J. WILLIAM (Bill) LOUDA Research Professor

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Education:

High School, 1965 Cardinal Gibbons High School

Ft. Lauderdale, Florida

B.S. (Biology) 1971 Wright State University

Dayton, Ohio

M.S. (Biology) 1978 Florida Atlantic University

Boca Raton, Florida

Ph.D. (Marine Science) University of South Florida

1993 Tampa, Florida

Professional Organizations, Honors:

Member - American Chemical Society

Member - Division of Geochemistry, American Chemical Society

Member - Division of Environmental Chemistry, American Chemical Society
Member-elect - Phi Eta Tau Scholastic Society (Wright State University), Ohio

Member - European Association of Organic Geochemists

Member-elect - American Institute of Chemists Member - Florida Academy of Sciences

Chair (2000-2001); Environmental and Chemical Sciences Section

Member - American Society of Limnology and Oceanography

Member - Estuarine Research Federation

Member - Coastal Education and Research Foundation Member - Organization of Biological Field Stations

Listed - Who's Who in America, 60th. Ed. Listed - Who's Who in the World, 2007.

Award - Fulbright Specialist, travel / research in Poland (June 2011)
Award - College of Science, Dean's Award of Excellence 2016

Major Research Interests:

MARINE AND AQUATIC ENVIRONMENTAL BIOGEOCHEMISTRY.
MICROALGAL GROWTH and POPULATION DYNAMICS (NUTRIENTS, LIGHT) as
APLLIED TO HARMFUL ALGAL BLOOMS. *Microcystis aeruginosa*, BLOOM FORMING
CYANOBACTERIUM AND THE EFFECTS OF ITS TOXINS ON BOTH PROKAROTIC
AND EUKARYOTIC CELLS.

Pigment-based Chemotaxonomy (photoautotrophic {algal} community structure), Environmental Geochemistry, Marine Natural Products, Polyaromatic Hydrocarbons, Analytical Chemistry, Biological Markers, Lake Okeechobee, Florida Bay, Periphyton in the Florida Everglades and the Comprehensive Everglades Restoration Plan. Macro- and micro-nutrient pollution. Phytoplankton growth dynamics. Phytoplankton, microphytobenthos, epiphytes and microbial mats around and on the island of Eleuthera, Bahamas.

Organic biogeochemistry: The flux of biochromes (viz. tetrapyrrole, tetraterpenoid) in aquatic/marine environments. That is, the pre-, syn- and post-depositional alteration of chlorophyll-derivatives and carotenoids as these processes pertain to bio-organic geochemistry. The diagenesis/catagenesis of tetrapyrrole pigments and elucidation of pathways which evolve "fossil pigments" in order to employ these compounds as geochemical markers (viz. paleo-environment, thermal history of host environment).

Utilization of pigments as indicators of primary productivity, water mass characterization (e.g. mixed layer dynamics) and ocean acidification.

Algal (phytoplankton, periphyton) community dynamics (light, nutrients).

Aquatic and marine pollution (nutrients, regarding algal blooms).

Hypersaline microbial mats (Eleuthera, Bahamas) and unique sunscreen pigments.

Phosphorous pollution from equestrian and nursery industries.

Harmful Algal Blooms (HABs), effects of the microcystin-LR toxin.

Professional Experience:

Florida Atlantic University, Boca Raton, Florida

1/2015-Present Research Professor

Teaching Duties:

<u>CHM-6611:</u> Chemistry for Environmental Scientists (Fall)

CHM-3080: Environmental Chemistry (Spring)

OCE-6057: Biological/Chemical Oceanography

(Fall 2017, 2018 and 2021)

<u>CHM-4139L:</u> Bioanalytical Laboratory. HPLC (Spring terms 2000-2019).

<u>CHM-6157</u>: Instrumentation. Lecture on HPLC (Fall terms 2005 to 2019)

<u>CHM-4905</u>: Supervise DIS (Directed Independent Study) students and Honors Compact DIS students.

Supervise / mentor graduate research (CHM-7978 / -7980)

Research Duties: Perform biogeochemical / environmental research (see Research Interests above). Direct graduate students (see full list following publications / presentations) in research towards M.S.T., M.S. and Ph.D. Degrees in Chemistry, the M.S. in Environmental Sciences and the M.S. in Oceanography.

Administrative Duties: None:

These duties ceased on 3/31/2014:

Academic positions (Jan. 1, 1978 to present at the FAU Boca Raton Campus).

1/1/2015-Present 4/1/14 - 12/31/14 4/08 - 3/31/14 1/03 - 4/08 7/99 - 1/03 1/95 - 7/99 5/88 - 7/99	Research Professor Scientist Emeritus, affiliated faculty. Senior Scientist, non-tenure track faculty, 5-year contracts: Associate Scientist, non-tenure track faculty, 5-year contracts: Assistant Scientist, non-tenure track faculty, 5-year contracts: Adjunct Assistant Professor, Department of Chemistry and Biochemistry: *Active overlap with position given below. Senior Laboratory Specialist (SUS Code #5083) - Manager of teaching laboratories, instruct and Maintain instrumentation (UV/VIS, NMR, IR), Perform mass spectral analysis (MS), oversee laboratory coordinators, train and assist graduate students in research, et cetera.
6/87 – 12/94	Research Affiliate with Dr. E. W. Baker.
6/87 - 5/88	Visiting Instructor, Department of Chemistry.
1/78 - 5/87	Develop and teach General Chemistry Laboratory I & II CHM 2045L, CHM 2046L). Research Associate with Dr. Earl W. Baker. Chlorophyll Diagenesis in, Deep Sea Sediments.
Student Positions:	
6/72 - 9/74 Florida Atlantic University Boca Raton, Florida	Teaching Assistant in Marine Biology, Invertebrate Zoology, Animal Physiology.
1/72 - 5/72 Aquatic Sciences Boca Raton, Florida	Research Assistant to Dr. J. Valenti: Assess feasibility of increasing somatic coloration via dietary experimentation with pteridine and carotenoid pigments.
9/71 - 12/71 Florida Atlantic University Boca Raton, Florida	Research Assistant to Dr. F. Kalber: Osmoregulation in zoeae (larvae) of the blue-crab, <i>Callinectes sapidus</i> .

12/70 - 9/71 Wright State University Dayton, Ohio Research Associate to Dr. P. P. Batra: <u>De novo</u> carotenogenesis in the mycobacteria.

Civic Activities:

Member and chairman-Roadways, Equestrian, Trails and Greenways (aka RETAG) Committee-Town of Loxahatchee Groves (2009-2021)

Councilman, Town of Loxahatchee Groves, Florida (March 2007-April 2010)

Mission / Education Chair, (2007-2009) American Cancer Society,

Acreage – Loxahatchee Groves Relay for Life.

President (1996-2004), Loxahatchee Groves Landowners' Association, Loxahatchee Groves, FL Board Member (2005-7) Loxahatchee Groves Landowners' Association, Loxahatchee Groves, FL Member, Loxahatchee Groves Neighborhood Planning Committee, (1993-6) Loxahatchee Groves. Chairman, Loxahatchee Groves Steering Sub-Committee to Palm Beach County, Department of

Environmental Resource Management on the Royal Palm Beach Pines Natural Area, Palm Beach County (*Ad hoc*: 1994-1995).

Member: Friends of Arthur R. Marshall National Wildlife Refuge.

Member, Sierra Club.

Member, Audubon Society

Member, Audubon of the Everglades

Member, National Geographic Society

Member, Nature Conservancy

Member, The Ocean Conservancy

Member, The Grand Canyon Association

Member, Bahamas National Trust

Member, Organization of Biological Field Stations

Teaching history:

<u>Chemistry for Environmental Scientists*</u> (CHS-6611): graduate core course in Environmental Sciences Program. Fall terms (2000 - present)

*Originally called Environmental Chemical Analysis (CHS-6610).

Environmental Chemistry (CHM-3080): undergraduate chemistry majors, others by permission; Spring terms (2004 - present).

Biological-Chemical Oceanography (OCE-6057): Graduate course in the Master's program of oceanography at the Harbor Branch Oceanographic Institute campus of FAU. I taught the chemical half of this course. Fall Terms (2017-2018 and 2021)

- Bioanalytical Laboratory (CHML-4139): Upper division undergraduate laboratory team Taught in 'Round-Robin' fashion. I teach the high performance liquid chromatography (HPLC) and Electronic Spectroscopy (UV/Vis) sections of this laboratory course. Coordinator Spring Terms (2005-2014). Presently (2015+), I only teach the Electronic Spectroscopy (UV/Vis) section of this laboratory course.
- Instrumentation (CHM-6157): Graduate core course. I coordinated this course, gave 8 of the lectures, compiled the comprehensive final and assigned grades. (Fall 2011-2013). 2015 onward, give assorted lectures (HPLC, MS) only.
- <u>Chemistry for Engineers</u> (CHM2095): undergraduates, the Department of Civil Engineering (Fall 2008)
- Chemistry for the Health Sciences plus labs (CHM2032 and -2032L).

 Undergraduates mainly in the College of Nursing (Fall-2018; Spring 2009, -2032L in Fall 2011; Spring {1/3 term} 2012) CHM-2032 Fall 2018
- Chemistry in Modern Life (CHM-2020): Spring and Summer 2002 & 2003.

Guest lecturer in various courses on requested basis (e.g. Biochemistry, Marine Botany &c.)

SCHOLARLY WORKS:

A. Peer-Reviewed / Refereed Publications (49: Primary and corresponding author on all except the 14 indicated by an asterisk*)

- Louda J.W., Singh-White A.G., and Brooks A.M.L. (2021) Pigment-based chemotaxonomy of seagrass epiphyte communities; Variables to consider and uses in ecosystem assessment and monitoring. *Examines in Marine Biology & Oceanography* (EIMBO) ISSN: 2578-031X
- Duersch B.G., Powers M.O., Newman S., Ricca J.G., Bhadha J.H. and Louda J. W. (2021) Phosphorus retention within a relic agriculture ditch in a constructed wetland. *J. Environmental Quality* 2021; 1-13.
- Louda J.W., Duersch B.G., Osetek, J.T., Cintron C., Chaljub L., and Queiroz V. (2021). Phosphorus non-point pollution from equestrian wastes and the need for recycling. *Environment and Pollution*. 10(2) 21pp. (ISSN 1927-0909)
- Duersch B., Ricca, J., and Louda J.W. (2021) Bioavailability of organic phosphorus compounds with respect to the growth of *Microcystis aeruginosa*. *Florida Scientist*. 84(4): 282-302.

- Duersch B.G., Bhadha J.H., Root T. and Louda J.W. (2020) The role of rice (*Oryza sativa* L.) in sequestering phosphorus compounds and trace elements: Speciation and dynamics. *Science of the Total Environment*. https://doi.org/10.1016/j.scitotenv.2020.138366
- *Wachnika A., Browder J., Jackson T., Louda J. W., Kelbe C., Abdelrahan O., Stabenenau E. and Avila C. (2019). Hurricane Irma's Impact on Water Quality and Phytoplankton Communities in Biscayne Bay (Florida, U.S.A.). *Estuaries and Coasts*. **43**: 1217–1234.
- *Chen W., Colon R., Louda J.W., del Rey F.R., Durham M and Rein K.S. (2018)
 Does brevetoxin (PbTx-2) influence the redox status and NPQ of *Karenia brevis?*Harmful Algae. **71:** 29-39.
- Louda J.W. (2017) Porphyrins. In: W.M. White (Ed.) Encyclopedia of Geochemistry AG 2017. Springer International. (DOI 10, 1007/978-3-319-39193-9_190-1). {*NOTE*: Normally a chapter would be listed under "B" below (non-refereed) but this chapter was blind peer reviewed by several).
- Louda J.W., Grant C., Browne J. and Hagerthey S.E. (2015) Pigment-based chemotaxonomy and its application to Everglades periphyton. <u>In:</u> J. A. Entry, K. Jayachandrahan, A.D. Gottlieb and A. Ogram (Eds.) <u>MICROBIOLOGY OF THE EVERGLADES ECOSYSTEM.</u> Science Publishers. Chapter 13; pp. 287-347 plus appendices (pp.455-468) and color plate (p485). (ISBN 9781498711838) NOTE: This chapter was peer reviewed.
- Grant C. and Louda J.W. (2013) Scytonemin-imine, a mahogany-colored UV/VIS sunscreen of cyanobacteria exposed to intense solar radiation *Organic Geochemistry* **65**: 29-36.
- *Pisani O., Louda J.W. and Jaffe R. (2013) Biomarker assessment of spatial and temporal changes in the composition of flocculent material (floc) in a subtropical wetland. *Environmental Chemistry* **10**: 424–436.
- Khalesi (M.-R.)M. and Louda J.W., (2011), Hemisynthesis of 13²,17³
 -Cyclomesopheophorbide-a-enol. *Tetrahedron Letters*. **52**: 1078-1081
- Louda, J. W., Mongkhonsri, P., and Baker, E.W. (2011) Chlorophyll degradation during senescence and death-III: Three to ten year experiments, implications for ETIO-series generation. *Org. Geochem.* **42**: 688-699
- West, M. and Louda, J.W. (2011) Effect of external pH on cyanobacterial pigment expression. *Florida Scientist*. **74(2)**: 181-186.

