

Patrick Louchouart

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EXPERTISE

Biogeochemical cycling of organic matter in soils and aquatic environments. Impact of watershed disturbance on cycling of trace metals and organic matter. Tracers of combustion by-products in environmental media. Management of analytical/environmental laboratories (organics/metals). Development and direction of cross-disciplinary curricula within the context of university core science courses and environmental studies programs.

PRESENT POSITION

2006-Present **Associate Professor (Tenured)**, *Texas A&M University-Galveston* - Dept. of Marine Sciences.
Joint Appointment Dept. of Oceanography *Texas A&M University*.

EDUCATION

Post-Doc. (NSERC) Marine Chemistry, University of Texas, 1998-1999
Ph.D. Environmental Sciences, University of Québec in Montréal (UQAM), 1997.
M.Sc. Environmental Sciences, University of Québec in Montréal (UQAM), 1992
B.Sc. Marine Biology - McGill University, 1989.

PROFESSIONAL EXPERIENCE

2008-present **Faculty Senate**, *Texas A&M University*.
2007 **Chair, Tenure & Promotion Comm.**, *Texas A&M University-Galveston* - Dept. of Marine Sciences.
2005 **Invited Professor (Sabbatical)**, *École de Sciences Politiques (Sciences Po)/American Center - Paris*. Multidisciplinary research in environmental science and education.
2005 **Invited Professor (Sabbatical)**, *Institut National de Recherche Agricole (INRA) - Versailles-Grignon*. Biogeochemistry of soils and sediments.
2003-2006 **Associate Director**, *Columbia University*, Masters Program in Public Administration (MPA) in Environmental Science and Policy, (www.columbia.edu/cu/mpaenvironment/index.html).
2002-2006 **Associate Professor of Aqueous Geochemistry & Environmental Sciences**, *Columbia University*, Joint Appointment: Dept. of Earth and Environmental Sciences/School of International and Public Affairs. (www.columbia.edu/itc/sipa/envp/louchouart/courses/).
2000-2002 **Assistant Professor of Environmental Sciences**, *Texas A&M University-Corpus Christi*, Dept. of Physical and Life Sciences.
1999-2000 **Associate Research Scientist**, *Texas A&M University System*, Research position in environmental geochemistry. Director of environmental laboratory (metals/organics).
1998-1999 **Post-Doctoral Fellow**, *University of Texas at Austin*, Marine Science Institute. Biogeochemistry of dissolved organic matter in marine and freshwater environments.
1997 **Post-Doctoral Fellow**, *University of Québec in Montréal*, Chair in Environmental Research. Principal coordinator and organizer of the International Symposium: "Electricity production and greenhouse gases: Facts and perspectives". Research in environmental geochemistry.
1992-1997 **Adjunct Professor of Environmental Sciences**, *University of Québec in Montréal*, Dept. of Earth and Atmospheric Sciences. Six years of experience teaching undergraduate level courses: "Global Environmental Cycles" and "Oceanography"

LANGUAGES Fluent in English, French, and Spanish; Basic knowledge of Chinese (Mandarin).

PUBLICATIONS 34 peer-reviewed publications across multiple fields (see list below).

AWARDED RESEARCH 19 grants awarded since 1997 (see list below).

Professional Overview

Education/Administration



- Development and implementation of scientific curricula for non majors (in-service and pre-service teachers, core curriculum undergraduates, decision makers).
 - Co-Direction of a Master of Public Administration in Environmental Sciences (design and implementation of curriculum, hiring and direction of adjuncts, scheduling of classes, and management of budget)
 - Committee Service: University Senate (Curriculum Committee); Tenure & Promotion Committee (Chair); Research Advisory Committee; Recruiting and Academic Advisory Committee; Faculty Search; Graduate Instruction Committee.
- Courses:** Climate Change and Water Resources (MPA); Earth System Science (Education; Core Curr.; Online); Ecosystem Functioning and Biogeochemical Cycling (MPA); Environmental Chemistry and Regulatory Toxicology (MPA); Environmental Economics in Oceanography (M.Sc.; Online); Environmental Sciences (B.Sc.; Core Curr.); Instrumental Analysis (B.Sc.); Oceanography (B.Sc.).

