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Edward B. Overton is a Professor Emeritus in the Department of environmental Sciences, School of Coast and the Environment at LSU

He received his B.S.(1965) and Ph.D.(1970) degrees from the University of Alabama, Tuscaloosa

His research interests include understanding the fates and distributions of hydrocarbons following an oil spill, the environmental chemistry of hazardous chemicals, and the detection of environmental pollutants at the site of sample collection. He has been active in understanding the fate and effects of petroleum hydrocarbons in marine environments from oil spills since the 1978 Well blowout at the US DOE Strategic Petroleum Reserve West Hackberry Site, flowed by the Amoco Cadiz Tanker wreck and the IXTOC 1 blowout in 1979, the Exxon Valdez wreck in 1989, and currently the Deepwater Horizon fire and blowout in 2010. Dr Overton has given hundreds of live interviews concerning the Deepwater Horizon oil spill to international print, radio, and TV media sources including an appearance on the Late Show with David Letterman as well as all major US TV network and cable news shows. He has also been an invited speaker at dozens of national and international scientific meetings and seminars on topics associated with the Oil Spill.

Dr. Overton held the Clairborne Chair in Environmental Toxicology and Air Quality prior to his retirement, and was honored as an LSU Distinguished Faculty in 2008, and was the 1996 Louisiana Technologist of the Year and the 2010 Louisiana Communicator of the Year.

He is married to Susan J. Overton (formerly Susan C. Jones)  
They have two children: a son Tommy Overton LSU 2006, and a daughter Jennifer LSU 2008

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### **Education**

University of Alabama, Ph.D., Chemistry 1970  
University of Alabama, B.S., Chemistry 1965

### **Experience**

Desig Professor & Clairborne Chair, Dept. of Environmental Sciences, LSU 2008-2009  
Professor Department of Environmental Sciences, LSU 1984-2008  
Adjunct Professor, Department of Chemistry, LSU 1986-2009  
Research Associate, Center for BioOrganic Studies, UNO, 1976-1984  
Assist Professor, Northeast Louisiana University, 1970-1976

