceanography.

Professional Awards, Honors, and Scholarships:

- Fulbright Fellowship, May 2006 – 2008.
- Outstanding Student Paper Award – AGU Fall Meeting 2007
- Successful Latino Student Award – USF 2009
- Invited Participant, Ocean Biogeochemistry Time-series Scoping Workshop, Sea change: Charting the course for ecological and biogeochemical ocean time-series research – Honolulu, HI, September 2010
- Aquatic Science Meeting Student Travel Award – ASLO 2011. \$1,000
- Ocean Carbon and Biogeochemistry (OCB) travel award for the IMBER ClimECO3 Summer School in Ankara, Turkey, July 23 – 28, 2012. \$5,000.
- USF Postdoctoral Research Grant, December 4, 2012. \$1,000
- IMBER travel award for the IMBIZO III meeting in Goa, India, January 28 – 31, 2013. \$2,500

Selected Publications:

1. **Montes, E.**, F. E. Muller-Karger, M. W. Lomas, A. Cianca, S. Habtes, L. Lorenzoni, and R. Masserini (*in prep*). Climate-driven changes in oxygen and nitrogen inventories of North Atlantic Subtropical Underwater captured by oceanographic time-series stations.
2. Muller-Karger, F. E., M. T. Kavanaugh, **E. Montes**, W. M. Balch, M. Breitbart, F. P. Chavez, S. C. Doney, E. M. Johns, R. M. Letelier, M. W. Lomas, H. M. Sosik, and A. E. White (*in press*). A framework for a marine biodiversity observing network within changing continental shelf seascapes. *Oceanography Magazine*.
3. Levin, L. A., K. K. Liu, K. C. Emeis, D. L. Breitburg, J. Cloern, C. Deutsch, M. Giani, A. Goffart, E. E. Hoffman, Z. Lachkar, K. Limburg, S. M. Liu, **E. Montes**, W. Naqvi, O. Ragueneau, C. Rabouille, S. K. Sarkar, D. P. Swaney, P. Wassman, and K. F. Wishner (*in press*). Comparative biogeochemistry-ecosystem-human interactions on dynamic continental margins. *J. Marine Syst.*

4. Scranton, M. I., G. T. Taylor, R. C. Thunell, C. Benitez-Nelson, F. Muller-Karger, K. Fanning, L. Lorenzoni, **E. Montes**, R. Varela, and Y. Astor (2014). Interannual and decadal variability in the nutrient geochemistry of the Cariaco Basin. *Oceanography Magazine*, 27, 148 – 159.
5. Muller-Karger, F., L. Lorenzoni, **E. Montes**, G. Taylor, R. Thunell, M. Scranton, C. Benitez-Nelson, Y. Astor, R. Varela, L. Troccoli, and K. Fanning (2013). The CARIACO Ocean Time-Series: 18 years of international collaboration in ocean biogeochemistry and ecological research. *Ocean Carbon and Biogeochemistry Newsletter*, Woods Hole Oceanographic Institution - winter edition.
6. Muller-Karger, F., G. T Taylor, Y. Astor, R. C. Thunell, M. I. Scranton, R. Varela, L. Troccoli Ghinaglia, L. Lorenzoni, **E. Montes**, K. A. Fanning, and C. Benitez-Nelson (2013). From affiliated project: The CARIACO Basin Ocean Time-Series. *Land-Ocean Interactions in the Coastal Zone Newsletter*, 1, ISSN 2070-2442.
7. Lorenzoni, L., G. T. Taylor, C. Benitez-Nelson, D. A. Hansell, **E. Montes**, R. Masserini, K. Fanning, R. Varela, Y. Astor, L. Guzmán, and F. E. Muller-Karger (2013). Spatial and seasonal variability of dissolved organic matter in the Cariaco Basin. *J. Geophys. Res. – Biogeo*, 118, 1 – 12, doi: 10.1002/jgrg.20075.
8. **Montes, E.**, M. Altabet, F.E. Muller-Karger, R. C. Thunell, C. Benitez-Nelson, L. Lorenzoni and Y. Astor (2013). Biogenic nitrogen gas production at the oxic-anoxic interface in the Cariaco Basin, Venezuela. *Biogeosciences*, 10, 267 – 279.
9. **Montes, E.**, R. Thunell, F.E. Muller-Karger, E. Tappa, L. Lorenzoni, L. Troccoli, Y. Astor, and R. Varela (2013). Sources of $\delta^{15}\text{N}$ variability in sinking particulate nitrogen in the Cariaco Basin, Venezuela. *Deep Sea-Res. II*, 93, 96 – 107.
10. **Montes, E.**, F.E. Muller-Karger, R. Thunell, D. Hollander, Y. Astor, R. Varela, I. Soto and L. Lorenzoni (2012). Vertical fluxes of particulate biogenic material through the euphotic and twilight zones in the Cariaco Basin, Venezuela. *Deep-Sea Res. I*, 67, 73 – 84.
11. González, E., M. Ortaz., C. Peñaherrera., **E. Montes.**, M. L. Matos., and J. Mendoza (2003), Phytoplankton of five reservoirs in Venezuela with different trophic conditions. *Limnetica*, 23, 15-35.