Reviews/Edition

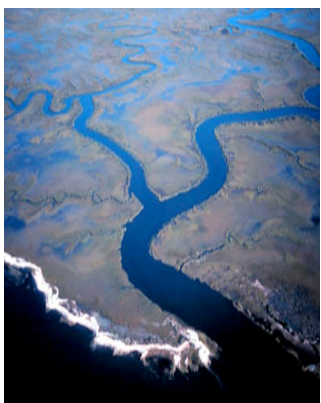


Journals: *Applied Geochemistry; Biogeochemistry; Environmental Education Research; Environmental Science & Technology; Environmental Pollution; Estuarine, Coastal and Shelf Science; Geochimica et Cosmochimica Acta; Global Biogeochemical Cycles; J. of Environmental Radioactivity; J. of Exposure Science & Environmental Epidemiology; J. of Geophysical Research-Biogeosciences; Limnology & Oceanography; Limnology & Oceanography-Methods; Marine Chemistry; Organic Geochemistry; Soil Science Society of America J.; Wetlands.*

Research Foundations: NSF; NIH; NOAA; ACS-PRF; Hudson River Foundation; Irish Research Council for Science, Engineering and Technology; French Agence Nationale de la Recherche, and Swiss National Science Foundation

Educational Textbooks: Holt, Rinehart and Winston Publisher (Earth System Science, Oceanography, Atmosphere and Climate, Environmental Sciences).

Research



- Impact of watershed disturbance on cycling of trace metals and organic matter.
- Characterization of combustion emissions in urban and rural systems.
- Isotope and organic geochemistry in soils and aquatic environments.
- Paleolimnology and Paleoceanography.
- Member of International Black Carbon Ring-Trial
- Co-Chair of symposia: 1) "Black Carbon in the Environment": 2008 AGU Fall Meeting. 2) "Multi-tracer studies in Geochemistry - When the sum is greater than the parts": 2004, 227th ACS Meeting. 3) "Estuarine Ecosystems and Links to Upland Watersheds": 2004 Joint Assembly AGU/CGU/SEG.

PUBLICATIONS IN PREPARATION (Graduate students/Post Docs underlined)

Louchouarn, P., L.-J. Kuo, F. Marcantonio, J. Brandenberger, and E. Crecelius. (2009 - *In Preparation*). Sources and chronology of combustion-derived pollutant inputs to a basin of the Puget Sound during the 20th century: Inferences from Pb isotopes and PAH profiles. *Environmental Science & Technology*.

Kuo, L.-J., **P. Louchouarn**, J.M. Brandenberger, B.E. Herbert, E.A. Crecelius, and T.L. Wade. (2009 - *In preparation*). Historical inputs of hydrocarbons fossil fuel and biomass combustion to deep basins of Puget Sound. *Environmental Science & Technology*.

Kuo, L.-J., B.E. Herbert and **P. Louchouarn**. (2009 - *In preparation*). Solvent extractable lignin-derived monomers in plant charcoals: tracers of biomass combustion inputs to soils, aquatic systems, and aerosols. *Organic Geochemistry*.

Seward, S.M., **P. Louchouarn**, R. Brinkmeyer, G. Cornelissen, K. Yeager, and P. Santschi. (2009 - *In preparation*). Black carbon and amorphous organic carbon distribution in sediments of the Houston Ship Channel: Implications for PAH and dioxin speciation and bioavailability. *Environmental Pollution*

PEER-REVIEWED PUBLICATIONS

Brandenberger, J.M., **P. Louchouarn**, and E. Crecelius. (2009 - *In Review*). Natural and post urbanization signatures of hypoxia in two basins of Puget Sound-I: Historical reconstruction of redox sensitive and trace metal signatures. *Geochimica et Cosmochimica Acta*.

Louchouarn, P., J. Brandenberger, and E. Crecelius. (2009 - *In Review*). Natural and post urbanization signatures of hypoxia in two basins of Puget Sound-II: Historical reconstruction of sources and inputs of organic matter. *Geochimica et Cosmochimica Acta*.

Louchouarn P., R. Amon, S. Duan, C. Pondell, S.M. Seward, and N. White (2009 - *In Review*). Analysis of lignin-derived phenols in standard reference materials and dissolved organic matter by gas chromatography/tandem mass spectrometry. *Marine Chemistry*.

Ishikawa, T., A. Barnston, K.A. Kastens, and **P. Louchouarn**. (2009 - *In Review*). Understanding, evaluation, and use of climate forecasts by prospective policy makers: An empirical study with mixed approaches. *GSA-Special Publication on Qualitative Research in Geoscience Education*.

Louchouarn, P., L.-J. Kuo, T.L. Wade, and M. Schantz. (2009 - *In Press*). Determination of levoglucosan and its isomers in size fractions of aerosol standard reference materials. *Atmospheric Environment*.

Walker, S.A., R.M.W. Amon, C. Stedmon, S. Duan, **P. Louchouarn**. (2009 - *In Press*). The use of PARAFAC modeling to trace river water in the Canadian Archipelago. *JGR-Biogeosciences*.

Schloesser, R.W., J.R. Rooker, **P. Louchouarn**, J.D. Neilson, and D.H. Secor. (2009). Inter-decadal variation in ambient oceanic $\delta^{13}\text{C}$ and $\delta^{18}\text{O}$ recorded in fish otoliths. *Limnology & Oceanography*. Vol. 54(5), 1665-1668.

