# Pamela Hallock Muller, Ph.D., Professor University of South Florida–College of Marine Science

# **Curriculum Vitae**

# General Data

Name:Pamela Hallock MullerAddress:College of Marine ScienceUniversity of South FloridaInitial Date of USF Employment/August 1983140 Seventh Ave. S.Initial Rank:St. Petersburg, FL 33701Present Rank:Phone:727–553–9567e-mail:pmuller@ usf.eduwebsite:www.marine.usf.edu/reefslab

# Education

Institution	<u>Field of</u> <u>Study</u>	Degree	Date
University of Montana, Missoula	Zoology	B.A.	June 1969
University of Hawaii, Honolulu	Oceanography	M.S.	May 1972
University of Hawaii, Honolulu	Oceanography	Ph.D.	May 1977

# Employment

2001–Present	Professor, College of Marine Science, University of South Florida, St. Petersburg, FL
1988–2001	Professor, Department of Marine Science, University of South Florida, St. Petersburg, FL
1983–1988	Associate Professor, Department of Marine Science, University of South Florida,
	St. Petersburg, Florida
1979–1983	Assistant Professor, Faculty of Earth Sciences, The University of Texas of the
	Permian Basin, Odessa, Texas
1978–1979	Visiting Assistant Professor, Faculty of Earth Sciences, The University of Texas of the Permian Basin

#### Postdoctoral Research

Institute for Historical Geology and Paleontology, University of Copenhagen, Denmark (1978) Institute of General Microbiology, Kiel University, Federal Republic of Germany (1979)

# Field Research

Chief Scientist or Co-Chief Scientist on nine research cruises, participant on ten others, including IODP Leg 194. Extensive field experience (50 years) using SCUBA and enriched air (NITROX) in reef areas worldwide, including 10–day saturation mission in 1994.

# Areas of Specialization

Role of nutrients, light, and ocean chemistry in coral reefs, carbonate sedimentology, and paleoceanography; role of algal symbiosis in carbonate production, community structure, and evolution.

Biology/paleobiology/ecology/paleoecology of larger Foraminifera, including distributions, population dynamics, and functional morphologies, with applications in studies of environmental quality (e.g., bioindicators), paleoenvironments, carbonate sedimentation, and global environmental change. Online at:

https://en.wikipedia.org/wiki/Pamela\_Hallock https://www.museumoftheearth.org/daring-to-dig/bio/hallock-muller https://ms-my.facebook.com/AdvanceUSF/posts/2957931724426291

#### Honors, Awards, Biographies

1965–1969 1966 1968 1968 1971–1973 1976 1979, 1982 1981 1987 1991 1994 1995–present 1999 2000 2000–present 2002 2012 2012 2012 2012 2013 2014 2015 2016 2018 2018 2018	University of Montana Alumni Association Scholarships Elected to Alpha Lambda Delta Scholastic Honorary, University of Montana Elected to Phi Sigma Biological Honorary, University of Montana Ational Science Foundation Traineeship, University of Montana National Science Foundation Traineeship, University of Hawaii ARCS Foundation Scholarship for a graduate student in the sciences, Univ. of Hawaii Nominee for Outstanding Teacher at the University of Texas of the Permian Basin. Listed in Outstanding Young Women of America NASA/ASEE Summer Faculty Fellowship Listed in American Men and Women of Science & Who's Who in American Women W. Storrs Cole Memorial Research Award, Geological Society of America Listed in Who's Who in America Association for Women Geoscientists Outstanding Educator Award Keynote Speaker, 10 <sup>th</sup> Symposium on the Geology of the Bahamas Distinguished Speaker Program, Association for Women Geoscientists USF Outstanding Research Achievement Award Elected Fellow, The Paleontological Society Alfred P. Sloan Foundation Minority Ph.D. Program's Mentor of the Year Recognized as one of the Top 25 Women Professors in Florida. USF-CMS Graduate Mentor of the Year Joseph A. Cushman Award for Excellence in Foraminiferal Research USF Graduate Mentor of the Year Albert Nelson Marquis Lifetime Achievement Award Kosove Distinguished Graduate Teaching and Service Award Hallock & Schlager (1986) named one of ten "Landmark Papers in Carbonate Scalimentelsmund Stratisenshi but the American American Marginstin of Datraleum Coelecieto
2019	Sedimentology and Stratigraphy" by the American Association of Petroleum Geologists Raymond C. Moore Medal for Excellence in Paleontological Research, Society for Sedimentary Geology (SEPM)
2021	Elizabeth Hurlock Beckman Award from the American Psychological Association for inspiring a former PhD student to create an organization that has demonstrably conferred a benefit on the community at large (i.e., Melanie McField for creating the Healthy Reefs for Healthy People Initiative).

