

Delbert 'Lee' Smee

Contact Information

Chair University Programs
Senior Marine Scientist III Dauphin Island Sea Lab
Professor of Marine and Environmental Sciences University of South Alabama
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Education

Ph.D.	Applied Biology	2006	Georgia Institute of Technology	Atlanta, GA
MS	Biology	1998	Georgia Southern University	Statesboro, GA
BS	Biology	1996	Piedmont College	Demorest, GA

Expertise

Community/ecosystem ecology • animal behavior • biological oceanography • physical-biological coupling • chemical ecology • statistics

Professional Experience

2021-present	Senior Marine Scientist III	Dauphin Island Sea Lab
2021-present	Professor	University of South Alabama
2018-2021	Senior Marine Scientist II	Dauphin Island Sea Lab
2018-2021	Associate Professor	University of South Alabama
2018-present	Research Scientist	Texas A&M University – Corpus Christi
2012-2018	Associate Professor	Texas A&M University – Corpus Christi
2006-2012	Assistant Professor	Texas A&M University – Corpus Christi
2001-2006	Graduate Assistant	Georgia Institute of Technology
1998-2001	Biology Instructor	Barton County Community College

Administration Experience

2018 – present	Chair University Programs, Dauphin Island Sea Lab
2013 – 2018	Biology Undergraduate Program Coordinator, Texas A&M – Corpus Christi

Honors and Awards

2017	TAMU-CC University Graduation Mace Carrier, Fall 2017
2017	TAMU-CC Excellence Award for Research and Scholarly Activity
2015	TAMU-CC Outstanding Master’s Mentor Award
2013	TAMU-CC Outstanding Islander
2012	Coastal Bend Bays Foundation Conservation and Environmental Stewardship Award
2011 – 2015	Ruth A. Campbell Professor of Marine Biology
2011	Texas A&M University System Teaching Excellence Award
2011	TAMU-CC Faculty Excellence Award in Scholarly and Creative Activity Runner-Up
2001, 2005, 2011-16	Who’s Who Among America’s Teachers
2002-2003	Georgia Tech Graduate Student Association President
2001 –2006	Graduate Assistantship/IGERT Fellowship Georgia Tech
2001	NISOD Teaching Excellence Award
1998	Best Student Paper Georgia Academy of Science
1996	Cum Laude Graduate, Piedmont College
1988	Eagle Scout, Boy Scouts of America

Funded Research Grants: (Cumulative Total – \$4,466,140)

2022-2024	Preadapting oysters to multiple stressors through predator exposure in nurseries. D.L. Smee , B.A. Belgrad, and PJ Waters. NOAA SK \$297196
2022-2024	Costs and benefits of nursery techniques to improve oyster aquaculture and restoration. D.L. Smee , PJ Waters, S. Rickard, and R. Grice. Mississippi-Alabama Sea Grant. \$149,699
2021-2024	Understanding the interactive effects of predation and ocean acidification on economically important oyster variants in the northern Gulf of Mexico. K. Hoadley, D. Kemp, and D.L. Smee. Alabama Center of Excellence. \$116,543

- 2020-2022 Tidal elevations for successful oyster reef restoration. **D.L. Smee. Alabama Coastal Area Management Program \$49994.**
- 2020-2023 Creating resilient oysters (*Crassostrea virginica*) to enhance aquaculture and restoration. **D.L. Smee**, B.A. Belgrad, and W. Walton.
NOAA SK \$298,984
- 2020-2021 RAPID: Human-Driven Trophic Cascades: Mesopredator Release and Recreational Fishing in Estuaries. **D.L. Smee.**
NSF – Bio-Oce. \$78,696
- 2020-2023 Collaborative Research: Keystone chemicals: Identifying general and universal molecules of fear. M.J. Weissburg, J. Kubanek, and **D.L. Smee.**
NSF – Bio-Oce. \$261,203
- 2019-2021 Scared strong: Enhancing oyster resilience for aquaculture and restoration by inducing oysters to grow stronger shells. **D.L. Smee.** B.Belgrad. W. Walton.
Mississippi-Alabama Sea Grant. \$148,749
- 2019-2020 Supplemental funding, Hurricane Michael Effects; Gulf-wide assessment of habitat use and habitat-specific production estimates of nekton in turtle grass (*Thalassia testudinum*). K.M. Darnell, M.Z. Darnell. **D.L. Smee.** C.W. Martin.
NOAA – RESTORE. 149,928
(role: Co-PI leading habitat assessment in Carrabelle, FL, \$47,829)
- 2017 – 2020 Gulf-wide assessment of habitat use and habitat-specific production estimates of nekton in turtle grass (*Thalassia testudinum*). K.M. Darnell, M.Z. Darnell. **D.L. Smee.** C.W. Martin, and M.O. Hall.
NOAA – RESTORE. 985,841.
(role: Co-PI leading habitat assessment and nekton growth in Texas, \$214,387)
- 2017 – 2019 Mangrove Expansion Alters Sediment and Water Quality and Affects Biodiversity in Texas Wetlands. B.K. Reese and **D.L. Smee**
Texas General Land Office. \$95,912
- 2016 – 2019 Testing macroclimate models of coastal wetland plant communities. C.A. Gabler, S.C. Pennings, M.J. Osland, and **D.L. Smee.**
Texas Sea Grant. \$199,896 (role: completing research in northern sites, outreach, \$55,512 to Smee for supplies and student support)
- 2015 – 2016 Nueces Bay Marsh restoration post-construction assessment. **D.L. Smee.**
Coastal Bend Bays and Estuaries Program. \$5000