- *Szymczak-Żyła, M., Kowalewska, G. and Louda J.W. (2011) Sedimentary Chlorophyll-*a* derivatives as indicators of marine eutrophication. *Marine Chemistry* **125**: 39-48
- Grant, C.S. and Louda, J.W. (2010) Microalgal pigment ratios in relation to light intensity—Implications for chemotaxonomy. *Aquatic Biology.* **11**: 127-138.
- *Szymczak-Żyła, M., Louda, J. W. and Kowalewska, G. (2008) Influence of microorganisms on chlorophyll-a degradation in the marine environment. *Limnol. Oceanogr.* **58**: 851-862.
- Louda, J. W. (2008) Pigment-Based Chemotaxonomy of Florida Bay Phytoplankton; Development and Difficulties. *J. Liquid Chromatogr. & Rel. Tech.* **31**: 295-323.
- Szymczak-Żyła, M., Louda, J. W. and Kowalewska, G. (2008) Comparison of extraction and HPLC methods for marine sedimentary chloropigment-*a* determinations. *J. Liquid Chromatogr. and Rel. Tech.* **31**, 1162-1180.
- Louda, J.W., Neto, R.R., Magalhaes, A. R. M., and Schneider, V.F. (2008) Pigment alterations in the brown mussel *Perna perna*. *Comparative Biochemistry and Physiology* **–B 150**: 385 394.
- Moretzaei-Rad, M. and Louda, J. W. (2007) Polystyrene-Divinylbenzene (PS-DVB), a mild stationary phase for the chromatographic purification of the unstable 13², 17³-cyclopheophorbide-a-enol. *J. Liquid Chromatogr. & Rel. Technol.* **30**: 1361-1369.
- *Neto, R.R., Mead, R.N., Louda, J.W. and Jaffe, R. (2006) Organic biogeochemistry of detrital flocculent material (floc) in a subtropical, coastal, wetland. *Biogeochem.* 77: 283 304.
- Hagerthey, S. E., Louda, J. W. and Mongkronsri, P. (2006) Evaluation of pigment extraction methods and a recommended protocol for periphyton chlorophyll *a* determination and chemotaxonomic assessment. *J. Phycology* **42**: 1125 1136.
- Louda, J. W. and Monghkonsri, P. (2004) Comparison of spectrophotometric estimates of chlorophylls-*a*, -*b*, -*c* and 'pheopigments' in Florida Bay seston with that obtained by high performance liquid chromatography-photodiode array analyses. *Fla. Sci.* **67**(4): 281 292.
- Louda, J. W., Loitz, J. W., Melisiotis, A. and Orem, W.H. (2004) Potential Sources of Hydrogel Stabilization of Florida Bay Lime Mud Sediments and Implications for Organic Matter Preservation. *J. Coastal Res.* **20**, 448 463.

- Louda, J. W., Liu, L., and Baker, E. W. (2002) Senescence- and death-related alteration of chlorophylls and carotenoids in marine phytoplankton. *Org. Geochem.* **33**, 1635 1653.
- Louda, J. W., Loitz, J. W., Rudnick, D. T. and Baker, E. W. (2000) Early diagenetic alteration of chlorophyll-*a* and bacteriochlorophyll-*a* in a contemporaneous marl ecosystem. *Org. Geochem.* **31** (12): 1561 1580.
- *Havens, K. E., Steinman, A. D., Carrick H. J., Louda, J. W. and Baker, E. W. (1999) A Comparative analysis of periphyton communities in a subtropical lake using HPLC pigment analysis and microscopic cell counts. *Aquatic Sciences*. **61** (4): 307 322.
- *Steinman, A., Havens, K. E., Louda, J. W., Winfree, N. M. and, Baker, E. W. (1998) Characterization of the Photoautotrophic Bacterial Communities in a Sub-Tropical Lake (Lake Okeechobee, Florida). *Can. J. Fish. Aquat. Sci.* <u>55</u>, 206 - 219:
- Louda, J. W., Li J., Liu L., Winfree, M. N., and Baker, E. W. (1998) Chlorophyll degradation during senescence and death. *Org. Geochem.* **29**, 1233 1251.
- *Carraher, C.E., Louda, J.W., Sterling, D., Baker, E., Rivalta, A., and Zhang Q. (1996) Electron Impact Mass Spectroscopy of Condensation Metal-Containing Polymers. In: Pittman C.U., Carraher C.E., Zeldin M., Sheats J.E., Culbertson B.M. (eds) Metal-Containing Polymeric Materials. Springer, Boston, MA. https://doi.org/10.1007/978-1-4613-0365-7_34
- *Carraher, C.E., Sterling, D.C., Ridgway, T.H., and Louda J.W. (1991) Structural Characterization of Organostannane Kraft Lignin. In: Gebelein C.G. (eds) Biotechnology and Polymers. Springer, Boston, MA. https://doi.org/10.1007/978-1-4615-3844-8 1
- *Carraher, C.E., Louda, J.W., Sterling, D., Baker, E., Rivalta, A., and Zhang Q. (1990) Electron Impact Mass Spectroscopy of Condensation Metal-Containing Polymers. In: Pittman C.U., Carraher C.E., Zeldin M., Sheats J.E., Culbertson B.M. (eds) Metal-Containing Polymeric Materials. Springer, Boston, MA. https://doi.org/10.1007/978-1-4613-0669-6_34
- *Popp, B. N., Takigiku R., Hayes, J. M., Louda, J. W. and Baker, E. W. (1989) The Post-Paleozoic Chronology and Mechanism of ¹³C Depletion in Primary Marine Organic Matter. *Amer. J. Sci.* **289**, 436-454.
- Baker, E. W., Louda, J. W. and Orr, W. H. (1987) Application of metalloporphyrin biomarkers as petroleum maturity indicators; the importance of quantitation. *Org. Geochem.* **11**: 303-309.

- Baker, E. W. and Louda, J. W. (1986) Porphyrin Geochemistry of Atlantic Jurassic Cretaceous Black Shales. *Org. Geochem.* **10**, 905-914.
- Baker, E. W. and Louda, J. W. (1984) Highly Dealkylated Copper- and Nickel-Etioporphyrins in Marine Sediments. *Org. Geochem.* **6**, 183-192.
- Baker, E. W. and Louda, J. W. (1983) Thermal Aspects in Chlorophyll Geochemistry. <u>In</u>: M. BjorOy (ed.) <u>Advances in Organic Geochemistry-1981</u>, J. Wiley and Sons, Chichester, 401-421.
- Louda, J. W. and Baker, E. W. (1984) Perylene in Deep Ocean Sediments; Occurrence, Source and Alkylation. *Geochim. Cosmochim. Acta* 48, 1043-1058.
- Palmer, S. E., Baker, E. W., Charney, L. S. and Louda, J. W. (1982) Tetrapyrrole Pigments in United States Humic Coals. *Geochim. Cosmochim. Acta.* 47, 1233-1241.
- Baker, E. W. and Louda, J. W. (1982) Geochemistry of Tetrapyrrole, Tetraterpenoid and Perylene Pigments in Sediments from the Gulf of California: DSDP/IPOD Leg 64; Sites 474, 477, 479 and 481 and Guaymas Basin Survey Cruise (S. I. O.) Leg 3; Sites 10G and 18G. <u>In</u>: Scientific Party, Initial Reports of the Deep Sea Drilling Project-LXIV, U.S. Government Printing Office, Washington, v. 64, part 2, 789-814.
- Baker, E. W. and Louda, J. W. (1981) Chlorophyll Derivatives in Sediments of the South Philippine Sea, Deep Sea Drilling Project Leg 60. <u>In</u>: D. Hussong, S. Uyeda and the Scientific Party, Initial Reports of the Deep Sea Drilling Project-LX, U.S. Govt. Printing Office, Washington, v. 60, 497-500.
- Baker, E. W. and Louda, J. W. (1981) Geochemistry of Chlorophyll Derivatives: DSDP / IPOD Leg 61, Site 462, Northern Nauru Basin. <u>In</u>: R. L. Larson, S. O. Schlanger and the Scientific Party, Initial Reports of the Deep Sea Drilling Project-LXI, U.S. Govt. Printing Office, Washington, v. 61, 619-620.
- Louda, J. W. and Baker, E. W. (1981) Geochemistry of tetrapyrrole, carotenoid and perylene pigments in sediments from the San Miguel Gap (Site 467) and Baja California Borderlands (Site 471): DSDP/IPOD Leg 63. <u>In</u>: Yeats, R. S., Haq, B., and the Shipboard Party, Initial Reports of the Deep Sea Drilling Project, U.S. Govt. Printing Office, Washington, v. 63, 785-818.
- Louda, J. W., Palmer, S. E. and Baker, E. W. (1980) Products of Chlorophyll Diagenesis in Japan Trench Sediments. I. Deep Sea Drilling Project Sites 434, 435, and 436. <u>In:</u> E. Honza, and the Shipboard Party. Initial Reports of the Deep Sea Drilling Project-LVI, U.S. Govt. Printing Office, Washington, v. 56-57, part II, 1391-1396.

- Baker, E. W. and Louda, J. W. (1980) Products of Chlorophyll Diagenesis in Japan Trench Sediments. II. DSDP/IPOD Sites 438, 439 and 440. In: E. Honza and the Shipboard Party. Initial Reports of the Deep Sea Drilling Project-LVII, U.S. Govt. Printing Office, Washington, v. 56-57, part II, 1397-1408.
- Baker, E. W. and Louda, J. W. (1980) Geochemistry of Tetrapyrrole Pigments in Sediments of the North Philippine Sea: DSDP/IPOD Leg. 58. <u>In</u>: E. Honza, and the Shipboard Party. Initial Reports of the Deep Sea Drilling Project-LVIII, U.S. Govt. Printing Office, Washington, v. 58, 737-739.
- Baker, E. W. and Louda, J. W. (1980) Organic Geochemistry: Highlights in the Deep Sea Drilling Project. <u>In</u>: A. G. Douglas and J. R. Maxwell (eds.) Advances in Organic Geochemistry-1979. Pergamon Press, Oxford, 295-319.
- *Batra, P. P., Gleason, R. M., and Louda, J. W. (1973) Cyclization of Lycopene in the Biosynthesis of \(\beta\)-Carotene. *Phytochemistry* **12**, 1309-1313.

B. Non-refereed publications (9). (I wrote and was the corresponding author on all except those indicated by an asterisks*)

- *Baldwin J., Coley C., Gawlik D., Hanisak D., Louda J.W., Owen, D. Perry G., Proffit E., Roberts C. and Vos J. (2009) Greater Everglades Research Initiative White Paper. Florida Atlantic University, Boca Raton, FL. 6 pp.
- Baker E. W. and Louda J. W. (2002) *The Legacy of the Treibs' Samples* <u>In:</u> A. Prashnowsky (Ed.) <u>Alfred Treibs Memorial Volume.</u> Wurzburg. pp. 3 –128.
- Winfree, N. M., Louda, J. W., Baker, E. W., Steinman, A., and Havens, K. E. (1997)
 Application of Chlorophyll and Carotenoid Pigments for the Chemotaxonomic
 Assessment of the Waters and Surficial Sediments of Lake Okeechobee, Florida. In:
 Eganhouse R. (Ed.) Application of Molecular Markers in Environmental
 Geochemistry. ACS Symposium Series #671, American Chemical Society,
 Washington, D.C. pp. 77-91.
- *Carraher, C. E., Louda, J. W., Sterling, D., Rivalta, A., Zhang, Q. and Baker, E. W. (1994) Electron impact mass spectrometry of condensation organometallic polymers. Polymeric Materials, Sci. Eng., <u>71</u>:386-387 A.C.S., Washington, D.C.
- Louda, J. W. (1993) <u>The Biogeochemistry of Tetrapyrrole Pigments, Emphasizing</u> <u>Chlorophyll.</u> Ph.D. dissertation, University of South Florida, 638 pp.
- *Carraher, C. E., Sterling, D., Ridgway, T. and Louda, J. W. (1991) Structural characterization of organostannane Kraft lignin. <u>In</u>: Biotechnology and Polymers, pp. 111-118, Plenum.

