

## SHARI YVON-LEWIS

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### Education

University of Miami, Miami, FL

**Ph.D. in Marine and Atmospheric Science** [1994]

Dissertation: "The Cycling of Sulfur Dioxide in the Remote Marine Boundary Layer"

Advisor: Dr. Eric S. Saltzman

University of Massachusetts, Amherst, MA

**B.S. Chemistry** [1989]

### Experience

Dept. of Oceanography, Texas A&M University, College Station, TX

**Professor, Acting Department Head** [08/2016 - present]

Dept. of Oceanography, Texas A&M University, College Station, TX

**Professor, Assistant Department Head** [09/2015 – 07/2016]

Dept. of Oceanography, Texas A&M University, College Station, TX

**Professor** [09/2015 – present]

Dept. of Oceanography, Texas A&M University, College Station, TX

**Associate Professor** [09/2011 – 08/2015]

Dept. of Oceanography, Texas A&M University, College Station, TX

**Assistant Professor** [10/2004 – 08/2011]

DOC/NOAA/Atlantic Oceanographic and Meteorological Laboratory, Miami, FL

**Research Chemist** [08/1997 – 09/2004]

University of Colorado, Boulder, CO

**Research Associate** [03/1996 – 07/1997]

DOC/NOAA/ERL/CMDL, Boulder, CO

**DOE Global Change Distinguished Postdoctoral Fellow** [03/1994 – 02/1996]

### Research Interests

I have two areas of primary research:

- **The role of the ocean in regulating atmospherically important trace gases.** A variety of trace gases including halocarbons (e.g. methyl halides, trihalomethanes), nitrous oxide, carbon dioxide, and methane are both produced and degraded in the ocean. The distribution and strength of the various oceanic sources and sinks impacts the exchange of these gases between the ocean and atmosphere. Through ship-board measurements, laboratory studies and modeling, my research group examines the role/magnitude of oceanic influence on trace gases that are important in the atmosphere as stratospheric ozone depleters or greenhouse gases.
- **The impact of organic matter remineralization on dissolved inorganic carbon and pH.** This relates to my trace gas research in that the oxidation of organic matter increases CO<sub>2</sub>, and to characterize the dissolved CO<sub>2</sub> also requires understanding the dissolved inorganic carbon (DIC). In addition to measuring CO<sub>2</sub> in the air and seawater, we also measure the DIC and total alkalinity (TA). This has allowed my research group to begin characterizing the DIC/pH system in the deep Gulf of Mexico. I have also been working with biologists on laboratory studies looking at the impacts of ocean acidification on various organisms and processes (e.g. toxin production).

### Teaching Interests

My teaching interests include both undergraduate and graduate education. For undergraduate non-science majors, I hope to help them develop an awareness of environmental issues and the reliability of science in assessing these issues. For

undergraduate science majors, I try to help them make connections between the facts they must learn and the application of these to real world cases. I also want them to be able to communicate this information clearly to a wide range of audiences. For graduate students, I hope to help guide them through the process of becoming successful researchers and communicators of research. My goal for these students is that they will be able to apply their experience to any path academic, government, industry, entrepreneurial or other.

#### Courses Taught

OCNG 181 (1cr. – taught 1 time) – First Year Seminar: Oceans in the News  
OCNG 203 (1cr. – “W” course-taught once as OCNG 281 and once as OCNG 203) – Communicating Oceanography Laboratory  
OCNG 205 (1cr. – taught 1 time) – Introduction to Ocean Studies  
OCNG 251 (3cr. – taught 6 times including 1 online section) – Oceanography  
OCNG 281 (1cr – taught once) – Seminar in Communicating Oceanography (pilot course for new “W” course in our new major)  
OCNG 440 (3cr. – taught 6 times) – Chemical Oceanography  
OCNG 350 (3cr. – taught 4 times) – Marine Pollution  
OCNG 640 (3cr. – taught 8 times including a distance learning component with a web link to TAMUG) – Chemical Oceanography  
OCNG 689 (3cr. – taught 1 time) – Marine Trace Gas Biogeochemistry  
GEOS 105 (3cr. – taught 2 times) – Introduction to Environmental Geoscience  
Supervisor for OCNG 252 (Oceanography Lab – 1 Cr.) – 2010-2013 Supervised 15 teaching assistants who each teach 3 labs each week. This includes a weekly meeting of all TAs to train them for the upcoming lab, set up equipment for the next lab, and take down equipment from the last lab. The labs are run every summer, as well with 1 TA per summer term and 3 lab sections per term. I also maintained and updated the curriculum.

