

# SETAC SOUTH CENTRAL 2022

*SOUTH CENTRAL CHAPTER: LOUISIANA, TEXAS, & OKLAHOMA*

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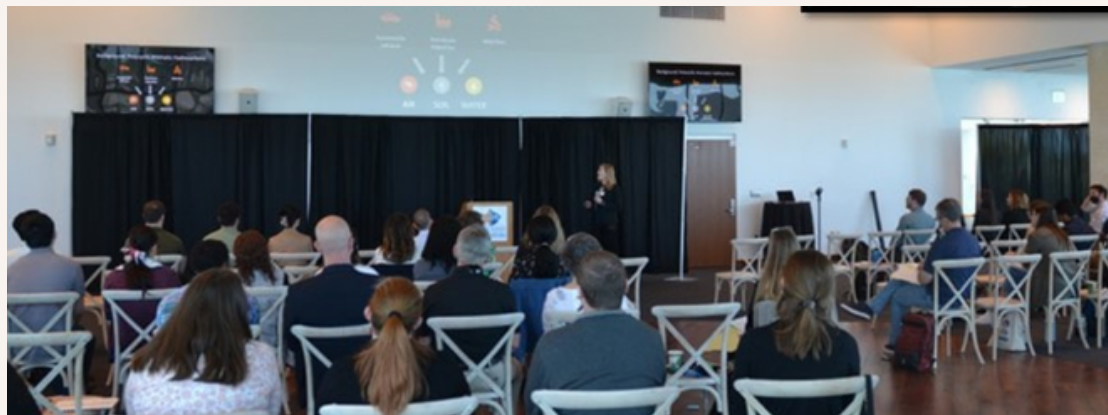
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# Board Members & Student Positions

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Each year the chapter's board elects new representatives and opens voting for student lead positions after our annual meeting. Below are the individuals who volunteered for to organize and represent for our chapter.

## 2021-2022

### Board

President: Edward Mager, PhD  
Vice-President: Frauke Seeman, PhD  
Immediate Past President: Cole Matson, PhD  
Secretary: Marlo Jeffries, PhD  
Treasurer: Jordan Crago, PhD  
Board Member: Ramon Lavado, PhD  
Board Member: Jim Dobberstine, PhD  
Board Member: Tom Parkerton, PhD

### Student Positions:

Student Board Member: Cameron Emadi  
Social Media Coordinator: Alina Roman-Hubers  
Newsletter Coordinator: Alexandra Cordova

## 2022-2023

### Board

President: Frauke Seeman, PhD  
Vice-President: Chris Distel, PhD  
Immediate Past President: Edward Mager, PhD  
Secretary: Kristin Nielsen, PhD  
Treasurer: Jim Dobberstine, PhD  
Board Member: Joe Doering, PhD  
Board Member: Tom Parkerton, PhD

### Student Positions:

Student Board Member: Shisbeth Tábora  
Social Media Coordinator: Elizabeth Dibona  
Newsletter Coordinator: Cameron Emadi



# April 7-9, Corpus Christi, TX

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April 7-9, Corpus Christi, TX

Our 2022 South Central SETAC meeting was hosted by Drs. Jeremy Conkle, Frauke Seemann, and Wei Xu from Texas A&M University-Corpus Christi. The meeting was attended by over 90 participants and featured 16 platform presentations and 31 posters. The meeting program is available here: [http://www.southcentralsetac.com/uploads/5/0/3/0/50303015/2022\\_sc\\_setac\\_meeting\\_program.pdf](http://www.southcentralsetac.com/uploads/5/0/3/0/50303015/2022_sc_setac_meeting_program.pdf).

Several student platforms and poster presentations received awards, as indicated below. Each of these students received funds to support travel to the SETAC North America meeting in Pittsburgh, PA.

## MEETING EVENTS

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This year's meeting opened on April 8th with a welcoming session by Dr. Edward Mager (Chapter President) and Dr. Sarah Hughes (NA SETAC Board representative). The plenary session by Dr. Jill Jenkins from the United States Geological Survey, Wetland, and Aquatic Research Center then took place. After the plenary session, the platform presentation started, followed by the poster sessions. The night concluded with a dinner at the Art Museum of South Texas. The morning of April 9th kicked off with a Student Workshop hosted by Dr. Andrea Hempstead, discussing Graphic Design and Data Visualization and the Chapter Board Meeting.