- Louda, J. William and Baker, Earl W. (1986) The Biogeochemistry of Chlorophyll. <u>In:</u>
 Organic Marine Geochemistry. M. Sohn (Ed.) ACS Symposium Series #305,
 American Chemical Society, Washington, D.C., pp. 107-126.
- Baker, E. W. and Louda, J. W. (1986) Porphyrins in the Geologic Record. <u>In</u>: R. B. Johns (Ed.) <u>Biological Markers</u>, Elsevier, Amsterdam. pp. 125-225.
- Louda, J. W. (1978) Carotenoid Pigmentation and Metabolism in the Blue-Crab, *Callinectes sapidus* Rathbun, M.Sc. Thesis, Florida Atlantic University, Boca Raton, Fl., 93 pp.

C. Published invited reviews (1).

Louda, J. W. (1999) *Chemical Fungal Taxonomy*: (Book review). *J. Amer. Chem. Soc.* **121 (39)** 9251 - 9252.

<u>D. Academic Speeches and Formal Papers. Underlined indicates personal presentation.</u> *Asterisk indicates participation at meeting. (153).

- *Louda J. W., Singh-White, A., and Brooks A.M.L. (2022) *In situ* Monitoring of Seagrass Epiphytes, Mesograzers and the Macrograzers They Support. Lake Worth Lagoon Science Symposium. Nov. 15, 2022.
- Ricca J.G., Mayali X., Loftin K.A., Weber, P.K. and Louda J.W. (2022) Investigating the interaction between microcystins and cyanobacterial cells using nanoSIMS. 12th. International Conference on Cyanobacterial Toxins. Toledo, Ohio.
- *Louda J. W., Singh-White, A., and Brooks A.M.L. (2022) A Proposed Methodology for the Study of Seagrass Epiphytes and the Mesograzers they Support. Indian River Lagoon Symposium, Harbor Branch Oceanographic Institute of FAU, Ft. Pierce. April 21 (poster)
- Ricca J.G., Mayali X., Loftin K.A., Weber, P.K. and Louda J.W. (2022) The extracellular role of cyanopeptides studied with nanoscale secondary ion mass spectrometry. American Chemical Society, Florida Section, FAME-2022. Aug. 6, 2022.
- Ricca J.G., Terentis A.C., and Louda J.W. (2022) Isotope-edited Amide 1 in cyclic oligopeptides shows potential as a vibrational probe. Amercican Chemical Society, Chicago. Aug. 21-25. Paper #3729276
- Frankovich T.A., Wachnicka A., Louda J.W., and Welch B. (2022) Phytoplankton Assemblages in the C44 Canal and St. Lucie Estuary. Interagency Freshwater HAB R&D Workshop, Clewiston, Florida. March 29-31.

- Ricca J.G., Mayali X., Loftin K.A., Weber, P.K. and Louda J.W. (2022) Investigating the interaction between microcystins and cyanobacterial cells using nanoscale secondary ion mass spectrometry. Amercican Chemical Society, Chicago. Aug. 21-25. Paper # 3737995
- *Frankovich T.A., Louda J.W., Welch B., and Wachnicka A. (2022) Phytoplankton Assemblages in the C44 Canal and St. Lucie Estuary. Indian River Lagoon Symposium, Harbor Branch Oceanographic Institute of FAU, Ft. Pierce. April 21 (poster)
- Ricca J.G., Mayali X., Loftin K.A., Weber, P.K. and Louda J.W. (2022) Investigating the interaction between microcystins and cyanobacterial cells using nanoSIMS. 12th. International Conference on Cyanobacterial Toxins. Toledo, Ohio.
- Ricca J.G., Mayali X., Loftin K.A., Weber, P.K. and Louda J.W. (2022) The extracellular role of cyanopeptides studied with nanoscale secondary ion mass spectrometry. American Chemical Society, Florida Section, FAME-2022. Aug. 6, 2022.
- Ricca J.G., Terentis A.C., and Louda J.W. (2022) Isotope labeled non-ribosomal oligopeptides from cyanobacteria and potential for vibrational probing. American Chemical Society, Florida Section, FAME-2022. Aug. 6, 2022 (Poster)
- *Serna A., Wachnicka A., Welch B., Orlando B., Louda J.W., and Frankovich T. (2020) Spatiotemporal Changes in Phytoplankton Dynamics in the St. Lucie Estuary (SLE). Indian River Lagoon Symposium. Harbor Branch Oceanographic Institute, Ft. Pierce, Florida.
- *Louda J.W., Duersch B., Querioz V. and Cintron C. (2019) Equestrian waste streams as a source of surface-water phosphorus pollution. American Chemical Society 257th Annual Meeting. Orlando, Florida. March 31-April 4. Environmental Division. (Talk # ENVR-207 was pulled and ours replaced it)
- Wachnicka A., Browder J., Frankovitch T., Wingard L. and Louda J.W. (2019)
 Resilience of South Florida Estuarine Systems to Climatic and Anthropogenic
 Disturbances. American Society of Limnology and Oceanography 2019 Aquatic
 Sciences Meeting, 23 Feb.-2 Mar. San Juan, Puerto Rico, USA. Session #CS019
 Regime Shifts.
- *Duersch B., Louda J.W. and Bhadha J.H. (2019) Speciation and dynamics of phosphorus: The role of rice plants in sequestering phosphorus compounds. Greater Everglades Ecosystem Restoration Conference. Coral Springs, Fl, April 22-25. (poster)

- *Duersch B., Louda J.W. and Newman S.E. (2019) Investigation of the removal of phosphorus species and other nutrients in the storm-water treatment area (1E). Greater Everglades Ecosystem Restoration Conference. Coral Springs, FL, April 22-25 (poster # ENVR-481).
- *Louda, J. W. (2019) HABs / CyanoHABs: A few talking points and a look at Taylor Creek nutrient pollution. Florida Harmful Algal Bloom State of the Science Symposium. UF-IFAS and Florida Sea Grant. St. Petersburg. August 20-21. (Poster)
- *Louda, J. W. (2019) Taylor Creek: Nutrient pollution feeding CyanoHABs in Lake Okeechobee Florida,10th Annual United States Symposium on Harmful Algal Blooms. Orange Beach, Alabama. Nov. 3-8.
- *Duersch B. and Louda J.W. (2019). Bioavailability of Organic Phosphorus Compounds with Respect to the Growth Kinetics of *Microcystis aeruginosa*. 10th Annual United States Symposium on Harmful Algal Blooms. Orange Beach, Alabama. Nov. 3-8.
- *Louda, J. W. (2018) Environmental Chemistry of Pre-Harvest Sugarcane Smoke. 33rd Everglades Coalition Conference, Stuart, Fl. Jan.11-14.
- Wachnicka A., Browder J., Jackson T., Louda J. W., Kelbe C., Abdulrahman O., Avila C., Stabenau E., and Madden C. (2018) Impacts of Hurricane Irma on Algal Dynamics and Water Quality in Biscayne Bay, Florida (USA). So. Fla. Environ. Professionals Soc. March 16, Dania Beach, Fl.
- * Duersch, B.G. and Louda, J.W. (2018) Phosphorous Analyses Including P31 Nuclear Magnetic Resonance Spectroscopy inn the C51 Basin and Northern Everglades. 12th International Symposium on Biogeochemistry of Wetlands. April 23-26, Coral Springs, FL. (Poster)
- Wachnicka A., Browder J., Jackson T., Louda J. W., Abdellrahman O., Kelbe C., Madden C. and Stabenau E. (2018) Impacts of Hurricane Irma on Algal Dynamics and Water Quality in Biscayne Bay, Florida (USA). American Society of Limnology and Oceanography 2018 Summer Meeting, 10-15 June Victoria, B.C., Canada.
- *Duersch, B.G. and Louda, J.W. (2017) Phosphorus speciation using P31 nuclear magnetic resonance spectroscopy in order to trace phosphorus sources and movement in the C51 basin and northern Everglades. Greater Everglades Ecosystem Restoration Conference. Coral Springs, Fl, April 17-21. (Poster)

- *Bermudez, J. and Louda, J.W. (2017) Effects of Fresh-Water Acidification on Microalgae Growth Rates and Pigment-Based Chemotaxonomy. Greater Everglades Ecosystem Restoration Conference. Coral Springs, Fl, April 17-21. (Poster)
- *Louda, J. W. (2017) Conceptual "Solar Marsh": Combined Stormwater Treatment Area and Electrical Generation. Greater Everglades Ecosystem Restoration Conference. Coral Springs, Fl, April 17-21. (Poster)
- *Duersch, B.G. and Louda, J.W. (2017) Phosphorus Speciation Using P-31 Nuclear Magnetic Resonance Spectroscopy in Order to Trace Phosphorus Sources and Movement in the C51 Basin and Northern Everglades. 254th National Meeting, American Chemical Society, Washington DC, August 20-24. Poster (Abstract #2729989).
- *Louda, J.W. (2016) Pigment-based Chemotaxonomy and Adaptive Management. 6th National Conference on Ecosystem Restoration (NCER 2016) April 18-22. Coral Springs, FL. (Poster).
- *Louda, J.W. (2015) Lake Worth Lagoon, C51-Basin and Associated Waters: Studies Finished, Started, Restarted and Planned. South Florida Water management District- Lake Worth Lagoon Initiative Working Group Joint Meeting.

 Invited Talk. Dec. 15, 2015. Open Public Meeting at SFWMD Headquarters, Gun Club Road, West Palm Beach, Fl.
- *Louda, J.W. and Prize-Bolter, K. (2013) Phytoplankton and anoxia in Little Lake Worth. Lake Worth Lagoon Initiative Symposium. May 15, 2013. West Palm Beach, FL.
- *Louda, J.W. and Prize-Bolter, K. (2013) Little Lake Worth Florida, a coastal lagoon 'borrow' pit with anthropogenic perturbations. Coastal and Estuarine Research Foundation 22nd Biennial Conference, San Diego, Calif. 3-7 November. SCI-062. *Invited talk*.
- *Louda, J. W., Shultz A., Lapointe, B., and Philipp, D. (2013) FLORIDA ATLANTIC UNIVERSITY and THE CAPE ELEUTHERA INSTITUTE National Science Foundation Field Station and Marine Laboratory (NSF-FSML) Planning Grant for the Expansion and Enhancement of the CEI Laboratory Facilities. Poster presentation at The Island School-Cape Eleuthera Research Symposium. The Island School, Deep Creek Eleuthera. Nov. 30.
- *Grant, C. and Louda, J.W. (2011) Pigment-based chemotaxonomy-relationships to phytoplankton biomass. Florida Academy of Sciences, Melbourne, Fl. March 11.
- *Grant, C. and Louda, J.W. (2011) A cyanobacterial pigment tentatively classified as a visible light sunscreen. Florida Academy of Sciences, Melbourne, Fl. March 11.

- *Louda, J.W. (2011) Initial investigations of microbial mats in hypersaline lagoons on the island of Eleuthera, Bahamas. Florida Academy of Sciences, Melbourne, Fl. March 11.
- *Louda, J. W. (2011) Overall biogeochemistry of chlorophyll: phytoplankton to crude oil. *Invited talk*. Institute of Oceanology, Polish Academy of Sciences. Sopot, Poland. June 9, 2011.
- *Louda, J. W. (2011) Florida Atlantic University and Marine Research at the University. *Invited talk*. Institute of Oceanology, Polish Academy of Sciences. Sopot, Poland. June 9, 2011.
- *Louda, J. W. (2011) The mercury problem in the Florida Everglades and its relation to agricultural runoff. *Invited talk*. Institute of Oceanology, Polish Academy of Sciences. Sopot, Poland. June 14, 2011.
- Szymczak-Żyła, M., Kowalewska, G. and. Louda, J. W. (2011) Chloropigments-*a* in sediments in coastal zone as markers of eutrophication and environmental conditions. International Council for the Exploration of the Sea (ICES) Annual Science Conference-2011, CM 2011/M:06 (Extended Abstract) Gdansk, Poland Sept. 19-23.
- *West, M. and Louda, J.W. (2010) Effect of media pH on pigment ratios in filamentous cyanobacteria representative of Everglades periphyton. 74th Annual Meeting of the Florida Academy of Sciences. Ft. Pierce, FL. March 19. Abstr. ENV-14.
- *Grant, C. and Louda, J.W. (2010a) A cyanobacterial pigment tentatively classified as a visible light sunscreen. 74th Annual Meeting of the Florida Academy of Sciences. Ft. Pierce, FL. March 19. Abstr. ENV-15.
- *Grant, C. and Louda, J.W. (2010b) Pigment-based chemotaxonomic relationships to phytoplankton biomass. 74th Annual Meeting of the Florida Academy of Sciences. Ft. Pierce, FL. March 19. Abstr. ENV-16.
- *Louda, J. W., Mongkhonsri, P. and Hagerthey, S.E. (2010) Pigment-based chemotaxonomic assessment of periphyton. 74th Annual Meeting of the Florida Academy of Sciences. Ft. Pierce, FL. March 19. Abstr. ENV-17.
- *O'Brien, S.C., Louda, J. W., Naja, G.M., Harwell, M. and Surratt, D. (2010) Compilation of a biogeochemical database of mercury and methyl-mercury in the freshwater Florida Everglades. 74th Annual Meeting of the Florida Academy of Sciences. Ft. Pierce, FL. March 19. Abstr. ENV-18.

