

## E. BIOGRAPHICAL SKETCH

**Joseph Daniel Ortiz**, PROFESSOR; US citizen

Department of Geology, Kent State University, Kent OH, 44242, U.S.A.

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### a. Professional Preparation:

B.S. with honors, 1988, Brown University (Providence, RI), Major: Aquatic Biology Honors  
Thesis: "An Ecological Model of Stable Isotope Variation and Size Distribution in Northern Indian Ocean Populations of *G. bulloides*"

Ph.D., Oceanography, 1995; Oregon State University (Corvallis, OR), Major: Marine Geology,  
Thesis: "Planktic Foraminifers of the California Current at 42°N: Last Glacial Maximum and Present"

### b. Appointments:

Professor, Kent State University, Sept 2011-present

Associate Professor, Kent State University, Sept 2005- Aug 2011

Assistant Professor, Kent State University, Aug 2001-2005

Associate Research Scientist, L-DEO, Columbia University, July 1998- Aug, 2001

Adjunct Assistant Professor, Barnard College, Sept 2000-Dec 2000.

Visiting Assistant Professor (part time), Wesleyan University, December 1999-May 2000

Post-doctoral Research Scientist, L-DEO, Columbia University, Feb. 1996 - June 1998

### c-1. Five Most Relevant Publications to Research Proposed Here:

Nwaodua, E.C., and **Ortiz, J.D.**, Application of quotient normalization technique to minimize errors in diffuse spectral reflectance data collected under various conditions, *The Journal of Sedimentary Research*, 84, 729-742, DOI: 10.2110/jsr.2014.57, 2014.

Nwaodua, E.C., and **Ortiz, J.D.**, E.M. Griffith, Diffuse spectral reflectance of surficial sediments indicates sedimentary environments on the shelves of the Bering Sea and western Arctic, *Marine Geology*, 355, 218–233, DOI: 10.1016/j.margeo.2014.05.023 2014.

Darby, D.A., **Ortiz, J.D.**, Grosch, C.E., Lund, S.P., 2012, 1,500 year cycle in the Arctic Oscillation identified in Holocene Arctic sea-ice drift, *Nature Geoscience*, *Advance Online Publication*: 11/11/2012, (doi: 10.1038/NGEO1629).

**Ortiz, J.D.**, Application of Visible/near Infrared derivative spectroscopy to Arctic paleoceanography, *IOP Conf. Series: Earth and Environmental Science* 14, 2011, 012011 doi:10.1088/1755-1315/14/1/012011, ([http://iopscience.iop.org/1755-1315/14/1/012011/pdf/1755-1315\\_14\\_1\\_012011.pdf](http://iopscience.iop.org/1755-1315/14/1/012011/pdf/1755-1315_14_1_012011.pdf))

**Ortiz, J.D.**, Polyak, L., Grebmeier, J.M., Darby, D.A., Eberl, D.D., Naidu, S., Nof, D., Provenance of Holocene sediment on the Chukchi-Alaskan margin based on combined diffuse spectral reflectance and quantitative X-Ray Diffraction analysis. *Global and Planetary Change*, (68), 73-84, 2009.

### c-2. Five Other Significant Publications:

Nelson, D.B., Abbott, M.B., Steinman, B., Polissar, P.J. Stansell, N.D., **Ortiz, J.D.**, Rosenmeier, M.F., Finney, B.P., and Riedel, J., 2011, Drought variability in the Pacific Northwest from a 6,000-yr lake sediment record, *PNAS*, doi/10.1073/pnas.1009194108.

Darby, D.A., **Ortiz, J.D.**, Polyak, L., Lund, S., Jakobsson, M., Woodgate, R.A., The role of currents and sea ice in both slowly deposited central Arctic and rapidly deposited Chukchi-Alaskan margin sediments, *Global and Planetary Change*, (68), 58-72, 2009.

Yurco, L., **Ortiz, J.D.**, Leonid Polyak, L., and Darby, D., Reflectance-based clay mineral cycles in Quaternary sediments from the Northwind Ridge: implications for glacial-interglacial

sedimentation patterns in the Arctic Ocean, Polar Research, 2010, DOI: 10.1111/j.1751-8369.2010.00160.x.