Sánchez-García, L., J. Ramón de-Andrés, A. Martín-Rubí, and **P. Louchouarn**. (2009). Diagenetic state and source characterization of marine sediments from the inner continental shelf of the Gulf of Cádiz (SW Spain), constrained by terrigenous biomarkers. *Organic Geochemistry*. Vol. 40(2), 184-194.

Kuo, L.-J., **P. Louchouarn**, and B.E. Herbert. (2008). Fate of CuO-derived lignin oxidation products during plant combustion: Application to the evaluation of char inputs to soil organic matter. *Organic Geochemistry*. Vol. 39, 1522-1536.

Brandenberger, J., E. Crecelius, and **P. Louchouarn**. (2008). Historical inputs and natural recovery rates of heavy metals and organic biomarkers in Puget Sound during the 20th century. *Environmental Science & Technology*. Vol. 42, 6786-6790.

Kuo, L.-J., B.E. Herbert, and **P. Louchouarn**. (2008). Can levoglucosan be used to characterize and quantify char/charcoal black carbon in environmental media? *Organic Geochemistry*. Vol. 39, 1466-1478.

Hammes, K., M.W.I. Schmidt, L.A. Currie, W.P. Ball, T.H. Nguyen, **P. Louchouarn**, and co-authors. (2007). Comparison of quantification methods to measure fire-derived (black/elemental) carbon in soils and sediments using reference materials from soil, water, sediment and the atmosphere. *Global Biogeochemical Cycles*. doi:10.1029/2006GB002914.

Louchouarn P., S. Chillrud, S. Houel, B. Yan, D. Chaky, C. Rumpel, C. Largeau, G. Bardoux, D. Walsh, and R.F. Bopp (2007). Elemental and isotopic evidence of soot- and char-derived black carbon inputs to New York City's atmosphere during the 20th Century. *Environmental Science & Technology*. Vol. 41, 82-87.

Louchouarn, P., T. Naehr, J. Silliman, and S. Houel. (2006). Elemental, stable isotopic ($\delta^{13}\text{C}$), and molecular signatures of organic matter in late Pleistocene to Holocene sediments from the Peruvian margin (ODP Site 1229). In Jørgensen, B.B., D'Hondt, S.L., and Miller, D.J. (Eds.), *Proceedings of the Ocean Drilling Program, Scientific Results*, 201: 1-21.

Houel S., **P. Louchouarn**, M. Lucotte, R. Canuel and B. Ghaleb. (2006). Translocation of soil organic matter following reservoir impoundment in boreal systems: Implications for in-situ productivity. *Limnology & Oceanography*. Vol. 51(3), 1497-1513.

Benner, R., **P. Louchouarn**, and R. Amon. (2005). Terrigenous DOM in the Arctic Ocean and its transport to shallow and deep waters of the North Atlantic. *Global Biogeochemical Cycles*. Vol. 19.

Ishikawa, T., A. Barnston, K.A. Kastens, **P. Louchouarn**, and C. Ropelewski. (2005). Testing the efficacy of climate forecast maps as a means of communicating with policy makers. *Cartography & Geographic Information Science*. Vol. 32(1), 3-16.

Page, C.A., C. Fuller, R.L. Autenrieth, J.S. Bonner, **P. Louchouarn**, P. Tissot, and T. McDonald. (2005) Shoreline cleaner use in a sandy beach environment. *2005 International Oil Spill Conference*, p: 7696-7699.

Brandenberger J., **P. Louchouarn**, B.E. Herbert, and P. Tissot. (2004). Geochemical and hydrodynamic controls on arsenic and other trace metal cycling in a seasonally stratified US sub-tropical reservoir. *Applied Geochemistry*. Vol. 19, 1601-1623.

Farella, N., M. Lucotte, **P. Louchouarn**, and M. Roulet. (2001). Deforestation at the origin of modified terrigenous organic matter inputs to the Rio Tapajos, Brazilian Amazon. *Organic Geochemistry*. Vol. 32, 1443-1458.

Louchouarn, P., S. Opsahl, and R. Benner. (2000). Isolation and quantification of dissolved lignin from

natural waters using solid-phase extraction (SPE) and GC/MS Selected Ion Monitoring (SIM). *Analytical Chemistry*. Vol. 13, 2780-2787.

Louchouarn, P., J. Bonner, C. Page, P. Tissot, and T. McDonald. (2000). Quantitative determination of oil films/slicks from water surfaces using a modified solid-phase extraction (SPE) sampling method. *Proceedings of the 23rd AMOP Meeting*, Vancouver, Canada. Vol. 1, p: 59-68.

Tissot P., C. Fuller, **P. Louchouarn**, J. Bonner, S. Dellamea, D. and Bujnoch. (2000). Quantitative Method for Surface Oil Measurement and Recovery Based on a New Type of Low Impact Skimmer. *Proceedings of the 23rd AMOP Meeting*, Vancouver, Canada. Vol. 1, 353-366.