- 2015 – 2016 Turbidity triggers mesopredator release in estuaries. **D.L. Smee.**
TAMU-CC Faculty Enhancement Grant. \$5000
- 2013 – 2017 Elementary teachers engaged in authentic math and science (ETEAMS). J. Silliman., J. Champion, M.D. Hill, P. Wright, C.M. McCollough, G. Tintera, S. Ives, and **D.L. Smee.** **NSF \$1,497,936** (role: Senior personnel charged with providing ‘authentic’ scientific experience for early education majors, ~\$200k for supplies and lab salaries directly to Smee)
- 2013 – 2014 Genomics influences population dynamics of an important ecosystem engineer. **D.L. Smee** and C. Bird.
Texas Research Development Fund \$25,000
- 2013 – 2014 Oyster gene expression and abiotic conditions. C. Bird and **D.L. Smee.**
Texas Research Development Fund \$25,000
- 2013 – 2014 Effects of turbidity on estuarine biodiversity. **D.L. Smee**
TAMU-CC Faculty Enhancement Grant \$2600
- 2013 – 2017 Intrusion of black mangrove and its effects on ecosystem services. **D.L. Smee** and R.D. Overath.
USDA, Forest Service Cooperative Agreement; \$50,000
- 2012 – 2014 Essential information for conserving essential fish habitat in Texas. **D.L. Smee.**
Rotary Club of Corpus Christi Harvey Weil Sportsman Conservation Award \$7500
- 2012 – 2015 Effects of black mangrove expansion into South Texas salt marshes: a pilot study. R.D. Overath and **D.L. Smee**
USDA: Forest Service \$49,970
- 2012 – 2013 Effects of sub-lethal attack of *Panulirus interruptus* on feeding behavior in *Aplysia californica*. R. Mozzachiodi and **D.L. Smee**
Texas Research Development Fund \$25,000
- 2012 – 2013 Pesticides affect blue crab mortality and behavior. **D.L. Smee**
TAMU-CC Faculty Enhancement Grant \$5000
- 2012 –2013 Intraspecific variation increases recruitment of eastern oysters. **D.L. Smee.**
TAMU-CC Faculty Enhancement Grant \$2600

- 2011–2013 Oyster Reef Restoration to Restore Fish Habitat in Texas Project (FAF-11030). J.B Pollack and **D. L. Smee**.
FishAmerica Foundation with NOAA Restoration Center for Community-based Marine and Anadromous Fish Habitat Restoration Projects. \$62,046
- 2010 –2011 Abiotic Conditions Affect Predation Levels of Juvenile Oysters. **D.L. Smee**.
TAMU-CC Faculty Enhancement Grant \$2600
- 2010 –2011 Environmental conditions alter predatory interactions on oyster reefs.
D.L. Smee.
Texas Research Development Fund \$30000
- 2010 –2011 Effects of Atrazine, a Commonly Used Agricultural Herbicide on Blue Crab Mortality and Behavior. **D.L. Smee**.
TAMU-CC Faculty Enhancement Grant \$8500
- 2009 – 2011 Large Fish Predators Help Maintain Oyster Reef Habitats. **D.L. Smee**
Rotary Club of Corpus Christi Harvey Weil Sportsman Conservation Award \$5000
- 2009 – 2010 Abiotic Conditions and their Effects on Oyster Reef Communities. **D.L. Smee**.
TAMU-CC Faculty Enhancement Grant \$3500
- 2009 – 2010 Effects of Predator Type and Diversity in Natural Communities. **D.L. Smee**.
Texas Research Development Fund \$29000
- 2009 – 2013 Marine Education: Teaching High School Students the Scientific Method through Involvement in an Ongoing Field Experiment.
D.L. Smee and C.A. McCollough.
Texas Sea Grant via NOAA \$93,180
- 2009 – 2010 Assessment of a Salt Marsh Restoration in Nueces Bay, TX. **D.L. Smee**.
Coastal Bend Bays and Estuaries Program \$30,000
- 2008 – 2011 MRI: Acquisition of Equipment to Monitor Environmental Conditions. **D.L. Smee**., P.A. Montagna, A. Mestas-Nuñez, G.W. Stunz, and R.D. Overath.
NSF – MRI \$389,542
- 2008 – 2009 Effects of Salinity and Pesticides on the Mortality and Behavior of Blue Crabs (*Callinectes sapidus*). **D.L. Smee**.
TAMU-CC Faculty Enhancement Grant \$10,843

- 2008 – 2009 Effects of Predator Biodiversity on the Magnitude of Top-Down Forces in Oyster Reef Communities. **D.L. Smee.**
Texas Research Development Fund \$40,000
- 2007 – 2008 Influence of Habitat Setting, Genetic Diversity, and Species Interactions on the Establishment of Oyster Reef Communities. **D.L. Smee.**
Texas Research Development Fund \$40,000
- 2007 – 2008 Understanding Variation in a Behavioral Trait in the Hard Clam.
R.D. Overath and **D.L. Smee.**
NIH EARDA \$8375
- 2007 – 2011 Collaborative Research: The Effects of Flow on the Nature and Strength of Indirect Effects. **D.L. Smee** and G.C. Trussell.
NSF – Bio-Oce \$442,000 (\$216,070 to Smee)

Publications

Peer-reviewed Journal Articles

*denotes graduate or ** undergraduate student or ¹ post doc mentored by Smee

Google Scholar Profile: <https://scholar.google.com/citations?user=C0rKbDwAAAAJ&hl=en&oi=ao>

- 69) Reustle, J.W.* , B.A. Belgrad¹, A. McKee, and **D.L. Smee.** *Submitted.* Barnacles as biological flow indicators. **The Biological Bulletin.**
- 68) Belgrad, B.A.¹, **D.L. Smee**, and M.J. Weissburg. *Submitted.* Simultaneous predator signaling of prey on multiple trophic levels produces complex patterns of NCEs on basal prey. **Ecology.**
- 67) Belgrad, B.A.¹, W. Knudson*, S.H. Roney, W.C. Walton, J. Lunt, and **D.L. Smee.** *Submitted.* Induced defenses as a management tool: Shaping individuals to their environment. **Ecological Applications.**
- 66) Roney, S.H., M.R. Cepeda, B.A. Belgrad¹ , S.G. Moore, D.L. Smee, J. Kubanek, and M.J. Weissburg. *Submitted.* Common fear molecules induce defensive responses in marine prey across trophic levels. **Journal of Animal Ecology.**
- 65) Correia, K.M.*. and **D.L. Smee.** 2022. A review of tropical cyclone effects on seagrass meadows. **Wetlands.** In press.
- 64) Correia, K.M.* , S.B. Alford, B.A. Belgrad, K.M. Darnell, M.Z. Darnell, B.T. Furman, M.O. Hall, C.W. Martin, A. McDonald, and D.L. Smee. *Submitted.* Hurricane effects of seagrass and associated nekton communities in the northern Gulf of Mexico. **Estuaries and Coasts.**