Professional Organizations, Offices and Editorial Boards

Cushman Foundation for Foraminiferal Research (Board of Directors 1990–2020; Vice President 1994, 2010; President 1995–96; 2011; Lifetime Member)

Geological Society of America–Fellow (W.Storrs Cole Award Selection Committee: 2003–15) Paleontological Society–Fellow (Schuchert Award Committee: 1996–97; Strimple Award Committee:

2013–15; Fellows and Medalist Recommendation Committee: 2016–2017)

Association for Women Geoscientists (Lifetime Member); Distinguished Speaker List:1999–2023 Association for Women in Science (Member)

American Academy of Underwater Sciences (Member)

(Technical Chair–"Diving for Science in the 21<sup>st</sup> Century", the 20<sup>th</sup> Annual AAUS Symposium, 2000) SEPM–Society for Sedimentary Geology including North American Micropaleontological Section

(Permian Basin Section–Technical Editor of annual guidebooks 1981, 1982; Second Vice President 1982–83; Publicity Chair for 1995 SEPM Congress on Sedimentary Geology;

Executive Council–Paleontology Councilor 1997–99; Moore Medal Selection Committee

Chair 1997–99; AGI Representative 1998–99; Nominations Committee 2002)

Member, International Society for Micropaleontology, Microbiology and Meiobenthology:

Member, Organizing Committee, EMMM'2002, Vienna, Austria, September 2002.

American Geophysical Union/AGU (Member)

American Society of Limnology and Oceanography/ASLO (Member)

Invited Member, International Scientific Advisory Board for the Leibniz Center for Marine Tropical Marine Research (ZMT), in Bremen, Germany, 2011–2019

Professional Organizations, Offices and Editorial Boards (cont)

Member, Scientific Organizing Committee, Forams 2014–International Symposium on Foraminifera, Concepcion, Chile, January 2014; Forams 2018–Edinburgh, Scotland; Forams 2023–Perugia, Italy

Member, Scientific Organizing Committee, Member of the Scientific Committee of the 3rd Conference of the Arabian Journal of Geosciences (CAJG), held online, on 2–5 November 2020

Associate Editor–Journal of Foraminiferal Research (1985–2003)

Associate Editor for Larger Foraminifera–Journal of Foraminiferal Research (2004–2014, 2019–)

Editor-Journal of Foraminiferal Research (2015-2018)

Editorial Board-Marine Micropaleontology (1990-2012)

Editorial Board–*Geology* (1996–1998)

Editorial Board–*Diversity* (2021–)

Teaching and Other Instructional Activities

<u>Course Instruction</u>-University of Texas of the Permian Basin (1978–1983):

Junior-level courses: Introduction to Paleontology, Biostratigraphy, Stratigraphy, Minerals and Rocks, Scientific Writing, Statistics.

Senior-level courses: Sedimentology, Micropaleontology, Paleoecology, Oceanography.

Graduate-level courses: Advanced (Carbonate) Stratigraphy, Clastic Depositional Systems.