Page C., J. Bonner, **P. Louchouarn**, P. Tissot, C. Fuller, and T. McDonald. (2000). Materials Balance on an Oil Washed from a Sandy Substrate using Shoreline Cleaners. *Proceedings of the 23rd AMOP Meeting*, Vancouver, Canada. Vol. 2, 697-708.

Fuller C., J. Bonner, S. Dellamea, S. Ussery, C. Page, P. Tissot, **P. Louchouarn**, and T. McDonald. (2000). Comparative Ecological Effects of Sandy Shoreline Cleaners. *Proceedings of the 23rd AMOP Meeting*, June 2000, Vancouver, Canada. Vol. 2, 795-804.

Louchouarn, P., M. Lucotte, and N. Farella. (1999). Historical and geographical variations of sources and transport of terrigenous organic matter within a large-scale coastal environment. *Organic Geochemistry*. Vol. 30, 675-699.

Klap, V.A., **P. Louchouarn**, J.J. Boon, M.A. Hemminga, and J. van Soelen. (1999). Lignin decomposition dynamics for six salt marsh halophytes as determined by cupric oxide oxidation and pyrolysis mass spectrometry. *Limnology & Oceanography*. Vol. 44(6), 1458-1476.

Louchouarn, P. and M. Lucotte. (1998). A historical reconstruction of organic and inorganic contamination events in the Saguenay/St-Lawrence system from preindustrial times to the present. *The Science of the Total Environment*. Vol. 213, 139-150.

Louchouarn, P., M. Lucotte, R. Canuel, L-P. Richard, and J-P. Gagné. (1997). Sources and early diagenesis of lignin and bulk organic matter in recent sediments from the Lower St. Lawrence Estuary and the Saguenay Fjord, Canada. *Marine Chemistry*. Vol. 58, 3-26.

Louchouarn, P., M. Lucotte, E. Duchemin, and A. de Vernal. (1997). Early diagenetic processes in recent sediments of the Gulf of St. Lawrence: Phosphorus, Carbon, and Iron burial rates. Special Issue on phosphorus cycling and sedimentation. *Marine Geology*. Vol. 139, 181-200.

Louchouarn, P., M. Lucotte, and N. Silverberg. (1996). Source variations and reactivity of terrigenous organic biomarkers in settling particulate matter and sediments from the Lower St. Lawrence Estuary, Canada. *Proceedings from the "4th International symposium on the geochemistry of the earth's surface"*, July 22-28, 1996. Ilkley, England. 307-312.

Farella, N, M. Lucotte, **P. Louchouarn**, M. Roulet, R. Canuel, and S. Tran. (1996). Use of lignin-derived phenols as tracers of soil erosion in Amazonian Rivers. *Proceedings from the "4th International symposium on the geochemistry of the earth's surface"*, July 22-28, 1996. Ilkley, England. 406-408.

Louchouarn, P., M. Lucotte, A. Mucci, and P. Pichet. (1993). Geochemistry of mercury in two hydroelectric

reservoirs of Québec, Canada. *Canadian Journal of Fisheries & Aquatic Sciences*. Vol. 50 (2), 269-281.

Lucotte M., C. Hillaire-Marcel, and **P. Louchouarn**. (1989). First order organic carbon budget in the St. Lawrence Lower Estuary From ¹³C data. *Estuarine, Coastal and Shelf Science*. Vol. 32, 297-312.

NON PEER-REVIEWED

Brandenberger, J., G.A. Gill, E. Crecelius, **P. Louchouarn**, and L-J. Kuo (2009). Study of Atmospheric Deposition of Air Toxics to the Waters of Puget Sound: Year One Data Report. Department of Ecology, State of Washington Olympia, Washington.

Brandenberger, J., E. Crecelius, **P. Louchouarn** et al. (2008). Reconstructing trends in hypoxia using multiple paleoecological indicators recorded in sediment cores from Puget Sound, WA. NOAA Coastal Hypoxia Research Grant Number: NA05NOS4781203

Louchouarn, P. (2001). Of Excellence and Trends in the Ivory Tower. *Fronteras*, Version 01.310a. Texas A&M University System, College Station and Corpus Christi, Texas. (11 October 2001).

Louchouarn, P. (1997). La lignine et le Saguenay: Sommes nous sortis du bois. *Profils Saguenay* (INRS Publication). Vol. 2(2), 5-6.

PRESENTATIONS

Seward, S.M., **P. Louchouarn**, R. Brinkmeyer, G. Cornelissen, K. Yeager, and P. Santschi. (2009). Black carbon and amorphous organic carbon distribution in sediments of the Houston Ship Channel: Implications for PAH and dioxin speciation and bioavailability. Coastal & Estuarine Research Federation, 20th Biennial Conference, Nov. 1-5, 2009.