- *Prize-Bolter, K. and Louda, J.W. (2010) The physicochemical and photoautotrophic characterization of Little Lake Worth, a semi-restricted marine basin. 74th Annual Meeting of the Florida Academy of Sciences. Ft. Pierce, FL. March 19. #. ENV-19.
- *Browne, J. and Louda, J.W. (2010) Comparison of chemotaxonomic methods for determination of algal class composition in Florida Everglades periphyton. 74th Annual Meeting of the Florida Academy of Sciences. Ft. Pierce, FL. March 19. Abstr. ENV-24.
- Pisani, O., L.J. Scinto, W.J. Louda, and R. Jaffe. (2009) Chemical characterization of flocculent material (floc) in the Florida Coastal Everglades-Preliminary Results-. 2009 FCE LTER All Scientists Meeting, Fairchild Tropical Garden, Coral Gables, Florida, March 19, 2009 - March 20, 2009.
- *Grant, C.S. and J. W. Louda, J.W. (2008) The effect of photic flux on biomarker pigment ratios used in chemotaxonomy. 72st. Annual Meeting of the Florida Academy of Sciences. Jacksonville, FL. March 14. Abstr. ENV.
- *Louda J.W., Mongkhonsri P., and Hagerthey S.E. (2008) Pigment-based chemotaxonomic assessment of periphyton and the Comprehensive Everglades Restoration Plan (CERP). 72st. Annual Meeting of the Florida Academy of Sciences. Jacksonville, FL. March 14. Abstr. ENV.
- *Mongkhonsri P., Louda J.W., and Hagerthey S.E. (2008) Reversed phase highperformance liquid chromatography (HPLC) coupled with photodiode array (PDA) spectroscopy for the separation and identification of complex lipophilic pigment mixtures. 72st. Annual Meeting of the Florida Academy of Sciences. Jacksonville, FL. March 14. Abstr. ENV.
- Louda, J. W. (2008) Spatial and temporal monitoring of phytoplankton in waters affected by or within open pit mining operations using pigment-based chemotaxonomy.

 1st. International Conference on Mining Impacts to the Human and Natural Environments. Punta Gorda, Fl., Mar.15, 2008. Invited Poster (in absentia).
- *J. William Louda, Scot E. Hagerthey and Panne Mongkhonsri (2008) Refinement and Application of Pigment-Based Chemotaxonomy to the Assessment of Periphyton Communities in the Everglades. Greater Everglades Ecosystem Restoration Conference, Naples, Florida, July 28 Aug. 1.
- *Louda, J. W. (2008) Monitoring Everglades Periphyton in Space and Time: A Chemotaxonomic Evaluation: Contract # ML061237. Report to the Comprehensive Everglades Restoration Plan, RECOVER Assessment Team, Aug. 27, 2008. SFWMD Field Station, Davie (Publically Announced Open Meeting)

- *Louda, J.W., Kelly, S.P., and Mongkhonsri, P. (2008) Phycobilin analysis protocol development for ground-truthing cyanobacterial monitoring in Florida Bay and adjacent marine systems. Florida Bay and Adjacent Marine Systems Science Conference, Naples, FL Dec. 8-11.
- *Louda, J.W., Grant, C.S. and Mongkhonsri, P. (2008) Pigment-based chemotaxonomy of Florida Bay phytoplankton and the influences of photic flux. Florida Bay and Adjacent Marine Systems Science Conference, Naples, FL Dec. 8-11.
- *Grant C. S. and Louda J. W. (2007) Photosynthetic pigment ratios in relation to photic flux. 71st. Annual Meeting of the Florida Academy of Sciences. St. Petersburg, FL. March 16-17. Abstr. ENV.
- *Mongkhronsri P., Hagerthey S. and Louda J. W. (2007) Utilization of pigment-based chemotaxonomy for rapid spatial-temporal assessment of Everglades periphyton. 71st. Annual Meeting of the Florida Academy of Sciences. St. Petersburg, FL. March 16-17. Abstr. ENV.
- *Mortezaei-Rad. M. and Louda J. W. (2007) Synthesis, purification and characterization of the unstable chlorophyll-a derivative 13², 17³-mesocyclopheophorbide *a-e*nol. 71st. Annual Meeting of the Florida Academy of Sciences. St. Petersburg, FL. March 16-17. Abstr. ENV.
- *Cintron C. and Louda J. W. (2007) Extractability of phosphorous from horse manure and implications for the pollution of the surficial waters and aquifers of southern Florida. 71st. Annual Meeting of the Florida Academy of Science. St. Petersburg, Florida. March 16-17. Abstr. ENV.
- *Louda J. W. (2007) The utilization of pigments in the assessment of periphyton assembly changes during CERP. Report to the Comprehensive Everglades Restoration Project—Monitoring and Assessment Project (CERP-MAP) Team. Pubic advertised forum, Hollywood, Florida, June 27, 2007.
- *Louda J.W. (2007) Application of pigment-based chemotaxonomy to the evaluation and monitoring of Florida's estuarine, coastal and open ocean waters. Florida Oceans and Coastal Council (oral presentation) Nov.14, Harbor Branch Oceanographic Institution, Ft. Pierce, Fla.
- *Louda J. W., Hagerthey S. E., and Mongkhronsri, P. (2006) Pigment-Based Chemotaxonomic Evaluation of Everglades Periphyton Communities. Greater Everglades Ecosystem Restoration Conference. Lake Buena Vista, Florida. June 5-9.
- Stanway, K. E., Boyer, J. N., Louda, J. W. and Mongkronsri, P. (2005) The effect of microbial mats on sediment nutrient fluxes in Florida Bay, USA. Estuarine Research Federation Annual Meeting, Norfolk, Virginia, Oct. 16-20, 2005.

- *Grant, C. and Louda, J. W. (2005) Photosynthetic pigments in relation to photic flux. South Florida ACS Chemical Sciences Symposium, Nova University, Davie, Florida. Nov. 12, 2005. (Poster).
- *Mortezaei-Rad, M. and Louda, J. W. (2005) Synthesis and characterization of novel cyclopheophorbides. South Florida ACS Chemical Sciences Symposium, Nova University, Davie, Florida. Nov. 12, 2005. (Poster).
- *Conway J. and Louda J. W. (2005) Drinking water analysis. South Florida ACS Chemical Sciences Symposium, Nova University, Davie, Florida. Nov. 12, 2005. (Poster).
- *Louda J. W. (2005) Resuspended sediments and effects on chemotaxonomy in north-Central and western Florida Bay. 2005 Florida Bay and Adjacent Marine Systems Science Conference. Hawks Key, Florida. Dec. 11 – 14, 2005. (Poster).
- *Osetek, J. and <u>Louda, J. W.</u> (2004) Water quality analyses of canals in the agricultural / residential community of Loxahatchee Groves, Florida. 68th. Annual Meeting of the Florida Academy of Sciences. Orlando, Fl., March 12-13, 2004. Abstract ENV-10.
- *Louda, J. W. and Monghkronsri, P. (2004) Comparison of spectrophotometric and HPLC estimations of chlorophylls-*a*, -*b*, -*c* and pheopigments in Florida Bay seston. 68th. Annual Meeting of the Florida Academy of Sciences. Orlando, Fl., March 12-13, 2004. Abstract # ENV.
- *Louda, J. W. (2004) Pigment-based chemotaxonomic studies of Florida Bay microalgae. Southeastern Estuarine Research Society, Spring Meeting, Ft. Pierce, FL., April 15 17. Abstracts, p. 28-29.
- *Louda, J. W. (2004) Pigment-based chemotaxonomic evaluation of north-central and western Florida Bay phytoplankton. American Society of Limnology and Oceanography, Summer Meeting. Savannah, GA. June 13-18.
- *Louda, J. W. (2004) Photosynthetic Pigments as Probes for Microalgal Community Structure and Flux. South Florida-Caribbean Cooperative Ecosystems Studies Unit (SFC-CESU) Meeting, Davie, Fl. July 9.
- *Louda J. W. (2003) The wax and wane of cyanobacterial blooms in north-central Florida Bay as discerned by pigment-based chemotaxonomy. 67th. Annual Meeting of the Florida Academy of Sciences. Orlando, Fl., March 21-22, 2003. Abstract # BIO-12.
- *Skoog K. and <u>Louda J. W</u>. (2003) Chemotaxonomic assessment of Lake Okeechobee phytoplankton: natural samples and *in vitro* experimentation into the effects of light levels. 67th. Annual Meeting of the Florida Academy of Sciences. Orlando, Fl., March 21-22, 2003. Abstract # SS-6.

- *Singh A. and <u>Louda J. W.</u> (2003) "Epiphytometry" in the study of epiphyte productivity and taxonomic makeup in north-central Florida Bay. 67th. Annual Meeting of the Florida Academy of Sciences. Orlando, Fl., March 21-22, 2003. Abstract # BIO-13.
- *Louda J. W., Hagerthey S. and Monghkronsri P. (2003) Pigment-based chemotaxonomic studies of Everglades' periphyton. 67th. Annual Meeting of the Florida Academy of Sciences. Orlando, Fl., March 21-22, 2003. Abstract # BIO-14.
- *Louda J. W. (2003) Chemotaxonomic Assessment of Microalgal Communities in North-Central and Western Florida Bay. Joint Conference on the Science and Restoration of the Greater Everglades and Florida Bay Ecosystem. Palm Harbor, Fl. April 13 –18, 2003. Florida Bay Abstracts, pp. 129-131.
- *Hagerthey S. E., Jacoby M., <u>Louda J. W.</u> and Monghkronsri P. (2003) Development of a High Performance Liquid Chromatography (HPLC) Protocol for Monitoring Periphyton in the Florida Everglades. Joint Conference on the Science and Restoration of the Greater Everglades and Florida Bay Ecosystem. Palm Harbor, Fl. April 13–18, 2003. GEER Abstracts, pp. 235–236.
- Neto R.R., Mead R., Louda J.W. and Jaffe R. (2003) Source assessment of organic matter in flocculent material from a subtropical wetland and its incorporation into sediments: A biomarker approach. 2003 LTER All Scientists Meeting, Estuarine Research Federation, Seattle, Washington, 18-21 September 2003.
- Louda J.W. (2002) Pigment-based chemotaxonomy of phytoplankton in north-central Florida Bay. 66th. Annual Meeting, Florida Academy of Sciences, Miami, Florida. March 7-9.
- *Singh A. and Louda J. W. (2002) Utilization of "epiphytometers" for the estimation of epiphytic productivity and community structure in conjunction with HPLC pigment analysis. 66th. Annual Meeting, Florida Academy of Sciences, Miami, Fl. March 7-9.
- *Skoog K. and Louda J. W. (2002) Effects of Light Field upon the Chemotaxonomic Estimation of Cyanobacteria in Lake Okeechobee, Florida. 66th. Annual Meeting, Florida Academy of Sciences, Miami, Florida. March 7-9.
- *Louda J. W. (2001) Photosynthetic-based chemotaxonomy of microalgal communities in Lake Okeechobee and Florida Bay. 65th. Annual Meeting Florida Academy of Sciences, March 8 –10. St. Leo, Florida. (J-3)
- Louda J. W., Liu L. and Baker E. W. (2001) Senescence- and Death-Related Alteration of Chlorophylls and Carotenoids in Marine Phytoplankton. 20th. International Meeting on Organic Geochemistry. University of Nancy, France. Sept. 10- 14, 2001.