- 63) Correia, K.M.* and **D.L. Smee**. 2022. Drift macroalgae increases recruitment and alters abiotic conditions within seagrass meadows. **Journal of Experimental Marine Biology and Ecology**.
- 62) Correia, K.M.*, S.B. Alford, B.A. Belgrad, K.M. Darnell, M.Z. Darnell, B.T. Furman, M.O. Hall, C.W. Martin, A. McDonald, and D.L. Smee. 2022. Drift macroalgae distribution in northern Gulf of Mexico seagrass meadows. **PeerJ**. 10.7717/peerj.13855
- 61) Correia, K.M.* , S.B. Alford, B.A. Belgrad, K.M. Darnell, M.Z. Darnell, B.T. Furman, M.O. Hall, C.W. Martin, A. McDonald, and D.L. Smee. 2022. Drift macroalgae positively influence seagrass-associated nekton communities of the northern Gulf of Mexico. **Frontiers in Marine Science**. 10.3389/fenvs.2022.939296
- 60) Hayes, T.H, S.B. Alford, B.A. Belgrad¹, K.C. Correia*, M.Z. Darnell, B.T. Furman, C.W. Martin, A.M. McDonald, **D.L. Smee**, and K.M. Darnell. 2022. Regional variation in seagrass complexity drives blue crab (*Callinectes sapidus*) mortality and growth across the northern Gulf of Mexico. **Marine Ecology Progress Series**. 693: 141-155
- 59) Osland, M.J. *et al.* 21 authors including **D.L. Smee**. 2022 The impacts of mangrove range expansion on wetland ecosystem services in the southeastern United States: Current understanding, knowledge gaps, and emerging research needs. **Global Change Biology**.
- 58) Patrick, C.J. *et al.* 50 authors including D.L. Smee. 2022. A universal pattern of trade-offs between ecosystem resistance and resilience to tropical cyclones. **Sciences Advances**.
- 57) Eason, A.** , A.B. Powell**, S.H. Roney*, Carter Lin*, Christa M. Russell*, B.A. Belgrad¹, and **D.L. Smee**. 2021. Timing of predation risk during early development influences oyster shell morphology. **Gulf and Caribbean Research**. 31: SC1-SC5. DOI: 10.18785/gcr.3201.13
- 56) Rue, C.R, J.D. Selwyn, P.M. Crockett, B. Gillis, L. Gurski, P. Jose, B.L. Kutil, S.F. Magnuson, L.A. Lopez de Mesa, R.D. Overath, **D.L. Smee**. and C.E. Bird. 2021. Genetic diversity across the mitochondrial genome of eastern oysters (*Crassostrea virginica*) in the northern Gulf of Mexico. **Peer J**: e12205 <https://doi.org/10.7717/peerj.12205>
- 55) Belgrad, B.A.¹, E.M. Combs**, W. Walton. and **D.L. Smee**. 2021. Use of predator cues to bolster oyster resilience for aquaculture and reef restoration. **Aquaculture**. 538: 736553
- 54) Belgrad, B.A.¹, **D.L. Smee**, K.M. Correia*, K.M. Darnell, M.Z. Darnell, C.T. Hayes, M.O. Hall, B.T. Furman, C.W. Martin. 2021. Environmental drivers of seagrass-associated nekton abundance and function groups across the northern Gulf of Mexico. **Estuaries and Coasts**
- 53) Ponce, M.** , B.A. Belgrad, W. Walton. And **D.L. Smee**. 2020. Hatchery exposure of oyster spat to different predators strengthens oyster shells. **Gulf and Caribbean Research**. 31: SC36 – SC40.

- 52) Whalen, M.A., *et al.* 67 authors including M.S. Diskin*, **D.L. Smee**. 2020. Climate drives the geography of marine consumption by changing predator communities. **Proceedings of the National Academy of Sciences of the USA**. 117: 28160 – 28166.
- 51) Kimbro, D.L., A.E. Scherer*, J.E. Byers, J.H. Grabowski, A.R. Hughes, M.F. Piehler, and **D.L. Smee**. 2020. Environmental gradients influence biogeographic patterns of nonconsumptive effects on oysters. **Ecosphere**. 11 (10): e03260
- 50) **Smee, D.L.**, J.W. Reustle*, B.A. Belgrad¹, and E.L. Pettis. 2020. Storms promote ecosystem resilience by alleviating fishing. **Current Biology**. 30: R869 – R870
- 49) Reustle, J.* and **D.L. Smee**. 2020. Salinity variation and turbidity influence trophic cascades through sensory driven mesopredator release and facilitation of different predator types. **Marine Ecology Progress Series**. 639: 127-136
- 48) Reustle, J.* and **D.L. Smee**. 2020. Cloudy with a chance of mesopredator release: sensory disruption alleviates top down control in estuaries. **Limnology and Oceanography** 9999: 1-13
- 47) Lunt, J.* and **D.L. Smee**. 2020. Turbidity alters estuarine biodiversity and species composition. **ICES Journal of Marine Science**. 77: 379-387
- 46) Combs, E.M.***, B.A. Belgrad, and **D.L. Smee**. 2019. Comparison of hatchery methods to strengthen oysters for aquaculture. **Gulf and Caribbean Research** 30: SC17-SC21.
- 45) **Smee, D.L.** 2019. Coastal ecology: living shorelines reduce coastal erosion. **Current Biology**. 29: R411-412. Invited Dispatch
- 44) Schroeder-Spain, K.* and **D.L. Smee**. 2019. Dazed, confused, then hungry: pesticides alter predator-prey interactions of estuarine organisms. **Oecologia**. 189: 815-828
- 43) Loveless, J.B.* and **D.L. Smee**. 2019. Changes in arthropod communities as black mangroves *Avicennia germinans* expand into Gulf of Mexico salt marshes. **Arthropod-Plant Interactions**. 13: 465-475 <https://doi.org/10.1007/s11829-018-9643-8>
- 42) Loveless, J.B.* and **D.L. Smee**. 2018. Assessing the efficacy of marsh restoration via terracing by comparing nekton abundance before and after restoration. **Gulf of Mexico Science**. 34: 56-62
- 41) Scherer, A.E.* , C. Bird, M. McCutcheon*, X. Hu., and **D.L. Smee**. 2018. Two-tiered defense strategy may compensate for predator avoidance costs of an ecosystem engineer. **Marine Biology**. **165: 131** doi.org/10.1007/s00227-018-3391-2