#### Graduate Student Committees

Chair:

##### Current:

Stanford Goodwin (M.S., Oceanography)  
Damian Simonini (M.S., Oceanography)

##### Graduated:

Constance Previti (M.S., Oceanography – August 2017)  
Jordan Young (M.S., Oceanography – August 2016)  
Mengran Du (Ph.D., Oceanography; Co-advisor – August 2014)  
Alison Smyth (M.S., Oceanography – August 2014)  
Yina Liu (Ph.D., Oceanography, Co-Chair Dan Thornton – August 2013)  
Fenix Garcia Tigreros (M.S., Oceanography – May 2013)  
Lei Hu (Ph.D., Oceanography – August 2012)  
David Finneran (Ph.D., Oceanography, Co-Chair with John Morse - December 2010)

Member:

##### Current:

Elise Wilbourn, (Ph.D., Oceanography)  
Andrea Kealoha (Ph. D., Oceanography)

##### Graduated:

Jillian Matus (M.S., Atmospheric Sciences – December 2017)  
Kristin Collier (M.S., Atmospheric Sciences – August 2016)  
Zach Rolewicz (M.S., Oceanography – August 2016)  
Leong Wai Su (M.S., Atmospheric Sciences, December 2014)  
Kathryn Schreiner (Ph.D., Oceanography, May 2013)  
Reagan Errera (Ph.D., Oceanography, May 2013)

Scarlett Arbuckle (Ph.D., Oceanography, August 2012)  
Yongsun Kim (Ph.D., Oceanography, August 2012)  
Keun-Hee Lee (Ph.D., Atmospheric Sciences, December 2011)  
Changhyoun Park (Ph.D., Atmospheric Sciences; May 2010)  
Dalon Stone (MS, Atmospheric Sciences)  
Jason Tomlison (Ph.D., Atmospheric Sciences, December 2010)  
Timothy Taylor (Ph.D., Civil Engineering; May 2009)  
Amber Reynolds (MS, Atmospheric Sciences, December 2007)

#### Undergraduate Research Advising

REU student Ashley King (Summer 2017)  
Mackenzie Maserang (Environmental Geosciences major; Fall 2016 – Spring 2017)  
REU student Heath Goertzen (Summer 2016)  
Haley Brey [Honors Research] (Environmental Geosciences major; Spring 2015 – spring 2016)  
Undergraduate Research Scholars Thesis: “Distribution of Methane in the Gulf of Mexico”  
Charlotte Woods (Environmental Geosciences major; Spring 2015 – Fall 2015)  
Audrey Housson (Geology major; Spring 2015)  
David Imthurn (Biology major; Fall 2014)  
Victoria Constant (Environmental Studies major; Fall 2014)  
Rachel Reddig (Chemistry major; Fall 2012-Summer 2014)

#### Professional Activities

2004 Invited speaker at the 2004 International Research Conference on Methyl Bromide Alternatives and Emissions Reductions, 10/31/2004. Presented “Methyl Bromide in the Atmosphere: A Scientific Overview and Update”

2004 Invited speaker at Harvard University, 11/5/2004. Presented “Methyl Bromide: Budget and Trends”.

2005 Invited speaker at TAMU Galveston, 4/13/2005. Presented “Alkyl Nitrates in the Pacific Ocean”.

2005-2006 Participated in the World Meteorological Organization Scientific Assessment of Ozone Depletion: 2006, Global Ozone Research and Monitoring Project – I am a co-author for chapter 2: Very Short-Lived Substances, where my responsibilities included assessing the oceanic sources and sink for selected halocarbons.