Polyak, L., Bischof, J., **Ortiz, J.D.**, Darby, D.A., Channell, J.E.T., Xuan, C., Kaufman, D.S., Løvlie, R., Schneider, D.A., Eberl, D.D., Adler, R.E., Council, E.A., Late Quaternary stratigraphy and sedimentation patterns in the western Arctic Ocean. *Global and Planetary Change*, (68), 5-17, 2009.

Adler, R.E., Polyak, L., **Ortiz, J.D.**, Kaufman, D.S., Channell, J.E.T., Xuan, C., Grottoli, A.G., Sellen, E., Crawford, K.A., Sediment record from the western Arctic Ocean with an improved Late Quaternary age resolution: HOTRAX core HLY0503-8JPC, Mendeleev Ridge. *Global and Planetary Change*, (68), 18-29, 2009.

#### **d. Five Synergistic Activities**

- Lead Guest Editor, TOS Arctic Oceanography Special Volume, anticipated release September 2011.
- Invited participant, NSF-funded, 1<sup>st</sup> and 2<sup>nd</sup> *R/V Sikuliaq* Science Workshop, 2011, 2012
- Sponsorship Co-Chair, 2011 Northeast/North Central GSA meeting, Pittsburgh, PA, 2011
- Invited Talk, Ocean Sciences meeting, Session PA33A, Deciphering the paleoceanographic connection between the North Pacific and Arctic Ocean using non-invasive measurement techniques, 2010.
- Appointed to the Ohio Geology Advisor Committee by Governor Ted Strickland, providing advice to the Director of the Ohio Geological Survey, 2009-.

#### **e. Collaborators and Other Affiliations:**

##### *(i) Collaborators and Co-Editors*

Mark Abbott (U.Pitt), Dr. Robert Anderson (L-DEO), Dennis Darby, (ODU), Dr. Walter Dean (USGS), Dr. Peter deMenocal (L-DEO), Dr. Bruce P. Finney (ISU), Dr. Elizabeth M. Griffith (UT Arlington), Dr. C. Grosch (ODU), Dr. S. P. Lund (USC), Dr. Thomas Marchitto (CU), Dr. Alan Mix (COAS, OSU), Dr. D. B. Nelson (U. Pitt), Dr. Pratigya Polissar (CU), Leonid Polyak, (OSU), Dr. Jon Riedel (US Park Service), Dr. Michael F. Rosenmeier (U. Pitt), Dr. Nathan Stansell (U. Pitt.) Dr. Byron Steinman (U. Pitt), Dr. Alexander van Geen (L-DEO), Dr. Yan Zheng (Queens College)

##### *(ii) Graduate and post doctoral advisors*

- Ph.D. Advisor: Dr. Alan C. Mix (OSU)
- Post-doctoral Advisor: Dr. Wallace Broecker (L-DEO)

##### *(iii) Undergraduate, Graduate (total = 19), and Post-graduate advisees (total = 4):*

- Post-Doctoral students: Sushma Parab (KSU), Liang Yi (National Academy of Sci, PRC), Katrin Monecke (Wellesley College), Richard Zeebe (L-DEO)
- Ph.D. students: Dulci Avouris, Nick Bonini, Chandawimal H.E.R. Siriwardana, Nivanthi Mihidukulasooriya, Emanuel Nwaodua, Khalid Adem Ali, Pradeep Nalaka Ranasinghe, Nishanthi Wijekoon
- M.S. students: Fangyu Zheng, Alan Brenner, Nick Bonini, Jeff Harrison, Chandawimal H.E.R. Siriwardana, Nivedita Mehtrota, Julie Gouin, Steve Woodward, Akindele Balogun, Yvette Vlack, Matthew Wilsbacher
- Senior Honors Thesis: Natalie Cope, Lyanne Yurco
- Undergraduate Honors student workers: Allie Sherwood, Chris Stefano, Christopher Wargo
- WRRI REU Student: Kathleen Wilson, Drew Feucht (co-mentor with Munro-Stasiuk), Sarah Regan Palm (co-mentor with Witter) Laboratory research volunteer: Nathan Saraceno