- 40) Correia, K.* and D.L. Smee. 2018. Organophosphate pesticides alter blue crab (*Callinectes sapidus*) behavior in single and consecutive exposures. **Archives of Environmental Contamination and Toxicology**. 75: 134-144
- 39) Schroeder-Spain, K.*, L.L. Fisher**, and **D.L. Smee**. 2018. Uncoordinated: Effects of sublethal malathion and carbaryl exposures on juvenile and adult blue crabs (*Callinectes sapidus*). **Journal of Experimental Marine Biology and Ecology**. 504: 1-9
- 38) Scherer, A.E.* and D.L. Smee. 2017. Eastern oysters *Crassostrea virginica* may produce plastic morphological defenses in response to crab predators despite resource limitation. **Biological Bulletin**. 233: 144-150. doi/10.1086/695470
- 37) Diskin, M.S.* and **D.L. Smee**. 2017. Effects of black mangrove expansion on salt marsh fauna before and after a flood. **Hydrobiologia**. MMM4 Special Issue. 803: 283-294
DOI: 10.1007/s10750-017-3179-2
- 36) Scherer, A.E.*, M.M. Garcia.** and **D.L. Smee**. 2017. Predatory blue crabs induce stronger nonconsumptive effects in eastern oysters *Crassostrea virginica* than scavenging blue crabs. **PeerJ**. 5:e3042; DOI: 10.7717/peerj3042
- 35) Lunt, J.*, J. Reustle*, and **D.L. Smee**. 2017. Wave energy reduces the abundance and size of benthic species on oyster reefs. **Marine Ecology Progress Series**. 569: 25-36. Doi: 10.3354/meps12075
- 34) **Smee, D.L.**, J.A. Sanchez*, M. Diskin, and C. Trettin. 2017. Mangrove expansion alters associated faunal communities. **Estuarine Coastal Shelf Science**. 187: 306-313.
- 33) Gain, I.*, R.A. Brewton, M.M. Reese Robillard, K.D. Johnson*, **D.L. Smee**, and G.W. Stunz. 2017. Macrofauna using intertidal oyster reef varies in relation to position within the estuarine mosaic. **Marine Biology** 164:8 doi:10.1007/s00227-016-3033-5
- 32) Wolfe, K.D.*, M.L. Wainwright, **D.L. Smee**, and R. Mozzachiodi. 2016. Eat or be eaten? Modification of *Aplysia californica* feeding behavior in response to natural aversive stimuli. **Animal Behavior** 120: 123-133.
- 31) Scherer, A.E.* and **D.L. Smee**. 2016. A review of predator diet effects on prey defensive responses. **Chemoecology** 26: 83-100.
- 30) Scherer, A.E.*, J. Lunt*, AM. Draper**, and **D.L. Smee**. 2016. Phenotypic plasticity in oysters (*Crassostrea virginica*) mediated by chemical signals from predators and injured prey. **Journal of Invertebrate Biology** 135: 97-107
- 29) Lunt, J.*, and **D.L. Smee**. 2015. Turbidity interferes with foraging success of visual but not chemosensory predators. **PeerJ** 3:e1212.

- 28) Lunt, J.* , and **D.L. Smee**. 2014. Turbidity influences trophic interactions in estuaries. **Limnology and Oceanography** 59: 2002-2012.
- 27) Ray, B.R.* , M.W. Johnson, K. Cammarata, and **D.L. Smee**. 2014. Expansion of tropical seagrasses into Northwestern Gulf of Mexico estuaries: Effects on associated fauna. **PLoS One** 9:9 10775.
- 26) Johnson, K.D.* , J.H. Grabowski, and **D.L. Smee**. 2014. Omnivory dampens trophic cascades in estuarine communities. **Marine Ecology Progress Series** 507: 197-206.
- 25) Weissburg, M.J., **D.L. Smee**, and M.C. Ferner. 2014. The sensory ecology of non-consumptive predator effects. **American Naturalist** 184: 141-157.
- 24) Johnson, K.D.* and **D.L. Smee**. 2014. Predators influence tidal distribution of eastern oysters (*Crassostrea virginica*). **Marine Biology** 161:1557–1564.
- 23) Robinson, E.M.* , J. Lunt* , C.D. Marshall, and **D.L. Smee**. 2014. Eastern oysters (*Crassostrea virginica*) deter crab predators by altering their morphology in response to crab cues. **Aquatic Biology**. 20: 111-118.
- 22) **Smee, D.L.**, R.D. Overath, K.D. Johnson* , and J.A. Sanchez** . 2013. Intraspecific variation influences natural settlement of Eastern Oysters (*Crassostrea virginica*). **Oecologia**. 173: 947-953.
- 21) Large, S.I.* and **D.L. Smee**. 2013. Biogeographic variation in behavioral and morphological responses to predation risk. **Oecologia**. 171: 961-969
- 20) Johnson, K.D.* and **D.L. Smee**. 2012. Size matters for risk assessment and resource allocation in bivalves. **Marine Ecology Progress Series**. 462: 103-110.
- 19) Large, S.I.* , P.M. Torres,** and **D.L. Smee**. 2012. Behavior and morphology of *Nucella lapillus* influenced by predator type and predator diet. **Aquatic Biology** 16: 189-196.
- 18) Byron, K.W.* and **D.L. Smee**. 2012. Effects of flow on the behavior of the southern oyster drill *Stramonita haemastoma* in response to exudates from oysters and oyster reef fauna. **Journal of Shellfish Research**. 31: 93-100.
- 17) Robinson, E.M.* , **D.L. Smee**, and G.C Trussell. 2011. Green crab (*Carcinus maenas*) foraging efficiency reduced by fast and turbulent flows. **PLoS One** 6:6 e21025.
- 16) Large, S.I.* , **D.L. Smee**, and G.C. Trussell. 2011. Environmental conditions influence the frequency of prey responses to predation risk. **Marine Ecology Progress Series** 422: 41-49

