

**SANDRA D. BROOKE**

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**Florida State University Coastal and Marine Laboratory  
3618 Coastal Highway 98, St Teresa, FL 32358  
Email: sbrooke@fsu.edu**

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**EDUCATION:**

Ph.D. Oceanography, University of Southampton, National Oceanography Centre, UK, 2002  
M.A. Marine Science, Virginia Institute of Marine Science, VA, 1996  
M.Sc. Bio-aeronautics, Cranfield Institute of Technology, Bedford, UK, 1987  
B.Sc. Biological Sciences (Honors), University of Essex, UK, 1985

**PROFESSIONAL DEVELOPMENT:**

2013-Present: Research Faculty, Florida State University Coastal and Marine Lab, FL  
2008-2013 Courtesy Research Associate, Oregon Institute of Marine Biology, OR  
2008-2013 Director of Coral Conservation, Marine Conservation Institute, WA  
2007-2008 Instructor of Marine Biology, University of Oregon, OR  
2006-2007 Associate Research Scientist, Florida Fish and Wildlife Institute, FL  
2002-2006 Research Associate, Oregon Institute of Marine Biology, OR

**MANUSCRIPTS:**

Walker BK, JK Reed, J Ash, CG Messing, **S Brooke**, S Farrington (in review) Regionalization of benthic hard-bottom communities across the Pourtales Terrace, Florida. Submitted to Deep Sea Research 1.

Cordes EE, AWJ Demopoulos, AJ Davies, R Gasbarro, AC Rhoads, E Lobecker, D Sowers, JD Chaytor, CL Morrison, AM Weinnig, **S Brooke**, et al (in review) Oceanographic conditions at a coral reef complex reveal new suitable habitat for cold-water corals. Submitted to Science.

Yarbro LA, PR Carlson, M Poniatowski, S Scolaro, **S Brooke**, K Heck, D Byron, L Fitzhugh, J Caffrey (in review) Measures of turtlegrass (*Thalassia testudinum*) productivity in estuaries of the Florida Panhandle. Submitted to Gulf and Caribbean Research.

Walker BK, S Eagan, C Ames, **S Brooke**, S Keenan, R Baumstark (2020) Shallow water coral communities support the separation of marine ecoregions on the west-central Florida Gulf Coast. *Frontiers in ecology and evolution* 8:210

Robertson CM, AW Demopoulos, JR Bourque, F Mienis, GCA Duineveld, M Lavaleye, RK Koivisto, **S Brooke**, SW Ross, M Rhode, AJ Davies (2020) Submarine canyons influence macrofaunal diversity and density patterns in the deep-sea benthos. *Deep Sea Research I*. 159:103249

Jarnegren J, **S Brooke**, H Jensen (2020) Effects and recovery of the cold-water coral *Lophelia pertusa* (*Desmophyllum pertusum*) exposed to suspended bentonite, barite and drill cuttings *Marine Environmental Research*. 158:104996

Demopoulos AWJ, J McClain-Counts, J Bourque, N Prouty, B Smith, **S Brooke**, SW Ross, C Ruppel (2019) Examination of *Bathymodiolus childressi* nutritional sources, isotopic niches, and food-web linkages at two seeps in the US Atlantic margin using stable isotope analysis and mixing models. *Deep Sea Research I*. 148: 53-66

Coykendall DK, RS Cornman, NG Prouty, **S Brooke**, AWJ Demopoulos, CL Morrison (2019) Molecular characterization of *Bathymodiolus* mussels and gill symbionts associated with chemosynthetic habitats from the U.S. Atlantic margin. *PLOS ONE*. 14(3):e0211616

Goldsmith D, C Kellogg, C Morrison, M Gray, R Stone, R Waller, **S Brooke**, S Ross (2018) Comparison of microbiomes of cold-water corals *Primnoa pacifica* and *Primnoa resedaeformis*, with possible link between microbiome composition and host genotype. *Scientific Reports* 8: A12383

**Brooke SD**, MW Watts, AD Heil, M Rhode, F Mienis, GCA Duineveld, AJ Davies, SW Ross (2017) Distributions and habitat associations of deep water corals in Norfolk and Baltimore canyons of the Mid-Atlantic Bight, USA. *Deep Sea Research II*. 137:131-147