- *Louda J. W., Liu L. and Baker E. W. (2001) Chlorophyll and Carotenoid Breakdown During the Senescence and Death of Various Marine Phytoplankton. 65th. Annual Meeting Florida Academy of Sciences, March 8 –10. St. Leo, Florida. (ENV-12)
- *Louda J. W., Orem W. H., Melisiotis A., Loitz J. W. and Baker E. W. (2001) Quasi-Stabilization of Recent Carbonate Marl Sediments in Florida Bay by Weak Hydrogel Formation. 65th. Ann. Meeting Fla Acad. Sciences, March 8 –10. St. Leo, Florida.
- *Louda J. W. (2001) Pigment-Based Chemotaxonomic Assessment of Florida Bay Phytoplankton and Periphyton. Florida Bay and Adjacent Marine Systems Science Conference. Key Largo. April 23 –26.
- *Louda J. W., Orem W. H., Melisiotis A., Loitz J. W. and Baker E. W. (2001) Quasi-Stabilization of Recent Carbonate Marl Sediments in Florida Bay by Weak Hydrogel Formation. Florida Bay and Adjacent Marine Systems Science Conference. Key Largo. April 23 –26.
- *Louda, J. W., Loitz, J. W. and Baker, E. W. (2000) Chlorophyll geochemistry in Florida Bay. 64th. Annual Meeting Florida Academy of Sciences, March 9-11. Melbourne, Florida.
- *Louda, J. W., Loitz, J. W., Baker, E. W., Orem, W. H. and Rudnick, D. T. (2000) Organic gelation within Florida Bay sediments. 64th. Annual Meeting Florida Academy of Sciences, March 9-11. Melbourne, Florida.
- *Loitz, J. W., <u>Louda, J. W.</u> and Baker, E.W. (1999) Diagenesis of chlorophyll-*a* and bacteriochlorophyll-*a* in Florida Bay Sediments. 63rd. Annual Meeting Florida Academy of Sciences, March 11 13. Tampa, Florida.
- *Liu, L., Louda, J. W., and Baker, E. W. (1999) Phytoplankton senescence and death-related degradation of chlorophylls and carotenoids. 63rd. Annual Meeting Florida Academy of Sciences, March 11 13. Tampa, Florida.
- *Louda, J. W. and Baker, E.W. (1999) The History of organic geochemistry: Globally and at FAU. 63rd. Annual Meeting Florida Academy of Sciences, May. Tampa, Florida.
- *Louda, J. W. (1999) Carotenoid Geochemistry. 63rd. Annual Meeting Florida Academy of Sciences, May. Tampa, Florida.
- Baker E. W. and Louda J. W. (1999) The Legacy of the Treibs' Samples. Symposium in Honor of the 100th. Anniversary of the Birth of Alfred Treibs, the Father of Organic Geochemistry. Germany.

- Louda, J. W., Loitz, J. W., Rudnick, D. T. and <u>Baker, E. W.</u> (1999) Early diagenetic alteration of chlorophyll-*a* and bacteriochlorophyll-*a* in a contemporaneous marl ecosystem, Florida Bay. 19th. International Meeting on Organic Geochemistry, European Association of Organic Geochemists. Ankara, Turkey. Sept. 6 10, 1999.
- *Louda, J. W., Loitz, J. W., Baker, E. W. and Rudnick D. T. (1999) Photosynthetic Pigment -Based Chemotaxonomy as Applied to Florida Bay Phytoplankton, Water, Macrophytes and Sediments. 1999 Florida Bay and Adjacent Marine Systems Conference. Key Largo, Florida. Nov. 1 5, 1999. Extended Abstract, pp. 133 135.
- *Loitz, J. W., <u>Louda, J. W.</u>, and Baker, E. W. (1998) The Isolation and characterization of scytonemin; the dimeric indole-phenolic sunscreen present in the sheaths of certain cyanobacteria. Poster Session. 62nd Annual Meeting, Florida Academy of Sciences. Winter Park, Fla. Mar. 24-26, 1998.
- *Louda, J. W., Loitz, J. W., Rudnick, D. T., and Baker, E. W. (1998) Studies on the present and past photoautotrophic populations of Florida Bay using chlorophyll-*a* and carotenoid-based chemotaxonomy. Poster Session. 62nd. Annual Meeting, Florida Academy of Science. Winter Park, Fla. Mar. 24-26, 1998.
- *Louda, D. W., and <u>Louda, J. W</u>. (1998) Comparative techniques in the undergraduate biochemistry laboratory: The chromatographic separation of plant pigments. 62nd. Annual Meeting, Florida Academy of Sciences. Winter Park, Fla. Mar. 24-26, 1998.
- *Liu, L., Louda, J. W., and Baker, E. W. (1998) Studies on species-specific Type-I Chlorophyll-*a* degradation. 62nd. Annual Meeting, Florida Academy of Sciences. Winter Park, Fla. Mar. 24-26, 1998.
- *Loitz, J. W., Louda, J. W., Baker, E. W., and Rudnick, D. T. (1998) Early chlorophyll-*a* diagenesis and paleoecological evaluation of the lime-muds of Florida Bay. 62nd. Annual Meeting, Florida Academy of Sciences. Winter Park, Fla. Mar. 24-26, 1998.
- *Louda, J. W., Loitz, J. W., Rudnick, D. T. and Baker, E.W. (1998) Studies on the present and past photoautotrophic communities of Florida Bay using chlorophylland carotenoid-based chemotaxonomy. Poster session; Paleoecology and ecosystem history workshop, Florida Bay Program Management Committee. January 22 23, 1998. Key Largo, Florida.
- *Louda, J. W. (1998) Application of Chlorophylls, Chlorophyll Derivatives, and Carotenoids as Chemotaxonomic Biomarkers in the Marine and Fresh Waters of Southern Florida. Guest Lecture, Florida International University, Southeast Environmental Research Program and Department of Chemistry, Miami, Florida, April, 1998.

- *Louda, J. W., Loitz, J. W., Rudnick, D. T. and Baker, E.W. (1998) Paleoecological considerations of the sediment-water interface of Florida bay as derived from chlorophylls, chlorophyll derivatives, and carotenoids. Poster session with extended abstract. 1998 (3rd.) Florida Bay Science Conference. May 12 14, 1998.Miami, Florida. Abs. pp. 47 49.
- *Louda, J. W., Loitz, J. W., Rudnick, D. T., and Baker, E. W. (1998) Senescent, heterotrophic, and early diagenetic alteration of chlorophyll-*a* and bacteriochlorophyll-*a* in a contemporaneous carbonate marl ecosystem (Florida Bay). Poster presentation; Gordon Conference on Organic Geochemistry. Holderness, N. H.
- *Li, J., Zheng, J., Baker, E. W., and Louda, J. W. (1997) Senescence, death and early diagenetic alterations of chlorophyll- in pure algal cultures and Recent sedimentary environments. 61st. Annual Meeting, Florida Academy of Sciences, ENV-26. Punta Gorda, Fla. March 14, 1997.
- *Ross, C.I., <u>Louda, J.W.</u> and Mari, F. (1997) Physiochemical Studies on Biliprotein Pigments in Representatives of Two Orders of Cdinarians: *Physalia physlis* and *Vellel vella*.
 61st. Annual Meeting, Florida Academy of Sciences, Punta Gorda, Fl. March 13-15. Abstract ENV-9
- *Louda J. W., Loitz, J. W., Baker, E. W., and Rudnick, D. T. (1997) Characterization of productivity and photosynthetic taxa using chlorophyll and carotenoid biomarker studies on the waters and sediments of Florida Bay. 61 st. Annual Meeting, Florida Academy of Sciences, ENV-25. Punta Gorda, Fla. March 14, 1997.
- Li, J., Zheng, J., Louda, J. W., and Baker, E. W. (1997) Senescent/early diagenetic changes in the photoshynthetic pigments of diatoms. 213th. Annual Meeting American Chemical Society, Geoc-027. San Francisco, Calif. April 13-17, 1997.
- Louda, J. W., Li, J., Winfree, M. N., and Baker, E. W. (1997) Chlorophyll degradation during senescence and death. 18th. International Meeting on Geochemistry, Maastricht, Netherlands. Abs. II-A71. Sept. 22-26, 1997.
- *Louda, J. W., Li, J., Liu, L., Winfree, M. N., and Baker, E. W. (1997) Chlorophyll-*a* degradation during cellular senescence and death of algae. Poster Session. 1st. Annual Industry/Academe Symposium on Marine and Environmental Chemistry. So. Florida A.C.S., Highland Beach, Fla. Nov. 15, 1997.
- *Loitz, J. W., <u>Louda, J. W.</u>, and Baker, E. W. (1997) The Isolation and characterization of scytonemin; the dimeric indole-phenolic sunscreen present in the sheaths of certain cyanobacteria. Poster Session. 1st. Ann. Industry/Academe Symposium on Marine and Environmental Chemistry. So. FL A.C.S., Highland Beach, Fla. Nov. 15, 1997.

- *Louda, J. W., Loitz, J. W., Rudnick, D. T., and Baker, E. W. (1997) Studies on the present and past photoautotrophic populations of Florida Bay using chlorophyll-*a* and carotenoid-based chemotaxonomy. Poster Session. !st. Annual Industry/Academe Symp. Mar. Envir. Chem., So. Florida A.C.S., Highland Beach, Fla. Nov. 15, 1997.
- *Louda, J. W., Baker, E. W., Winfree, N., Havens, K. and Steinman, A. (1996) Chlorophyll and carotenoid pigments as chemotaxonomic markers for the pelagic and benthic photoautotrophs in Lake Okeechobee, Florida. Florida Academy of Sciences, 60th Ann. Meeting, Melbourne, March 30, 1996.
- *Louda, J. W., and Baker, E. W. (1996) The Geochemistry of Porphyrin Pigments: An overview. 212th. National ACS Meeting, Orlando, Div. Geoc., August 25-29, 1996. Abs. Geoc., 33.
- *Louda, J. W., and Baker, E. W. (1996) Mass Spectral Derived Metalloporphyrin Indices as a Proxy for Thermal Maturity. 212th. National ACS Meeting, Orlando, Div. Geoc., August 25-29, 1996. Abs. Geoc., 37.
- *Baker, E. W., and Louda, J. W. (1996) Geologically Measured Kinetics and Activation Energies in Tetrapyrrole Diagenesis. 212th. National ACS Meeting, Orlando, Div. Geoc., August 25-29, 1996. Abs. Geoc., 34.
- *Winfree, N. M., Louda, J. W., Baker, E. W., Steinman, A., and Havens, K. E. (1996) Application of Chlorophyll and Carotenoid Pigments for the Chemotaxonomic Assessment of the Waters and Surficial Sediments of Lake Okeechobee, Florida. 212th. National ACS Meeting, Orlando, Div. Geoc., August 25-29, 1996. Abs. Envr., 21.
- *Louda, J. W., Winfree, N. M., Li, J., and Baker, E. W. (1996) Input, Recycling and Early Diagenesis of Chlorophylls and Chlorophyll Derivatives in Lake Okeechobee, Florida. 212th. Natl ACS Meeting, Orlando, Aug. 25-29, 1996. Abs. Geoc., 62.
- *Louda, J. W., and Baker, E. W. (1996) HPLC/PDA characterization of pigments in Florida Bay Water Samples. Report to and round table discussion on "Interlaboratory comparison of chlorophyll measurements", 2nd Annual Florida Bay Science Conference, Key Largo, Florida. Dec. 1996.
- Baker, E. W. and Louda, J. W. (1993) Aspects of chlorophyll diagenesis. National G.S.A. Meeting, OGD: Abs. No. 9370, GSA Abstracts, Vol. 25, No. 6, 24 October.
- Magnier, C., Louda, J. W. and Baker, E. W. (1992) Comparison of vanadyl porphyrin distributions in biodegraded and nonbiodegraded crude oils. 203rd National A.C.S. Meeting, Geochemistry, San Francisco, April 5-10, 1992. Abs. Geoc. No. 41.