Amon, R.M.W., S.A. Walker, **P. Louchouarn**, S. Duan, A. Rinehart, R. Benner, K. Kaiser, C. Stedmon, B. Newton, P. Schlosser. (2009). The use of river water tracers to improve our understanding of surface ventilation in the Arctic Ocean. Gordon Conference, Polar Marine Science. Beyond IPY: Crossing Boundaries. March 15-20, 2009.

Louchouarn, P., L-J. Kuo, F. Marcantonio, J. Brandenberger, and E. Crecelius. (2008). Using sediment records to reconstruct historical inputs of combustion-derived contaminants to urban airsheds/watersheds: A case study from the Puget Sound System. AGU Fall Meeting, Dec. 15-19, 2008.

Kuo, L-J., **P. Louchouarn**, and B.E. Herbert. (2008). Understanding the impact of charcoal inputs to soils and sediments on conventional geochemical markers. AGU Fall Meeting, Dec. 15-19, 2008.

Brandenberger, J., E. Crecelius, and **P. Louchouarn**. (2008). Relationship between Pacific Decadal Oscillation and paleo-tracers of hypoxia in sediment cores from Puget Sound, WA. AGU Fall Meeting, Dec. 15-19, 2008.

Rinehart, A.J. R.M.W. Amon, **P. Louchouarn**, S. Duan, B.J. Peterson, J.W. McClelland, and R.M. Holmes. (2008). Dissolved organic matter discharge from the six largest Arctic Rivers: chemical composition and seasonal variability. AGU Fall Meeting, Dec. 15-19, 2008.

P. Louchouarn, (2008). How authentic can scientific inquiry be in the classroom, and does it matter? A case study addressing graduate professional programs in environmental sciences. GSA Meeting, Oct. 5-9, 2008.