- Demopoulos AWJ, J McClain-Counts, SW Ross, **S. Brooke**, F Mienis (2017) Food-web dynamics and isotope niches in deep-sea communities residing in a submarine canyon and on the adjacent open slopes. *Mar. Ecol. Prog. Ser.* 578: 19-33
- Meyer KS, **SD Brooke**, AK Sweetman, M Wolf, CM Young (2017) Invertebrate communities on historical shipwrecks in the western Atlantic: relation to islands. *Mar. Ecol. Prog. Ser.* 566:17-29
- Ross SW, M Rhode, **SD Brooke** (2017) Deep sea coral and hardbottom habitats on the west Florida slope, eastern Gulf of Mexico. *Deep Sea Research II.* 120: 14-28
- Jarnegren J, **S Brooke**, H Jensen (2017) Effects of drill cuttings on larvae of the cold-water coral *Lophelia pertusa*. *Deep Sea Research II.* 137: 454-462
- Bourque JR, CM. Robertson, **S Brooke**, AWJ Demopoulos (2017) Macrofaunal communities associated with chemosynthetic habitats from the U.S. Atlantic margin: a comparison among depth and habitat types. *Deep Sea Research II* 137: 42-55
- Kellogg CA, SW Ross, **SD Brooke** (2016) Bacterial community diversity of the deep-sea octocoral *Paramuricea placomus*. *PeerJ* 4: e2529; DOI 10.7717/peerj.2529
- Prouty NG, PL Campbell, F Mienis, G. Duineveld, AWJ Demopoulos, SW Ross, **S Brooke** (2016) Impact of Deepwater Horizon spill on food supply to deep-sea benthos communities *Estuarine Coastal and Shelf Science* 169: 248-264
- Prouty NG, D Sahy, CD Ruppel, EB Roark, D Condon, **S Brooke**, SW Ross, AWJ Demopoulos (2016) Insights into methane dynamics from analysis of authigenic carbonates and chemosynthetic mussels at newly-discovered Atlantic Margin seeps. *Earth and Planetary Science Letters* 449: 332-344
- Lawler SN, CA Kellogg, SC France, RW Clostio, **SD Brooke**, SW Ross (2016) Coral-associated bacterial diversity is conserved across two deep sea *Anthothela* species. *Frontiers in Microbiology.* 7(458): 1-18
- Cordes EE, DOB Jones, TA Schlacher, DJ. Amon, AF Bernardino, **S Brooke**, et al. (2016) Environmental impacts of the deep-water oil and gas industry: a review to guide management strategies. *Frontiers in Environmental Science* DOI: 10.3389/fenvs.2016.0005
- Ross SW, **S Brooke**, A Quattrini, M. Rhode, J C Watterson (2015) A deep-sea community at unusually shallow depths in the western North Atlantic Ocean off northeastern Florida. *Marine Biology* 162: 635-648
- Larsson AI, J Järnegen, SM Strömberg, MP Dahl, T Lundälv, **S Brooke** (2014) Embryogenesis and larval biology of the cold-water coral *Lophelia pertusa*. *Plos ONE* 9(7): e102222
- Mienis F, G Duineveld, AJ Davies, M Lavaleye, SW Ross, H Seim, J Bane, H van Haren, M Bergman, H de Haas, **S. Brooke**, T. van Weering (2014) Cold-water coral growth under extreme environmental conditions, the Cape Lookout area, NW Atlantic. *Biogeosciences* 11:2543-2560
- Obelcz J, D Brothers, J Chaytor, U Brink, SW. Ross, **S Brooke** (2014) High-resolution geophysical and ROV surveys of four major submarine canyons of the US mid-Atlantic margin. *Deep Sea Res. II* 104:106-119
- Brooke S**, SW Ross (2014) First observations of the cold-water coral *Lophelia pertusa* off the mid-Atlantic coast of the United States. *Deep Sea Res. II* 104:241-251
- Brooke S**, SW Ross, JM Bane, HE Seim, CM Young (2013) Temperature tolerance of the deep-sea coral *Lophelia pertusa* from the southeastern United States. *Deep Sea Research II.* 92:240-248
- Reed J, CM Messing, **S Brooke**, T Correa, M Brouwer, T Udouj (2013) Distribution and areal extent of deep-water coral reefs off Florida, Southeastern U.S. *Jnl. Carib. Res.* 47(1): 13-30
- Brooke S**, J Jarnegren (2013) Reproductive periodicity of the deep-water scleractinian coral, *Lophelia pertusa* from the Trondheim Fjord, Norway. *Mar. Biol.* 160:139-153
- Norse EA, **S Brooke**, WWL Cheung, MR Clark, I Ekeland, R Froese, KM Gjerde, RL Haedrich, SS Heppell, T Morato, LE Morgan, D Pauly, R Sumaila, R Watson (2012) Sustainability of deep-sea fisheries. *Marine Policy* (36): 307-320
- Morrison CM, SW Ross, MS. Nizinski, **S Brooke**, J Jarnegren, R Waller, RL Johnson, TL King (2011) Genetic discontinuity between regional populations of *Lophelia pertusa* in the North Atlantic Ocean. *Conserv. Genet.* 12:713-729
- Brooke S**, CM Young (2009) Direct measurements of *in situ* survival and growth of *Lophelia pertusa* in the northern Gulf of Mexico. *Marine Ecology Progress Series* 397:153-161

- Brooke S**, Holmes M, Young CM (2009) Effects of sediment on two morphotypes of *Lophelia pertusa* from the Gulf of Mexico. *Marine Ecology Progress Series* 390: 137–144
- Brooke S**, CM Young (2009) Where do embryos of *Riftia pachyptila* develop? Pressure tolerances, temperature tolerances and buoyancy during embryonic dispersal. *Deep Sea Research II* 56: 1599-1606
- Brooke S**, R. Stone (2007) Reproduction of Hydrocorals (order stylasterina) from the Aleutian Islands, Alaska. *Bulletin of Marine Science* 81(3): 519-532
- Staudigel H, SR Hart, A Pile, BE Bailey, ET Baker, **S Brooke**, DP Connelly, L Haucke, CR German, I Hudson, D Jones, AAP Koppers, J Kontera, R Lee, TW Pietsch, BM. Tebo, AS Templeton, R Zierenberg, CM Young (2006) Vailulu'u Seamount, Samoa: Life and death on an active submarine volcano. *Proc. Nat. Acad. Sci.* 103(17):6448-6453
- Tyler P, CM Young, E Dolan, SM Arellano, **S Brooke**, M Baker (2006) Gametogenic periodicity in the chemosynthetic cold-seep mussel *Bathymodiolus childressi*. *Marine Biology* 150 (5): 829-840
- Brooke S**, CC Koenig, AN Shepard (2006) *Oculina* banks restoration project: description and preliminary assessment. *Proceedings 57th Gulf and Carib. Fisheries Institute*: 607-620
- Koenig CC, AN Shepard, JK Reed, FC Coleman, **S Brooke**, J Brusher, KM Scanlon (2005) Habitat and fish populations in the deep-sea *Oculina* coral Ecosystem of the western Atlantic. *American Fisheries Society Symposium* 41: 795-805
- Brooke S**, CM Young (2005) Embryogenesis and larval biology of the ahermatypic scleractinian *Oculina varicosa* *Marine Biology* 146(4): 665-675
- Olson JB, **S Brooke**, B Phaneuf, WW Schroeder (2004) An evaluation of the Innovator ROV as a tool for deep-water coral research. *Proceedings of the Underwater Intervention 2004 Conference*, CD-ROM Reference: Feb. 18, E-3 NOAA, E32
- Brooke S**, CM Young (2003) Reproductive ecology of a deep-water scleractinian coral, *Oculina varicosa* *Continental Shelf Research* 23: 847-858
- Eckelbarger KJ, CM Young, E Ramirez, **S Brooke** and P Tyler (2001) Gametogenesis, spawning behavior, and early development in the "iceworm" *Hesiocaeca methanicola* (Polychaeta: Hesionidae) from methane hydrates in the Gulf of Mexico. *Marine Biology* 138:761-775