- Zeng, S., Louda, J. W. and Baker, E. W. (1992) HPLC Separation of nickel geoporphyrins. 204th National A.C.S. Meeting, Geochemistry, Washington, D.C., August 23-28, 1992. Abs. Geoc.
- Carraher, C. E. and Louda, J. W. (1991) Application of mass spectrometry to metal containing polymers. Proc. A.C.S. Div. Polymeric Materials: Science and Engineering 64: 85-86.
- Carraher, C. E., Sterling, D. C., Butler, C., Ridgeway, T. H. and Louda, J. W. (1990) Synthesis of tin containing lignin. Proc. A.C.S. Div. Polymeric Materials: Science and Engineering. 62: 241-245.
- Carraher, E. C., He, F., Sterling, D. C, Nounou, F., Pennesi, R., Louda, J. W. and Sperling, L.H. (1990) Synthesis and characterization of ionomers derived from the condensation with organostannane chloride. A.C.S. Polymer Preprints <u>31(2)</u>: 430-431.
- *Baker, E. W. and Louda, J. W. (1990) Qualitative and Quantitative Geoporphyrin Analyses
 -II. Mass Spectrometric Characterization, Indices and Organic Maturity Trends.
 199th Natl. A.C.S. Meeting, Div. Geochemistry, Boston, April 22-27, Abs. Geoc. 77.
- *Louda, J. W. and Baker, E. W. (1990) Qualitative and Quantitative Geoporphyrin Analyses
 -I: Isolation and Quantitative Estimation of Nickel and Vanadyl Geoporphyrins. 199th
 Natl. A.C.S. Meeting, Div. Geochemistry, Boston, April 22-27. Abs. Geoc. 76.
- Attendee, 1988, Gordon Conference on Organic Geochemistry, August 15-19, 1988. Holderness, N. H.
- *Baker, E. W. and Louda, J. W. (1987) Porphyrins as Biomarkers a Current View, 194th. National A.C.S. Meeting, New Orleans, August 30-September, 1987.Abs. Geoc. #48.
- *Baker, E. W. and Louda, J. W. (1985) Tetrapyrrole Pigments in Jurassic and Cretaceous "Black Shales" of the Atlantic. 189th National A.C.S. Meeting, Division of Geochemistry, Miami, Fl., April 29-May 3, 1984, Abs. Geoc.
- *Louda, J. W. and Baker, E. W. (1985) The Biogeochemistry of Chlorophyll. 189th.
 National A.C.S. Meeting, Division of Geochemistry, Miami, FL., April 29-May 3, 1985, Abs. Geoc.
- *Louda, J. W. and Baker, E. W. (1985) Tetrapyrrole Pigments in the Geologic Record. 1985 Annual Meeting of the Geological Society of America, Orlando, October 27, Abs. #79455. (Invited contribution)

- *Louda, J. W. and Baker, E. W. (1985) Techniques and Applications of Geoporphyrin Analysis. 194th. National A.C.S. Meeting, Division of Geochemistry, New Orleans, August 30-September 4, 1987 Geoc. Abs. #47.
- Baker, E. W., Louda, J. W. and Orr, W. L. (1984) Porphyrins in Monterey Crude Oils. 187th National A.C.S. Meeting, Division of Geochemistry, St. Louis, Mo., April 8-13, 1984, Abs. Geoc.
- *Louda, J. W. Baker, E. W. and Orr, W. L. (1984) Maturation of Petroleum Metalloporphyrins. Gordon Conference on Organic Geochemistry, Poster Session, 20-24 August 1984, Holderness, New Hampshire.
- *Louda, J. W. and Baker, E. W. (1983) Carotenoid Pigments in Marine Sediments:

 Biogeochemistry and Utility as Paleoenvironment Indicators. 1983 Florida Section Meeting, A.C.S., Jacksonville, Florida. May 4-7, 1983. Paper 53.
- *Baker, E. W. and Louda, J. W. (1983) Benzoporphyrins: A Minor Series of Geologic Vanadyl Tetrapyrroles in Bitumen of Marine Origins. 1983 Florida Section Meeting, A.C.S., Jacksonville, Florida. May 4-7, 1983, Paper 51.
- *Baker, E. W. and Louda, J. W. (1983) Nickel Porphyrins in Selected Samples from the Green River Formation. 186th National A.C.S. Meeting, Division of Geochemistry, Washington, D.C., Aug. 28-Sept. 2, 1983. Geoc. Abs.
- *Louda, J. W. and Baker, E. W. (1983) Chlorophyll Geochemistry: Comparative Analytical Techniques. 186th National A.C.S. Meeting, Division of Geochemistry, Washington, D.C., Aug. 28-Sept. 2, 1983. Geoc. Abs.
- *Louda, J. W. and Baker, E. W. (1983) Theoretical Tetrapyrrole Pigment Geochemistry: Biotic Precursors and Expected Geologic Projects. 186th National A.C.S. Meeting, Division of Geochemistry, Washington, D.C., Aug. 28-Sept. 2, 1983. Geoc. Abs.
- *Baker, E. W. and Louda, J. W. (1983) Highly Dealkylated Copper- and Nickel Etioporphyrins in Marine Sediments. 11th International Meeting of Organic Geochemistry, 12-16 Sept., 1983, The Hague, Netherlands.
- *Louda, J. W. and Baker, E. W. (1982) Gordon Conference on Organic Geochemistry, Holderness, New Hampshire, August 23-27, 1982 (Poster Session), Perylene distribution in marine sediments.
- Baker, E. W. and Louda, J. W. (1981) Perylene in Marine Sediments: A Potentially Useful Geothermal Stress Indicator of Problematic Source. 181st National A.C.S. Meeting, Division of Geochemistry, Atlanta, Ga., March 29 April 3, 1981, Abs. Geoc. 27.

- Baker, E. W. and Louda, J. W. (1981) Thermal Aspects in Chlorophyll Geochemistry. 10th International Meeting on Organic Geochemistry, 14-18 September, 1981, University of Bergen, Norway.
- *Louda, J. W. and Baker, E. W. (1980) Chlorophyll Biogeochemistry in Marine and Estuarine settings. 1980 Meeting-in-Miniature, American Chemical Society, Florida Section, Tampa, Florida, 8-10 May, 1980.
- *Baker, E. W. and Louda, J. W. (1980) Chlorophyll Diagenesis: Review of the "Treibs Scheme" in Light of Recent Developments: Thermal Aspects. 1980 Meeting-in-Miniature, American Chemical Society, Florida Section, Tampa, Florida, May 8-10.
- *Louda, J. W. and Baker, E. W. (1980) Incorporation of the Various Chlorophylls into Marine Sediments and Terrestrial Peats. 179th National A.C.S. Meeting, Division of Geochemistry, Houston, Texas, March 23-28, 1980, Abs. Geoc. 14.
- Baker, E. W. and Louda, J. W. (1980) Thermal Reactions in the Diagenesis of Chlorophyll. 180th National A.C.S. Meeting, Division of Geochemistry, Las Vegas, Nevada, 24-29 August, 1980. Abs. Geoc. 32.
- *Louda, J. W. and Baker, E. W. (1980) Gordon Conference on Organic Geochemistry Holderness, New Hampshire, 18-22 August, 1980 (Poster Session). Geochemistry of Chlorophyll; Recent Directions.
- *Murphy, D. L., Louda, J. W., Nishimura M., and Baker, E. W. (1979) Geochemistry of Tetrapyrrole Pigments in Neogene Marine Sediments: Recent Advances. 1979 Meeting-in-Miniature, American Chemical Society, Florida Section, Ft. Lauderdale, Florida, 10-12 May 1979.
- *Louda, J. W. and Baker, E. W. (1979) Chlorophyll Diagenesis: Tetrapyrrole Pigments from Deep Sea Drilling Project Core Samples. 178th National C. S. Meeting, Division of Geochemistry, Washington, D.C., Sept. 9-14, 1979. Abs. Geoc. II.
- *Baker, E. W. and Louda, J. W. (1979) Organic Geochemistry; Highlights in the Deep Sea Drilling Project, 9th International Meeting on Organic Geochemistry, 17-20 September, 1979, University of Newcastle-Upon-Tyne, U.K
- Katz, B. J., Harrison, C. G. A., Man, E. H., Baker, E. W. and Louda, J. W. (1979) Potential Organic Indicators of Diagenesis and Early Catagenesis. Geol. Soc. Am., November 1979, San Diego.
- Gleason, R. M., Louda, J. W. and Batra, P. P. (1971) Lycopene accumulation induced by nicotine and by 2-(4-chlorophenylthio)-triethylamine hydrochloride in *Mycobacterium marinum*. 62nd Annual Meeting of the American Society of Biological Chemists, San Francisco, June 13-18, 1971. Fed. Proc. 30(3) 1123 abs.

E. Internet materials:

- Louda J. W. (2002) NOAA-SFERPM: Question #3 ALGAL BLOOMS "Chemotaxonomic Assessment of Phytoplankton and Epiphyte Succession in the Rankin Bight-Whipray Basin Areas of North Central Florida Bay". Progress Report (http://www.aoml.noaa.gov/ocd/sferpm/louda/louda algal blooms.html)
- Louda J. W., Loitz, J. W. Melisiotis A., Baker E. W. and Orem W. H. (2001) *Hydrogel Stabilization of Florida Bay Marl Sediments*. (http://www.aoml.noaa.gov/ocd/sferpm/louda/flabay hydrogel.html).
- Louda, J. W. and Monghkonsri, P. (2002) Comparison of spectrophotometric estimates of chlorophylls-*a*, -*b*, -*c* and 'pheopigments' in Florida Bay seston with that obtained by high performance liquid chromatography-photodiode array analyses. (http://www.aoml.noaa.gov/ocd/sferpm/louda)
- Louda J.W., Loitz J.W., Baker E.W. and Rudnick D.T. (2003) Paleoecological considerations of the sediment-water interface of Florida Bay as derived from chlorophylls, carotenoid derivatives and carotenoids. (http://www.aoml.noaa.gov/flbay/louda.htm)
- Louda J.W. (2003) NOAA-Phytoplankton Bloom Team Member (http://www.aoml.noaa.gov/flbay/phytoplankton bloom.html)

F. Miscellaneous non-refereed publications:

- Louda, J.W. (2015) Earl Wayne Baker. In Memoriam Obituary. Org. Geochem. **87:** 137-138.
- Louda, J. W. (2016) Earl Wayne Baker. Obituary. Chem. Eng. News. Jan. 25. P. 37

G. Symposia activities.

- Louda, J. W. (1990) Session Chairman: Symposium on Porphyrin Geochemistry: The Quest for Analytical Reliability. 199th. Natl. A.C.S. Meeting, April 27, Boston.
- Louda, J. W. (2002-2003) Organizer and symposium chair. 225th. Natl. A.C.S. Meeting, March 2003, New Orleans.
- Louda, J. W. (2016) Session Moderator. "What's Happening in Lake Worth Lagoon?" The 2016 Water Module of the Florida Earth Foundation. FAU-Jupiter Campus. Sept. 15-16, 2016

H. Graduate Students Supervised as Major Professor (19).

H.1. Advisor Doctoral [4] (Ph.D.)

- Ricca, John (2018-2023 expected) Nutrient and toxin effects on toxin production and pigments in *Microcystis aeruginosa*. (Ph.D. track; Chemistry and Biochemistry)
- Duersch, Bobby G. (2020) Phosphorus Sequestration and Bioremediation: Phosphorus-31 Nuclear Magnetic Resonance Spectroscopy. (Ph.D. Chemistry and Biochemistry)
- Grant, Cydia (2011) Effect of photic flux on microalgal pigment ratios, carbon and protein biomass in microalgae. (Ph.D. Chemistry and Biochemistry).
- Mortezaei-Rad*, Mitra (2007) Hemisynthesis and characterization of cyclopheophorbides. (Ph.D. Chemistry and Biochemistry). *(Married name Mitra Khalesi)

H.2. Advisor Masters [15] (M.S. and M.S.T.):

- Breeden, Keeley (2021-2024 expected). Growth of *Microcystis aeruginosa* on organic forms of nitrogen and phosphorus. M.S. in Environmental Science.
- Bermudez, Jeanne (2018) Carbon dioxide induced acidification effects on pigment biomarkers in marine and fresh water microalgae and cyanobacteria. (M.S., Chemistry and Biochemistry).
- Witten, Benjamin (M.S.-non thesis; Env. Sci. Spring 2014: Performed thesis work 2011-2013 then for family reasons switched to non-thesis option.
- Krug, Jerilyn (2013) Non-thesis Masters, Project title was "Restoration of Bathtub Beach, Stuart, Fl.) Environmental Science.
- West, Maria (2010) Phosphorous impacts on calcifying cyanobacteria. (M.S. Chemistry and Biochemistry).
- Browne, Jaime (2010) Comparison of chemotaxonomic methods for determination of algal class composition in Florida Everglades periphyton. (M.S. Environmental Sciences).
- Prize-Bolter, Karen (2010) An ecological study of Little Lake Worth Florida. (M.S., Environmental Sciences).

- Cintron, Charmaine (2007) Speciation of phosphorous in horse manure and its interactions with water and sediment components. (M.S.T. Chemistry and Biochemistry).
- Grant, Cydia (2006) Effect of light on microalgal pigment ratios. (M.S. Chemistry and Biochemistry).
- Skoog, Kathryn O. (2003) Pigment-Based Chemotaxonomy of Phytoplankton Communities in Lake Okeechobee, Florida. (M.S., Environmental Sciences).
- Singh, Alya G. (2003) Epiphyte Productivity and Community Structure in Conjunction with HPLC Pigment Analysis. (M.S. Environmental Sciences).
- Padney, M. (2003) Low Pressure High Performance Liquid Chromatography of Plant Pigments. (M.S.T., Chemistry and Biochemistry)
- Liu, Lei (2000) Senescence- and death-related alterations of chlorophylls and carotenoids in marine phytoplankton. (M.S. Chemistry and Biochemistry).
- Loitz, Joseph W. (1999) Isolation and Characterization of Chlorophyll and Carotenoids in Florida Bay; Phytoplankton, Microphytobenthos and Sediments. (M.S., Chemistry and Biochemistry).