- P. Louchouarn, L.-J. Kuo, and B.E. Herbert.** (2008). Potential impacts of charcoal on paleoreconstructions of organic matter inputs to aquatic systems. ASLO/AGU Ocean Meeting, March 2-7, 2008.
- Brandenberger, J.M., E. Creelius, **Louchouarn, P.**, S. Cooper, E. Leopold, and K. McDougall (2008). Natural sources of nutrient enrichment: Relationships between large-scale climate drivers and trends in hypoxia recorded in sediment cores from Puget Sound, WA. ASLO/AGU Ocean Meeting, March 4-7, 2008.
- Cooper, S., J.M. Brandenberger, E. Creelius, **Louchouarn, P.**, E. Leopold, and K. McDougall (2008). Reconstructing trends in hypoxia using multiple paleoecological indicators recorded in sediment cores from Puget Sound, WA. ASLO/AGU Ocean Meeting, March 4-7, 2008.
- Cooper, S.H. J.M. Brandenberger, E. Creelius and **P. Louchouarn.** (2007). Puget Sound and Hood Canal: Past 300 Years. Estuarine Research Federation, November 4-8, 2007.
- Louchouarn, P.**, J.M. Brandenberger, and E. Creelius (2007). Historical reconstruction of reduced oxygen levels in deep waters of Puget Sound: biogeochemical and Physical constraints on hypoxia conditions. ASLO Aquatic Sciences Meeting, February 4-9, 2007.
- Kuo, L.-J., B.E. Herbert, and P. Louchouarn.** (2006). Molecular marker approach on characterizing and quantifying charcoal in environmental media. AGU. December 04, 2006.
- Kuo, L.-J, B. E. Herbert and P. Louchouarn.** (2006) Validating levoglucosan as an indicator for charcoal presence in environmental media: A laboratory study. In: BC/nanoC Geochemistry Symposium, Rice University, Houston, TX, USA, Aug. 2006.
- Alexis, M.A., C. Rumpel, **P. Louchouarn, N. Péchot, D. Rasse and A. Mariotti,** (2006). Production of two biomass burning tracers during a prescribed fire: Black carbon vs levoglucosan. Soil Sciences Society of America Annual Meeting. November 12-16, 2006.
- Kuo, L.-J., B.E. Herbert, and P. Louchouarn.** (2006). Validating levoglucosan as an indicator for charcoal presence in environmental media: A laboratory study. Rice University Black Carbon Meeting. August 23, 2006.
- Louchouarn P.** (2005). Double standards in public policy? Acknowledging the burden on science in decision-making. Invited conference at Sciences Po – Chair in Sustainable Development. April 22, 2005.
- Louchouarn P., and S. Houel.** (2005). Soot/black carbon vs. chars in environmental media: Potential discrimination between these combustion by-products through elemental, molecular, and bulk isotopic analyses. EGU/AGU Joint Meeting, Vienna, Austria, April 24-29, 2005.
- Benner, R., **P. Louchouarn,** and R. Amon. (2005). An Arctic source for terrigenous dissolved organic carbon in North Atlantic deep water. ASLO Summer Meeting, Santiago de Compostela, Spain. June 19-24, 2005.
- Louchouarn P., S. Houel, D. Peteet, and R. Sambrotto.** (2005). "Paleofire history and bulk isotopic markers: Potential biases in source reconstruction of carbon sources to wetland sediments". ASLO Aquatic Meeting, Salt Lake City, UT, Feb. 20-24, 2005.
- Louchouarn P., S. Houel, and M. Lucotte.** (2004). "The role of pulse dynamics and watershed-scale anthropogenic impacts on estuarine cycling of terrigenous organic matter". 2004 AGU-CGU Joint Assembly, Montreal, Qc. May 17-21, 2004.
- Louchouarn P., D. Peteet, D. Pederson, S. Houel, and T. Filley.** (2004). "The impact of long-term hydrological fluctuations on changes in vegetation and carbon fluxes in Hudson Estuary wetlands". 227th ACS National Meeting, Anaheim, CA, March 28-April 1, 2004.
- Houel, S., **P. Louchouarn, D. Peteet, and M. Lucotte.** (2004). "Fire and elemental black carbon analyses: A new addition to vascular plant biomarkers for reconstructions of allochthonous OM fluxes in aquatic systems". 227th ACS National Meeting, Anaheim, CA, March 28-April 1, 2004.
- Ishikawa, T., A. Barnston, K.A. Kastens, **P. Louchouarn,** and C. Ropelewski. (2003). "Testing the Efficacy of Climate Forecast Maps as a Means of Communicating with Policy Makers". 115th Annual GSA Meeting. Seattle, WA, Nov. 2-5, 2003.
- Louchouarn, P., J. Brandenberger, B.E. Herbert, and A. Patterson.** (2003). "Organoarsenic, the missing link? What happens when the Fe hydroxide model does not work". 226th ACS National Meeting, New York, NY, September 7-11, 2003.
- Herbert, B.E., L.M. Lee, **P. Louchouarn, G.E. Moore, C.T. Markley, M.D. Roberts.** (2003) "Bioavailability and sources of arsenic in reactive-iron limited sediments of the coastal plain of South Texas". 226th ACS National Meeting, New York, NY, September 7-11, 2003.
- Louchouarn, P., J. Brandenberger, B.E. Herbert, and S. Houel.** (2003). Organic and inorganic markers of short time-scale shifts in environmental conditions in a South Texas reservoir subsequent to its impoundment. 225th ACS National Meeting, New Orleans, LA, March 23-27.
- Heikkila, T., **P. Louchouarn,** and B. Williams. (2003). "Bringing better science into resource management decisions: The implications of water quality data on water quantity management in the Southwestern U.S.". Twenty-Fifth Annual APPAM Research Conference, Science and Technology Policy. Washington, DC, November 6-8.
- Dolan, B. and **P. Louchouarn.** (2003). "Control of Nonindigenous Species Invasions of Coastal Waters: Application of Dissolved Lignin to the Testing of Ballast Water Exchange Efficiency". 4th NOAA Expanding Opportunity in Oceanic and Atmospheric Science. Tallahassee, FL. March 30-April 1
- Lake, G.E., B.E. Herbert, and **P. Louchouarn.** (2002). Quantification of Potential Arsenic Bioavailability Using Chelating Resins in Spatially Varying Geologic Environments at the Watershed Scale. America Geophysical Union Fall Meeting, San Francisco, CA, December 6-10. Eos Trans. AGU, 83(47).
- Smith, C., P. Tissot, **P. Louchouarn, M. Beaman, R.L. Parker, M. Williams, J. Brandenberger, B.E. Herbert, and P.R. Michaud.** (2002). "Have Radionuclides Released from the South Texas Uranium Mines Affected Lake Corpus Christi?" invited presentation to the 2002 National Sigma Xi Student Research Conference, Galveston, Texas, November 16, 2002, p. 31.
- C. M. Smith, P. Tissot, M. Beaman, R.L. Parker, J. Brandenberger, M. Williams, **P. Louchouarn, B.E. Herbert, and P.R. Michaud.** (2002). "Historical Environmental Impact of Uranium Mining Through the Gamma Ray Analysis of Livestock Pond Sediments", 2002 Annual GSA Meeting, Oct. 27-30, 2002, Denver, CO.