2006 Presided over a session at Fall American Geophysical Union Meeting “Troposphere Composition: Measurements, Interpretation, Modeling V” AS joint with OS.

2010 Invited speaker at the Methyl Bromide and Alternatives Workshop, May 11-13, 2010, Kansas State University. Presented: “Methyl Bromide: Budget and Trends”

2011 Invited speaker for the Department of Atmospheric Sciences, Feb 22, 2011, Texas A&M University. Presented: “Methyl Bromide: Budget, Trends and Oceanic Response to the Montreal Protocol”

2012-2013 Participated in the Scientific Assessment Panel for The Ozone Secretariat, United Nations Environment Programme - SPARC Report No. 6 (2013) Lifetimes of Stratospheric Ozone-Depleting Substances, Their Replacements, and Related Species - edited by M.K.W. Ko, P.A. Newman, S. Reimann, and S.E. Strahan – I was a co-author for Chapter 4: Inferred lifetimes from observed trace gas distributions. My specific responsibilities involved assessing the state of the science on the lifetimes of methyl bromide, methyl chloride and carbon tetrachloride.

2013-2014 Participated in the World Meteorological Organization Scientific Assessment of Ozone Depletion: 2014, Global Ozone Research and Monitoring Project. – I am a co-author for chapter 1: Update on Ozone-Depleting Substances (ODSs) and Other Gases of Interest to the Montreal Protocol, where my responsibilities included assessing the state of the science regarding the budgets of methyl bromide, methyl chloride, carbon tetrachloride and brominated very short-lived species (e.g. bromoform).

2015 Invited participant at The SPARC Workshop on 'Solving the Mystery of Carbon Tetrachloride' held at the Empa Akademie in Duebendorf, Switzerland on 5-6 October 2015.

2017 Reviewer for Chapter 1 of the World Meteorological Organization Scientific Assessment of Ozone Depletion: 2014 chapter 1: Update on Ozone-Depleting Substances (ODSs) and Other Gases of Interest to the Montreal Protocol.

#### Memberships in Professional Societies

American Geophysical Union (1990-present)  
American Association for the Advancement of Science (1998-2009)  
American Chemical Society (2003-2008)

#### Reviews

##### Journals:

Proceedings of the National Academy of Sciences  
Geophysical Research Letters  
Journal of Geophysical Research - Oceans  
Journal of Geophysical Research - Atmospheres  
Atmospheric Chemistry and Physics  
Marine Chemistry  
Global Biogeochemical Cycles  
Biogeosciences  
Analytical Chemistry  
Journal of Atmospheric Chemistry  
Environmental Science and Technology  
Limnology and Oceanography  
Atmospheric Environment  
Estuarine, Coastal and Shelf Science  
Marine Ecology Progress Series

##### Proposals:

NSF: OCE, ATM and Arctic  
NSF Graduate Research Fellowship Program Evaluation  
NASA  
National Geographic

#### Department/College/University Committees

##### Department:

Chair: OCNG Curriculum Committee (2014-2016)  
Chair: OCNG/IGPEEF committee (2010-2014)  
Member: OCNG Curriculum Committee (2009-2014)  
Member: OCNG faculty search committees (2013, 2014)  
Chair: OCNG faculty search committee (2013)  
Member: OCNG Advisory Committee (2013-2016)  
Member: OCNG Executive Committee (2006-2008; 2010-2013)  
Member: OCNG Faculty Search Committee (2007; 2012-2014)  
Chair: OCNG Recruiting and Academic Advisory Committee (RAAC) (2006-2008)  
Member: OCNG Department Head Search Committees (2006 and 2007)  
Member: OCNG Graduate Recruiting and Academic Advisory Committee (GRAAC) (2005-2006)