- 15) Large, S.I.* and **D.L. Smee**. 2010. Type and nature of cues used by *Nucella lapillus* to evaluate predation risk. **Journal of Experimental Marine Biology and Ecology** 396: 10-17
- 14) **Smee, D.L.** 2010. Species with a large impact on community structure. **Nature Education Knowledge** 1(8): 18.
- 13) **Smee, D.L.** 2010. Environmental context influences the outcomes of predator-prey interactions and degree of top-down control. **Nature Education Knowledge** 1(8): 17.
- 12) Gutierrez, M.A.*, A.A. Cordona**, and **D.L. Smee**. 2010. Seasonal Growth Patterns of Shoal Grass *Halodule wrightii* and Manatee Grass *Syringodium filiforme* in the Western Gulf of Mexico. **Gulf and Caribbean Research Report** 22: 71-75.
- 11) **Smee, D.L.**, M.C. Ferner, and M.J. Weissburg. 2010. Hydrodynamic sensory stressors produce nonlinear predation patterns. **Ecology** 91: 1391- 1400.
- 10) Flynn, A.M.* and **D.L. Smee**. 2010. Behavioral plasticity of the soft-shelled clam *Mya arenaria* in the presence of predators increases survival in the field. **Journal of Experimental Marine Biology and Ecology** 383: 32-38.
- 9) Wendel, C.W.* and **D.L. Smee**. 2009. Blue crab mortality increased and behavior altered by environmentally-occurring concentrations of Malathion. **Marine Ecology Progress Series** 392: 157-165.
- 8) Ferner, M.C., **D.L. Smee**, and M.J. Weissburg. 2009. Habitat complexity alters lethal and non-lethal olfactory interactions between benthic predators and prey. **Marine Ecology Progress Series** 174: 13-22.
- 7) **Smee, D.L.** and M.J. Weissburg. 2008. Prey behavior in risky habitats: predation pressure increases prey sensitivity to predation risk. **Marine Ecology Progress Series** 363: 39-50.
- 6) **Smee, D.L.**, M.C. Ferner, and M.J. Weissburg. 2008. Alteration of sensory abilities regulates the spatial scale of nonlethal predator effects. **Oecologia** 156: 399-409.
- 5) **Smee, D.L.**, and M.J. Weissburg. 2006. Clamming up: Environmental forces diminish the perceptive ability of bivalve prey. **Ecology** 87: 1587-1598.
- 4) **Smee, D.L.**, and M.J. Weissburg. 2006. Hard clams (*Mercenaria mercenaria*) evaluate predation risk using chemical cues from predators and injured conspecifics. **Journal of Chemical Ecology**. 32: 605-619.
- 3) Ferner, M.C., **D.L. Smee**, and Y. Chang. 2005. Cannibalistic crabs respond to the scent of injured conspecifics: Danger or Dinner? **Marine Ecology Progress Series** 300: 193-200.

- 2) Weissburg, M.J., C.P. James, **D.L. Smee**, and D.R. Webster. 2003. Fluid mechanics produces conflicting constraints during olfactory navigation of blue crabs, *Callinectes sapidus*. **Journal of Experimental Biology** 26: 171-180.
- 1) Weissburg, M.J., M.C. Ferner, D.P. Pisut, and **D.L. Smee**. 2002. Ecological consequences of chemically mediated prey perception. **Journal of Chemical Ecology** 28: 1953-1970.

Invited Seminars

- 2022 Yikes: Chemical Cues and the Ecology of Fear.
University of Alabama Huntsville Departmental Seminar
- 2019 Ecological Hors d'oeuvre: Human Impacts and Effects on Coastal Ecosystems
University of Alabama Birmingham Department seminar
- 2018 The world is my oyster: Pearls of wisdom from a decade of oyster research.
University of Houston Departmental Seminar
- 2017 Yikes! An Introduction to the Ecology of Fear.
University of South Alabama Departmental Seminar
- 2017 Pearls of wisdom from a decade of oyster research.
Georgia Southern University Departmental Seminar
- 2017 Waves of Change: How Waves Can Alter Oyster Reef Communities
NOAA Seminar Series, Washington, D.C. (joint presentation with J. Lunt and J. Reustle)
- 2017 Pearls of wisdom from a decade of oyster research.
Dauphin Island Sea Lab, Departmental Seminar
- 2016 Omnivory, turbidity, and phenotypic plasticity influence oyster populations and associated oyster reef fauna.
University of North Carolina Wilmington, Departmental Seminar
- 2016 Chemical cues mediate community structure and function on oyster reefs.
Bowling Green State University, Departmental Seminar
- 2015 The world is my oyster: chemical signals and turbidity on oyster reefs.
Florida State University, Departmental Seminar.
- 2015 The world is my oyster: chemical signals, turbidity, and genetic diversity on oyster reefs.
Dauphin Island Sea Lab, Departmental Seminar.

- 2015 The world is my oyster: Turbidity triggers mesopredator release by altering chemically mediated trophic interactions
SICB Annual Meeting, West Palm Beach, FL, USA.
- 2014 The world is my oyster: chemical signals, turbidity, and genetic diversity on oyster reefs.
University of Alabama-Birmingham, Departmental Seminar.
- 2014 The world is my oyster: chemical cues govern settlement and inducible defenses on oyster reefs.
International Society of Chemical Ecology Annual Meeting, Champaign, Illinois, USA.
- 2012 Trophic interactions and intraspecific variation on Oyster Reefs.
University of Texas Marine Science Institute, Departmental Seminar.
- 2012 Trophic interactions, chemical cues, and the role of intraspecific variation on oyster reefs.
Texas A&M – Galveston, Departmental Seminar.
- 2011 Hydrodynamics and chemical cues modulate predator effects in rocky intertidal communities.
International Society of Chemical Ecology Annual Meeting, Vancouver, BC, Canada.
- 2011 Yikes! An introduction to the ecology of fear.
Del Mar College, Seminar.
- 2011 The Maine part of the Smee Lab.
Harte Research Institute, Seminar Series
- 2009 Predator avoidance behaviors: Costs, benefits, environmental variables, and biogeography. **Romberg Tiburon Center for Environmental Studies, Seminar. San Francisco, CA, USA.**
- 2009 Challenges and insights of measuring hydrodynamics in the field.
NortekUSA Users Symposium, St. Augustine, FL, USA.
- 2009 The ecology of yikes! Lethal and nonlethal predator effects modulated by hydrodynamics.
Texas A&M – Galveston, Departmental Seminar.
- 2009 Nonlinear relationship between estuarine hydrodynamics and predation intensity.
National Shellfisheries Meeting, Savannah, GA, USA

2006 The ecology of yikes! Environmental forces affect prey reactions to consumers.
University of Texas Marine Science Institute, Departmental Seminar.