<u>Course Instruction</u>–University of South Florida (1983–present)

- Senior-level courses: Geology of Florida; Coral Reefs: Past, Present, Future; Coral Biology and Reef Ecology
- Graduate-level courses: Paleoceanography, Marine Micropaleontology, Biogenic Sedimentation, Marine Paleoecology, Evolution and Ecology of Reefs, Foraminiferal Biology, Quantitative Ecology Seminar, Topics in Reef Research, Surveying Natural Populations, Carbonate Sediments and Ocean Acidification, Carbonate Sediments in Geological History, Writing a Scientific Paper
- Selected Lectures in Team-taught Graduate-level Courses: Biological Oceanography, Geological Oceanography, Foundations in Biological and Fisheries Oceanography, Dynamics of Marine Ecosystems

Master's Thesis Advisory Committees

University of Texas of the Permian Basin

Jackie L. Carter–Counseling 1982

Linda B. Forward–Life Science 1984 (Co-chair while at UTPB)

University of South Florida-completed

1. David Martin-Marine Science-1984

2. Jean Hebert-Marine Science-1985

- 3. Rosanne Joyce-Marine Science-1985
- 4. Joan Hutton-Marine Science-1986
- 5. David Mearns-Marine Science-1986

6. Theresa Cottey–Marine Science (Chair)–1987

7. Jennifer McNeilly-Marine Science-1987

8. Nina Triffleman–Marine Science (Chair)–1989

9. Mark Flock-Marine Science-1989

10. Helen Talge-Marine Science (Chair)-1991

11. Michael Harris–Marine Science–1992

12. Kelly Boomer Donnelly–Marine Science (Chair)–1993

13. Strawn Knaup Toler–Marine Science (Co-Chair)–1993

14. Elizabeth Cockey-Marine Science (Chair)-1994

15. Julie Garrett-Marine Science (Co-Chair)-1994

16. Jodi Harney–Marine Science (Chair)–1996

17. Merrie Beth Neeley-Marine Science-1996

18. Kathryn Fitzsimmons-Marine Science (Chair)-1996

19. Patty Pratt–Marine Science–1997

20. Andrea Mosier-Marine Science-1998

Master's Thesis Advisory Committees (cont.)-University of South Florida-completed