##### College:

Member: Environmental Faculty of the College of Geosciences (2010-present)

Member: College of Geosciences Safety Committee (2007-present)  
Member: Environmental Programs Advisory Committee (2010-2015)  
Member: Geosciences Faculty Advisory Committee (GFAC) (2014-2015)  
Member: College of Geosciences Graduate Instructional Committee (2010-2016)  
Member: College of Geosciences Undergraduate Curriculum Committee (2010-2016)  
Member: College of Geosciences Graduate Advisors Committee (2006-2008)

University:

Member: University Writing Committee (09/2014-07/2016)  
Member: Core Curriculum Technology Enhancement Grant Committee (2011-present) – This committee is tasked with requesting and reviewing proposals for including technology to enhance the teaching of University Core Curriculum classes.

Other:

Member: Advisory Committee: Geochemistry of the Earth Sea and Atmosphere (GESA) (2005-2007)  
Member: Center for Atmospheric Chemistry in the Environment (2004-present) – This is a university center uniting researchers conducting atmospheric chemistry related research across the Texas A&M University campus.

Awards and Fellowships

College of Geosciences 2014 Dean's Distinguished Achievement Award - Faculty Teaching  
U.S. Dept. of Energy Global Change Distinguished Postdoctoral Fellowship (1994-1996)  
NASA Graduate Student Global Change Fellowship (1992-1994)  
Koczy Fellowship (1992-1993)  
Admirals of the Fleet Award (1990)  
Rosenstiel Fellowship (1989-1990)

Grants and Funding

EPA Grant # 12461398, "Gulf Coast Stewards of Tomorrow: Working Towards a Sustainable Future through At-Sea Learning for South Texas Middle and High School Students" (12/1/2017 – 11/30/ 2020; \$149,851 with PI Chrissy Wiederwohl and Co-PI Katie Shamberger)

NSF PLR-1642851, "RAPID: Estimating fluxes of CO<sub>2</sub> and CH<sub>4</sub> along the Siberian Yenisei River" (\$49,457 with PI-Rainer Amon and Co-PI Ayal Anis)

NSF "Oceanography Scholars The Oceanography Scholars S-STEM (Scholarships in Science, Technology, Engineering and Mathematics) Program" (9/1/2014 – 8/31/2019; \$621,528 with PI W. Gardner and Co-PIs M.J. Richardson, D. Thornton, S. Yvon-Lewis, B. Giese)

NSF/Low Temp Geochem "Collaborative Research: The Role of Priming in Microbial Utilization of Terrestrially Derived Dissolved Organic Matter in the Mississippi River Plume: A Proof of Concept" (9/15/2012-8/31/2014; \$111,435 with PI Thomas Bianchi and Co-PIs Dan Thornton and Gary King)

Consortium for Ocean Leadership "Gulf of Mexico Integrated Spill Response Consortium" (9/1/2011-12/31/2014; \$4,676,624 of which \$242,594 is for my part, Chief Scientist for the Consortium is Piers Chapman at Texas A&M University; There are many other Co-PIs)

TAMU/OCNG funding was received to purchase an automated Dissolved Inorganic Carbon stripping system, VINDTA-3D (Marianda Corp.) (12/2011; \$35,000)

NSF/OCE "EAGER: Development of a portable air-water flux system for methane" (6/1/2011-5/31/2014; \$299,357 with co-PI John Kessler)

NSF/OCE “RAPID: The effect of methane laden oil on climate and dissolved oxygen: using the Deepwater Horizon oil spill as an analog for clathrate decomposition and seeping methane” (6/2010-5/2011; \$156,081 with PI John Kessler and co-Is Thomas Bianchi and Heath Mills)

DOE “Potential Methane Flux To Atmosphere From Near-Seafloor Gas Hydrate Deposits On Continental Margins: Remote Sensing” (10/1/2008-9/31/2010; \$120,000 with PI Ian MacDonald and Co-Is Miriam Kastner, Thomas Naehr, Ira Leifer and Veron Asper)

NASA “Ocean Acidification of the Greater Caribbean Region 1999-2008” (8/1/2008 – 7/31/2011; \$66,127 with Co-Is Rik Wanninkhof and C. Mark Eaton) – Note: I replaced John Morse, after his death, as the PI during the second year of this grant and completed all work necessary to finish the project.

