

CURRICULUM VITAE

Kevin M. Yeager

Department of Marine Science
University of Southern Mississippi
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6/15/2006

Education:

- December, 2002: Ph.D., Geology, Texas A&M University (TAMU), College Station, TX: *Characterizing Coastal Margin Fluvial and Marine Processes Using Lithogenic and Fallout Radionuclides; Isotope Fractionation, Sediment Sourcing and Transport*
- December, 1997: M.S., Geology, University of Toledo (UT), Toledo, OH: *The Vertical Mobility and Persistence of Atrazine and Metolachlor under Specified Conditions within the Ottokee fine sand, Quarry Pond Farm, Waterville, Ohio*
- June, 1995: B.S., Geology, Edinboro University of Pennsylvania (EUP), Edinboro, PA: *Fossil Fishes (Arthrodira and Acanthodida) from the Upper Devonian Chadakoin Formation of Erie County, Pennsylvania*

Professional Experience:

- 8/2005 – Present: Assistant Professor, Department of Marine Science, University of Southern Mississippi.
- 1/2005 – 8/2005: Assistant Research Scientist, Department of Marine Science, Texas A&M University at Galveston.
- 1/2003 – 12/2004: Texas Institute of Oceanography Post Doctoral Fellow, Department of Marine Science, Texas A&M University at Galveston.
- 6/2000 – 12/2002: Research Assistant, Department of Geology and Geophysics, Texas A&M University.
- 9/1997 – 5/2000: Teaching Assistant, Department of Geology and Geophysics, Texas A&M University.
- 6/1999 – 8/1999: Research Assistant, Department of Geography, Texas A&M University.
- 6/1998 – 8/1998: Research Assistant, Geochemical and Environmental Research Group (GERG), Texas A&M University.
- 8/1995 – 7/1997: Teaching/Research Assistant, Department of Geology, University of Toledo.
- 1/1995 – 6/1995: Teaching Assistant, Department of Physics and Technology, Edinboro University of Pennsylvania.

Peer-reviewed publications:

A. Published, in press or in review:

- Yeager, K.M., P.H. Santschi, H. Rifai, M. Suarez, R. Brinkmeyer, C.C. Hung, K.J. Schindler, M. Andres and E. Weaver, 2006. Dioxin chronology in sediments of the Houston Ship Channel, Texas: influences of sedimentary texture and total organic carbon. *Environmental Science and Technology* (submitted).
- Hung, C.C., G. Gwo-Ching, J. Kuotung, K.M. Yeager, P.H. Santschi, T.L. Wade and J.L. Sericano, 2006. Relationship between carbonaceous materials and Polychlorinated Biphenyls (PCBs) in the sediments of the Danshui River and adjacent coastal areas, Taiwan. *Chemosphere* (in press).
- Yeager, K.M., P.H. Santschi, K.J. Schindler, M.J. Andres and E.A. Weaver, 2006. The relative importance of terrestrial versus marine sediment sources to the Nueces-Corpus Christi Estuary, Texas: an isotopic approach. *Estuaries and Coasts* (in press).
- Wan, G.J., J.A. Chen, S.Q. Xu, F.C. Wu, R.G. Huang, K.M. Yeager and P.H. Santschi, 2005. Coupling between $^{210}\text{Pb}_{\text{ex}}$ and organic matter in sediments of Lake Chenghai, China. *Chemical Geology*, vol. 224, no. 4, p. 223-236.
- Yeager, K.M., 2005. On the academic job hunt, is there not a better way? *EOS Transactions: Forum*, vol. 86, no. 27, p. 254.