### **Selected Publications:**

- Christopher Clayton Stevens, 1 Louis J. Thibodeaux, \* Edward B. Overton, 2 Kalliat T. Valsaraj, Krishnaswamy Nandakumar, Abhijit Rao, and Nan D. Walker, Sea Surface Oil Slick Light Component Vaporization and Heavy Residue Sinking: Binary Mixture Theory and Experimental Proof of Concept, *Environmental Engineering Science*, DOI: 10.1089/ees.2015.0022
- Hooper-Bui, LM, Rabalais NN, Engel AS, Turner RE, McClenachan G, Roberts B, Overton EB, Justic D, Strudivant K, Brown K, Conover J. 2014. Overview of Research into the Coastal Effects of the Macondo Blowout from the Coastal Waters Consortium: A GoMRI Consortium. *International Oil Spill Conference Proceedings* May 2014, Vol. 2014, No. 1 (May 2014) pp. 604-617
- M.L.Parsons, R.E.Turner, E.B.Overton , Sediment-preserved diatom assemblages can distinguish a petroleum activity signal separately from the nutrient signal of the Mississippi River in coastal Louisiana, *Marine Pollut Bull* 85 (2014) 164–171
- Turner, R.E., E.B. Overton, B.M. Meyer, M.S. Miles, G. McClenachan, L. Hooper-Bui, A. Summer Engel, E.M. Swenson, J.M. Lee, C.S. Milan, and H. Gao 2014. Distribution and recovery trajectory of Macondo (Mississippi Canyon 252) oil in Louisiana salt marshes. *Marine Pollut Bull*, 87 (2014) 57-67
- Turner, R.E., E. B. Overton, B.M. Meyer, M.S. Miles, and L. Hooper-Bui 2014. Changes in the concentration and relative abundance of alkanes and PAHs from the Deepwater Horizon oiling of coastal marshes, *Marine Pollut Bull*, 86,(2014) 291-297
- Adhikari, P. L., Maiti, K., Overton, E. B. 2015. Vertical Fluxes of Polycyclic Aromatic Hydrocarbons in the Northern Gulf of Mexico. *Marine Chemistry*, *Marine Chemistry* 168, 60-68
- Elijah Ramsey III, Buffy M. Meyer , Amina Rangoonwala a Edward Overton , Cathleen E. Jones , and Terri Bannister , Oil source-fingerprinting in support of polarimetric radar mapping of Macondo-252 oil in Gulf Coast marshes, *Marine Pollut Bull Available online 30 October 2014*
- Jeffrey Wickliffe, Edward Overton, Scott Frickel, Jessi Howard, Mark Wilson, Bridget Simon, Stephen Echsner, Daniel Nguyen, David Gauthé, Diane Blake, Charles Miller, Cornelis Elferink, Shakeel Ansari, Harshica Fernando, Edward Trapido, and Andrew Kane, Evaluation of Polycyclic Aromatic Hydrocarbons Using Analytical Methods, Toxicology, and Risk Assessment Research: Seafood Safety after a Petroleum Spill as an Example, *Environ Health Perspect*; 2014, Vol 122, Number 1; DOI: 10.1289/ehp.1306724
- M. J. Wilson, J. K. Wickliffe and E. B. Overton, “A critique of the manuscript: "Distribution and concentrations of petroleum hydrocarbons associated with the BP/Deepwater Horizon oil spill, Gulf of Mexico", *Mar Pollut Bull*. 2014, Feb 15;79 (1-2)
- Edward B. Overton, M Scott Miles, Buffy M Meyer, Heng Goa and R Eugene Turner, “Oil Source Fingerprinting in heavily weathered residues and coastal marsh samples”, *Proceeding of the 2014 international Oil Spill Conference*, Savannah GA, May 2014
- Buffy M Meyer, Edward B. Overton and R. Eugene Turner, “Oil Source Identification using diagnostic biomarker ratio analyses”, *Proceeding of the 2014 International Oil Spill Conference*, Savannah GA, May 2014
- Irv A. Mendelssohn, G. L. Anderson, D. A. Baltz, R. H. Caffey, K. R. Carmin, J. W. Fleeger, S. B. Joye, Q. Lin, E. Maltby, E. B. Overton, and L. P. Razos, ‘Oil Impacts on Coastal Wetlands: Implications for the Mississippi River Delta Ecosystem after the Deepwater Horizon Oil Spill’, *BioScience*, June 2012 / Vol 62 No.6

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- R.H. Carmichael, A. L. Jones, H. K. Parker, W. C Walton, A. Perez-Huerta, and E. B. Overton, "The contribution of oil-derived carbon and nitrogen to the diet of oysters due to the Deepwater Horizon Oil Spill" *Environ Sci and Tech*, 2012 46(23):12787-95
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- Bhushan A, Yemane D, McDaniel MS, Murphy MC, Goettert J, Overton EB. 2010. Hybrid integration of injector and detector functions for microchip gas chromatography. *Analyst* 135(10):2730-2736.
- Jeffrey Wickliffe, Edward Overton, Scott Frickel, Jessi Howard, Mark Wilson, Bridget Simon, Stephen Echsner, Daniel Nguyen, David Gauthé, Diane Blake, Charles Miller, Cornelis Elferink, Shakeel Ansari, Harshica Fernando, Edward Trapido, and Andrew Kane, Evaluation of Polycyclic Aromatic Hydrocarbons Using Analytical Methods, Toxicology, and Risk Assessment Research: Seafood Safety after a Petroleum Spill as an Example, *Environ Health Perspect*; 2014, Vol 122, Number 1; DOI: 10.1289/ehp.1306724
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- Eirico J. D'Sa, Edward B. Overton, Steven E. Lohrenz, Kanchan Maiti, R. Eugene Turner and Angelina Freeman, *Changing Dynamics of Dissolved organic Matter Fluorescence in the Northern Gulf of Mexico Following the Deepwater Horizon Oil Spill*, *Environ Sci Technol*. DOI:10.1021/acs.est.5b0492
- Overton, E.B., T.L. Wade, J.R. Radović, B.M. Meyer, M.S. Miles, and S.R. Larter. 2016. Chemical composition of Macondo and other crude oils and compositional alterations during oil spills. *Oceanography* 29(3):50–63, <http://dx.doi.org/10.5670/oceanog.2016.62>.
- Tarr, M.A., P. Zito, E.B. Overton, G.M. Olson, P.L. Adhikari, and C.M. Reddy. 2016. Weathering of oil spilled in the marine environment. *Oceanography* 29(3):126–135, <http://dx.doi.org/10.5670/oceanog.2016.77>.