2006 The ecology of yikes! Environmental forces affect prey reactions to consumers.
Harte Research Institute, Seminar Series

Presentations at Scientific Meetings (Presenting Author)

** >150 coauthored presentations (100+ with students) not listed

2022 **Smee, D.L.** Hurricanes, covid, and freezes oh my!... Recreational fishing and top-down control in estuaries. **Benthic Ecology Meeting.** Concord, NH.

2020 **Smee, D.L.,** B. Belgrad. and W. Walton. Scared Strong: Predator exposure increases oyster survival. **Bays and Bayous Annual Meeting.** Virtual

2019 **Smee, D.L.,** J. Reustle, B. Belgrad, and E. Pettis. Hurricanes interrupt human driven trophic cascades and facilitate oyster reef recovery. **CERF Biannual Meeting,** Mobile, AL

2019 **Smee, D.L.,** J. Reustle, B. Belgrad, and E. Pettis. Hurricanes interrupt human driven trophic cascades and facilitate oyster reef recovery. **Benthic Ecology Meeting,** St. Johns, Newfoundland, Canada.

2018 **Smee, D.L.** Species shifts and precipitation changes influence faunal communities. **ESA Annual Meeting,** New Orleans, LA.

2017 **Smee, D.L.,** J. Lunt. And J. Reustle. Waves of change, hydrodynamic forces affect oyster reef communities.
Western Society of Naturalist Meeting, Pasadena, CA

2017 **Smee, D.L.** and A. Scherer. Phenotypic plasticity in oysters mediated by chemicals from predators and injured prey.
SICB Annual Meeting, New Orleans, LA, USA.

2016 **Smee, D.L.,** M. Diskin, J. Sanchez, and C. Trettin. Getting to the root of the problem: Black mangrove expansion into Texas salt marshes.
Mangrove and Macrobenthos Meeting (MMM4), St. Augustine, FL.

- 2016 **Smee, D.L.**, M. Diskin, J. Sanchez, and C. Trettin. Getting to the root of the problem: Black mangrove expansion into Texas salt marshes.
Society of Wetland Scientists Annual Meeting, Corpus Christi, TX, USA
- 2016 **Smee, D.L.** and A. Scherer. Phenotypic plasticity mechanisms in oysters *Crassostrea virginica*.
Benthic Ecology Meeting, Portland, ME, USA
- 2015 **Smee, D.L.** and Jessica Lunt. Turbidity flattens trophic pyramids through mesopredator release.
Benthic Ecology Meeting, Quebec, Canada.
- 2014 **Smee, D.L.** and S.I. Large. Biogeographic variation in prey responses to predation risk: interactions between crabs and *Nucella* in the Gulf of Maine.
Benthic Ecology Meeting, Jacksonville, FL, USA.
- 2014 **Smee, D.L.**, R.D. Overath, K.D. Johnson, and J.A. Sanchez. Interspecific diversity influences ecological functions.
Ocean Sciences Meeting, Honolulu, HI, USA.
- 2013 **Smee, D.L.**, R.D. Overath, K.D. Johnson, and J.A. Sanchez. Intraspecific diversity influences natural settlement of eastern oysters *Crassostrea virginica*.
Benthic Ecology Meeting, Savannah, GA, USA.
- 2012 **Smee, D.L.** R.D. Overath, K.D. Johnson, and J.A. Sanchez. Intraspecific diversity influences natural settlement of eastern oysters *Crassostrea virginica*.
Benthic Ecology Meeting, Norfolk, VA, USA.
- 2011 **Smee, D.L.** Hydrodynamic sensory stressors produce nonlinear predation patterns.
CERF Annual Meeting, Daytona Beach, FL.
- 2011 **Smee, D.L.** and A.M. Flynn. Predator avoidance behavior of the soft-shell clam *Mya arenaria* increases survival in the field.
Benthic Ecology Meeting, Mobile, AL, USA.
- 2010 **Smee, D.L.** and C.W. Wendel. Ambient Malathion concentrations increase mortality and modify behavior of blue crabs.
Benthic Ecology Meeting, Wilmington, NC, USA.
- 2009 **Smee, D.L.** and M.J. Weissburg. Heightened prey responses in risky habitats: Predation pressure increases prey sensitivity to risk.
Bays and Estuaries Meeting, Port Aransas, TX, USA.

