

## **Robyn N. Conmy, Research Ecologist in EPA's National Risk Management Research Laboratory**

Land and Materials Management Division

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**Areas of Expertise:** Oil dispersion; oil fingerprinting; optical monitoring tools for oil plume detection; advancing spill response detection tools; photo- and bio-degradation of oil in aquatic environments; fate, transport and effects of spilled oil in aquatic environments; oil toxicity and weathering; landscape-watershed influences on coastal water quality.

### **Select Publications:**

Deshpande, R., D. Sundaravadivelu, S. Techmann, **R. Conmy**, J. Santodomingo, and P. Campo. [Microbial degradation of Cold Lake Blend and Western Canadian Select Dilbits in Freshwater](#). *Journal of Hazardous Materials*. Elsevier Science Ltd, New York, NY, 352:111-120, (2018).

Barron, M., **R. Conmy**, E. Holder, P. Meyer, G. Wilson, V. Principe, and M. Willming. [Toxicity of Cold Lake Blend and Western Canadian Select dilbits to standard aquatic test species](#). *Chemosphere*. Elsevier Science Ltd, New York, NY, 191:1-6, (2018).

Techtman, S., M. Zhuang, P. Campo-Moreno, E. Holder, **R. Conmy**, J. Santodomingo, T. Hazen, and M. Elk. [Corexit 9500 Enhances Oil Biodegradation and Changes Active Bacterial Community Structure of Oil-Enriched Microcosms](#). *Applied and Environmental Microbiology*. American Society for Microbiology, Washington, DC, 83(10):e03462-16, (2017).

Gullett, B., J. Aurell, A. Holder, Bill Mitchell, D. Greenwell, M. Hays, **R. Conmy**, D. Tabor, W. Preston, I. George, J. Abrahamson, R. Vander Wal, and E. Holder. [Characterization of Emissions and Residues from Simulations of the Deepwater Horizon Surface Oil Burns](#). *Marine Pollution Bulletin*. Elsevier Science Ltd, New York, NY, 117(1-2):392-405, (2017).

**Conmy, R.**, T. King, B. Robinson, S. Ryan, Y. Lu, M. Abercrombie, M. Boufadel, and H. Niu. [Dispersant Effectiveness, In-Situ Droplet Size Distribution and Numerical Modeling to Assess Subsurface Dispersant Injection as a Deepwater Blowout Oil Spill Response Option and Evaluation of Oil Fluorescence Characteristics to Improve Forensic Response Tools](#). U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-16/152, 2016.

White, H., **R. Conmy**, I. MacDonald, and C. Reddy. [Methods of Oil Detection in Response to the Deepwater Horizon Oil Spill](#). *Oceanography*. Oceanography Society, Rockville, MD, 29(3):76-87, (2016).

View more research publications by [Robyn Conmy](#).

### **Education:**

- Ph.D., University of South Florida, Tampa, FL; Chemical Oceanography, 2008

- M.S., University of South Florida, Tampa, FL; Chemical Oceanography, 1999
- B.S., Coastal Carolina University, Conway, SC; 1996

### **Professional Experience:**

#### Workgroup/Project Leads

- EPA-ORD Oil Research Program Lead (2012-Present)
- Principal Investigator for Bureau of Safety and Environmental Enforcement Grant with Department of Fisheries and Oceans Canada: “Characterizing Dispersant Effectiveness of Crude Oils at High Salinities: Implications for Subsea Spill Preparedness”.
- Co-Investigator for NASA Ocean Biology & Biogeochemistry Grant: “Cyanobacteria Assessment Network (CyAN) for freshwater systems: an early warning indicator for toxic and nuisance blooms using ocean color satellites.”
- Principal Investigator for Bureau of Safety and Environmental Enforcement Grant with Department of Fisheries and Oceans Canada: “Dispersant Effectiveness, In-Situ Droplet Size Distribution, and Numerical Modeling to Assess Subsurface Dispersant Injection as a Deepwater Blowout Oil Spill Response Option”.

#### Committees and Board Memberships

- Canadian Government Oil Spills Research Initiative Advisory Board member (2017-2019)
- Interagency Coordinating Committee on Oil Pollution Research (ICCOPR) EPA Voting member (FY13-present), vice chair (FY16-FY17), Research & Technology Plan Subcommittee (FY14-15), Intentional Release working group (FY16-FY17).
- National Response Team Science & Technology Committee EPA representative (2014-present)
- Advisory Board member for GoMRI DROPPS (Dispersion Research on Oil, Physics and Plankton Studies) Consortium; 2015-present.
- Advisory Board member for the Coastal Response Research Center, New Hampshire; 2013-present.

#### Awards and Honors

- Exceptional Service to EPA Office of Land and Emergency Management OEM Award 2017
- Technical Qualifying Boards Promotion, 2017
- ORD Honor Award for Exceptional/Outstanding ORD Technical Assistance to the Regions or Program Offices 2016: Deepwater Horizon Oil Spill Team
- EPA Gold Medal for Exceptional Service Award 2015: Deepwater Horizon Oil Spill Litigation Team for expert deposition testimony
- EPA ORD Bronze Medal Award 2015: Water Quality Assessment Team
- US Coast Guard MER Coin Recipient 2015: Service to the Congressionally-mandated Interagency Coordinating Committee on Oil Pollution Research (ICCOPR) in developing the 2014 R&T plan
- EPA ORD Bronze Medal Award 2014: Launching ORD’s 2016-2019 Strategic Research Action Plan for Sustainable and Healthy Communities Research program

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