NSF/OCE (ARRA) “Methyl Bromide and Selected Halocarbons: Response of the Ocean to the Montreal Protocol and Subsequent Amendments” (8/1/2009-7/31/2012; \$312,147).

#### Field Work

Total of 22 Cruises and 654 days at sea (**students shown in bold**)

Galveston Bay: R/V Trident, 18 December, 2015 – 1 day [included 1 TAMU graduate student – **Stanford Goodwin**]

Atlantic Ocean: HalocAST-A, FS Polarstern, Oct-Nov 2010 – 32 days [included 1 TAMU graduate student – **Lei Hu**]

Pacific Ocean: HalocAST-P, R/V Thomas Thompson, Mar-Apr 2010 – 30 days (**Chief Scientist**) [included 2 TAMU graduate students – **Lei Hu** and **Yina Liu**]

Gulf of Mexico: HYFLUX, R/V Brooks McCall, July 2009 – 14 days [included 1 TAMU graduate student – **Lei Hu**]

Antarctic: ESASSI, R/V Hesperides, January 2008 – 21 days [included 2 TAMU graduate students – **Yina Liu** and **Julia O’Hern**]

Coastal US: GOMECC, R/V Ron Brown, July, 2007 – 28 days [included 1 TAMU graduate student – **Julia O’Hern**]

Bahamas: RB-07-01-WBTS, R/V Ron Brown, March, 2007 – 20 days [included 4 TAMU graduate students – **Julia O’Hern**, **Lindsey Visser**, **Laura Rubiano Gomez** and **Jamie Steichen**]

Bahamas: RB-06-02-WBTS, R/V Ron Brown, March, 2006 – 19 days [included 1 TAMU graduate student – **Julia O’Hern**]

South Atlantic: A16S 2005, R/V Ron Brown, Jan.-Feb., 2005 – 44 days

Eq and NE Pacific: PHASE-1, R/V Wecoma, May-July, 2004 – 41 days (**Co-Chief Scientist**)

North Atlantic: A16N 2003, R/V Ron Brown, June-Aug., 2003 – 49 days

Southern Ocean: ANARE V3, Aurora Australis, Oct-Dec, 2001 – 46 days

North Pacific: RB-99-06, R/V Ron Brown, Sept-Oct, 1999 – 38 days

North Atlantic: GasEx98, R/V Ron Brown, May-July, 1998 – 62 days (**Chief Scientist** - Leg 3)

Southern Ocean: BLAST-3, RVIB Nathaniel B. Palmer, Feb.-Apr. 1996 – 46 days

Atlantic Ocean: BLAST-2, R/V Polarstern, Oct.-Nov. 1994 – 34 days

Equatorial Pacific: IGAC/MAGE, R/V John V. Vickers, Feb.-March 1992 – 33 days

Western Atlantic: STACS, R/V Malcolm Baldrige, September 1991 – 13 days

South Atlantic: RITS/CO<sub>2</sub>, R/V Malcolm Baldrige, August 1991 – 24 days

Northeast Pacific: PSI-3, R/V Discoverer, April 1991 – 16 days

Northeast Pacific: CGC/RITS/CO<sub>2</sub>, R/V Discoverer, Feb. 1991 – 15 days

Equatorial Pacific: SAGA-3, R/V Akademik Korolev, Feb. - March 1990 – 28 days

#### Field Opportunities Provided to Students in Addition to Above

Total of 16 cruises and 115 days at sea

Gulf of Mexico: HHR, R/V Point Sur, October 2017 – 3 day cruise (sent 2 TAMU graduate students - **Stanford Goodwin** and **Damian Simonini**)