- Clark, J., A. Berkebile, and **P. Louchouarn**. (2002). Occurrence and Extent of Arsenic and Associated Metals in the Groundwaters Near Lake Corpus Christi, Texas. 105th Annual Meeting of the Texas Academy of Science, Laredo, TX. Feb 28-Mar. 2, 2002.
- Roberts, M.D., B.E. Herbert, and **P. Louchouarn**. (2001). Organoarsenicals: The missing arsenic link. *GSA Abstracts*, Vol. 33, No. 6, October 2001.
- Lake, G.E., B.E. Herbert, and **P. Louchouarn**. (2001). Quantification of arsenic bioavailability in spatially varying geologic environments at the watershed scale using chelating resins. *GSA Abstracts*, Vol. 33, No. 6, October 2001.
- Brandenberger, J.M., **P. Louchouarn**, B.E. Herbert, P. Tissot, P.R. Michaud, R.L. Parker, M. Williams, J. Bonner, and M. Beaman. (2001). Behavior of Trace Metal Concentrations in Water Profiles from Lake Corpus Christi Subsequent to an Overturn Event. NOAA - Expanding Opportunities in Oceanic and Atmospheric Sciences. April 1-3, 2001, Jackson, MS.
- Parker, R., B.E. Herbert, J. Brandenberger, and **P. Louchouarn**. (2001). Ground water discharge from Mid-Tertiary Rhyolitic ash-rich sediments as the source of elevated arsenic in South Texas surface waters. *GSA Abstracts*, Vol. 33, No. 6, October 2001.
- Louchouarn, P.**, R. Benner, S. Opsahl, and R. Amon. (2000). Abundance, distribution, and cycling of dissolved terrigenous organic matter (DOM) in the Arctic Ocean. ASLO Ocean Meeting, January 2000, San Antonio, USA.
- Louchouarn, P.**, J. Bonner, C. Page, P. Tissot, and T. McDonald. (2000). Quantitative determination of oil spills from water surfaces using a modified solid-phase extraction (SPE) sampling method. 23rd AMOP Meeting, June 2000, Vancouver, Canada.
- Page C., J. Bonner, **P. Louchouarn**, P. Tissot, C. Fuller, and T. McDonald. (2000). Materials Balance on an Oil Washed from a Sandy Substrate using Shoreline Cleaners. 23rd AMOP Meeting, June 2000, Vancouver, Canada.
- Klap, V., M. Hemminga, J.J. Boon, and **P. Louchouarn**. (1996). Lignin in POM and DOM of a european salt marsh creek. (Is lignin such a suitable terrestrial marker in a marine environment?). Oral communication at the 212th ACS National Meeting, August 25-30, Orlando, USA.
- Louchouarn, P.**, M. Lucotte, R. Canuel, N. Farella, and J-P. Gagné. (1995). Organic diagenesis in anoxic fjord and suboxic estuarine sediments of the St. Lawrence System: Canada. Oral communication at the 4th International Symposium on Model Estuaries, March 21-24, 1995, Nantes, France.
- GRANTS AND CONTRACTS**
- Pending Research:**
- *NSF-MRI*: "Acquisition of a GC/MS triple quadrupole for the characterization of terrestrial plant biomarkers in complex environmental media at TAMUG". (PI). 2009-2010.
- Funded Research:**
- *Texas Commission of Environmental Quality*: "Fate of Dioxin in the Houston Ship Channel and Evaluation of Natural Remediation Processes". (Co-PI). 2009.
 - *Texas Commission of Environmental Quality (TCEQ)*: "Role of black carbon in the partitioning and mobility of dioxins in contaminated sediments of the Houston Ship Channel". (PI). 2009-2010.
 - *Dept. of Ecology-State of Washington*: "Study of Atmospheric Deposition of Air Toxics to the Waters of Puget Sound, Washington". (Co-PI). 2008-2010.
 - *R&K Research*: "Analysis of Sediment Cores from the Penobscot River Estuary". (Co-PI). 2008-2010.
 - *Texas A&M University-Pathways to Doctorate*: 2 years of Fellowship support for recruitment of an A&M student into a Ph.D. program. 2008-2010.
 - *NOAA - Coastal Hypoxia Research Program*: "Historical evaluations of increased hypoxia in three basins of the Puget Sound" (Co-PI) - 2005-2008.
 - *Alliance Program (Columbia/Sciences-Po/Polytechnique)*: "Science Education: The role of authentic inquiry for building practice and scientific literacy in graduate multidisciplinary professional programs" (PI) - 2005.
 - *NSF*: Collaborative Research: "Riverscope: Large-scale engineering analysis network for environmental research on the Hudson River" (Co-PI) - 2004-2005.
 - *Columbia University - LDEO*: "Testing the efficacy of probability maps as a means of communicating climate forecasts to policy makers" (Co-PI) - 2003.
 - *Earth Institute - Columbia University*: Funding for Post-doctoral Associate (PI) - 2002-2005.
 - *JOI/USSSP*: "Input vs. Preservation of Organic Matter in Peruvian Shelf Sediments during Past Glacial/Interglacial Oscillations" (Co-PI) - 2003-2005.
 - *NSF/MRI*: "Acquisition of Instrumentation for the Chemical and Biological Characterization of Factors Affecting the Distribution and Phytoremediation of Seagrasses in Coastal Bays and Estuaries" (Co-PI) - 2001-2003.
 - *US Coast Guard Research and Development Center*: "Identification and Testing of Ballast Exchange Water", (Invited Investigator) - 2000-2001.
 - *USGS/Texas Water Resource Institute*: "Arsenic Concentrations in Water Resources of the Choke Canyon/Lake Corpus Christi Reservoir System: Surface and Ground Waters", (PI) - 2001-2002.
 - *Texas ARP*: "Contamination from South Texas Uranium Mines: Environmental Fate from Molecular to Watershed Scales" (Co-PI) - 2000-2001.
 - *TAMUCC College of Science & Technology - Research Enhancement Grant*: "Source and Fate of Heavy Metals in Sedimentary Environments of the Nueces River Watershed" (PI) - 2001.
 - *NSERC-Canada*: "Assessment & Modeling of the Production and Emissions of Greenhouse Gases