#### 21. Dawn Olson–Marine Science (Co-Chair)–1998

22. Fred Stengard–Marine Science–1998

23. Jennifer Cummins–Marine Science–2000

24. Matthew Patterson-Marine Science (Chair)-2000

25. Nicole Turkson–Marine Science (Chair)–2000

26. David Palandro-Marine Science-2000

27. Elizabeth Merman-Marine Science-2000

28. Heidi Crevison-Marine Science (Chair)-2001

29. Keith Hackett–Marine Science (Chair)–2002

30. Ana Coye Hoare-Marine Science (Chair)-2002

31. Jennifer Jacukiewicz-Marine Science (Chair)-2002

32. Matthew Lybolt-Marine Science (Chair)-2003

33. Elizabeth Tyner–Marine Science–2003

34. Donna O'Dell Berns-Marine Science-2003

35. Stephen Obrochta–Marine Science–2004

36. Kathryn Sheps-Marine Science (Chair)-2004

37. Robert Walker-Marine Science (Chair)-2004

38. Michael Callahan-Marine Science (Chair)-2005

39. Elizabeth Carnahan-Marine Science (Chair)-2005

40. Camille Daniels-Marine Science (Chair)-2005

41. Andrew Farmer–Marine Science–2005

42. Martin Montes–Hugo–Marine Science–2005

43. Elizabeth Schlansky Singh–Marine Science–2005

44. Nicole Caesar–Marine Science (Chair)–2006

45. Dana Gaydos–Marine Science (Chair)–2006

46. Stephen Gustafson-Marine Science (Chair)-2006

47. Inia Soto-Marine Science-2006

48. Kate Ciembronowicz-Marine Science-2007

49. Kris Stair–Marine Science–2007

50. Karen Atwood–Marine Science (Co-chair with G. Vargo)–2008

51. Rebecca Baker–Marine Science (Chair)–2008

52. Alexa Ramirez–Marine Science (Chair)–2008

53. Kelley Anderson–Marine Science (Chair)–2008

54. Ian Dow–Marine Science–2008

55. Ryann Williams-Marine Science (Chair)-2009

56. Brienne Engel–Marine Science (Chair)–2010

57. Michael Drexler–Marine Science (Chair)–2011

58. Adrienne George–Marine Science (Chair)–2011

59. Christy Stephenson-Marine Science (Chair)-2011

60. Amy Wallace–Marine Science (Chair)–2011

61. Kathryn Wirt–Marine Science (Chair)–2011

62. Kristy Menning–Integrative Biology–2012

63. Bridget McCrickard Mathers–Marine Science (Chair)–2012

64. Mark Hartman–Marine Science (Chair)–2012

65. Benjamin Ross–Marine Science (Chair)–2012

66. Heidi Toomey–Marine Science (Chair)–2013

67. Kristin Netchy-Marine Science (Chair)-2014

68. Lucy Bartlett–Marine Science (Chair)–2014

69. Heather Bender–Geology–2015

70. Stephanie Lawler-Marine Science-2016

71. Sean Beckwith–Marine Science (Chair)–2016

72. Catherine Smith-Marine Science (Chair)-2016

73. Jennifer Brizzolara-Marine Science-2017

74. Kara Wall-Marine Science-2017

#### Master's Thesis Advisory Committees (cont.)-University of South Florida-completed

- 75. Erin Cuyler-Marine Science-2017
- 76. McKenna Martin–Marine Science (Chair)–2018

77. Katie Davis–Marine Science–2018

- 78. Christian Gfatter-Marine Science (Chair)-2018
- 79. Elizabeth Simpson Viau–Marine Science–2019
- 80. Kate Dubickas–Marine Science (Co-chair with K. Daly)–2019
- 81. Kyle Amergian-Marine Science (Chair)-2019
- 82. Tiffany Boisvert–Marine Science–2022

# Master's Thesis Committees in progress

Shaniqua Gladney–Marine Science Tiffany Raetzel–Marine Science

#### Master's Thesis Examination Committees-Other Universities

- Martina de Freitas Prazeres, Programa de Pós–Graduação em Oceanografia Biológica, Universidade Federal do Rio Grande, Rio Grande do Sul, Brazil– 2011.
- Joseane Aparecida Marques, Programa de Pós–Graduação em Oceanografia Biológica, Universidade Federal do Rio Grande, Rio Grande do Sul, Brazil–2014.
- 3. Stephanie Vivien Hayman, College of Agriculture, Engineering and Science, University of Kwazulu–Natal, Durban, South Africa–2015.
- 4. Roselyn Naidu, University of the South Pacific, Fiji-2015

# Doctoral Dissertation Advisory Committees-University of South Florida-completed

- 1. Gregg Brooks–Marine Science–1986
- 2. James Gibeaut–Marine Science–1991
- 3. Evamaria Koch–Marine Science–1993
- 4. J. William Louda–Marine Science–1993
- 5. Mark Peebles–Marine Science (Chair)–1993
- 6. Stephen W. Snyder-Marine Science-1994
- 7. David Mallinson–Marine Science–1995
- 8. Eunil Lee-Marine Science-1996
- 9. Marguerite Toscano-Marine Science-1996
- 10. Kimberly Yates-Geology-1996
- 11. David Duncan-Marine Science-1997
- 12. Dale Griffin-Marine Science-1999
- 13. Erin Lipp–Marine Science–1999
- 14. Renate Bernstein–Marine Science–2000
- 15. Thomas Dix–Marine Science (Chair)–2001
- 16. Kim Donaldson–Marine Science–2001
- 17. Melanie Dotherow-McField-Marine Science (Chair)-2001
- 18. Pamela Sutton–Marine Science–2001
- 19. Helen Talge–Marine Science (Chair)–2002
- 20. Strawn Toler-Marine Science (Chair)-2002
- 21. Dana Williams-Marine Science (Chair)-2002
- 22. Bret Jarrett-Marine Science-2003
- 23. Anne McMillan–Jackson–Biology–2003
- 24. Stephaney Shehane–Marine Science–2003
- 25. Lauren McDaniels–Marine Science–2005
- 26. David Palandro–Marine Science–2006
- 27. Elizabeth Fisher–Marine Science (Chair)–2007
- 28. Roy Price–Geology–2008
- 29. Armando Hoare-Mathematics/Applied Statistics-2008

Doctoral Dissertation Advisory Committees–University of South Florida–completed

30. