

## CURRICULUM VITAE

**Erin J. Burge, Ph.D.**

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### ACADEMIC APPOINTMENTS

2016–Present Professor of Marine Science, Coastal Carolina University, Conway, SC  
2014–Present Graduate Faculty, School of Coastal and Marine Systems Science, Coastal Carolina University  
2012–2016 Associate Professor of Marine Science, Coastal Carolina University  
2006–2012 Assistant Professor of Marine Science, Coastal Carolina University  
2004–2018 Graduate Faculty, Graduate Program in Marine Biology, College of Charleston, Charleston, SC

### EDUCATION

2006 Postdoctoral Fellowship in Marine Biology, Grice Marine Laboratory, College of Charleston and the NOAA/NOS Hollings Marine Laboratory, Charleston, SC  
2003 Ph.D. Marine Science, College of William & Mary, Virginia Institute of Marine Science, Gloucester Point, VA  
1996 B.S. Biology with Honors, University of Kentucky, Lexington, KY

### COURSES TAUGHT AT COASTAL CAROLINA UNIVERSITY

BIOL = Department of Biology; CMWS = Graduate program in Coastal Marine and Wetland Studies; HONR = Honors Program; MSCI = Department of Marine Science; UNIV = University College; \* responsible for course proposal and development.

CMWS 697/698	Graduate Seminar I, II	2008, 10
MSCI 499 (Honors)	Directed Undergraduate Research in Marine Science	2006–20, 22
BIOL 499 (Honors)	Directed Undergraduate Research in Biology	2015
HONR 498	Honors Capstone Seminar	2009
MSCI 477	Ecology of Coral Reefs (Discovery Bay, Jamaica)	2007–19, 22
MSCI 466/566 (Honors)*	Diseases and Parasites of Aquatic Organisms	2008, 10–11, 13, 15, 17, 19, 21–22
MSCI 466L*	Diseases and Parasites of Aquatic Organisms Lab	2008, 10–11, 13, 15, 17, 19, 21–22
BIOL 426L	Ichthyology Lab	2011
MSCI 399Q (Honors)*	Fish Community Monitoring	2015–22
MSCI 399Q*	Beach Macroinvertebrate Monitoring	2014–16
MSCI 399*	Scientific Publishing	2010–19, 22
MSCI 399 (Honors)	Independent Study in Marine Science	2017, 20
MSCI 398	Internship in Marine Science	2016
MSCI 302 (Honors)	Marine Biology	2006, 09–12, 14–22
MSCI 302L	Marine Biology Lab	2006–12, 14–18, 21–22
MSCI 201	Scientific Communication	2012–13
MSCI 112L	Introduction to Marine Science Lab II	2011
MSCI 111 (Honors)	Introduction to Marine Science I	2006–09, 12, 14, 17–22
MSCI 111L	Introduction to Marine Science Lab I	2006–08, 13
UNIV 110S	First-year Experience (ROV Section)	2007, 09
MSCI 101	The Sea	2008

### PEER-REVIEWED PUBLICATIONS (STUDENT AUTHOR)

19. [Alley Z](#), F Rohde, **EJ Burge**, [WIR Burge](#), [WYR Burge](#), B Albanese. 2022. Distribution of the bluefin killifish *Lucania goodei* in Georgia and the Carolinas. *American Currents. Publication of the North American Native Fishes Association*. 47(3): 2–7.
18. [Baltasar RQ](#), **EJ Burge**, DP Crane. 2021. Effects of frozen storage on fish wet weight, percent dry weight, and length revisited. *North American Journal of Fisheries Management*. 41: 1744–1751. doi: 10.1002/nafm.10691
17. [Coleman NC](#), and **EJ Burge**. 2021. Association behavior between sand tiger sharks and round scad is driven by mesopredators. *PeerJ*. 9: e11164. doi:10.7717/peerj.11164
16. [Martin, KL](#), DC Abel, D Crane, N Hammerschlag, and **EJ Burge**. 2019. Blacktip shark *Carcharhinus limbatus* presence at fishing piers in South Carolina: potential association and environmental drivers. *Journal of Fish Biology*. 94(3): 469–480. doi:10.1111/jfb.13917

15. Powell, JWB, CL Browdy and **EJ Burge**. 2015. Blue crabs *Callinectes sapidus* as potential biological reservoirs for white spot syndrome virus (WSSV). *Diseases of Aquatic Organisms*. 113(2): 163–167. doi: 10.3354/dao02829
14. **Burge, EJ** and **SD King**. 2015. Parasites of the Carolina Bay lake-endemic Waccamaw killifish *Fundulus waccamensis*. *Southeastern Naturalist*. 14(1): 197–212. doi:10.1656/058.014.0115
13. **Nelson, TJ** and **EJ Burge**. 2014. Occurrence of least killifish *Heterandria formosa* at the northern limit of its range in South and North Carolina. *American Currents. Publication of the North American Native Fishes Association*. 39(2): 25–28.
12. **O'Shaughnessy, KA**, DW Freshwater and **EJ Burge**. 2014. Prevalence of the invasive rhizocephalan parasite *Loxothylacus panopaei* in *Eurypanopeus depressus* in South Carolina and genetic relationships of the parasite in North and South Carolina. *Journal of Parasitology*. 100(4): 447-454. doi:10.1645/13-435.1
11. **O'Shaughnessy, KA**, **EJ Burge** and JM Harding. 2014. Infection with the rhizocephalan parasite *Loxothylacus panopaei* reduces feeding in the mud crab *Eurypanopeus depressus*. *Bulletin of Marine Science*. 90(2): 611–621. doi:10.5343/bms.2013.1060
10. **Burge, EJ**, JD Atack, C Andrews, **BM Binder**, **ZD Hart**, **AC Wood**, **LE Bohrer** and K Jagannathan. 2012. Underwater video sampling of North Carolina groupers and associated hard-bottom reef fish communities. *Bulletin of Marine Science*. 88(1): 15–38. doi:10.5343/bms.2010.1079
9. Macey, BM, **MJ Jenny**, **HR Williams**, **LK Thibodeaux**, M Beal, JS Almeida, C Cunningham, A Mancía, GW Warr, **EJ Burge**, AF Holland, PS Gross, S Hikima, KG Burnett, LE Burnett, and RW Chapman. 2010. Modelling interactions of acid-base balance and respiratory status in the toxicity of metal mixtures in the American oyster *Crassostrea virginica*. *Comparative Biochemistry and Physiology Part A*. 155: 341-349. doi:10.1016/j.cbpa.2009.11.019
8. **Sellers, AJ**, **LO Casey**, **EJ Burge** and ET Koepfler. 2009. Population growth and distribution of *Diadema antillarum* at Discovery Bay, Jamaica. *The Open Marine Biology Journal*. 3: 105-111.
7. **Burge, EJ**, LE Burnett, and KG Burnett. 2009. Time-course analysis of *Litopenaeus vannamei* peroxinectin mRNA expression after challenge with *Vibrio campbellii*. *Fish and Shellfish Immunology*. 27: 603-609. doi: 10.1016/j.fsi.2009.05.012
6. Gauthier, DT, RJ Latour, DM Heisey, CF Bonzek, J Gartland, **EJ Burge**, WK Vogelbein. 2008. Mycobacteriosis is associated with mortality in wild striped bass (*Morone saxatilis*) from Chesapeake Bay, USA. *Ecological Applications* 18(7): 1718-1727. doi:10.1890/07-2083.1
5. **Burge, EJ**, **DJ Madigan**, LE Burnett and KG Burnett. 2007. Lysozyme gene expression as a molecular marker of hemocyte location in Pacific white shrimp, *Litopenaeus vannamei*, after injection with *Vibrio*. *Fish and Shellfish Immunology* 22: 327-339. doi:10.1016/j.fsi.2006.06.004
4. Powell, JWB, **EJ Burge**, CL Browdy, and EF Shepard. 2006. Efficiency and sensitivity determination of Shrimple™, an immunochromatographic assay for white spot syndrome virus (WSSV), using quantitative real-time PCR. *Aquaculture* 257(1-4): 167-172. doi:10.1016/j.aquaculture.2006.03.010
3. **Burge, EJ**, DT Gauthier and PA Van Veld. 2004. In vitro response of the striped bass natural resistance-associated macrophage protein, *Nramp*, to LPS and *Mycobacterium marinum* exposure. *Comparative Biochemistry and Physiology Part C* 138(3): 391-400. doi:10.1016/j.cca.2004.03.007
2. **Burge, EJ**, DT Gauthier, CA Ottinger and PA Van Veld. 2004. A *Mycobacterium*-inducible *Nramp* in striped bass *Morone saxatilis*. *Infection and Immunity* 72(3): 1626-1636. doi:10.1128/IAI.72.3.1626-1636.2004
1. Thompson, ED, P Olsson, GD Mayer, PJ Walsh, C Haux, **E Burge** and C Hogstrand. 2001. Effects of 17β-estradiol on levels and distribution of metallothionein and zinc in squirrelfish. *American Journal of Physiology Regulatory, Integrative and Comparative Physiology* 280: R527-R535. doi:10.1152/ajpregu.2001.280.2.R527