- 2009 **Smee, D.L.**, M.C. Ferner, and M.J. Weissburg. Blue crab foraging success mediated by hydrodynamics: Nonlinear relationship of flow and natural predation patterns.
Benthic Ecology Meeting, Corpus Christi, TX, USA.
- 2008 **Smee, D.L.** and M.J. Weissburg. Heightened prey responses in risky habitats: Predation pressure increases prey sensitivity to risk.
Benthic Ecology Meeting, Providence, RI, USA.
- 2007 **Smee, D.L.** Alteration in sensory abilities regulates the spatial scale of nonlethal predator effects.
Benthic Ecology Meeting, Atlanta, GA, USA.
- 2006 **Smee, D.L.** Alteration in sensory abilities regulates the spatial scale of nonlethal predator effects.
Gulf Estuarine Research Society Meeting, Corpus Christi, TX, USA.
- 2006 **Smee, D.L.** The ecology of yikes! Environmental forces affect prey reactions to consumers.
Georgia Tech Ph.D. defense seminar.
- 2005 **Smee, D.L.** and M.J. Weissburg. Does consumer pressure influence the predator detection and avoidance ability of hard clams?
Benthic Ecology Meeting, Williamsburg, VA, USA.
- 2004 **Smee, D.L.** and M.J. Weissburg. Turbulence impacts interactions between marine consumers and prey.
Ecological Society of America Meeting, Portland, OR, USA.
- 2004 **Smee, D.L.** and M.J. Weissburg. Chemical Crypsis: Can hard clams hide from blue crabs and knobbed whelks?
Benthic Ecology Meeting, Mobile, AL, USA.
- 2003 **Smee, D.L.** and M.J. Weissburg. Clamming up: Environmental forces diminish the perceptive ability of bivalve prey.
Ecological Society of America Meeting, Savannah, GA, USA.
- 2003 **Smee, D.L.** and M.J. Weissburg. Clamming up: Responses of hard clams to blue crab and knobbed whelk predators. **Marine Benthic Ecology Meeting. Groton, CT, USA.**
- 2002 **Smee, D.L.**, M.J. Weissburg, and D.R. Webster. Locomotion and chemosensory tradeoffs during olfactory navigation. **Marine Benthic Ecology Meeting, Orlando, FL, USA.**

Media Coverage

- 2022 WHIL NPR Feature – Scientists work to revitalize Alabama’s Gulf Coast oyster beds [Link](#)
- 2022 al.com, The Lede, Can crab urine improve the life path of oysters in Mobile Bay?
- 2020 The Conversation [Hurricanes Fishing Food Webs](#)
- 2020 Alabama Current Connection [Current Connection Spring 2020](#)
- 2019 Alabama News Center, [Article Link](#)
- 2016 Reddit.com Science AMA series, September 8, 2016
- 2014 KIII News Little Coastal Protectors, July 2014 view @ <https://youtu.be/M3VaQnlucQs>
- 2014 KIII News http://kiii.videodownload.worldnow.com/KIII_20140423092136527AA.mp4
- 2013 Dugdug.com Interview <http://www.dugdug.com/delbert-smee-discusses-eastern-oysters>
- 2013 KEDT NPR Interview with Stuart Jacoby May 14, 2013
- 2013 KTRH News Radio AM 740. Interview with News Anchor Scott Crowder. May 3, 2013
- 2013 Gainesville, GA Times “Hall native studying oyster population” Page 1, May 13, 2013
- 2013 Corpus Christi Caller Times College Notes, Page 3B May 6, 2013
- 2013 TAMU-CC Making Waves “Dr. Lee Smee discovers mechanism that can reduce worldwide oyster decline” April 30, 2013
- 2008 National Geographic Wild, “Guardians of Nature.” A documentary about scientific research that protects coastal habitats. Produced by Miriam Elhadad for National Geographic Channel – France. May 2008

Graduate Student Mentoring

*indicates student received degree, current position listed if known

Post-Doctoral Researchers

Benjamin Belgrad Feb 2018 – present

Doctoral

Christa Russell	May 2021 – present	
Randi Cannon	May 2019 – present	
Kelly Correia*	Aug. 2016 – 2021	TX Commission on Environmental Quality
Joey Reustle*	Aug. 2014 – May 2020	Assistant Professor Hampton University
Avery Scherer*	Aug. 2012 – May 2017	Ecologist Cramer Fish Sciences
Kaitlyn Schroeder-Spain*	July 2010 – May 2017	DOE; Adjunct Miami University
Jessica Lunt*	Aug. 2009 – Aug. 2014	Research Scientist I Dauphin Island Sea Lab
Keith Johnson*	Aug. 2006 – Aug. 2012	Associate Professor, Stevenson University
Scott Large*	Aug. 2008 – Aug.2011	NOAA

Master of Science

Michael Hydrick	Aug. 2022 – present	
Mimi Eason	Jan. 2022 – Aug 2022	Tillmans Corner Vet Hospital
Carter Lin	Jan. 2021 – present	
William Knudson	Aug. 2019 – May 2021	Sonoma Water District
Cole Castleberry*	May 2016 – Aug. 2018	TX Commission on Environmental Quality
Jacob Loveless*	Aug. 2015 – May 2017	Doctoral Student, Portland State
Meredith Diskin*	Aug. 2013 – Aug. 2016	Mobile Baykeeper
Kelly Correia*	Jan. 2013 – May 2016	TX Commission on Environmental Quality
Kevin Wolfe*	Aug. 2012 – Dec. 2014	Moreland Altobelli Associates
James Sanchez*	Jan. 2012 – May 2015	Teacher Corpus Christi ISD
Brandon Ray*	Aug. 2010 – Dec. 2012	Self-employed
Kevin Byron*	Aug. 2008 – Aug. 2010	unknown
Elizabeth Robinson*	May 2008 – Aug.2010	Post doc, LSU
Amanda Flynn*	Dec. 2007 – Aug.2008	Metropolitan Community College
Christina Wendel*	Aug. 2006– Dec. 2008	EPA, Washington, D.C.
Scott Large*	Aug.2006 – Aug.2008	NOAA
Melissa Gutierrez*	Aug.2006 – Aug. 2008	Teacher Austin ISD

Graduate Student Awards

Mimi Eason	Best Student Poster, Benthic Ecology Meeting	2022
Christa Rusell	University of South Alabama Graduate Fellowship	2021-2023
Joey Reustle	NSF Graduate Fellowship	2016
Jake Loveless	Texas Sea Grant Grants in Aid for student research 3 rd Place	2017 2016
Kaitlyn Schroeder-Spain	Best Student Poster, Texas Bays and Estuaries Meeting John A. Knauss Marine Policy Fellow NSF, Division of Ocean Sciences	2015
Avery Scherer	Fulbright Postdoctoral Fellowship Texas Sea Grant Grants in Aid for student research	2017 2014, 2015, 2016
	3 Minute Thesis Competition local winner national competition	2016
	SICB Student Travel Award	2017
	TAMU-CC Outstanding Doctoral Student	2017
Jessica Lunt	TAMU-CC Outstanding Doctoral Student	2015
James Sanchez	Undergraduate Student Oral Presentation 5 th Place, Sigma Xi Undergraduate Research Symposium	2011