# Student Presentation Awards

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At each annual meeting students are awarded based on their poster or platform presentations

## BEST POSTER PRESENTATIONS

- 1st Place: Esmirna Cantu, Michelle Rivera, Britney Lacy, and Md Saydur Rahman for "Environmentally relevant mixture of pesticides affects free-swimming behavior and induces oxidative and nitrative stress in goldfish" (University of Texas Rio Grande Valley)
- 2nd Place: Kueleye Lee, Daniel Sanmiguel, Cesar Marquez, and Frauke Seemann for "In silico Docking Analysis Reveals Differences of Benzo[a]pyrene Metabolite Binding on Active Domains of Gene Silencing Enzymes PRC1, PRC2, DNMT3A, and DNMT3B" (Texas A&M University-Corpus Christi)
- 3rd Place: Terri Cox, Sarah Nash, Subbiah Seenivasan, Jordan Crago, and Lou Densmore for "Detecting the Emerging Contaminant Amphetamine in the Apex predator Alligator mississippiensis: A Novel Study" (Texas Tech University)

## BEST PLATFORM PRESENTATIONS

- 1st Place: Maureen Hayden for "Investigating the Relationship Between Microplastics and Beach Invertebrate Communities" (Texas A&M University)
- 2nd Place: Molly Brzezinski, Leisha Martin and Wei Xu for "Toxic Effects of Photodegraded Anthracene on Skin Barrier Development and Epidermal Inflammatory Response" (Texas A&M Corpus Christi)
- 3rd Place: Rachel Leads and Aaron Roberts for "Co-exposure to crude oil and ultraviolet (uv) radiation induces cataract formation in fishes: a novel endpoint of photo-induced crude oil toxicity" (University of North Texas)

2023 South Central  
Annual Meeting

# University of North Texas



**SAVE THE DATE**

SOCIETY OF ENVIRONMENTAL TOXICOLOGY & CHEMISTRY  
**2023 SOUTH-CENTRAL REGIONAL MEETING**

Hosted by the University of North Texas  
Denton, TX  
March 31 – April 1, 2023

For more information, visit:  
<http://www.southcentralsetac.com>



We are working together to give you an exciting and productive meeting program.

Please check the South Central SETAC website for the latest meeting updates.

We hope to see you in Denton!

To read more, submit an abstract, and for registration go to our website for the most up to date information:

[HTTP://WWW.SOUTHCENTRALSETAC.COM](http://www.southcentralsetac.com)

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# MEMBER PUBLICATIONS

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- Ball, A. L., Solan, M. E., Franco, M. E. & Lavado, R. (2022). Comparative cytotoxicity induced by parabens and their halogenated byproducts in human and fish cell lines. *Drug and Chemical Toxicology*, 1–9. <https://doi.org/10.1080/01480545.2022.2100900>
- Bonatesta, F., Emadi, C., Price, E. R., Wang, Y., Greer, J. B., Xu, E. G., Schlenk, D., Grosell, M. & Mager, E. M. (2021). The developing zebrafish kidney is impaired by Deepwater Horizon crude oil early-life stage exposure: A molecular to whole-organism perspective. *The Science of the Total Environment*, 808, 151988. <https://doi.org/10.1016/j.scitotenv.2021.151988>
- Bonatesta, F., Khursigara, A. J., Ackerly, K. L., Esbaugh, A. J. & Mager, E. M. (2022). Early life-stage Deepwater Horizon crude oil exposure induces latent osmoregulatory defects in larval red drum (*Sciaenops ocellatus*). *Comparative Biochemistry and Physiology Part C: Toxicology & Pharmacology*, 260, 109405. <https://doi.org/10.1016/j.cbpc.2022.109405>
- Bonatesta, F., Messerschmidt, V. L., Schneider, L., Lee, J., Lund, A. K. & Mager, E. M. (2022). Acute exposure of early-life stage zebrafish (*Danio rerio*) to Deepwater Horizon crude oil impairs glomerular filtration and renal fluid clearance capacity. *Environmental Science and Pollution Research*, 1–10. <https://doi.org/10.1007/s11356-022-23805-z>
- DiBona, E., Haley, C., Geist, S. & Seemann, F. (2022). Developmental Polyethylene Microplastic Fiber Exposure Entails Subtle Reproductive Impacts in Juvenile Japanese Medaka (*Oryzias latipes*). *Environmental Toxicology and Chemistry*, 41(11), 2848–2858. <https://doi.org/10.1002/etc.5456>
- Franco, M. E., Johanning, K., Matson, C. W. & Lavado, R. (2022). Reduced biotransformation of polycyclic aromatic hydrocarbons (PAHs) in pollution-adapted Gulf killifish (*Fundulus grandis*). *Science of The Total Environment*, 806(Pt 4), 150854. <https://doi.org/10.1016/j.scitotenv.2021.150854>
- Franco, M. E., Ramirez, A. J., Johanning, K. M., Matson, C. W. & Lavado, R. (2022). In vitro-in vivo biotransformation and phase I metabolite profiling of benzo[a]pyrene in Gulf killifish (*Fundulus grandis*) populations with different exposure histories. *Aquatic Toxicology*, 243, 106057. <https://doi.org/10.1016/j.aquatox.2021.106057>