## REVIEWED TECHNICAL REPORTS

- Burge, EJ**, and SM Libes. 2019. Crabtree Canal Phase I Microbial Source Tracking Study Final Report. Presented to Horry County and the City of Conway. July 2019. 27 pp. + appendix (11 p.)
- Burge, EJ**, and SM Libes. 2017. Hog Inlet, Horry County. Microbial Source Tracking Study Final Report. Presented to Horry County and the City of North Myrtle Beach. July 2017. 27 pp. + appendix (110 p.)
- Sturgeon, A, S Libes, **E Burge** and M Trapp. 2014. Building local capacity for microbial source tracking in the Myrtle Beach urbanized area. Proceedings of the 2014 South Carolina Water Resources Conference. Columbia, SC. 15–16 October. 3 pp.
- Trapp, JM, S Libes, **E Burge**, and J Wood. 2013. Use of host specific microbial source tracking data to direct point and nonpoint source watershed remediation efforts. Proceedings of the North American Surface Water Quality Conference and Exposition. StormCon 2013. 18–22 August, Myrtle Beach, SC. 7 pp.
- Wood, J, JM Trapp, SM Libes, and **EJ Burge**. 2013. Watershed Assessment Report: Stormwater management planning: Development of a pilot investigative approach to remediate bacterial source impairments along the Grand Strand. Final Report, prepared under the authority of Section 22 of the Water Resources Development Act of 1974 for the US Army Corps of Engineers, Charleston District; Horry County, SC; Georgetown County, SC; City of Myrtle Beach, SC; and City of North Myrtle Beach, SC. 100 pp. + appendices. [www.coastal.edu/envsci/projects/pollution/documents.html](http://www.coastal.edu/envsci/projects/pollution/documents.html)

- Trapp, JM, **EJ Burge**, and SM Libes. 2012. Application of qPCR technologies in stormwater source tracking and determination of host contributions of fecal indicator bacteria. Proceedings of the 2012 South Carolina Water Resources Conference. 10–11 October, Columbia, SC. 4 pp.
- Trapp, JM, **EJ Burge**, S Libes, and A Sturgeon. 2012. Use of qPCR technologies in stormwater regulatory quantification and watershed source tracking of fecal indicator bacteria. Proceedings of the South Carolina Environmental Conference, 11–13 March, Myrtle Beach, SC. 9 pp.
- Burge, EJ**, JM Trapp and SM Libes. 2012. Stormwater management planning: Development of a pilot investigative approach to remediate bacterial source impairments along the Grand Strand. US Army Corps of Engineers. Planning Assistance to States. 2012-03-06. 43 pp.
- Burge, EJ**, J Atack and C Andrews. 2009. Investigating the use of underwater video for the determination of size, stock density, and temporal patterns of habitat usage of grouper on hard-bottom habitats. North Carolina Sea Grant. 08-FEG-12. 46 pp.

## OTHER PUBLICATIONS (UNDERGRADUATE AUTHOR)

- Burge EJ**, and ES Harris. 2021. SharkCam Fishes. A Guide to Nekton at Frying Pan Tower. 6<sup>th</sup> edition. Los Angeles: Explore.org Ocean Frontiers. 230 pp. doi: 10.5281/zenodo.5842340. Available online <http://explore.org/live-cams/player/shark-cam>
- Burge EJ**, CE O'Brien, and jon-newbie. 2020. SharkCam Fishes. A Guide to Nekton at Frying Pan Tower. 5<sup>th</sup> edition. Los Angeles: Explore.org Ocean Frontiers. 202 pp. doi:10.5281/zenodo.4501977
- Ludwick CE, SE Davis and **EJ Burge**, eds. 2019. Korallion. Coastal Carolina Studies in Coral Reef Ecology. 10: 76 pp.
- Burge EJ**, CE O'Brien, and jon-newbie. 2019. SharkCam Fishes. A Guide to Nekton at Frying Pan Tower. 4<sup>th</sup> edition. Los Angeles: Explore.org Ocean Frontiers. 194 pp.
- Keller CR, AF Echols, PD Hartenstein, and **EJ Burge**, eds. 2018. *Korallion*. Coastal Carolina Studies in Coral Reef Ecology. 9: 74 pp.
- Burge EJ**, CE O'Brien, and jon-newbie. 2018. SharkCam Fishes. A Guide to Nekton at Frying Pan Tower. 3<sup>rd</sup> edition. Los Angeles: Explore.org Ocean Frontiers. 169 pp.
- Lee, MA, DA Treptow, and **EJ Burge**, eds. 2017. *Korallion*. Coastal Carolina Studies in Coral Reef Ecology. 8: 74 pp.
- Burge, EJ**, CE O'Brien, and jon-newbie. 2016. SharkCam Fishes. 2<sup>nd</sup> edition. A Guide to Nekton at Frying Pan Tower. Los Angeles: Explore.org Ocean Frontiers. 143 pp.
- Hughes DL, RL Fink, MB Brewer, and **EJ Burge**, eds. 2016. *Korallion*. Coastal Carolina Studies in Coral Reef Ecology. 7: 61 pp.
- Baukema EF, DE King, TA Determan, and **EJ Burge**, eds. 2015. *Korallion*. Coastal Carolina Studies in Coral Reef Ecology. 6: 82 pp.
- Burge, EJ**. 2015. How many fish are in the sea? *Progression*. College of Science, Coastal Carolina University. Winter 2015: 23–26.
- Sporre MA, Raynor CB, Kammerer AJ, and **EJ Burge**, eds. 2014. *Korallion*. Coastal Carolina Studies in Coral Reef Ecology. 5: 72 pp.
- Frietas, DC, MC Oshima and **EJ Burge**, eds. 2013. *Korallion*. Coastal Carolina University Studies in Coral Reef Ecology. Department of Marine Science, Coastal Carolina University, Conway, South Carolina. 4: 68 pp.
- Scribner, LS, KM Leonard and **EJ Burge**, eds. 2012. *Korallion*. Coastal Carolina University Studies in Coral Reef Ecology. Department of Marine Science, Coastal Carolina University, Conway, South Carolina. 3: 60 pp.
- Touse, RR, HJ North, LC Clinard and **EJ Burge**, eds. 2011. *Korallion*. Coastal Carolina University Studies in Coral Reef Ecology. Department of Marine Science, Coastal Carolina University, Conway, South Carolina. 2: 74 pp.
- Zourdos, CA, AJ Sellers, CL Trimper and **EJ Burge**. 2011. Recent *Diadema antillarum* densities and macroalgal composition at Discovery Bay, Jamaica. *MarSci. Online Journal for Undergraduate Research in Marine and Aquatic Science*. 11: 1–9.
- Keller, JA, MR Mudron and **EJ Burge**, eds. 2010. *Korallion*. Coastal Carolina University Studies in Coral Reef Ecology. Discovery Bay, Jamaica. 76 pp.
- Kramer, LM, **EJ Burge**, BL Lewis, and ET Koepfler. 2010. Nutrient inputs from submerged groundwater discharge do not determine macroalgal species diversity in Discovery Bay, Jamaica. *MarSci. Online Journal for Undergraduate Research in Marine and Aquatic Science*. 10: 1-11.
- Folger, GF, JD Renchen and **EJ Burge**. 2010. Groundwater nutrient inputs to a back reef tropical lagoon. *MarSci. Online Journal for Undergraduate Research in Marine and Aquatic Science*. 9: 1-10.

## PUBLICATIONS IN PREP (STUDENT AUTHOR)

- Shiffman DS, C Foord, K Mowle, **EJ Burge**, B Flammang, J Drew, M Marquez, S Sherman. In preparation. Citizen science reveals a long-term association between a remora and a parrotfish.

## RESEARCH GRANTS AND CONTRACTS

- PI: **Burge, EJ**; co-PIs: D Viso, SM Libes. 2021. Crabtree Canal Microbial Source Tracking Study–Phase II. Horry County and the City of Conway. March 2021–July 2022. \$12,073
- Co-PIs: Guentzel, J, D Abel, G Boneillo, **E Burge**, D Fribance, A Hannides, J Harding, S Libes, E Rosch, and K Walters. Research Exposure Courses and Expanded Upper Level Experiential Learning Course Offerings in Marine Science. Fall 2019 – Spring 2020. \$36,000
- Co-PIs: Guentzel, J, D Abel, G Boneillo, **E Burge**, D Fribance, A Hannides, J Harding, S Libes, E Rosch, and K Walters. Research Exposure Courses and Expanded Upper Level Experiential Learning Course Offerings in Marine Science. Fall 2018 – Spring 2019. \$38,208
- PI: **Burge, EJ**, co-PI SM Libes. Crabtree Canal –Microbial Source Tracking Study. Horry County and City of Conway. SOW-EQL-HC-CT-1017. 1 November 2017–31 March 2019. \$20,437
- Co-PIs: Guentzel, J, D Abel, G Boneillo, **E Burge**, D Fribance, A Hannides, J Harding, E Koepfler, S Libes, E Rosch, and K Walters. Research Exposure Courses and Expanded Upper Level Experiential Learning Course Offerings in Marine Science. Fall 2017–Spring 2018. \$30,651
- Co-PIs: Abel D, G Boneillo, **E Burge**, D Fribance, E Koepfler, J Hill, E Rosch, J Guentzel, S Libes, A Lephardt, R Viso. Early Research Exposure Courses for Majors and Expanded Upper Level EL Course Offerings in Marine Science. Fall 2016–Spring 2017. \$20,565
- PI: **Burge, EJ**, co-PI SM Libes. Hog Inlet - Microbial Source Tracking Study. Horry County and North Myrtle Beach. SOW-EQL-HC-HI-0716. 1 August 2016–31 March 2017. \$34,969
- Co-PIs: Guentzel, J, **E Burge**, D Fribance, E Koepfler, R Young, J Hill, D Abel, E Rosch, G Boneillo, K Fuss, S Libes, and A Lephart. Early Research Exposure Courses for Majors and Expanded Upper Level EL Course Offerings in Marine Science. Fall 2015–Spring 2016. \$26,501
- PI: **Burge, EJ**. Fish hosts of endemic mussels from Lake Waccamaw, Columbus County, NC. Coastal Carolina University Professional Enhancement Grant. December 2014–August 2015. \$3,546.
- PI: Trevey, K, co-PI EJ Burge. Co-occurrence and competition between the saltmarsh resident killifishes, *Fundulus luciae* (Baird, 1855) and *F. heteroclitus* (Linnaeus, 1766) in South Carolina. Savannah Presbytery, M.K. Penecost Ecology Trust Fund. June 2014–May 2015. \$500
- PI: Trevey, K, co-PI EJ Burge. Co-occurrence and competition between the saltmarsh resident killifishes, *Fundulus luciae* and *F. heteroclitus* in South Carolina. Slocum Lunz Foundation. May 2015–April 2016. \$400
- PI: Trevey, K, co-PI **EJ Burge**. Co-occurrence and competition between the sympatric killifishes, *Fundulus luciae* (Baird, 1855) and *F. heteroclitus* (Linnaeus, 1766) in South Carolina saltmarshes. Graduate Student Incentive Grants University Research Council (URC), Coastal Carolina University. April 2014–March 2016. \$2,075.
- PI: **Burge, EJ**. Co-occurrence and competition between the saltmarsh resident killifishes, *Fundulus heteroclitus* (Linnaeus, 1766) and *F. luciae* (Baird, 1855). American Killifish Association, George Maier Fund. March 2014–December 2015, extended to April 2016. \$2,500.
- PI: **Burge, EJ**. Coastal Carolina University Quality Enhancement Plan (QEP). Beach macroinvertebrate monitoring for parasites. May 2013–December 2013. \$2,900.
- PI: Trapp, JM, co-PI SM Libes, co-PI **EJ Burge**. Murrells Inlet–Microbial Source Tracking Study. September 2012–September 2013. \$38,975.
- PI: Young, R and **E Burge**. Surveys of pier fishing in Horry County. Contract from South Carolina Department of Natural Resources (SC DNR) (Julia Byrd, Program Officer). February–December 2012. \$28,104.
- PI: Libes, SM, co-PI: **EJ Burge**, co-PI JM Trapp. Sponsors: City of MB, City of North Myrtle Beach, Georgetown County, Horry County. Stormwater Management Planning: Development of a Pilot Investigative Approach to Remediate Bacterial Source Impairments along the Grand Strand. Planning Assistance to States, USACOE, January 2012–December 2012. \$210,000.
- PI: **Burge, EJ**, co-PI and Cost Center Director SM Libes co-PI JM Trapp. Development of genotypic tracers of pollutogen sources for northeastern South Carolina. Governments of Horry County, Georgetown County, and City of North Myrtle Beach, South Carolina. \$80,000. January 2011–December 2011.
- PI: Kerstetter, D [Nova Southeastern University], co-PI **EJ Burge**. Monitoring of the coastal pelagic fish complex for endocrine disruption associated with the Gulf of Mexico Deep Water Horizon oil leak. Guy Harvey Ocean Foundation. \$29,950. November 2010–April 2012. Extended to December 2012.
- PI: **Burge, EJ**. Immunocompetence in cobia *Rachycentron canadum* raised on alternative low-fishmeal diets. Coastal Carolina University Academic Enhancement Grant. \$5,890.
- PI: Atack, J [In Sea State, Inc.], co-PI: C Andrews [Over & Under Adventures LLC], co-PI: **EJ Burge**. Determination of size, stock density and temporal patterns of grouper on offshore, hard-bottom habitats. North Carolina Sea Grant Fishery Resource Grant Program. May 2008–November 2009. \$46,453.

PI: Burnett, KG [College of Charleston], co-PI: LE Burnett [C of C], Associate Investigator: **EJ Burge**. RUI: Impaired metabolism and performance in crustaceans exposed to bacteria. National Science Foundation. IOB-Functional and Regulatory Systems. August 2007–July 2009. \$576,402.

## TRAVEL AWARDS

- Burge, EJ.** Professional Activities Travel Grant. 49<sup>th</sup> Benthic Ecology Meeting Society Conference. Wilmington, NC, April 2021. \$1019. CANCELLED DUE TO COVID-19
- Burge, EJ.** Dean's Travel Award. Travel for attendance at the 46<sup>th</sup> Benthic Ecology Meeting Society conference. Myrtle Beach, SC. April 2017. \$300
- Burge, EJ.** Dean's Travel Award. Award for attendance at the 23<sup>rd</sup> Biennial Conference of the Coastal and Estuarine Research Federation (CERF), Portland, OR. November 2015. \$2,017
- Burge, EJ.** Dean's Travel Award. Award for attendance at the 40<sup>th</sup> Annual Eastern Fish Health Workshop (EFHW), Charleston, SC. March 2015. \$1,110
- Burge, EJ.** Dean's Travel Award. Award for attendance to the 22<sup>nd</sup> Biennial Conference of the Coastal and Estuarine Research Federation (CERF), San Diego, CA. November 2013. \$2,197.
- Burge, EJ.** Dean's Travel Award. Award for attendance to the 42<sup>nd</sup> Benthic Ecology Meeting (BEM), Georgia Southern University, Savannah, GA. March 2013. \$1,563.
- Burge, EJ.** Dean's Travel Award. Funded attendance for PI at the 21<sup>st</sup> Biennial Conference of the Coastal and Estuarine Research Federation (CERF). Daytona Beach, FL. \$2500. November 2011.
- Burge, EJ.** Dean's Travel Award. Funded attendance for PI and 5 students at the 39<sup>th</sup> Benthic Ecology Meeting. University of North Carolina Wilmington. Wilmington, NC. 2010. \$500 + additional costs.

## SELECTED PROFESSIONAL ACTIVITIES

- OCEARCH 2021** expedition planning (Fall 2020) and cruise participant for the Carolinas Expedition (March/April 2021). Project lead: Winter residency, movement patterns, and health/reproductive assessment of sand tiger sharks (*Carcharias taurus*) off the US Atlantic coast. <https://www.ocearch.org/expeditions/2021-carolinas/>
- United States Academic Decathlon 2021–22** competition test writer/reviewer (Spring 2021–present)
- FISHstory Citizen Science Design Team** (Summer 2019–present) and **FISHstory Validation Team** (Fall 2019–present) for the South Atlantic Fishery Management Council (NOAA/NMFS)
- Maintenance of underwater streaming webcams** at Frying Pan Tower with View Into the Blue, Teens4Oceans and Explore.org, a project of the Annenberg Foundation. Live and archive footage and examples of the reach of this project can be seen at <http://explore.org/live-cams/player/shark-cam>. Since going live SharkCam has garnered well over 1.5M online views and over 100,000 submitted comments from members of the public. See Youtube channel Cape Fear SharkCam Fishes ([https://www.youtube.com/channel/UCyBD\\_uzKDwA5xEYAiWxWp0g](https://www.youtube.com/channel/UCyBD_uzKDwA5xEYAiWxWp0g))
- Maintenance of acoustic detection stations** for the Smithsonian Environmental Research Center at Frying Pan Tower (Cape Fear, NC)(Fall 2018–present), CCU's Smart Reef Initiative at McManus Reef (Little River, SC) (Fall 2020–present). SC DNR receiver array in the Grand Strand region (14 units; Summer 2022). I am responsible for deployment/retrieval and data management.
- Explore.org Disqus moderator** (2017–present) I am the “resident expert” for SharkCam on Explore.org (<http://explore.org/live-cams/player/shark-cam>) and moderate content and check in frequently to answer questions and follow-up on interesting or important observations by citizen scientists.
- Organizing committee member** for the 46<sup>th</sup> Benthic Ecology Meeting hosted in Myrtle Beach, South Carolina, April 12–16, 2017.
- Organizer and moderator** of the Beneath the Waves Film Festival during the 46<sup>th</sup> Benthic Ecology Meeting. Attended by >150 international attendees (Spring 2017)
- Teen4Oceans, Board of Directors** (Spring 2016–2020). Teens4Oceans' mission is to empower our next generation to become impassioned stewards for their oceans through education, experiential learning, scientific research, and innovative technologies.
- Session chair, organizer and moderator** of a special session (SCI-024: Integrating undergraduate research experiences in coastal and estuarine research) with T. Dellapenna (TAMUG), and J. Carlin (CalState-Fullerton) at the 2015, 23<sup>rd</sup> Biennial Conference of the Coastal and Estuarine Research Federation (CERF), Portland, OR, November 2–6.
- Science adviser** for View Into the Blue and the Teens4Oceans project (Fall 2014–present): Frying Pan Tower, North Carolina, and Akumal, Mexico (2014)
- Interim Director** of Undergraduate Research for Coastal Carolina University (Fall 2013)
- Organizer and moderator** of the Coastal Carolina University Beneath the Waves Film Festival. Attended by >180 students, faculty, staff and members of the general public (Fall 2013)
- Board of Trustees** of the Slocum-Lunz Foundation (2012–2018)

**Co-chair and organizer** of a special session (SCI-024: Strategies for Mentoring in Coastal and Estuarine Science) with T Dellapenna (TAMUG), J Nestlerode (EPA), and M Baustain (LSU) at the 2013, 22<sup>nd</sup> Biennial Conference of the Coastal and Estuarine Research Federation

**FishBase.org** contributor (collaborator ID #2199; 2011–present)

**REEF.org** field station coordinator and data contributor (intermediate-level certification; 2010–present)

**Nominated** (anonymously) for Coastal Carolina University Academic Adviser of the Year (2010)

**Chair** of tenure-track faculty hiring committees for a food web ecologist (2021), two Visiting Faculty positions (2019), a marine molecular biologist (2017–18), and a marine benthic ecologist (2009–10). Served as a member of hiring committees for Visiting Faculty (2020), Director of the Environmental Quality Laboratory (2014), a marine geologist (2013–14), Director of the University Honors Program (2013), two lecturers in marine science (2012), Honors program lecturer (2010), plant molecular biologist (2008), cell biologist (2008), and an ecosystem modeler (2007).

**Scientific Diving** Control Board member and AAUS Scientific Diver certification (2010–present)

**Faculty Editor** of *Korallion. Coastal Carolina University Studies in Coral Reef Ecology*, 10 volumes. (2010–present)

#### **Technical grant review**

National Science Foundation, Biology Directorate: Integrative Organismal Systems. Alexandria, VA, October 2015.

Fulbright Scholar Discipline Peer Review Committee. Council for International Exchange of Scholars. US Department of State. Life Sciences: Animal committee member. Appointed 2014–2016.

Maryland Sea Grant Omnibus 2016–2018 RFP. August 2015.

Slocum Lunz Foundation. Graduate and undergraduate research support proposals. Appointed 2012–2018.

National Science Foundation SEES Ocean Acidification Panel 2014

Maryland Sea Grant Omnibus 2009–2011 RFP

NOAA/Sea Grant Oyster Disease Research Program 2007

#### **Technical textbook review**

Scientific Writing and Communication, 3e. A Hofmann. Oxford University Press (3 chapters)

Sverdrup/Kudela, Oceanography Digital Review, 1e. K Sverdrup and R Kudela. McGraw Hill (digital resources)

Scientific Writing and Communication, 2e. A Hofmann. Oxford University Press (7 chapters)

Connect and LearnSmart digital platform. McGraw Hill (digital resources)

Marine Biology: Function, Biodiversity, Ecology 4e. J Levinton. Oxford University Press (3 chapters)

Marine Biology 9e. P Castro and M Huber. McGraw Hill (1 chapter)

Marine Biology: Function, Biodiversity, Ecology 3e. J Levinton. Oxford University Press (7 chapters)

Oceanography and Marine Biology: An Introduction to Marine Science. D Townsend. Sinauer Associates (2 chapters)

Introduction to Marine Biogeochemistry 2e. S Libes. Elsevier Science & Technology Books (1 chapter)

**Lecture preparation** of ancillary materials for McGraw Hill Higher Education, all 18 chapters of the 10<sup>th</sup> edition of An Introduction to the World's Oceans. K Sverdrup and V Armbrust

#### **Peer reviewer (since 2006)**

*Antiviral Research, Aquaculture, Aquaculture International, Biological Bulletin, Bulletin of Marine Science, Comparative Biochemistry and Physiology A, Comparative Biochemistry and Physiology B, Comparative Biochemistry and Physiology D, Crustaceana, Fish and Shellfish Immunology, Fishery Bulletin, Hydrobiologia, Journal of Crustacean Biology, Journal of Experimental Marine Biology and Ecology, Marine and Coastal Fisheries, Marine Ecology Progress Series, Molecular Biology Reports, Oecologia, Zoological Journal of the Linnean Society*

## **GRADUATE STUDENT SUPERVISION: MAJOR [A]DVISER, COMMITTEE [M]EMBER**

All students enrolled in the Master of Science in Coastal Marine and Wetland Studies at Coastal Carolina University, unless otherwise noted. Years indicate year of graduation.

[A] Ara McClanahan. Residency and behavior of sand tiger sharks using underwater video, Spot A Shark pattern-matching, and acoustic detections

[M] Caroline Slaughter. Evaluation of Eastern Oyster (*Crassostrea virginica*) sex ratios in relation to seasonal *Perkinsus marinus* body burden and demographics in North Inlet estuary, South Carolina

[M] Meredith Pfennig. New observations about use of oxytetracycline in age estimation of fishes

[M] Jessica Hedgepeth. Ascidiaceans as potential bioindicators for microplastics.

2022 [M] Ivy Spratling. Internship with the Environmental Quality Lab: Crabtree Canal Phase 2

2022 [M] Molly Takacs. Abundance and growth of juvenile Atlantic and shortnose sturgeons in the Waccamaw/Pee Dee River system

2022 [M] Cory Bauerlein. Effects of catch-and-release angling mortality: implications for a southern muskellunge *Esox masquinongy* population

2022 [M] Nico D'Amico. *Perkinsus marinus* in North Inlet oysters

2020 [M] Kathryn Greiner-Ferris. Testing the potential of environmental DNA (eDNA): Genetic monitoring of estuarine and coastal bottlenose dolphin (*Tursiops truncatus*) stocks in South Carolina

- 2018 [M] Clare Nolan. Internship with the Environmental Quality Lab: Crabtree Microbial Source Tracking Project  
 [A] Kristen Trevey. Co-occurrence and competition between the sympatric salt marsh fishes, *Fundulus luciae* and *F. heteroclitus*. **\*\*2017 CMWS Student of the Year\*\***
- 2017 [M] Kelsey (Spencer) Martin. Habitat use of Blacktip Sharks (*Carcharhinus limbatus*) at fishing piers
- 2016 [M] Jessica Stott. Marine Conservation intern with the Reef Environmental Education Foundation
- 2015 [M] Amy Grogan. The fish kill mechanism of the harmful raphidophyte *Chattonella subsalsa*
- 2015 [M] Rebecca Derex, College of Charleston, MS in Marine Biology. The role of hydrogen sulfide as a signaling molecule in invertebrate hypoxia responses
- 2015 [M] Rachel Hickey, Nova Southeastern University, MS in Marine Biology. Evaluation of endocrine disrupting chemicals in the Florida coastal pelagic fish complex following the Deepwater Horizon Oil Spill event
- 2014 [M] Alexander Bogdanoff. Invasive lionfish control and management with the National Oceanic and Atmospheric Administration
- 2014 [M] Jennifer Fitzgerald. Effects of dissolved nutrient ratios and concentrations on fungal community structure and sporulation on submerged leaf litter and wood
- 2014 [M] M. Kyle Curtis. Prevalence, quantification, and survival of *Escherichia coli* in stormwater basin sediments of Withers Swash Myrtle Beach, SC
- 2013 [A] Kathryn O'Shaughnessy. Invasive species biology and foraging effects on mud crabs by infection with *Loxothylacus panopaei*.
- 2013 [M] Christian Johnson. Evaluation of the efficacy of camera surveillance to detect catch per unit effort at a recreational fishing pier
- 2011 [M] Laura Canton. Factors affecting the selection and consumption of oyster reef prey (*Crassostrea virginica*, *Geukensia demissa*) by mud crabs (*Panopeus herbstii*)
- 2009 [M] Charles Kolo Rathburn, College of Charleston, MS in Marine Biology. Molecular physiology and stress responses of the Pacific whiteleg shrimp, *Litopenaeus vannamei*: Impacts of hypoxia and hypercapnic hypoxia
- 2009 [M] Julia Stevens. Pathogenic fungi and yeasts in sands of residential and commercial recreational use beaches of South Carolina
- 2008 [M] Rachel Hillard. Prevalence, patterns, and effects of shell damage on *Geukensia demissa* in South Carolina estuarine habitats
- 2007 [M] James Powell, College of Charleston, MS in Environmental Studies. White spot syndrome detection in Atlantic white shrimp (*Litopenaeus setiferus*) and blue crabs (*Callinectes sapidus*) of the US south Atlantic coast

## SELECTED SCIENTIFIC PRESENTATIONS (\*INVITED TALK, STUDENT PRESENTER)

- Greiner-Ferris, K, **E Burge**, P Rosel, R Young. 2022. Detection and investigation of estuarine and coastal bottlenose dolphins (*Tursiops truncatus*) using environmental DNA. 24<sup>th</sup> Biennial Conference on the Biology of Marine Mammals. West Palm Beach, FL. 15 August
- \*Burge, EJ**. 2022. SharkCam: Deciphering a complex fish assemblage and illuminating multi-species behavior using an underwater camera installation off Cape Fear, North Carolina. University of Central Florida, Department of Biology. 28 February.
- \*Burge, EJ**. 2021. Deciphering a complex fish assemblage and illuminating multi-species behavior using an underwater camera installation off Cape Fear, North Carolina. University of Maryland, Institute of Marine and Environmental Technology Seminar Series. 3 March.
- Sanders, JA, **EJ Burge**, AM Hitt, J Church. 2020. Fish population data analysis: The development of high school marine science curriculum modules. Myrtle Beach High School, Myrtle Beach, SC. 87 students. May 2020.
- Ludwick, CE, **EJ Burge**. 2020. Transplantation of *Diadema antillarum* reduces macroalgae cover on Dancing Lady Reef, Discovery Bay, Jamaica. 49<sup>th</sup> Benthic Ecology Meeting. Wilmington, NC, 7–10 April. CANCELLED DUE TO COVID-19
- Burge, EJ**, SE Davis. 2020. A fixed video camera installation to monitor the fish assemblage on hard bottom habitat off Cape Fear, North Carolina. 49<sup>th</sup> Benthic Ecology Meeting. Wilmington, NC, 7–10 April. CANCELLED DUE TO COVID-19
- Baltasar, R, D Crane, **E Burge**. 2020. Effects of frozen storage on fish wet and dry weight revisited. 2020 Annual Meeting of the South Carolina Chapter of the American Fisheries Society. Santee, SC. 4–6 March.
- \*Burge, EJ**. 2020. SharkCam: Exploring the diversity of fishes on Carolina hard-bottom habitats with underwater video. North Carolina State University, Center for Marine Sciences and Technology (CMAST). Morehead City, NC. 17 January.
- Coleman, NC and **EJ Burge**. 2019. Association behavior between round scad and sand tiger sharks on SharkCam may be mutually beneficial. 25<sup>th</sup> Biennial Conference of the Coastal and Estuarine Research Federation (CERF). Mobile, AL. 3–7 November. **\*\*2019 CERF Rising TIDES Award\*\***
- \*Burge, EJ**. 2019. SharkCam: Exploring the diversity of fishes on Carolina hard-bottom habitats with underwater video. Coastal and Marine Systems Science 2019 Fall Seminar Series. Coastal Carolina University. Conway, SC. 26 September.

- Coleman, NC and EJ Burge. 2019. Association behavior seen on SharkCam between sand tiger sharks *Carcharias taurus* and round scad *Decapterus punctatus* may be mutually beneficial. Coastal Carolina University Undergraduate Research Competition. Conway, SC. 16-17 April. **\*\*2<sup>nd</sup> place Oral Presentation from Natural and Applied Sciences\*\***
- Coleman, NC and EJ Burge. 2019. Association behavior seen on SharkCam between sand tiger sharks *Carcharias taurus* and round scad *Decapterus punctatus* may be mutually beneficial. Southeastern Estuarine Research Society (SEERS) Spring 2019 Meeting. University of North Carolina Wilmington, Center for Marine Science, Wilmington, NC. 7-9 March. **\*\*Winner Best Undergraduate Poster Award\*\***
- Burge, EJ, FM Saupe, JA Pollack and NC Coleman. 2019. A diverse and abundant fish assemblage revealed using SharkCam underwater video off Cape Fear, North Carolina. Southeastern Estuarine Research Society (SEERS) Spring 2019 Meeting. University of North Carolina Wilmington, Center for Marine Science, Wilmington, NC. 7-9 March.
- McKee, TA, NC Coleman, and EJ Burge. 2018. SharkCam video observations of a marine fish assemblage associated with hard-bottom habitat of North Carolina. 79<sup>th</sup> Annual Meeting of Association of Southeastern Biologists. Myrtle Beach, SC. 28–31 March.
- \*Burge, EJ, SM Libes, and CJ Nolan. 2018. Crabtree Microbial Source Tracking Study, mid-project data review and progress report. Crabtree Swamp Restoration Initiative. Conway, SC. 9 April.
- Dusci, J, and EJ Burge. 2018. Comparing high and low-density stocking rates of goldfish in an aquaponics system. Coastal Carolina University Undergraduate Research Competition. Conway, SC. 11–12 April. **\*\*2<sup>nd</sup> place Poster Presentation from Physical and Biological Sciences\*\***
- McKee, TA, NC Coleman, and EJ Burge. 2018. SharkCam video observation of marine fishes associated with hard bottom habitat. Coastal Carolina University Undergraduate Research Competition. Conway, SC. 11–12 April. **\*\*3<sup>rd</sup> place Poster Presentation from Physical and Biological Sciences\*\***
- \*Burge, EJ. 2018. SharkCam: Exploring the diversity of fishes on Carolina hard-bottom habitats with underwater video. University of South Carolina Beaufort. Department of Natural Sciences, Seminar Series. Bluffton, SC. 16 November.
- Burge, EJ. 2017. SharkCam: Using a publically accessible underwater streaming webcam in research and teaching. 8<sup>th</sup> Coastal Carolina Scientific Diving Association meeting. NOAA Beaufort, Pivers Island, NC. 24 March.
- Burge, EJ. 2017. Spatial and temporal ecology of parasites of the beach-dwelling bivalve *Donax variabilis* in South Carolina. 46<sup>th</sup> Benthic Ecology Meeting Society (BEMS) and Southeastern Estuarine Research Society (SEERS), Myrtle Beach, SC. 12-16 April.
- Harrison, B, EJ Burge, and M Sporre. 2017. Testing a molecular identification assay for glochidia parasitic on fish from Lake Waccamaw, North Carolina. 46<sup>th</sup> Benthic Ecology Meeting Society (BEMS) and Southeastern Estuarine Research Society (SEERS), Myrtle Beach, SC, 12-16 April.
- Otstott, E, and EJ Burge. 2017. Underwater video observations of a marine fish assemblage associated with hardbottom habitat of North Carolina. 46<sup>th</sup> Benthic Ecology Meeting Society (BEMS) and the Southeastern Estuarine Research Society (SEERS), Myrtle Beach, SC, 12-16 April.
- Trevey, KM, and EJ Burge. 2017. The spotfin killifish *Fundulus luciae* in salt marshes of coastal SC: Population characteristics and parasite fauna. 46<sup>th</sup> Benthic Ecology Meeting Society (BEMS) and Southeastern Estuarine Research Society (SEERS), Myrtle Beach, SC. 12-16 April.
- Spencer, KL, DC Abel, D Crane, N Hammerschlag, EJ Burge, C Collatos, and M Larsen. 2017. Coastal shark movements near fishing piers along the NE coast of South Carolina: Early results. 2017 Joint Meeting of Ichthyologists and Herpetologists, Austin, TX, 12-16 July.
- \*Burge, EJ, SM Libes, and A Sturgeon. 2017. Water quality monitoring in Horry County, South Carolina: Hog Inlet/Cherry Grove Microbial Source Tracking Study. Horry County Stormwater Advisory Board. 18 July.
- Burge, EJ and KM Trevey. 2015. Ecology of a “forgotten” trematode parasite, *Cercaria choanura*, in the coquina clam *Donax variabilis*. 40<sup>th</sup> Annual Eastern Fish Health Workshop. Charleston, SC. March 2–6.
- \*O’Shaughnessy, KA, EJ Burge, JM Harding, and DW Freshwater. 2015. Ecological effects of the invading rhizocephalan parasite *Loxothylacus panopaei* in the flatback mud crab *Eurypanopeus depressus*. Special session: Recent research on health and disease of marine crustaceans. 40<sup>th</sup> Annual Eastern Fish Health Workshop. Charleston, SC. March 2–6.
- Trevey, KM and EJ Burge. 2015. The spotfin killifish *Fundulus luciae* Baird 1855: Interspecific competition and parasite burden. 40<sup>th</sup> Annual Eastern Fish Health Workshop. Charleston, SC. March 2–6.
- Grogan, AE, RF Young, DI Greenfield, ET Koepfler, and EJ Burge. 2015. The functional mechanism for fish kills by the harmful algae species *Chattonella subsalsa*. 145<sup>th</sup> Annual Meeting of the American Fisheries Society. Portland, OR. August 16–20.
- \*Burge, EJ, JL Guentzel, DC Abel, GE Boneillo, DB Fribance, KK Fuss, JC Hill, ET Koepfler, SM Libes, ED Rosch, RF Viso, and RF Young. 2015. The Experienced@Coastal program provides structured research opportunities for undergraduates in marine science. 23<sup>rd</sup> Biennial Conference of the Coastal and Estuarine Research Federation (CERF). Portland, OR. November 8–12.



- Burge, EJ** and **KM Trevey**. 2015. Ecology of a “forgotten” trematode parasite, *Cercaria choanura*, in the coquina clam *Donax variabilis*. 23<sup>rd</sup> Biennial Conference of the Coastal and Estuarine Research Federation (CERF). Portland, OR. November 8–12.
- Sturgeon, A, S Libes, **E Burge** and M Trapp. 2014. Building local capacity for microbial source tracking in the Myrtle Beach urbanized area. South Carolina Water Resources Conference. Columbia, SC. October 15–16.
- \***Burge, EJ**. 2014. Forays into Parasitology. Faculty Excellence Summit. Coastal Carolina University. October 14.
- \***Burge, EJ**. 2014. Using underwater videography for fisheries assessment: A case study of the North Carolina reef fish assemblage of Cape Fear. University of South Carolina Beaufort. Bluffton, SC. September 19.
- Burge, EJ**. 2014. Monitoring North Carolina hard-bottom reef fish assemblages with underwater video techniques. 5<sup>th</sup> Annual Science Diving Symposium, Coastal Carolina Scientific Diving Association. Pine Knoll Shores, NC. February 21.
- Luff, SC and **Burge, EJ**. 2014. Coastal Carolina University scientific SCUBA diving program (SciDive). 5<sup>th</sup> Annual Science Diving Symposium, Coastal Carolina Scientific Diving Association. Pine Knoll Shores, NC. February 21.
- \***Burge, EJ**. 2014. Underwater video sampling of North Carolina groupers and associated hard-bottom reef fish communities. Fort Johnson Marine Science Seminar Series. Charleston, SC. January 10.
- \***Burge, EJ**. 2013. Open inquiry in a non-traditional undergraduate course extends the classroom into the field and lab. 22<sup>nd</sup> Biennial Conference of the Coastal and Estuarine Research Federation (CERF). San Diego, CA. November 3–7.
- Burge, EJ**, JM Trapp, SM Libes, and J Wood. 2013. Development of a collaborative tool for identification of fecal bacteria sources in coastal waters. 22<sup>nd</sup> Biennial Conference of the Coastal and Estuarine Research Federation (CERF). San Diego, CA. November 3–7.
- Luff, SC, PT Gayes, **EJ Burge**, S Gilman, J Marshall. 2013. Coastal Carolina University Scientific SCUBA Diving Program (SciDive). AAUS/ESDP International Diving for Science Symposium. Nieuwpoort, Curaçao. October 23–27.
- Trapp, JM, S Libes, **E Burge**, and J Wood. 2013. Use of host-specific microbial source tracking data to direct point- and nonpoint-source watershed remediation efforts. StormCon 2013. Myrtle Beach, SC. August 18–22.
- Burge EJ**, **DL Holmes**, and **JA Burnett**. 2013. Prevalence, intensity and behavioral effects of metacercariae (Trematoda: *Microphallus* sp.) in the Atlantic sand crab *Emerita talpoida*. 42<sup>nd</sup> Annual Benthic Ecology Meeting. Savannah, GA. March 20–24.
- Funk, T**, K Walters, E Koepfler, **E Burge** and D Hodges. 2013. Inquiry-based learning in the marine benthic ecology community. 42<sup>nd</sup> Annual Benthic Ecology Meeting. Savannah, GA. March 20–24.
- O’Shaughnessy, KA**, JM Harding and **EJ Burge**. 2013. Infection of mud crabs with a barnacle parasite reduces prey consumption. 42<sup>nd</sup> Annual Benthic Ecology Meeting. Savannah, GA. March 20–24.
- Schacht TH**, **EJ Burge** and **KL Spencer**. 2013. Symbiosis between *Crustorhabditis* (Sudhaus, 1974) nematodes and Atlantic ghost crabs *Ocyropsis quadrata* (J. C. Fabricius, 1787). 42<sup>nd</sup> Benthic Ecology Meeting. Savannah, GA. March 20–24.
- Burge, EJ** and SC Luff. 2013. Coastal Carolina University scientific SCUBA diving program (SciDive). 4<sup>th</sup> Annual Science Diving Symposium, Coastal Carolina Scientific Diving Association. Pine Knoll Shores, NC. February 22.
- Trapp JM, S Libes, **EJ Burge**, J Wood and S Adera. 2013. Use of host specific fecal indicator bacteria microbial source tracking data to suggest remediation efforts in Withers Swash, Myrtle Beach, SC. South Carolina Environmental Conference. Myrtle Beach, SC. March 10–12.
- O’Shaughnessy, KA**, JM Harding and **EJ Burge**. 2012. Infection with a rhizocephalan parasite reduces feeding in mud crabs. Coastal Carolina University Fall Family Weekend. Burroughs & Chapin Center for Marine and Wetland Studies, Conway, SC. September 14–16.
- Trapp, JM, **EJ Burge**, SM Libes and A Sturgeon. 2012. Use of qPCR technologies in stormwater regulatory quantification and watershed source tracking of fecal indicator bacteria. South Carolina Environmental Conference. Myrtle Beach, SC. March 11–13.
- \***Burge, EJ** and ET Koepfler. 2011. Yah mon! Mentoring undergraduate research in Caribbean marine ecology. 21<sup>st</sup> Biennial Conference of the Coastal and Estuarine Research Federation (CERF). Daytona Beach, FL. November 6–10.
- Burge, EJ**, **NP Burnett**, **DM DeLorenzo**, and **EJ Fedewa**. 2011. MARSCI: Online journal for undergraduate research in the marine and aquatic sciences. 21<sup>st</sup> Biennial Conference of the Coastal and Estuarine Research Federation (CERF). Daytona Beach, FL. November 6–10.
- \***Burge, EJ** and J Atack. 2011. Determination of size, stock density and temporal patterns of grouper on offshore hard bottom habitats. 4<sup>th</sup> North Carolina Sea Grant Fisheries Forum. Wilmington, NC. April 29.
- \*Libes, S, **E Burge** and M Trapp. 2011. Development of genotypic tracers of pollutogen sources for northeastern South Carolina. Horry County Stormwater Advisory Board. Conway, SC. April 26.
- Johnson, CC**, ET Koepfler, R Young, **E Burge**, D Whitaker and J Powers. 2011. Video surveillance effectiveness for monitoring catch at a recreational fishing pier. Atlantic Estuarine Research Society 2011 Spring Meeting. Solomons, MD. April 7–9.
- \***Burge, EJ**. 2010. Empty Waters: The Ethics of Marine Conservation. Tea & Ethics. Jackson Center for Ethics, Coastal Carolina University. March 4.

- Burge, EJ**, J Atack, and C Andrews. 2010. Swimming through a natural aquarium: Video observations of fishes on the limestone ledges of North Carolina. Beneath the Waves Film Festival at the 39<sup>th</sup> Benthic Ecology Meeting. University of North Carolina Wilmington. Wilmington, NC. March 10–13. [www.youtube.com/watch?v=qngZBYHlnQ](http://www.youtube.com/watch?v=qngZBYHlnQ)
- Binder, BM**, **EJ Burge**, C Andrews, J Atack, **LE Bohrer**, and K Jagannathan. 2010. Fishery independent underwater video capture observations of grouper usage of hard-bottom habitats. 39<sup>th</sup> Benthic Ecology Meeting. University of North Carolina Wilmington. Wilmington, NC. March 10–13.
- Hart, ZD**, **AC Wood**, **EJ Burge**, K Jagannathan, J Atack, and C Andrews. 2010. Mixed temperate and tropical reef fish assemblages on offshore hard-bottom habitats in North Carolina. 39<sup>th</sup> Benthic Ecology Meeting. University of North Carolina Wilmington. Wilmington, NC. March 10–13.
- Kramer, LM**, **EJ Burge**, BL Lewis, and ET Koepfler. 2010. Nutrient concentrations from submarine groundwater discharge points in relation to macroalgal species diversity at Discovery Bay, Jamaica. 39<sup>th</sup> Benthic Ecology Meeting. University of North Carolina Wilmington. Wilmington, NC. March 10–13. **\*\*Winner Best Student Poster Award\*\***
- Nevitt, A**, **L Canton**, **EJ Burge**, and K Walters. 2010. Effects of the parasitic barnacle *Loxothylacus panopaei* on *Panopeus herbstii* foraging rates. 39<sup>th</sup> Benthic Ecology Meeting. University of North Carolina Wilmington. Wilmington, NC. March 10–13.
- Zourdos, CA**, **AJ Sellers**, **EJ Burge**, **CL Trimper**, and ET Koepfler. 2010. Recent *Diadema antillarum* densities and macroalgal composition at Discovery Bay, Jamaica. 39<sup>th</sup> Benthic Ecology Meeting. University of North Carolina Wilmington. Wilmington, NC. March 10–13.
- Burge, EJ**, LE Burnett, and KG Burnett. 2009. Shrimp hemocyte immunity: Peroxinectin expression in response to *Vibrio* infection. Southeastern Estuarine Research Society. Conway, SC. March 19–21.
- Johnson, CC**, ET Koepfler, R Young, and **E Burge**. 2009. Cooperative Research: Strategy to monitor landings at a recreational fishing pier using camera surveillance. Southeastern Estuarine Research Society. Conway, SC. March 19–21.
- Mancia, A, JS Almeida, CC Cunningham, M Beall, GW Warr, A Veloso, B Macey, KG Burnett, LE Burnett, AF Holland, PS Gross, P Cupit-Cunningham, S Hikima, M Peck, D McKillen, HF Trent III, **EJ Burge**, **LK Thibodeaux**, **HR Williams**, and RW Chapman. 2008. Transcript profiles of American oysters, *Crassostrea virginica*, exposed to metal contaminants. Plant & Animal Genomes XVI Conference. San Diego, CA. January 12–16.
- Lake, S**, **A Hunter**, **E Burge** and E Koepfler. 2007. Temporal-spatial variability of water quality in a tropical bay ecosystem and the surrounding coastal habitat. Estuarine Research Federation's 19<sup>th</sup> Biennial International Conference. Providence, RI. November 4–8.
- \*Burge, EJ**, LE Burnett, and KG Burnett. 2007. Shrimp hemocyte immunity: Peroxinectin expression in response to *Vibrio* infection. 32<sup>nd</sup> Annual Eastern Fish Health Workshop. Gettysburg, PA. June 18–22.
- Burnett, KG, **JL Ikerd**, **EJ Burge**, BM Macey and LE Burnett. 2007. Impacts of salinity on gill distribution and persistence of *Vibrio campbellii* in the blue crab *Callinectes sapidus*. Aquaculture 2007. World Aquaculture Society. San Antonio, TX. February 26–March 2.
- Burge, EJ**, **DJ Madigan**, LE Burnett and KG Burnett. 2006. Exposure to hypoxia impacts immunity in penaeid shrimp, but does not alter hemocyte distribution after bacterial challenge. 10<sup>th</sup> International Congress of the International Society of Developmental and Comparative Immunology, Charleston, SC, July 1–6.
- \*Burge, EJ**, **DJ Madigan**, LE Burnett and KG Burnett. 2006. Tracking shrimp hemocytes: lysozyme gene expression as a marker of bacterial infection. 31<sup>st</sup> Annual Eastern Fish Health Workshop. Charleston, SC. March 27–31.
- Burge, EJ**, **DJ Madigan**, LE Burnett and KG Burnett. 2005. Lysozyme expression in the Pacific white shrimp, *Litopenaeus vannamei*, after exposure to hypoxia and challenge with *Vibrio campbellii*. 2005 Experimental Biology and the XXXV International Congress of Physiological Sciences Conference, San Diego, CA. March 31–April 6.
- \*Burge, EJ**. 2004. Understanding mycobacteriosis in striped bass (*Morone saxatilis*): the role of the natural resistance-associated macrophage protein, *Nramp*, in resistance to *Mycobacterium*. Fort Johnson Seminar Series. Charleston, SC. February 6.

## SELECTED PUBLIC INTEREST PRESENTATIONS AND MEDIA (\*INVITED TALK)

- OCEARCH Science Brief. 14 May 2021. Sand Tiger Sharks in North Carolina. Interview with co-project leader (E. Christiansen) featuring my footage. <https://youtu.be/antAecAJ6WE>
- OCEARCH Science Brief Sunday. Sand Tiger Shark Pregnancy. Interview and video montage summarizing my project on the Carolinas 2021 Expedition. 9 May 2021. <https://youtu.be/qMYUb6JkRXY>
- \*Burge, EJ**. 2020. Invited guest speaker (via Zoom) for the Young Scientist Academy (Wilmington, NC). Using underwater video to learn about ocean fish and sharks. 27 March. <https://www.youngscientistacademy.org/virtual-experiences.html>  
<https://www.youngscientistacademy.org/>
- \*Burge, EJ**. 2020. SharkCam: Exploring the diversity and behavior of fishes at Frying Pan Tower with underwater video. The Bald Head Island Lecture Series at the BHI Club. Bald Head Island, NC. 19 March. CANCELLED DUE TO COVID-19

- Burge, EJ.** 2019. SharkCam video observations of a marine fish assemblage associated with hard-bottom habitat of North Carolina. Gupta College of Science One Talk, One Time. Coastal Carolina University, UNIV 110. 22 October.
- \***Burge, EJ.** 2018. Glimpses into the Wild Lives of Marine Creatures: Using Underwater Video in Marine Biology Research. Osher Lifelong Learning Institute, "Where the Wild Things Are" Lecture Series. Georgetown Education Center, Georgetown, SC. 20 February.
- Burge, EJ.** 2018. SharkCam video observations of a marine fish assemblage associated with hard-bottom habitat of North Carolina. College of Science One Talk, One Time. Coastal Carolina University, UNIV 110, 6 November.
- Burge, EJ.** 2017. Using underwater video in marine biology research. College of Science One Talk, One Time. Coastal Carolina University, UNIV 110, 23 October.
- WMBF on-camera interview for a segment on the 21 August 2017 total solar eclipse, and its effects on fish. <http://www.wmbfnews.com/story/36169919/solar-eclipse-to-bring-plenty-of-fish-to-catch>
- \***Burge, EJ,** M Siddal, and P de Lisle. 2017. Career building workshop: Insights on perfecting your approach for landing a job from senior management. Southeastern Virginia Postdoc Symposium. VIMS, Gloucester Point, VA. 27 April.
- Harding J and **Burge E.** 2016. Graduate School Information Session for thesis based natural science degrees. 14 November. Coastal Carolina University. Conway, SC.
- Harding J. Panelists: Hill J, Young R, Hannides A, Gilman C, **Burge E,** Boneillo G. 2016. Graduate School Information Session for thesis based natural science degrees. 26 September. Coastal Carolina University. Conway, SC.
- \*CeTEAL panelist, "Your path to promotion and tenure. 8 April 2016
- Lumina News media interview about lionfish. E. Errante. "Free diver catches 80 pounds of fish to win Wrightsville Beach Spearfishing Tournament" 25 July 2016. <http://luminanews.com/2016/07/free-diver-catches-80-pounds-of-fish-to-win-wrightsville-beach-spearfishing-tournament/> **\*\*Winner of most lionfish category\*\***
- \*Invited speaker and participant. Lionfish cull on the M/V Hebe: Safe handling and preparation. ScubaExpress. Murrells Inlet, SC. 8 May 2016. <https://youtu.be/boAHblYoVns> **\*\*Winner of largest lionfish competition\*\***
- Burge, EJ.** 2016. Lionfish and grouper research using underwater videography. College of Science One Talk, One Time. Coastal Carolina University, UNIV 110, November 1.
- AccuWeather.com media interview. K. France. "Shark Attacks Along East Coast Climb in Summer Months as Water Temperature Increases." 21 June 2015. Updated as "Sharks Migrate to US East Coast as Water Temperatures Climb." 7 July 2015. <http://www.accuweather.com/en/weather-news/recent-shark-attacks-north-carolina-florida-east-coast-warm-water-beach-threat/48953405>
- \*Invited speaker. Paths to careers in scientific diving. AquaLeague. Coastal Carolina University SCUBA Club. Conway, SC. 23 February 2015.
- \*Invited speaker and participant. Lionfish cull on the M/V Hebe: Safe handling and preparation. ScubaExpress. Murrells Inlet, SC. 25 April 2015. <https://youtu.be/gle6mqMpl-l> **\*\*Winner of most lionfish category\*\***
- Trevey, KM and **EJ Burge.** MSCI 399Q Beach Macroinvertebrate Monitoring. Presentation to CCU's Sea Floor Dorm on QEP opportunities. 5 February 2015.
- \***Burge, EJ.** 2015. SharkCam (Frying Pan Tower, North Carolina). 1 hour hosted "live chat" with real-time questions and feedback. Explore.org Oceans. February 10. <https://youtu.be/Mxg4yZHMAtc>
- Burge, EJ.** 2015. Lionfish and grouper research using underwater videography. College of Science One Talk, One Time. Coastal Carolina University, UNIV 110, October 30.
- Burge, EJ.** 2014. Lionfish and grouper research using underwater videography. College of Science One Talk, One Time. Coastal Carolina University, UNIV 110, November 6.
- Burge, EJ.** 2013. Lionfish and grouper research using underwater videography. College of Science One Talk, One Time. Coastal Carolina University, UNIV 110, October 23.
- \***Burge, EJ.** 2013. Swimming through a natural aquarium: Research on North Carolina hardbottom fish assemblages and lionfish. *Grand Strand Saltwater Anglers Association.* Socastee, SC. October 10.
- \***Burge, EJ.** 2010. Grad School 101. What it takes to get into a competitive program in the sciences. *Coastal Carolina University Honors Program.* September 29.
- \***Burge, EJ.** 2010. Marine fossils of the Carolinas. Grand Strand Shell Club. Murrells Inlet, SC. April 8.
- \***Burge, EJ.** 2007. Fossil shark teeth in South Carolina. Grand Strand Shell Club. Murrells Inlet, SC. September 13.