Galveston Bay: R/V Lithos, September 2017 - 2 – 1 day cruises (provided opportunity for 6 TAMU graduate students – **Stanford Goodwin**, **Damian Simonini**, **Laramie Jensen**, **Tacey Hicks**, **Andrea Kealoha** and **Chih Hung Chen (CVEN)**)

Galveston Bay: R/V Lithos, June 2017 – 2 – 1 day cruises (provided opportunity for 3 TAMU graduate students – **Stanford Goodwin**, **Damian Simonini** and **Laramie Jensen**; 3 REU students **Ashely King**, **Cameron Henderson**, **Lauren Castanon**)

Gulf of Mexico: GISR, R/V Pelican, April 2015 – 7 days [sent 1 TAMU graduate student – **Constance Previti**]

Gulf of Mexico: GISR, R/V Pelican, June 2014 – 7 days [sent 1 TAMU graduate student – **Jordan Young**]

Gulf of Mexico: Hypoxia, R/V Manta, June 2013 – 6 days [sent 1 TAMU graduate students –**Jordan Young**]  
 Gulf of Mexico: Hypoxia, R/V Manta, August 2013 – 6 days [sent 1 TAMU undergraduate student – **Rachel Reddig**]  
 Gulf of Mexico: GISR, R/V Pelican, August 2013 – 16 days [sent 1 TAMU graduate student – **Jordan Young**]  
 Gulf of Mexico: GISR, R/V Pelican, December 2012 – 20 days [sent 2 TAMU graduate students – **Alison Smyth** and **Jordan Young**]  
 Gulf of Mexico: MCH, R/V Pelican, August 2012 – 6 days [sent 1 TAMU graduate student – **Fenix Garcia Tigreros**]  
 Gulf of Mexico: GISR, R/V Pelican, July 2012 – 6 days [sent 1 TAMU graduate student – **Mengran Du**]  
 Gulf of Mexico: MCH, R/V Pelican, April 2012 – 6 days [sent 1 TAMU graduate student - **Fenix Garcia Tigreros**]  
 Gulf of Mexico: MCH, R/V Pelican, August 2011 – 6 days [sent 1 TAMU graduate student - **Fenix Garcia Tigreros**]  
 Gulf of Mexico: MCH, Blazing Seven, June 2011 – 4 days [sent 1 TAMU graduate student - **Fenix Garcia Tigreros**]  
 Gulf of Mexico: MCH, R/V Pelican, April 2011 – 6 days [sent 1 TAMU graduate student - **Fenix Garcia Tigreros**]  
 Gulf of Mexico: MCH, R/V Pelican, August 2010 – 6 days [sent 1 TAMU graduate student - **Fenix Garcia Tigreros**]  
 Gulf of Mexico: PLUMES, R/V Cape Hatteras, June 2010 – 13 days [sent 2 TAMU graduate students – **Lei Hu** and **Fenix Garcia Tigreros**]

Peer-Reviewed Journal Publications (asterisk indicates student (co)author)

2017

Chapman, P., S. F. DiMarco, R. M. Key, C. Previti, **S. Yvon-Lewis** (2017), Age Constraints on Gulf of Mexico Deep Water Ventilation as Determined by <sup>14</sup>C Measurements, *Radiocarbon*, 2017, p. 1–16, doi: 10.1017/RDC.2017.80

2016

Butler, J. H., **S. A. Yvon-Lewis**, J.M. Lobert, D.B. King, S. A. Montzka, J. L. Bullister, V. Koropalov, J. W. Elkins, B. D. Hall, L. Hu, and Y. Liu (2016) A comprehensive estimate for loss of atmospheric carbon tetrachloride (CCl<sub>4</sub>) to the ocean, *Atmos. Chem. Phys.*, 16, 10899-10910, doi:10.5194/acp-16-10899-2016.