#### **BOOK CHAPTERS**

- Orejas C, Taviani M, Ambroso S, Andreou V, Bilan M, Bo M, **Brooke S**, et al., (2019) Cold-water corals in aquaria: advances and challenges.. In: Orejas C, Jiménez C (eds). *Mediterranean Cold-Water Corals: Past, Present and Future*. Springer International
- Jaap, WC, SW Ross, **S. Brooke**, WS Arnold (2014) Ch. 6: Factors affecting coral reef fisheries in the eastern Gulf of Mexico. In: *Interrelationships between corals and fisheries* (Ed S. Bortone) CRC Press pp. 289
- Schroeder WW, **S Brooke** (2011) Habitat-forming deep-water scleractinian corals in the Gulf of Mexico. In: *Gulf of Mexico Origin, Waters, and Biota* (Eds. C Holmes and N Buster): Volume 3, Geology. pp 355-366. Texas A&M University Press, College Station, Texas
- Brooke S** (2009) *Lophelia* Oases. In *Encyclopedia of Islands* (Eds RG Gillespie and DA Clague) University of California Press p564-567
- Messing C, JK Reed, **S Brooke**, SW Ross (2008) Ch 27: Deep water coral reefs of the United States. In *Coral Reefs of the USA* (Eds. B Riegl and R Dodge) Volume 1: 763-788
- Schroeder WW, **S Brooke**, JB Olson, B Phaneuf, JJ McDonough III, P Etnoyer (2005) Occurrence of deep-water *Lophelia pertusa* and *Madrepora oculata* in the Gulf of Mexico. Pp 297-307, In: *Deep-water Corals and Ecosystems* (Eds. A Freiwald and JM Roberts), Springer-Verlag, Berlin Heidelberg
- Kristensen RM, **S Brooke** (2002) Chapter 8: Phylum Loricifera In: *Atlas of Marine Invertebrate Larvae* (Eds. CM Young, M Sewell and M Rice) Academic Press, London. P 179-188

#### **TECHNICAL REPORTS:**

- Demopoulos, A.W.J., Ross, S.W., Kellogg, C.A., Morrison, C.L., Nizinski, M., Prouty, N.G., Bourque, J.R., Galkiewicz, J.P., Gray, M.A., Springmann, M.J., Coykendall, D.K., Miller, A., Rhode, M., Quattrini, A., Ames, C.L., **Brooke, S.**, McClain-Counts, J., Roark, E.B., Buster, N.A., Phillips, R.M., and Frometa, J.,

- (2017) Deepwater Program: *Lophelia* II, continuing ecological research on deep-sea corals and deep-reef habitats in the Gulf of Mexico: U.S. Geological Survey Open-File Report 2017–1139, 269 p., <https://doi.org/10.3133/ofr20171139>
- Brooke S**, S. Ross, M Wolf, M Rhode (2017) Chapter 2: Analysis of historical data. In: Exploration and Research of Mid-Atlantic Deepwater Hard Bottom Habitats and Shipwrecks with Emphasis on Canyons and Coral Communities. CSA Ocean Sciences (Eds). U.S. Dept. of the Interior, Bureau of Ocean Energy Management, Atlantic OCS Region. OCS Study BOEM 2017-060 p15-30 plus Appendix 93pp
- Brooke S**, M Wolf-Watts, AD Heil, K Meyer, DK Coykendall, M Rhode, CM Young, SW Ross (2017) Chapter 8: Benthic invertebrate communities. In: Exploration and Research of Mid-Atlantic Deepwater Hard Bottom Habitats and Shipwrecks with Emphasis on Canyons and Coral Communities. CSA Ocean Sciences (Eds). U.S. Dept. of the Interior, Bureau of Ocean Energy Management, Atlantic OCS Region. OCS Study BOEM 2017-060 p333-434 plus Appendices
- Brooke S**, A Sogluizzo (2017) Chapter 11: Invertebrate reproductive biology. In: Exploration and Research of Mid-Atlantic Deepwater Hard Bottom Habitats and Shipwrecks with Emphasis on Canyons and Coral Communities. CSA Ocean Sciences (Eds). U.S. Dept. of the Interior, Bureau of Ocean Energy Management, Atlantic OCS Region. OCS Study BOEM 2017-060. P537-577
- Brooke S**, S. Viada et al. (2017) Chapter 19: Synthesis. In: Exploration and Research of Mid-Atlantic Deepwater Hard Bottom Habitats and Shipwrecks with Emphasis on Canyons and Coral Communities. CSA Ocean Sciences (Eds). U.S. Dept. of the Interior, Bureau of Ocean Energy Management, Atlantic OCS Region. OCS Study BOEM 2017-060 p961-984
- Brooke S** (2017) Habitat characterization and vulnerability assessment of coral and sponge reefs in the northeastern Gulf of Mexico. Final report submitted to NOAA Coral Reef Conservation Program. Award NA14NOS4820083. 76pp
- Brooke S** (2017) Deep water coral habitat areas of particular concern in the Gulf of Mexico. Submitted to Florida Wildlife Federation March 2017 pp 62
- Koenig CK, **S Brooke**, K Kingon, C Stallings (2015) Reef fish communities on natural and artificial reefs in the northeastern Gulf of Mexico: seasonal patterns and habitat associations. Final report submitted to FWC. Contract No. FWC11179. 74pp
- Stone R, D Stevenson, **S Brooke** (2015) Assessment of a pilot study to collect coral bycatch data from the Alaska commercial fishing fleet. NOAA technical memorandum NMFS-AFSC-296 pp23
- Brooke S**, SW Ross, R Mather, S Viada (2014) Exploration and research of Mid-Atlantic deep-water hard-bottom habitats and shipwrecks with emphasis on canyons and coral communities. Cruise report for 2013 sampling survey. Submitted to BOEM Contract No. M10PC00100 36pp
- SW Ross, **S Brooke**, R Mather, S Viada (2013) Exploration and research of Mid-Atlantic deep-water hard-bottom habitats and shipwrecks with emphasis on canyons and coral communities. Cruise report for 2012 sampling survey. Submitted to BOEM Contract No. M10PC00100 46pp
- Ross SW, **S Brooke**, S Viada (2011) Exploration and research of Mid-Atlantic deepwater hardbottom habitats and shipwrecks with emphasis on canyons and coral communities. Cruise report for 2011 mapping survey. Submitted to BOEM Contract No. M10PC00100 14pp
- Gulick S, **S Brooke**, J Ardron (2011) The Biology of the Sargasso Sea: A Preliminary Review. Sargasso Sea Alliance Science Report Series, No 4, 18 pp. ISBN 978-0-9847520-5-8
- Brooke S**, WW Schroeder (2007) Chapter 7: State of deep coral ecosystems in the Gulf of Mexico region: Texas to the Florida Straits In: The State of Deep Coral Ecosystems of the United States (Eds. SE Lumsden, TF Hourigan, and AW Bruckner), NOAA Technical Memorandum NOS-CRCP-3, Silver Spring MD: p 271-306
- Brooke S**, CM Young, M Holmes (2007) Chapter 6: Biological Characterization and Studies, In: Characterization of Northern Gulf of Mexico deepwater hard bottom communities with emphasis on *Lophelia* coral. Final report to U.S.D.I., Minerals Management Service, Gulf of Mexico Region. OCS Study 2007-044: p119-147
- Etnoyer PJ, SD Cairns, JA Sanchez, JK Reed, JV Lopez, WW Schroder, **S Brooke**, L Watling, A Baco-Taylor, GC Williams, A Lindner, SC France, AW Bruckner (2006) Deep-Sea Coral Collection Protocols. NOAA Technical Memorandum NMFS-OPR-28. 53 pp.

## **RESEARCH GRANTS:**

- The Apalachicola Bay System Initiative. Triumph Inc. **\$7,998,678** (2019-2024). PI; **S. Brooke**, F Coleman
- Rearing of bay scallop (*Argopecten irradians*) juveniles for research and restoration. Florida. Florida Fish and Wildlife Commission. **\$35,000** (2019-2020) PI. **S. Brooke**
- Assessment of benthic invertebrate and fish communities associated with artificial reefs off Wakulla County. Florida. Florida Fish and Wildlife Commission. **\$36,928** (2019-2020) PI. **S. Brooke**
- Seasonal and latitudinal variation in community structure of Symbiodinium associated with stony corals. Florida Inst. Oceanography. Subsidized use of the Florida Keys Marine Lab facilities: **\$3,024** (2019-2020). PI **S. Brooke**
- Rearing of bay scallop (*Argopecten irradians*) juveniles for research and restoration. Florida Fish and Wildlife Commission. **\$35,000**.
- Combining habitat suitability and physical oceanography models for targeted discovery of new benthic communities on the west Florida Slope. NOAA Office of Ocean Exploration. **\$426,316**. (2018-2020) PIs: **S. Brooke**, A Baco-Taylor, J. Ingels, S. Morey.
- Exploration and characterization of fine-scale physical-biogeochemical environment over deep coral reefs on the west Florida slope using integrated ROV-lander-sensor systems. NOAA Office of Ocean Exploration. FSU subcontract **\$44,485** (2018-2020). PI: **S. Brooke**
- Development of a pilot bay scallop (*Argopecten irradians*) hatchery and grow out facility. Florida Fish and Wildlife Research Institute. **\$33,300** (2018-2019). PI: **S. Brooke**
- Data Dissemination from Past Projects. Deep-Sea Coral Research off South Florida. NOAA DSCRTP. **\$8,000** (2017-2018). PI: **S Brooke**
- Continuing research on Atlantic deep-water habitats. Bureau of Ocean Energy Management. FSU subcontract **\$389,000** (2017-2022). **S. Brooke**
- Applications of Green Technology for Habitat Restoration and Artificial Reef Construction. Schmidt Ocean Technologies. FSU subcontract \$40,000 (2017-2018). **S. Brooke**
- Assessment of proposed deep-water coral habitat areas of particular concern in the Gulf of Mexico. Florida Wildlife Federation. **\$10,000** (2016-2017). PI: **S Brooke**
- Seagrass abundance and productivity in St George Sound and Apalachee Bay, Florida. Florida Fish and Wildlife Conservation Commission. **\$100,000** (2016-2017). PIs: **S. Brooke**, F. Coleman
- In situ* growth rates of stony corals in the northeastern Gulf of Mexico. PADI Foundation **\$5,785** (2014-2016). PI: **S. Brooke**
- Habitat characterization and vulnerability assessment of coral and sponge reefs in the northeastern Gulf of Mexico. NOAA Coral Reef Conservation Program **\$62,660** (2014-2016). PI: **S. Brooke**
- Role of environmental cues in driving variability of reproductive periodicity in North Atlantic deep-water corals. Marine Alliance Science Technology Scotland **\$20,500** (2012-2013). PIs: **S. Brooke**, JM Roberts
- Extreme corals 2011: Habitat characterization and video analysis. NOAA Deep Sea Coral Research and Technology Program **\$95,000** (2011-2012). PIs: SW Ross, **S Brooke**.
- Atlantic Deepwater Canyons Study. Bureau of Ocean Energy Management. **\$3,000,000** (2010-2016). PIs: CSA Inc. **S. Brooke**, SW Ross.
- Insights into the sensitivity of cold-water communities to drilling mud: enhancing diagnosis and decision-making with emphasis on *Lophelia*. Norwegian Research Council. FSU subcontract **\$15,000** (2010-2011). PI: **S. Brooke**
- Extreme corals 2010: Exploration of deep coral habitat in the SEUS. NOAA Deep Sea Coral Research and Technology Program **\$115,000** (2010-2011). PIs: SW Ross, **S Brooke**.
- Lophelia II: Reproductive biology. Continuing Ecological Research on Deep-sea Corals. US Geological Survey **\$28,000** (2010-11). PI: **S. Brooke**
- Benthic-pelagic coupling in deep coral ecosystems. NOAA CIOERT **\$80,389** (2010). PIs: T Frank, **S Brooke**, T Sutton, A Remsen.
- South Atlantic information resources: data search and literature synthesis. Research Planning Inc. **\$11,000** (2009-11). PI: **S. Brooke**

The Linkage Between Pelagic and Benthic Ecosystems. NOAA CIOERT **\$84,369** (2009-2010). PIs: T Frank, **S Brooke**, T Sutton, A Remsen.

Recovery potential of damaged deep-water *Oculina* habitat and fish populations: the effect of human intervention. NURC \$40,000, 11 days ship/technical divers (2008-2009). PIs C Koenig, **S Brooke**.

Florida's deep-water oases: Exploration and characterization of deep reef ecosystems. NOAA Office of Ocean Exploration **\$262,000** (2007-2008). PIs: C Messing, **S Brooke**.

Mapping and characterization of deep sea coral ecosystems off the coast of Florida. NOAA Office of Ocean Exploration **\$101,571** (2004-2005): PIs: **S Brooke**, C Messing, J Reed

Reproduction and larval biology of deep-water hydrocorals from the Aleutian Islands. NMFS Alaska \$12,000 (2004-2005): PI. **S. Brooke**

Characterization of northern Gulf of Mexico deep-water hard-bottom communities with emphasis on *Lophelia* coral. Minerals Management Service **\$229,848** (2003-2006). PIs: CM Young, **S Brooke**.

Reproduction and larval biology of deep-water hydrocorals from the Aleutian Islands. NMFS Alaska **\$10,000** (2003). PI: **S Brooke**

The occurrence and ecology of deep-water corals and associated communities in the Gulf of Mexico. NOAA Office of Ocean Exploration, **7 days ship/ROV** (2003-2004). PIs: W Schroeder, **S Brooke**, J Olson.

Maintenance of critical fish spawning habitat: reproduction of the Ivory Tree Coral, *Oculina varicosa*. NOAA MARFIN **\$68,396** (1999-2001): PI **S Brooke**

#### **TEACHING AND SUPERVISORY EXPERIENCE:**

##### ***Courses developed***

2008 University of Oregon upper level undergraduate course  
 Marine Biology lecture (Bi357): 3 credits (2008)  
 Marine Biology lab (Bi357L): 1 credit (2008)

##### ***Students***

###### **Current**

2020-present: Co-supervisor, MSc, Ecology and Evolution (L Anthony)  
 2020-present: Co-supervisor, PhD, Ecology and Evolution (E Fuqua)  
 2020-present: Co-supervisor, MSc, Geography (J Bueno)  
 2019-present: Co-supervisor, MSc, Ecology and Evolution, FSU (R Bowman)  
 2019-present: Co-supervisor, MSc Earth Ocean and Atmospheric Sciences, FSU (N Blank)  
 2019-present: Co-supervisor, Ph.D Earth Ocean and Atmospheric Sciences, FSU (A Alfasso)  
 2018-present: Supervisor, MSc Earth Ocean and Atmospheric Sciences, FSU (A Sogluizzo)  
 2016-present: Co-supervisor, Ph.D, Ecology and Evolution, FSU (A Engleman)  
 2015-present: Committee member, PhD, Earth Ocean and Atmospheric Sciences, FSU (N Morgan)

###### **Graduated**

2020: Committee member, MSc, Earth Ocean and Atmospheric Sciences, FSU (A Shantharam)  
 2020: Supervisor, undergraduate Honors in the Major, Ecology and Evolution, FSU (Eli Myron)  
 2019: Committee member, MSc, Halmos College of Natural Sciences Nova Southeastern University (S. Eagan)  
 2019: Supervisor, undergraduate Independent Study, Ecology and Evolution, FSU (Lucia Gil-Morales)  
 2019: Supervisor, undergraduate Independent Study, Ecology and Evolution, FSU (Halle Velasquez)  
 2019: Co-supervisor, MSc Earth Ocean and Atmospheric Sciences, FSU (A Alfasso)  
 2018: Committee member, MSc, University of South Florida, College of Marine Science (K Davis)  
 2017: Co-Supervisor, MSc Earth Ocean and Atmospheric Sciences, FSU (AD Heil)  
 2017: Committee member, MSc, Fish Ecology, University of South Florida (K Wall)  
 2015: Supervisor, undergraduate Independent Study, Ecology and Evolution, FSU (M Olguin)  
 2012: Committee member and co-supervisor, MSc Marine Biology, UNCW (A. Zilg)  
 2010: Committee member and co-supervisor, PhD Marine Biology, University of Oregon (M. Wolf)  
 2008: Committee member and co-supervisor, MSc Marine Biology, NOVA Southeastern (K. Shirur)  
 2006: Committee member and co-supervisor, MSc Marine Biology, University of Oregon (M. Holmes)  
 2005: Supervisor for an undergraduate student (S. Bund)

**CERTIFICATIONS AND PERTINENT SKILLS:**

Current: AAUS Scientific Diver. FSU academic dive program board member  
BSAC qualified sports diver (1988). Nitrox certified (1995), VIMS dive team member (1994-1996), NOAA diver certified to 130ft (1995), Aquarius saturation diver (1995), HBOI dive team (1997-2002), FWC dive team (2006-2007). Pediatric First Responder (2003-2005), EMT-B (1993-1995), Emergency Vehicle Operator (1994).

**FEDERAL SERVICE:**

Coral Advisory Panel Vice Chair, South Atlantic Fisheries Management Council (2019-present). Systems Management Plan Working Group, South Atlantic Fisheries Management Council (2017-present)  
Coral HAPC working group, Gulf of Mexico Fishery Management Council (2015-2018)  
Coral Scientific and Statistical Committee, Gulf of Mexico Fishery Management Council (2013-present)  
Conservation Seat, Olympic Coast National Marine Sanctuary Advisory Council (Jan 2012 - 2013)  
Coral Advisory Panel, South Atlantic Fisheries Management Council (2005-2019).

**MEMBERSHIPS**

American Academy of Underwater Sciences  
Deep Sea Biology Society  
American Geophysical Union