- Yeager, K.M., P.H. Santschi, J.D. Phillips and B.E. Herbert, 2005. Suspended sediment sources and tributary effects in the lower reaches of a coastal plain stream as indicated by radionuclides, Loco Bayou, Texas. *Environmental Geology*, vol. 47, no. 3, p. 382-395.
- Yeager, K.M., P.H. Santschi and G.T. Rowe, 2004. Sediment accumulation and radionuclide inventories ($^{239,240}\text{Pu}$, ^{210}Pb and ^{234}Th) in the northern Gulf of Mexico, as influenced by organic matter and macrofaunal density. *Marine Chemistry*, vol. 91, no. 1-4, p. 1-14.
- Yeager, K.M. and P.H. Santschi, 2003. Invariance of isotope ratios of lithogenic radionuclides: more evidence for their use as sediment source tracers. *Journal of Environmental Radioactivity*, vol. 69, p. 159-176.
- Yeager, K.M., P.H. Santschi, J.D. Phillips and B.E. Herbert, 2002. Sources of alluvium in a coastal plain stream based on radionuclide signatures from the ^{238}U and ^{232}Th decay series. *Water Resources Research*, vol. 38, no. 11, p. 24-1 - 24-11.
- Yeager, K.M., 1996. Fossil Fishes (Arthrodira and Acanthodida) from the Upper Devonian Chadakoin Formation of Erie County, Pennsylvania. *The Ohio Journal of Science*, vol. 96, no. 3, p. 52-56.
- B. In preparation:*
- Yeager, K.M., P.H. Santschi, K.J. Schindler, M.J. Andres and E.A. Weaver. The importance of physical mixing in driving the efflux of radium from sediments: evidence based on fallout and lithogenic radionuclides in the Nueces-Corpus Christi Estuary, Texas. To be submitted to *Marine Chemistry*.

Abstracts and Reports (presenter in bold):

- Yeager, K.M., P.H. Santschi, **K.J. Schindler**, M.J. Andres and E.A. Weaver, 2006. The relative importance of terrestrial versus marine sediment sources to the Nueces-Corpus Christi Estuary, Texas: an isotopic approach. *EOS Transactions AGU*, 87(36), Joint Assembly Supplement, Abstract OS01-841.
- Hieke, C.**, R. Brinkmeyer and K.M. Yeager, 2005. Diversity of bacterial communities in dioxin-contaminated sediments from the Houston ship channel. *Texas A&M University Student Research Symposium*, Galveston, TX.
- Schindler, K.J.**, K.M. Yeager and P.H. Santschi, 2005. Recent and ongoing research using environmental radionuclides, specifically $^{239,240}\text{Pu}$ for sediment tracing and accumulation. *Texas A&M University Student Research Symposium*, Galveston, TX.
- Yeager, K.M.**, P.H. Santschi, J.D. Phillips and B.E. Herbert, 2005. Suspended sediment sources and the importance of transient storage and human agency as indicated by radionuclides in the Loco Bayou watershed, Texas. *Geological Society of America South-Central Regional Meeting*, San Antonio, TX.
- Santschi, P.H. and K.M. Yeager, 2004. Quantifying terrestrial vs. marine sources of sediment to a managed fluvial, deltaic and estuarine system: Nueces-Corpus Christi Estuary, Texas. Final report to the *Texas Water Development Board*, Austin, TX.
- Yeager, K.M., P.H. Santschi, G. Rowe and **K. J. Schindler**, 2004. Sedimentation and radionuclide inventories ($^{239,240}\text{Pu}$, ^{210}Pb and ^{234}Th) in the northern Gulf of Mexico, the importance of macrofauna and organic matter. *EOS Transactions AGU*, 84(52), Ocean Sci. Meet. Suppl., Abstract OS22C-0014.
- Yeager, K.M.**, P.H. Santschi, J.D. Phillips and B.E. Herbert, 2002. Sources of Alluvium in a Coastal Plain Stream based on Radionuclide signatures from the ^{238}U and ^{232}Th Decay Series: Hillslope to Channel Coupling and the Effects of Human Agency. *Texas A&M University 125th Anniversary Symposium: A Sustainable Gulf of Mexico: Research, Technology and Observation 1950-2050*, College Station, TX.
- Bowman, J.A., K.M. Yeager and J.D. Phillips, 2002. Suspended Sediment Retention in Bottomland Hardwood Forest Stream Corridors of the Upper Angelina River Basin, Texas. Final Report to the *Texas Water Development Board*, Austin, TX
- Yeager, K.M.**, P.H. Santschi, J.D. Phillips and B.E. Herbert, 2000. Resolution of fluvial sediment sources, residence times and resuspension using lithogenic, atmospheric and cosmogenic radionuclides, Bayou Loco, Texas. *Geological Society of America, Abstracts with Programs*, vol. 32, no.7, p. A23.