I. Co-Advisor (7):

- Tarnowski, Marie (2014: M.S. Environmental Sciences) The Effects on on-site sewage treatment and disposal systems on the relief canals of Indian River County, the St. Sebastian River and the Central Indian River Lagoon. B. Lapointe (HBOI-FAU) Major Professor.
- Armstrong, Bridget (2011: M.S., Biology-non-thesis) D. Binninger (Biology); Major.
- Li, Jie (1997) Senescent and early diagenetic changes in chlorophyll. (M.S., Chem.) E.W. Baker; Major Professor
- Winfree, Mary Nancy (1996) Pigment Analysis of Benthic and Pelagic Algae in Lake Okeechobee, Florida. (M.S., Chem.) E.W. Baker; Major Professor
- Huang, Xiaoxue (1994) High performance liquid chromatographic separation of sedimentary vanadyl porphyrins. (M.S., Chem.) E.W. Baker; Major Professor
- Zeng, Shaochuan (1992) HPLC separation and characterization of nickel geoporphyrins. (M.S. Chem.) E.W. Baker; Major Professor
- Magnier, Clotilde (1991) Vanadyl and nickel geoporphyrin biodegradation study in high sulfur Monterey crude oils and Canadian tar sands. (M.S., Chem.) E.W. Baker;

J. Committee Member (35):

J.a.: Masters Committees (20):

Mr. Peter Holden (M.S. Geol. 1986-1988), Ms. Shoba Vemulapalli (M.S. Chem. 1987-1990), Ms. Wendy Foss (M.S. Chem. 1994-1997), Mr. David K. Creelman (M.S. Chem. 1995-1997), Mr. James Goldberg (M.S., Chem., 2000), Mr. Omar Martinez (M.S., Chem. 1998), Mr. Rupert McCormick (M.S., Chem.2002), Ms. Prajakta Kamthe (M.S., Env. Sci., 2002), Ms. Barbara Hiassen (M.S., Env. Sci., 2003), Ms. Renuka Mohammed (M.S., Env. Sci., 2002), Ms. Sushma Ponukumati (M.S., Env. Sci., 2007), Ms. Angela Duque-Hersey (M.S., Env. Sci. 2007), Long Zhang (M.S., Chemistry and Biochemistry-2012-2017), Carrie Boudreau (M.S., Geosciences); Katelyn Lynch (M.S., Biology-HBOI; 2015); Alison Feibel (Biology, HBOI, 2015-2016), Bret Kaiser (M.S. Env.Sci.FAU-HBOI: 2015-2018), Katelyn Lynch-Amarea (M.S. Envir.Sci. 2018-present), Mohammadhassan Kavosi (M.S. Engineering: 2019-present); Bodhi Stone (M.S. Biol. Sci. 2021-present).

J.b.: Ph.D. Committees (15):

Dr. Donna Chamley (Ph.D. Chem.: 2002-2005); Dr. Zuzana Zajickova (Ph.D., Chem., 2006), Dr. Malgorzata Szymcak-Zyla (Ph.D. Oceanology; ad hoc: Polish Academy of Sciences, Sopot, Poland), Dr. Ralph Mead (Ph.D. Chem. F.I.U., Miami, FL 2003), Dr. Renato Neto (Ph.D. Chem. F.I.U., Miami, FL, 2004), Dr. Abhijeet Kate (Ph.D. Chem., 2007), Dr. Zhongliang Wan (Ph.D. Chem. 2007), Dr. Oliva Pisani (Ph.D., Chemistry, F.I.U., Miami, FL. 2011), Dr. Jose Ortiz-Rivera (Ph.D. Chemistry and Biochemistry, 2015-2016), Ms. Nicole Vanderweit (PhD, Chemistry and Biochemistry-dropped); Roland Rueda de Leon (Ph.D. Chemistry and Biochemistry), Dr. Tifanie Vansach (Ph.D. Chemistry and Biochemistry; 2015-2020), Dr. Marisa Martinez (PhD Biology, 2016-2022), Mr. Seok-Ju Seo (PhD Engineering, 2017-present), Mr. Ricardo Colon (PhD Biology at FIU, 2017-2021) Mr. Abhishek Pravinbhai Ratanpara (Ph.D. Mechanical Engineering; Dr. M. Kim major professor: 2022 - present).

K. <u>Directed Independent Study (59: D.I.S.) Mentor (B.S. Chemistry track):</u>

Mr. Joe Loitz (1996-1997), Mr. Athanasios Mellisiotis (2000-2001), Ms. Simi Marwaha (2003), Ms. Amanda Strom (2004), Mr. Andrew P. Bennett (2004), Ms. Judith Formul (2004), Mr. Jeff Osetek (2003-2004), Ms. Jennifer Conway (2005-6), Mr. Joseph Chamy (2005), Ms. Alissa Deming (2005), Francisca Ordonez (2005-2006), Mr. Josh Tabor (2007), Ms. Nancy Catlfumo (2007), Mr. Terios Efstathiou (2007), Ms. Nahid Ilyad (2007-8), Mr. Michael McLean (2008), Ms. Jacquelyn Ellerie (2009, 2010), Ms. Saasha Stokes (2009), Ms. Shannon Collie O'Brien (2010), Ms. Jessica Waetjen (2010), Mr. Josef Newman (2010), Mr. Michael Barrington (2010), Mr. Kevin Bennett (2010-2011), Ms. Rhonda Kay Penn (2011), Ms. Natalie Kelly (2011), Ms. Jessica Blaxton (2011), Ms. Whitney Hargrove (2011), Mrs. Caitlin Kelly-Sampson (2011, 2012), Mr. Eric Borenstein (2011), Ms. Natalie Kelly (2011), Mr. Mark Chantiloupe (2011), Mr. Gilles Zribi (2011, 2012); Ms. Rebecca Lowman (2012), Ms. Tara Kuhn (2012), Mr. Giovanni Casanova (2012-13), Ms. Jerilyn Ashworth (2013), Mr. David Belolo (2013); Ms. Taylor

Abramson (2013); Ms. Lorraine Chaljub (2013); Mr. Andrew Labrosse (2013); Mr. Kyle Glassman (2013-2014), Mr. Noah Koolik (2015-2016); Ms. Irena Mustelier (2015), Ms. Michelle Finn (2016), Mr. Chase Lausted (2016), Ms. Anca Teoduro (2017), Mr. Christopher Price (2016-8:HONORS DIR), Mr. John Ricca (2017-8), Ms. Vittoria Queiroz (2017-8), Ms. Angela Luz Mancera (2018), Mr. Patrick Finnegan (2018). Ms. Lisa Nguyen (NSF-LEARN student: Spring& Summer 2019); Mr. Joshua Palhano (Summer 2019); Ms. Rose Parker (Fall 2019); Marc Kendy-Michel (Spring 2020); Donetta Harriot (Spring 2020). Mr. Dimitrios Sotiriaelis (Fall 2020), Mr. Janard Bailey (Spring 2021). Mr. Emaad Mirza (Fall 2020, Summer 2021, Fall 2021); Mr. Sean Besecker (DIS-Summer 2022); Ms. Julia Buscanera (DIR-Env.Sci. Summer 2022, Fall 2022).

L. <u>GRANTS / CONTRACTS:</u>

L.1: Present Support and /or activity (PI/PD):

Pigment-based chemotaxonomic assessment of phytoplankton communities in the St. Lucie Canal and Estuary. South Florida Water management District. **§ 24,000.00** (2018-2022)

FAU-Springboard (\$ 15,110.52) see https://fauf.fau.edu/springboard/#/project/algae

External philanthropic donations in support of Louda Group Research \$11,900.00 (2017-22)

<u>L.2:</u> Present Support and /or activity (Co-PI):

Seawater-Driven CO2 Separation from Flue Gas Using a Nickel Nanoparticles-Aerogel Framework. M. Kim (PI), **J.W. Louda (Co-PI)**. Walter and Lalita Janke Foundation Innovations in Sustainability Science Research Fund and FAU Center for Environmental Studies. **\$ 50,000.00** (5/6/2019-8/30/2021).

L.3: Submitted / Pending support (PI status):

Pigment-based chemotaxonomic assessment of phytoplankton communities in the St. Lucie Canal and Estuary. South Florida Water management District. **§ 17,500.00** (Jan. 1 – Dec. 31, 2023)

L.4: Recent proposal activity (negative result)

Seagrass epiphyte ecosystems and supported food webs. National Science Foundation, Aug. 1, 2020 to July 31, 2022. \$ 126,045.00

EAGER: Navigating New Arctic (NNA) Proposal for Long Duration Melting Ice Monitoring and Data Collection. Su, T.-S. (PI), **Louda**, **J.W.** (Co-PI), Su, H. (Co-PI), Engeberg, E. (Co-PI) and Du, (Co-PI). National Science Foundation. \$300,000.00 (9/1/2019-8/31/2021).

Epiphytes of Bahamian and Floridian Seagrass Communities; Chemotaxonomy and Grazer Ecology. (2018), WAITT Foundation. (\$ 9,932.00: 2018 for 2019).

L.5: Planned proposals (PI Status):

ACS-PRF New Directions. Email inquiry had positive feedback. Thermocatalytic conversion of deoxophylloerthrin (DPEP) to etioporphyrins (ETIO). Proposal in preparation.

L.6: Pending support (Co-PI status):

L.6: Previous support (PI/PD &/or Co-PI [if indicated] status):

- A Study of septic tank derived nutrient pollution of Taylor Creek, Okeechobee County, Fl. Okeechobee Utility Authority. \$ 19,555.00. Nov. 1, 2019 Dec. 31, 2021
- Pigment analysis contract with Florida International University, Phytoplankton in Biscayne Bay and associated drainage systems. NOAA <u>\$4,050.00</u> (2017-18) **J. W. Louda (PI)**
- Pigment analysis contract with Florida International University, Phytoplankton in Biscayne Bay and associated drainage systems. \$ 5,410.00.00 (2017-18) J. W. Louda (PI)
- Pigment analysis contract with Florida International University, Seagrass / Epiphytes. § 7,735.00 (2015-16) J. W. Louda (PI)
- Planning Grant: Upgrading laboratory facilities at the Cape Eleuthera Institute. **J. W. Louda (PI)** Co-PIs: B.E. Lapointe, D.P. Philipp, A. Shultz, C. Henry. National Science Foundation-Field Station and Marine Laboratory Program. **§ 24,225.96** (July 1, 2013-June 30, 2014).

- Effects of Land Use on Nitrogen and Phosphorus Inputs to the Indian River Lagoon B.E. Lapointe (PI, HBOI/FAU), J. W. Louda (Co-PI, FAU) FAU-DSR SEED Grant. § 19,224.00 (May 1, 2013-April 30, 2014).
- Elucidation of Reactions Mediated by Sulfidic Carbonate and Clay Depositions: The Search for New Organic Reactions Mediated by Natural Materials. American Chemical Society Petroleum Research Fund. S. Lepore (PI) and J. W. Louda (Co-PI). \$ 100,000.00 (Sept. 1, 2011 Aug. 31, 2014).
- Fulbright Specialist Program. Scientific Visit to the Institute of Oceanology, Polish Academy of Sciences, Sopot, Poland. June 4-19, 2011. United States Department of State, Bureau of Educational and Cultural Affairs, Council for International Exchange of Scholars. (§ 8,000 + expenses)
- Phycobilin analyses (QA/QC) and chemotaxonomic evaluation of marine phytoplankton in Florida Bay and associated marine systems. May-2009 to Jan.30, 2011. **\$ 7,700.00**. South Florida Water Management District.
- Compilation of a spatiotemporal biogeochemical database of mercury and methylmercury in the freshwater Florida Everglades; Student Fellowship-Everglades National Park, Department of the Interior. Ms. Shannon C. O'Brien (J.W. Louda, Mentor, PI/PD). \$13,888.50 (August 24, 2009 May 31, 2010).
- The utilization of pigments in the assessment of periphyton assembly changes during CERP. April 1, 2006 to July 30, 2009. **\$ 240,000.00** South Florida Water Management District (CERP / RECOVER Fund).
- Phycobilin analysis protocol development. May 1- July 30, 2008. **\$ 8,074.46** South Florida Water Management District, Everglades Division.
- The applicability of pigments to assess periphyton assembly changes-IV. October 1, 2004 to September 31, 2005. **\$49,600.00** South Florida Water Management District (Everglades TAG Fund).
- Visitor Support Program (VSP) United States Office of Naval Research, International Field Office. Travel and living expenses for visiting Ph.D. candidate, Malgorzata Szymczak-Zyla, from the Institute of Oceanology, Polish Academy of Sciences, Sopot, Poland. \$4,000.00 (VSP# 4047, Grant # N00014-04-1-4047). 2004.
- HPLC Analyses of pigments in sediment-water interfacial flocculent materials.