Philip Torres	Best Undergraduate Oral Presentation, Gulf Estuarine Research Society Meeting, Port Aransas, Texas	2010
	TAMU-CC Outstanding Islander	2011
Amanda Flynn	TAMU-CC Graduate Student Symposium 2 nd Place Oral Presentation	
Elizabeth Robinson	Darling Marine Center Summer Fellowship	2009
Keith Johnson	2 nd Place Best Oral Presentation, Society for the Advancement of Chicanos and Native Americans (SACNAS)	October 2008
Scott Large	Best Student Presentation, TX Academy of Sciences	March 2008
	Darling Marine Center Summer Fellowship	2007-10

Professional Service

Conferences

2019 – present	Benthic Ecology Society	Treasurer
2018 – 2019	Benthic Ecology Society	Past-President
2017 – 2018	Benthic Ecology Society	President
2006 – 2019	Benthic Ecology Meeting	Session chair
2011 – 2012	Sigma Xi	President organized undergraduate research Symposium
2010 – 2011	Sigma Xi	President Elect
2009	Benthic Ecology Meeting	assisted with meeting organization
2008	Texas Academy of Sciences	Session Chair Aquatic Sciences Section

Reviewer

NSF panelist April 2014, November 2020
National Science Foundation proposal and preproposal reviews
National Oceanic and Atmospheric Administration Including Sea Grant
National Estuarine Research Reserve (NERR)
Journal Reviewer (120+ reviews to date in 47 different journals)

Community Service

2018 – present	Boy Scout Troop 292 Scoutmaster
2019-2020	Cub Scout Pack 133 Den Leader

2011 – 2018	Corpus Christi Downtown Rotary Club Member, Paul Harris Fellow
2008 – 2017	Tuloso Midway High School Science Club Co-Sponsor
2015 – 2018	Boy Scout Troop 226 Assistant Scoutmaster
2012 – 2014	Cub Scout Pack 226 Den 1 Den Leader
2011 – 2012	Cub Scout Pack 226 Den 1 Assistant Den Leader
2009 – 2014	Coastal Bend Bays and Estuaries Program Education Implementation Team (chair 5/10 – 5/13)

University Service

2019 – present	USA Lab Safety Committee
2013 – 2018	Biology Undergraduate Program Coordinator, TAMU-CC
2011 – 2014	University Graduate Council
2010 – 2017	Coastal and Marine System Science Program Policy Committee
2010 – 2017	Marine Biology Recruitment Committee
2007 – 2018	Life Science General Biology Curriculum Committee
2009 – 2011, 2016 – 2018	College of S&T Distinguished Lecturer Committee Chair
2009 – 2011	College of Science and Technology Field Trip Committee
2006 – 2009	Life Sciences Department Graduate Committee
2008 – 2009	Life Sciences Department Graduate Committee, Chair
2007 – 2008	University Student Appeals Committee
2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015	Faculty/Staff Search Committees

Professional Society Memberships

Benthic Ecology Meeting Society; President 2018, Treasurer 2019 – present
 Ecological Society of America (ESA)
 Society of the Advancement of Chicanos and Native Americans (SACNAS)
 Society of Integrative and Comparative Biology
 American Association of Limnology and Oceanography
 Coastal Estuarine Research Federation

Teaching Experience

Class Title
Graduate

Sensory Ecology	Spring 2021	DISL/USA
Advanced Marine Ecology	Spring 2020	DISL/USA
Graduate Seminar	Spring 2019	DISL/USA
Marine Ecological Processes	Fall: 2009, 10, 11, 12, 13, 14, 15	TAMU-CC
Marine Ecology	Fall: 2009, 10, 11, 12, 13, 14, 15	TAMU-CC
Marine Chemical Ecology	Spring: 2008, 11, 13, 17	TAMU-CC
Ecology of Freshwaters	Spring 2007	TAMU-CC
Fluid Dynamics of Organisms	TA: Fall 2005	Georgia Tech

Undergraduate

General Biology II	Fall: 2006, 07, 08, 09, 10, 11	TAMU-CC
Principles of Ecology	Fall: 2006, 07, 08, 12, 13, 15, 16 Spring: 2007, 08, 09, 10, 11, 15, 16, 18	TAMU-CC
Field and Sampling Techniques	Summer 2017	TAMU-CC
Field Biology	Summer 2013, 14, 15, 16, 17	TAMU-CC
Principles of Ecology Lab	Fall 2006	TAMU-CC
Limnology	Spring 2007	TAMU-CC
Ecology	TA; Spring: 2003, 04, 05, 06	Georgia Tech
Microbiology Lab	TA; Fall 2001, 02	Georgia Tech
Principles of Microbiology	Fall: 1998, 99, 2000 Spring: 1999, 2000, 01	Barton County Comm. College
Principles of Biology	Fall: 1998, 99, 2000 Spring: 1999, 2000, 01	Barton County Comm. College
Insects of Kansas	Summer: 1999, 2000	Barton County Comm. College
Bioethical Issues	Fall 2000	Barton County Comm. College
Concepts of Ecology	Spring 2001	Barton County Comm. College

Teaching Evaluations from Students

Student evaluations of courses taught. Scale at TAMU-CC range 1-5 with 5 highest. In 2019, scale at Dauphin was 1-9 with 9 being highest, but the evaluation was changed in 2019-2020 school year. Scale beginning summer 2020 is 1-5 with 1 highest and 5 lowest. Mean scores from each semester are given.

Year	Fall Evaluation	Spring Evaluation
	Texas A&M – Corpus Christi	
2006	4.3	----
2007	4.2	4.3
2008	4.4	4.5
2009	4.6	4.4
2010	4.7	4.8
2011	4.5	4.5
2012	4.4	4.4
2013	4.5	4.9
2014	4.7	----
2015	4.7	4.7
2016	4.6	4.6
2017	----	4.5
2018	----	4.6
	Dauphin Island Sea Lab/University of South Alabama	
2019	----	8.3
	Dauphin Island Sea Lab/University of South Alabama; New Scoring System	
2020	----	1.1