Research Grants and Contracts: (\$611,833 to date)

- NSF – Carbon and Water Program (\$1,510,773, 2006-2010), Shiller, A., C. Brunner, L. Guo, S. Lohrenz, K. Yeager, R. Faas, M.Y. Sun and W.J. Cai, *Collaborative research: Impacts of marshland erosion/retreat on organic carbon cycling in Louisiana/Mississippi Gulf Coast systems* (in review)
- NSF – MRI Program (\$656,499, 2006-2008), K. Yeager, L. Guo, A. Shiller, V. Asper and S. Lohrenz: *Acquisition of an Aquatic Particle Characterization Facility* (in review)

- NOAA, EPA and USGS (\$1,250,000, 2006-2008), A. Shiller, C. Brunner, K. Yeager, D. Roman and P. Santschi: *USM-DMS Partnership with Interagency Response to Hurricane Katrina Environmental Impact Assessment* (in review)
- Texas Sea Grant Program (\$250,505, 2006-2008), P. Santschi, K. Yeager and R. Brinkmeyer: *Factors regulating microbial degradation of dioxins and dioxin-like compounds in estuarine sediments: the Houston Ship Channel and Galveston Bay, Texas*
- NOAA, TGLO, Coastal Management Program (\$49,999, 2006-2007), K. Yeager, P. Santschi and R. Brinkmeyer: *Stage I: A preliminary evaluation of the impacts of dredging activities on the fate of dioxin in the Houston Ship Channel*
- NOAA, TGLO, Coastal Management Program (\$49,901, 2005-2006), K. Yeager and P. Santschi: *Quantification of sediment sources of the Nueces-Corpus Christi Estuary System*
- National Science Foundation (NSF) (\$20,388, 2005), P. Santschi and K. Yeager: *Acquisition of Additional Radio-Analytical Capabilities, Texas A&M University at Galveston's Laboratory for Oceanographic and Environmental Research and Coastal Zone Laboratory*
- Texas A&M University, Faculty Mini-Grant Program (\$4,761, 2005), P. Santschi, K. Yeager and C. Hung: *Standards for new techniques and instrumentation and laboratory infrastructure*
- Texas Commission on Environmental Quality (TCEQ), TMDL Program, collaborative contract with the University of Houston (\$125,000, 2004-2005), K. Yeager and P. Santschi: *Addressing the legacy question for dioxins in the Houston Ship Channel and upper Galveston Bay, Texas*
- Anchor Environmental, L.L.C. (EPA) – (\$50,500, 2004-2005), P. Santschi and K. Yeager: *Radiochemical sample analysis for the Portland Harbor superfund site round 2*
- Texas Water Development Board (\$37,279, 2003-2004), K. Yeager and P. Santschi: *Quantifying terrestrial vs. marine sources of sediment to a managed fluvial, deltaic and estuarine system: Nueces-Corpus Christi Estuary, Texas*
- The Texas Water Resource Institute (\$5,000, 2001)
- The Gulf Coast Association of Geological Sciences (\$1,000, 2000)
- Graduate Student Research Grants, Office of Graduate Studies, TAMU (\$500, 2000)
- The Geological Society of America Student Grant (\$2,000, 1999)
- The United States Forestry Service (\$15,000, 1999)

Awards and Honors:

- George W. Kunze Award (1k), given to the outstanding doctoral candidate at TAMU in terms of academic excellence and university and community service (2002)
- Texas Institute of Oceanography Graduate Fellowship (2002)
- Outstanding presentation scholarship (1k), Sustainable Coastal Margins Program Symposium, TAMU (2002)
- Inducted as member of Honor Society Phi Kappa Phi, TAMU, chap. 53 (2001)
- Oswald Scholarship (1k), Dept. of Geology & Geophysics, TAMU (2000)
- Michel T. Halbouty Graduate Fellowship (3k), Dept. of Geology & Geophysics, TAMU (1999)
- Oswald Scholarship (1k) awarded by Dept. of Geology & Geophysics, TAMU (1998)