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# MEMBER PUBLICATIONS

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- Jaramillo, P. L., Tábora-Sarmiento, S., Millares-Forno, C. & Boren-Alpízar, A. E. (2022). The Theory of Reasoned Action as a predictor of environmental behavior: A cross-cultural comparison between college students from Texas, Louisiana, and Honduras. *Journal of Human Behavior in the Social Environment*, 1–16. <https://doi.org/10.1080/10911359.2022.2072040>
- Messerschmidt, V. L., Chintapula, U., Bonetesta, F., Laboy-Segarra, S., Naderi, A., Nguyen, K. T., Cao, H., Mager, E. & Lee, J. (2022). In vivo Evaluation of Non-viral NICD Plasmid-Loaded PLGA Nanoparticles in Developing Zebrafish to Improve Cardiac Functions. *Frontiers in Physiology*, 13, 819767. <https://doi.org/10.3389/fphys.2022.819767>
- Mo, J., Wan, M. T., Au, D. W.-T., Shi, J., Tam, N., Qin, X., Cheung, N. K. M., Lai, K. P., Winkler, C., Kong, R. Y.-C. & Seemann, F. (2023). Transgenerational bone toxicity in F3 medaka (*Oryzias latipes*) induced by ancestral benzo[a]pyrene exposure: Cellular and transcriptomic insights. *Journal of Environmental Sciences*, 127, 336–348. <https://doi.org/10.1016/j.jes.2022.04.051>
- Olsen, L., Levy, M., Medley, J. K., Hassan, H., Miller, B., Alexander, R., Wilcock, E., Yi, K., Florens, L., Weaver, K., McKinney, S. A., Peuß, R., Persons, J., Kenzior, A., Maldonado, E., Delventhal, K., Gluesenkamp, A., Mager, E., Coughlin, D. & Rohner, N. (2023). Metabolic reprogramming underlies cavefish muscular endurance despite loss of muscle mass and contractility. *Proceedings of the National Academy of Sciences*, 120(5), e2204427120. <https://doi.org/10.1073/pnas.2204427120>
- Price, E. R., Bonatesta, F., McGruer, V., Schlenk, D., Roberts, A. P. & Mager, E. M. (2022). Exposure of zebrafish larvae to water accommodated fractions of weathered crude oil alters steroid hormone concentrations with minimal effect on cholesterol. *Aquatic Toxicology*, 242, 106045. <https://doi.org/10.1016/j.aquatox.2021.106045>
- Solan, M. E., Franco, M. E. & Lavado, R. (2022). Effects of perfluoroalkyl substances (PFASs) and benzo[a]pyrene (BaP) co-exposure on phase I biotransformation in rainbow trout (*Oncorhynchus mykiss*). *Fish Physiology and Biochemistry*, 48(4), 925–935. <https://doi.org/10.1007/s10695-022-01093-1>
- Solan, M. E. & Lavado, R. (2022). The use of in vitro methods in assessing human health risks associated with short-chain perfluoroalkyl and polyfluoroalkyl substances (PFAS). *Journal of Applied Toxicology*, 42(8), 1298–1309. <https://doi.org/10.1002/jat.4270>

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# MEMBER PUBLICATIONS

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- Solan, M. E., Senthilkumar, S., Aquino, G. V., Bruce, E. D. & Lavado, R. (2022). Comparative cytotoxicity of seven per- and polyfluoroalkyl substances (PFAS) in six human cell lines. *Toxicology*, 477, 153281. <https://doi.org/10.1016/j.tox.2022.153281>
- Tábora-Sarmiento, S., Patiño, R., Portillo-Quintero, C. & Coldren, C. (2022). Air, land, and water variables associated with the first appearance and current spatial distribution of toxic *Prymnesium parvum* blooms in reservoirs of the Southern Great Plains, USA. *Science of The Total Environment*, 836, 155567. <https://doi.org/10.1016/j.scitotenv.2022.155567>
- Wan, T., Au, D. W.-T., Mo, J., Chen, L., Cheung, K.-M., Kong, R. Y.-C. & Seemann, F. (2022). Assessment of parental benzo[a]pyrene exposure-induced cross-generational neurotoxicity and changes in offspring sperm DNA methylome in medaka fish. *Environmental Epigenetics*, 8(1), dvac013. <https://doi.org/10.1093/eep/dvac013>