#### Significant Early Oil Spill Publications:

- Overton, E.B., McFall, J.A., Mascarella, S.W., Steele, C.F., Antoine, S.A., Politezer, I.R., and Laseter, J.L., "Petroleum Residue Source Identification Following a Fire and Oil Spill," 1981 Oil Spill Conference, Atlanta, GA, pp. 541-546 (1981).
- Overton, E.B., McCarthy, L.V., Mascarella, S.W., Maberry, M.A., Antoine, S.R., Farrington, J.W., and Laseter, J.L., "Detailed Chemical Analysis of IXTOC I Crude Oil and Selected Environmental Samples from the Researcher and Pierce Cruises," Proc. of Researcher/Pierce IXTOC I Symposium, pp. 439-495 (1980).
- Overton, E.B., Laseter, J.L., Mascarella, S.W., Raschke, C., Nuiry, I., and Farrington, J.W., "Photochemical Oxidation of IXTOC I Oil," Proc. of Researcher/Pierce IXTOC I Symposium, pp. 341-383 (1980).
- Laseter, J.L., Lawler, G.C., Overton, E.B., Patel, J.R., Holmes, J.P., Shields, M.I., and Maberry, M.A., "Characterization of Aliphatic and Aromatic Hydrocarbons in Flat and Japanese Type Oysters and Adjacent Sediments Collected from L'Aber Wrach Following the Amoco Cadiz Oil Spill," Proc. of International Symposium on the Amoco Cadiz: Fates and Effects of the Oil Spill, Brest, France, pp. 633-644 (1980).
- Overton, E.B., Patel, J.R., and Laseter, J.L., "Chemical Characterization of Mousse and Selected Environmental Samples from the Amoco Cadiz Oil Spill," Proceedings of 1979 Oil Spill Conference, Los Angeles, CA, pp. 169-174 (1979).

#### Areas of Specialization/Synergistic Activities

Since 1984, Dr. Overton has been the lead chemist and Principle Investigator on a contract with NOAA's Office of Response and Restoration's Emergency Response Division (ERD) with primary responsibility for providing, evaluating and interpreting analytical, chemical, and physical data during oil and hazardous material spill incidents in all marine environments under U.S. jurisdiction. Dr. Overton and his group have also been involved in studying the fate and effects of oil spills since the 1978 blowout at the US Strategic Petroleum Reserve facility at West Hackberry Louisiana, as well as most major oil spills since that time, including the Amoco Cadiz, IXTOC-1, Exxon Valdez, Persian Gulf and Deepwater Horizon spills. Further, his research group has been developing field deployable analytical instrumentation designed to detect and identify volatile and semivolatile chemicals at toxic levels. Dr. Overton and his group first developed the forensic capability to fingerprint oils and identify the source of oil spills even as oil weathers in the environment following the SPR Cavern #6 and IXTOC spills. During the Deepwater Horizon Oil Spill, Dr. Overton provided facts-based public outreach information about the oil spill that was accurate and reliable through hundreds of live

interviews with virtually all major print, radio, and broadcast new outlets around the world including an appearance on the Late Show with David Letterman. He has also been an invited speaker at dozens of national and international scientific meetings and seminars on topics associated with the Deepwater Horizon Oil Spill.

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