Instrument and Field Experience:

- Perkin Elmer 5100 GFAAS Atomic Absorption Spectrophotometer
- Perkin Elmer Series II CHN/SO elemental analyzer 2400
- Canberra gamma spectrometer, HPGe well detectors and MCA, model 747

- Canberra alpha spectrometer, model 7404 with Canberra MCA, model 8224
- Beckman Coulter LS 6500 scintillation counter
- Soxhlet extraction of organic compounds from soils and sediments
- Hewlett Packard Series 6890 Gas Chromatograph and Series 5972 MSD
- X-radiography of sediment cores and sections
- In-stream instrumentation (optical back-scattering and Doppler instruments)
- Field cruise (7/2003, 6/2005): R/V Sammy Ray (operator), Nueces and Corpus Christi Bays, TX and Gulf of Mexico
- Field cruise (5-11/2004, 2/2005): R/V Puma, Galveston Bay, Houston Ship Channel and San Jacinto River, TX

Professional Affiliations:

- Geological Society of America (1998 – Present)
- American Geophysical Union (2000 – Present)
- American Association for the Advancement of Science (2005 – Present)

Professional and Community Service:

- Journal and funding agency peer reviewer for;

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| <i>Catena</i> (2001-) | <i>Sedimentary Geology</i> (2003-) |
| <i>J. of Environmental Radioactivity</i> (2003-) | <i>J. of Geophysical Research – Oceans</i> (2003-) |
| <i>Earth and Planetary Science Letters</i> (2003-) | <i>Marine Environmental Research</i> (2004-) |
| <i>Estuarine, Coastal and Shelf Science</i> (2005-) | <i>Geochemica et Cosmochimica Acta</i> (2005-) |
| <i>Marine Geology</i> (2005-) | <i>Marine Chemistry</i> (2005-) |
| California Bay Delta Authority (2005-) | National Science Foundation (2004-) |
| U.S. Department of State (2005-) | |
- Invited speaker, The Cathedral Preparatory School, Erie, PA, Alumni/student interaction program, Career possibilities and prospects in earth science and education (Sept. 2004).
- Organizer, “LOER Seminar Series”, Depts. of Marine Science and Marine Biology, TAMUG, allowing faculty and student researchers to disseminate research results and directions to the university and public (Spring 2004).
- Galveston County, TX Science Fair judge and undergraduate tuition scholarship judge for TAMUG (2003-2005).
- Volunteer, Greta Oppe Elementary, Galveston, TX, service as parent reader and field trip chaperone (2003-2004).
- Volunteer, Scott Elementary, Galveston, TX, Special Activities in Gifted Education (SAGE) program (2001-2002).
- Volunteer, Ball High School, Galveston, TX, Science Fair judge and field trip chaperone (2001-2002).
- Organizer, “Environmental and Engineering Geosciences Forum”, Dept. of Geology & Geophysics, TAMU, allowing student presenters to disseminate research results and directions to the university and public (Fall 2001).

University and Departmental Service:

- Faculty Advisor, Student Oceanographic Society, Dept. of Marine Science, University of Southern Mississippi (2005-)
- Member, Faculty Personnel Committee, Dept. of Marine Science, University of Southern Mississippi (2005-).
- Member, Admissions Committee, Dept. of Marine Science, University of Southern Mississippi (2005-).
- Faculty/Graduate Student Liaison, Dept. of Marine Science, University of Southern Mississippi (2005-).

Students Supervised:

Kim Schindler – M.S. (2008), Marine Science, University of Southern Mississippi

Mike Andres – B.S. (2007), Marine Biology, Texas A&M University
Erin Weaver – B.S. (2007), Marine Science, Texas A&M University
Kim Schindler – B.S. (2006), Marine Science, Texas A&M University
Michelle Spinelli – B.S. (2006), Marine Science, Texas A&M University
JoDana Jones - B.S. (2004), Marine Science, Texas A&M University
M. Michael Cerf - B.S., (2004), Marine Science, Texas A&M University
Chris Courtney - B.S., (2003), Marine Biology, Texas A&M University