 Contractual. Florida International University (from Dr. Joe Boyer) Southeast Regional Environmental Research Center. 2004. \$ 1,400.00,

- The applicability of pigments to assess periphyton assembly changes-III. June 1, 2004 to December 31, 2004. **§ 31,000.00** South Florida Water Management.
- HPLC Analyses of oceanic phytoplankton. 2003-4. Rosentheil School of Marine and Atmospheric Sciences, U. Miami (from Dr. G. Hitchcock), \$ 1,000.00.
- HPLC Analyses of pigments in sediment-water interfacial flocculent materials.

 Contractual. Florida International University (from Dr. Joe Boyer) Southeast Regional Environmental Research Center. \$ 1,235.00,
- The applicability of pigments to assess periphyton assembly changes-II. July 1, 2003 to Dec. 30, 2004. **§ 23,000.00**. South Florida Water Management District.
- The applicability of pigments to assess periphyton assembly changes. July 1, 2002 to June 30, 2003. **§ 23,000.00** South Florida Water Management District.
- Bioseston Response to Changing Environmental Conditions in Northern Florida Bay. August 1, 2001 to July 31, 2002. **§ 20,827.28**. United States Department of Commerce, National Marine Fisheries Division (South Florida Ecosystem Restoration and Management Program).
- Florida Bay Epiphytes: Investigations of Seasonal and Spatial Succession.

 August 1, 2001 to July 31, 2002. <u>\$ 20,965.28</u>. United States

 Department of Commerce, National Marine Fisheries Division (South Florida Ecosystem Restoration and Management Program).
- Organic Geochemistry in contemporaneous environments, ancient sediments and laboratory simulations. Support of Symposium, American Chemical Society, Division of Geochemistry, New Orleans, March 2003. Petroleum Research Fund, \$3,600.00
- Chemotaxonomic Assessment of Phytoplankton Succession Northern Florida Bay. February 16, 2001 to July 31, 2001. **§ 21,013.70**. United States Department of Commerce, National Marine Fisheries Division (South Florida Ecosystem Restoration and Management Program).
- Photosynthetic Pigment Analyses of Macrophytes, Periphyton, and Microphytobenthos in Florida Bay. February 16, 2001 to July 31, 2001. **\$20,830.70**. United States Department of Commerce, National Marine Fisheries Division.
- Investigation of Florida Bay Algal Bloom History using Chlorophyll and Carotenoid Biomarkers. South Florida Water Management District. **\$25,000.00** (1997 1998).

Pigment Analysis of Benthic and Pelagic Algae in Lake Okeechobee, Florida. Contract #DSR 93-313 from South Florida Water Management District. **\$62,500.00**. (1995-1997). (Co-PIs were E.W. Baker and C.E. Carraher)

M. Reviewer activities:

M.1.: Grant proposal reviewer.

National Science Foundation - Div. Bio. Review Panel 2018 National Science Foundation-Div. Chem. American Chemical Society-Petroleum Research Fund.

M.2.: Manuscript reviewer.

Wetlands Harmful Algae

Organic Geochemistry Estuarine, Coastal and Shelf Science **Estuaries and Coasts** Marine Chemistry Journal of Plankton Research **Energy and Fuels** Geochimica et Cosmochimica Acta Marine Ecology Progress Series Journal of Environmental Monitoring Continental Shelf Research Chemical Geology

N. SYNERGISTIC ACTIVITIES / SERVICE (Public outreach et cetera):

Science of the Total Environment (STOTEN)

- N.1. Florida Atlantic University College of Science representative / presenter at Lake Worth Lagoon Fest. Organized by Palm Beach County Environmental Resources Management (2014, 2015, 2016, 2017, 2018)
- N.2. Public media interviews (invited through FAU office of Media Relations) Note-this is an incomplete list (records lost/not kept on all)
 - N.2.a) WPTV News Channel 5 (Jared Werksma, Reporter) Jan. 2016: The effect of the fumigant gas Sulfuryl Fluoride on the environment.

- **N.2.b) CBS News, Channel 12** (Jamil Donith, reporter): Use of the insecticide NALED during the ZIKA virus episode.
- **N.2.c)** Palm Beach Post Newspaper (Jorge Millan reporter) Contributed to the article "Zika spraying: Officials weigh risks, benefits."
- **N.2.d) HEARST, Channel 25** (Mark Kelly reporter) Use of pesticides and herbicides in Palm Beach County Parks.
- **N.2.e. CBS News Channel 12 (Lexi Nahl reporter)** The herbicide paraquat. (10/13/21)

N.2.e) Interviews pertaining to the *Microcystis aeruginosa* "blue-green algal" (cyanobacterial) bloom of June-July 2016:

N.2.e1) Palm Beach Post-June 30, 2016:

 $\frac{http://www.mypalmbeachpost.com/news/news/local/algae-bloom-bad-now-but-catastrophic-when-it-dies-/nrqRK/$

N.2.e.2) http://eyeonpbc.blog.palmbeachpost.com/2016/06/30/expert-weighs-in-on-what-happens-when-algae-dies-and-it-isnt-pretty/

N.2.e.3) Channel 5 News, West Palm Beach-June 28, 2016:

 $\underline{http://www.wptv.com/news/region-s-palm-beach-county/boca-raton/fau-professor-studying-algae-blooms-in-palm-beach-county}$

N.2.e.4) Channel 5 (WPTV) ½ Hour FaceTime Interview:

https://www.facebook.com/WPTV5/videos/vb.54514363383/10154327369758384/?type=2&theater

N.2.e.5) NBC Nightly News - July 4th, 2016: http://nbcnews.to/29iZ9rx

N.2.e.6) NBC Today Show - July 5, 2016:

http://www.today.com/video/florida-beaches-overtaken-by-toxic-green-slime-718605379608

N.2.e.7) CBS-Morning July 4, 2016:

 $\underline{http://www.cbsnews.com/news/florida-poisonous-algae-bloom-polluted-water-lake-okeechobee-protesters-demand-answers/}$

N.2.e.8) "South Florida's First News" show on News Radio 610 WIOD: 8:40AM, July 5, 2016:

N.2.e.9) Huffington Post- 2:15-2:40PM -July 8, 2016:

http://www.huffingtonpost.com/entry/florida-algal-blooms us 577d70cee4b0c590f7e7e3d2

N.2.e.10) NPR (National Public Radio) "Hear and Now" (heranadnow.org) 1:50PM and WLRN at 2:50PM July 8:

N.2.e.11) iHEART Radio (WJNO) Sunday Aug. 14, 2016:

http://wjno.iheart.com/media/play/27224135/

N.2.e.12) iHEART Radio (WJNO) Thursday Sept. 1, 2016:

http://wjno.iheart.com/onair/local-news-wire-55666/algae-concerns-grow-as-tropical-storm-15064797/

N.2.e.13) National Journal, Washington D.C. Interview by phone on 9/7/16 https://www.nationaljournal.com/s/641463/rubio-latches-onto-algae-fix-senate-bill-critics-want-more?mref=search-result

N.3. Interviews regarding the blue-green algal blooms of Lake Okeechobee and the coastal estuaries as well as the red tide of the west coast of Florida

N.3.a. (2018) Channel 12 News West Palm Beach (WPEC) June 5, 2018. (Chuck Weber, reporter): http://cbs12.com/news/local/algae-spreads-closer-to-coast

N.3.b) ABC Channel 7, Ft. Meyers, Ross Dimattie; July 9, 2018. Interview by phone and WebX: www.abc-7.com/

N.3.c) iHEART Radio (WJNO) Monday Sept. 17, 2018 (to air Sunday Sept. 23: Algal blooms in Florida 2018: https://www.iheart.com/podcast/486-Palm-Beach-Perspective-28236857/episode/pb-pers-algal-blooms-dr-louda-29872244/

N.3.d.): Palm Beach County Officials Confirm Red Tide Presence at Area Beaches. CBS, Channel 4, Miami. Oct.1, 2018:

 $\underline{https://miami.cbslocal.com/2018/10/01/possible-red-tide-airborne-irritant-forces-closure-of-several-south-florida-beaches/$

N.3.e.) CBS, Channel 12, West Palm Beach: Oct. 2, 2018: Veteran Researcher explains odds of local impacts of red tide.

 $\underline{https://cbs12.com/news/local/veteran-researcher-explains-odds-of-local-impacts-of-red-\underline{tide}}$

N.3.f. WPTV Channel 5, West Palm Beach, Alex Hagan reporting> "Scientists" More water monitoring needed". Oct. 3, 2018.

https://www.wptv.com/news/region-c-palm-beach-county/scientists-more-water-monitoring-needed

N.3.g.) WPBF Channel. 25 News: Oct. 29, 2018: "Hurricane Michael could rile South Florida Red tide.: https://www.wpbf.com/article/hurricane-michael-could-rile-south-florida-red-tide/23653471

N.3.h.) WPTV, Channel. 5, West Palm Beach, Alex Hagan reporting in 'Protecting Paradise' .Nov. 15, 2018. https://www.wptv.com/news/region-c-palm-beach-county/lessons-learned-from-east-coast-red-tide-outbreak

N.3.i.) WPTV, Channel 5, West Palm Beach, Erik Altman reporting on Glyphosate and its effects on algal blooms and human health. This is presently (9/22/2019) still being develop to air in Dec. 2019.

N.3.i.) WPTV, Channel. 5, West Palm Beach, Meghan McRoberts

Interview on PFOA and PFOS pollution, sources and health effects in Martin County well waters.

N.4: OUTSIDE INVITED PUBLIC LECTURES

N.4.a Boca Raton Institute for Learning in Retirement (April 18, 2018) <u>Invited</u> lecture: "Water Quality Issues and Algal Blooms in Southern Florida".

N.4.b Ft. Lauderdale Historical Society, FT. Lauderdale Florida. Oct. 9, 2018: Invited lecture: The history of water in south Florida.

N.4.c Boca Raton Institute for Learning in Retirement (Oct.22, 2018) <u>Invited</u> <u>lecture</u>: "Climate Change: Causes and Effects"

N.4.d. Palm Beach State College, Boca Raton Campus. (Feb. 5, 2019) <u>Invited</u> <u>Lecture:</u> Water Quality and Algal Blooms in South Florida.

N.4.e. Leadership Boca (April 17, 2019) Boca Raton Chamber of Commerce gathering at FAU Sanson Science: <u>Invited lecture</u>: *Water Quality and Algal Blooms in South Florida*.

N.5: Interviews regarding the Red-Tide of 2018 along the EAST coast of Southern Florida.

N.5.a. Channel 12 West Palm Beach. Oct. 2, 2018:

 $\frac{http://mms.tveyes.com/transcript.asp?StationID=2765\&DateTime=10/2/2018\%205:02:51\%}{20PM} \ and$

https://cbs12.com/news/local/veteran-researcher-explains-odds-of-local-impacts-of-red-tide

N.5.b. Channel 4, Miami. Oct. 2, 2018 Ted Scouten reporting:

https://miami.cbslocal.com/2018/10/02/report-red-tide-testing-miami-dade-broward-beaches/

N.5.c. Channel 12 News Palm Beach. Oct. 2, 2018 https://cbs12.com/news/local/red-tide-still-present-forcing-some-palm-beach-county-beaches-to-stay-closed

N.5.c. Channel 4 Miami. Oct. 2, 2018.

 $\underline{https://miami.cbslocal.com/2018/10/01/possible-red-tide-airborne-irritant-forces-closure-of-several-south-florida-beaches/$

N.6: Invited lectures within FAU:

N.6.a: The Research Administrators Information network (FAU-TRAIN), (April 17, 2019) ADM-305: Water Quality and Algal Blooms in South Florida.

N.6.b: FAU HIGH SCHOOL RESEARCH METHODS-I (February 26, 2021)

ENVIRONMENTAL WATER QUALITY ISSUES and 'ALGAL' BLOOMS IN SOUTHERN FLORIDA

N.7: Interview for FAU radio "Ask a Scientist. Aired April 22, 2019 onwards.

https://soundcloud.com/user-384833043/ask-a-scientist-harmful-algal-blooms-with-dr-bill-louda and also see http://science.fau.edu/scientist.php#louda

N.8: Member of the interagency task that compiled data and converted science to lay understanding of harmful algal blooms. 2019-2020.

See: http://www.ces.fau.edu/usgs/understanding-algae/index.php