Published Abstracts and Conference Presentations

1. **Montes, E.**, Y. Astor, L. Lorenzoni, and F. Muller-Karger. **Poster**: The CARIACO Ocean Time-Series: a case study of the value of biogeochemical time-series within the Global Ocean Acidification Network. International Workshop of the Global Ocean Acidification Observing Network - GOA-ON (*invitation*) in St Andrews, UK, July 24 – 26, 2013.
2. **Montes, E.**, F.E. Muller-Karger, G. Taylor, R. C. Thunell, L. Lorenzoni, D. Rueda-Roa, Y. Astor and R. Varela. **Oral presentation**: Climate-induced ecosystem and biogeochemical shifts in the Cariaco Basin (Venezuela - southeastern Caribbean Sea). **IMBIZO III Conference**, Goa - India, January 27 – 31, 2013.
3. **Montes, E.**, F.E. Muller-Karger, Lorenzoni, Y. Astor and R. Varela. **Poster**: Major ecosystem and biogeochemical changes in response to climatic variations in the Cariaco Basin (Venezuela - southeastern Caribbean Sea). **IMBER ClimECO3 Summer School** in Ankara, Turkey, July 23 – 28, 2012.
4. **Montes, E.**, F.E. Muller-Karger, R. Thunell, E. Tappa, L. Troccoli, L. Lorenzoni, Y. Astor and R. Varela. **Oral presentation**: Environmental controls on the nitrogen isotope signal of sinking particles in the Cariaco Basin, Venezuela. **ASLO Meeting**, Puerto Rico. February 13-18, 2011.
5. **Montes, E.**, F. Muller-Karger, R. Thunell, D. Hollander, Y. Astor, R. Varela, I. Soto, L. Lorenzoni, and L. Troccoli. **Poster**: Particulate Biogenic Fluxes within the Euphotic Zone of the Cariaco Basin, Venezuela. **Ocean Carbon and Biogeochemistry Workshop**, WHOI, MA, July 21-24, 2008.
6. **Montes, E.**, F.E. Muller-Karger, R. Thunell, D. Hollander, Y. Astor, R. Varela, I. Soto and L. Lorenzoni. **Poster**: Sinking biogenic particulate fluxes and primary production in the euphotic zone of the Cariaco Basin, Venezuela. **Ocean Sciences Meeting**, Orlando, FL. March 2-7, 2008.

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7. **Montes, E.**, F.E. Muller-Karger, R. Thunell, D. Hollander, Y. Astor, R. Varela, I. Soto and L. Lorenzoni. **Poster:** Sinking biogenic particulate fluxes and primary production in the euphotic zone of the Cariaco Basin, Venezuela. **AGU Fall Meeting**, San Francisco, CA, December 10-14, 2007.

Sinergistic Activities

Reviewer for the following scientific agencies and peer-reviewed journals: Limnology & Oceanography, Biogeosciences, Marine Chemistry, Deep-Sea Research I and II, Continental Shelf Research, and the National Science Foundation (NSF).

Research cruises: R/V Meteor, Leg M77/4, IFM-GEOMAR, Kiel, Germany; R/V Knorr, leg KNR 197-4; R/V Weatherbird II, University of South Florida; and over 30 cruises on the R/V Hermano Ginés from Fundación La Salles de Ciencias Naturales (FLASA), Venezuela, CARIACO Time-series Program.

Outreach activities: participation in local summer programs at CMS to teach K-12 about satellite oceanography.

Professional Society Memberships:

American Geophysical Union (AGU), Association for the Sciences of Limnology and Oceanography (ASLO), Sociedad Venezolana de Ecología (SVE).

Collaborators:

Frank Muller-Karger, Mya Breitbart, Laura Lorenzoni and David Hollander (USF); Robert Thunell and Claudia Benitez-Nelson (U. South Carolina); Mary Scranton and Gordon Taylor (Stony Brook U.); Susanne Neuer (ASU); Ricardo Letelier (OSU); Mark Altabet and Cindy Pilskaln (U. Massachusetts Dartmouth); Francisco Chavez (MBARI); Michael Lomas and William Balch (Bigelow Lab. Oce. Sci.); Scott Doney and Maria Kavanaugh (WHOI); Jorge Sarmiento, John Dunne and Claudie Beaulieu (U. Princeton); Peter Swart and Larry Peterson (RSMAS – U. Miami); David Enfield (NOAA); Eduardo Santamaría (UABC, Mexico), Vivian Lutz and Rubén Negri (INIDEP, Argentina); Ramón Varela and Yrene Astor (FLASA, Venezuela); Eduardo Klein (USB, Venezuela); Inia Soto (FURG, Brazil).