from Hydro-Electric Reservoirs”, (Co-PI) - 2000-2003.

- TAMUCC College of Science & Technology - Equipment Grant (Carbon Analyzer): (PI) - 2000.
- NSERC: Equipment Grant (GC/MS), (Co-PI) - 1997

Awarded Fellowships:

Post-Doctoral:

- NSERC: 1998-2000

Ph.D.:

- *Eco-Research*, Canadian Ministry of the Environment: 1994-1996
- NSERC: 1992-1994
- *Scientific Council of Québec* (FCAR): 1994
- *Team-FCAR*: 1993
- *PAFARC* (UQAM): 1992

M.Sc.:

- Fondation Université du Québec: 1991-1992

B.Sc.:

- Penhallow Price in Biology (McGill University): 1989
- Scholar Fellowships (McGill University): 1987-1989

PROFESSIONAL MEMBERSHIPS

American Chemical Society

American Society of Limnology and Oceanography

American & European Geophysical Union

INSTITUTIONAL SERVICE

2008-present: Faculty Senate (Texas A&M University)

2007: Chair, Tenure Review Committee (Texas A&M Galveston, Dept. Marine Sciences)

2007-present: Member, University Research Advisory Committee (Texas A&M Galveston)

2007-present: Member, Graduate Recruiting and Academic Advisory Committee (Texas A&M, Dept. Oceanography)

2007-2008: Member, University Academic Enhancement Steering Committee (Texas A&M Galveston)

2007: Member, Chemical Oceanography Faculty Search (Texas A&M, Dept. Oceanography)

2006-present: Member, Graduate Instruction Committee (Texas A&M Galveston)

2003-2006: Associate Director and Science Curriculum Director – Masters of Public Affairs in Environmental Science and Policy (Columbia University)

2003-2006: Graduate Admissions Committee – Masters of Public Affairs in Environmental Science and Policy (Columbia University)

2004-2005: Graduate Admissions Committee (Columbia University, Dept. of Earth and Environmental Sciences)

GRADUATE AND UNDERGRADUATE STUDENTS

Li-Jung Kuo, Ph.D. Completed (Co-Advisor), Texas A&M University - Geology & Geophysics. 2009

Shaya M. Seward, M.Sc. ongoing (Advisor). Texas A&M University - Oceanography.

Sally Walker, Ph.D. ongoing (Thesis Committee), Texas A&M University - Oceanography.

Omar R. Harvey, Ph.D. ongoing (Thesis Committee), Texas A&M University - Geology & Geophysics.

Richard Smith, Ph.D. ongoing (Thesis Committee), Texas A&M University - Oceanography.

Ching-Ping Lu, Ph.D. ongoing (Thesis Committee), Texas A&M University - Oceanography.

Sinem Artan, M.Sc. ongoing (Thesis Committee), Texas A&M University - Geology & Geophysics.

Brandon Laroy, M.Sc. Completed (Thesis Committee), Texas A&M University - Fisheries. 2009

Ryan Schloesser, Completed M.Sc. (Thesis Committee), Texas A&M University - Fisheries. 2009

Stephane Houel, Completed Ph.D. (Thesis Committee). University of Québec in Montréal. 2003

Marie Alexis, Ph.D. (External Thesis Reviewer). Académie de Paris – Université Pierre et Marie Curie. 2007

Lillian Pitts, Completed MPA, Columbia University. 2004

April Patterson, Completed MPA, Columbia University. 2003

Jill Brandenberger, Completed M.Sc, Texas A&M University–Corpus Christi. 2001

Jason Clark, Completed M.Sc., Texas A&M University–Corpus Christi. 2001

Danielle Aguirre, B.Sc. Senior Thesis, Completed. Texas A&M University–Galveston - Marine Sciences. 2009

Christie Pondell, B.Sc. Senior Thesis, Completed. Texas A&M University–Galveston. 2008

Brion Dolan, B.Sc. Senior Thesis, Completed. Texas A&M University–Corpus Christi. 2003

POST-DOCTORAL ASSOCIATES

Dr. Stephane Houel, University of Québec in Montréal. 2003-2005