Chipperfield, M. P., Q. Liang, M. Rigby, R. Hossaini, S. A. Montzka, S. Dhomse, W. Feng, R. G. Prinn, R. F. Weiss, C. M. Harth, P. K. Salameh, J. Mühle, S. O'Doherty, D. Young, P. G. Simmonds, P. B. Krummel, P. J. Fraser, L. P. Steele, J. D. Happell, R.C. Rhew, J. Butler, **S. A. Yvon-Lewis**, B. Hall, D. Nance, F. Moore, B. R. Miller, J. W. Elkins, J. J. Harrison, C. D. Boone, E. L. Atlas, and E. Mahieu (2016) Model sensitivity studies of the decrease in atmospheric carbon tetrachloride, *Atmos. Chem. Phys.*, 16, 15741-15754, doi:10.5194/acp-16-15741-2016.

2015

Bianchi, T. S., D. C. O. Thornton, **S. A. Yvon-Lewis**, G. M. King, T. I. Eglinton, M. R. Shields, N. D. Ward, and J. Curtis (2015), Positive priming of terrestrially derived dissolved organic matter in a freshwater microcosm system, *Geophys. Res. Lett.*, 42, doi:10.1002/2015GL064765.

Garcia-Tigreros Kodovska, F., K. J. Sparrow, **S. A. Yvon-Lewis**, A. Paytan, N. T. Dimova, A. Lecher, J. D. Kessler (2015), Dissolved methane and carbon dioxide fluxes in Subarctic and Arctic regions: Assessing measurement techniques and spatial gradients, *Earth and Planet. Sci. Lett.*, <http://dx.doi.org/10.1016/j.epsl.2015.12.002>.

Liu, Y., D.C.O. Thornton, T.S. Bianchi, W.A. Arnold, M.R. Shields, J. Chen, **S.A. Yvon-Lewis** (2015) Dissolved organic matter composition drives the marine production of brominated very short-lived substances, *Environ. Sci. Technol.*, 49(6), pp 3366–3374 DOI:10.1021/es505464k

2014

Bianchi, T.S., C. L. Osburn, M. R. Shields, **S. Yvon-Lewis**, J. Young\*, L. Guo, and Z. Zhou (2014), Deepwater Horizon Oil in Gulf of Mexico Waters after Two Years: Transformation into the Dissolved Organic Matter Pool, *Environ. Sci. Technol.*, DOI: 10.1021/es501547b

Du\*, M., **S. Yvon-Lewis**, F. Garcia Tigreros, D. L. Valentine, S. D. Mendes, and J. D. Kessler (2014), High resolution measurements of methane and carbon dioxide in surface waters over a natural seep reveal dynamics of air-sea flux, *Environ. Sci. Technol.*, DOI: 10.1021/es5017813.

Errera, R.M., **S. Yvon-Lewis**, J.D. Kessler, L. Campbell (2014), Responses of the dinoflagellate *Karenia brevis* to climate change: pCO<sub>2</sub> and sea surface temperatures, *Harmful Algae*, 37, 110–116, doi: 10.1016/j.hal.2014.05.012.

2013

Bianchi, T.S., F. Garcia-Tigreros\*, **S.A. Yvon-Lewis**, M. Shields\*\*, H. J. Mills, D. Butman, C. Osburn, P. Raymond, C. Shank, S. F. DiMarco, N. Walker, B. Reese, R. Mullins, A. Quigg, G. R. Aiken, and E. L. Grossman (2013), Enhanced transfer of terrestrially derived carbon to the atmosphere in a flooding event, *Geophys. Res. Lett.*, vol. 40, 1–7, doi:10.1029/2012GL054145.

Hu\*, L., **S.A. Yvon-Lewis**, J.H. Butler, D.B. King, J. Lobert and S.A. Montzka (2013), An Improved Oceanic Budget for Methyl Chloride, *J. Geophys. Res.*, VOL. 118, 1–11, doi:10.1029/2012JC008196.

Liu\*, Y., **S. A. Yvon-Lewis**, D.C.O. Thornton, J.H. Butler, T.S. Bianchi, L. Campbell, L. Hu\* and R.W. Smith\*\* (2013), Spatial and temporal distributions of bromoform and dibromomethane in the Atlantic Ocean and their relationship with photosynthetic biomass, *J. Geophys. Res. Oceans*, 118, 3950–3965, doi:10.1002/jgrc.20299.

Liu\*, Y., **S. A. Yvon-Lewis**, D.C.O. Thornton, L. Campbell and T.S. Bianchi (2013), Spatial Distribution of Brominated Very Short-Lived Substances in the Eastern Pacific, *J. Geophys. Res.*, 118, DOI 10.1002/jgrc.20183.

Ziska, F., B. Quack, K. Abrahamsson, S. D. Archer, E. Atlas, T. Bell, J. H. Butler, L. J. Carpenter, C. E. Jones, N. R. P. Harris, H. Hepach, K. G. Heumann, C. Hughes, J. Kuss, K. Krüger, P. Liss, R. M. Moore, A. Orlikowska, S. Raimund, C. E. Reeves, W. Reifenhäuser, A. D. Robinson, C. Schall, T. Tanhua, S. Tegtmeier, S. Turner, L. Wang, D. Wallace, J. Williams, H. Yamamoto, **S. Yvon-Lewis**, and Y. Yokouchi (2013), Global sea-to-air flux climatology for bromoform, dibromomethane and methyl iodide, *Atmos. Chem. Phys.*, 13, 8915–8934, doi:10.5194/acp-13-8915-2013 2013.

2012

Hu\*, L., **S.A. Yvon-Lewis**, Y. Liu\*, T. S. Bianchi (2012), The Ocean in near Equilibrium with Atmospheric CH<sub>3</sub>Br, *Global Biogeochem. Cycles*, GB3016, doi:10.1029/2011GB004272.

Hu\*, L., **S.A. Yvon-Lewis**, J. D. Kessler and I.R. MacDonald (2012), Methane fluxes to the atmosphere from deep hydrocarbon seeps in the northern Gulf of Mexico, *J. Geophys. Res.*, 117, C01009, doi:10.1029/2011JC007208.

Mahajan, A.S., J. C. Gómez Martín, T. Hay, S.-J. Royer, **S. A. Yvon-Lewis**, Y. Liu\*, L. Hu\*, C. Prados-Roman, C. Ordóñez, J. M. C. Plane and A. Saiz-Lopez (2012), Latitudinal distribution of reactive iodine in the Eastern Pacific and its link to open ocean sources, *Atmos. Chem. Phys.*, 12, 11609–11617, doi:10.5194/acp-12-11609-2012.

2011

Kessler, J.D., D.L. Valentine, M.C. Redmond, M. Du\*\*, E.W. Chan\*\*, S.D. Mendes, E.W. Quiroz, C.J. Villanueva, S.S. Shusta, L.M. Werra, **S.A. Yvon-Lewis** and T.C. Weber (2011), A persistent oxygen anomaly reveals the fate of spilled methane in the deep Gulf of Mexico, *Science*, 331, DOI: 10.1126/science.1199697.

Liu\*, Y., **S.A. Yvon-Lewis**, L.Hu\*, J. Salisbury and J.E. O’Hern\*\* (2011), CHBr<sub>3</sub>, CH<sub>2</sub>Br<sub>2</sub> and CHClBr<sub>2</sub> in the U.S. Coastal Waters during the Gulf of Mexico and East Coast Carbon (GOMECC) Cruise, *J. Geophys. Res.*, 116, C10004, doi:10.1029/2010JC006729.

**Yvon-Lewis, S. A.**, L. Hu\*, and J. Kessler (2011), Methane flux to the atmosphere from the Deepwater Horizon oil disaster, *Geophys. Res. Lett.*, 38, L01602, doi:10.1029/2010GL045928.

2010

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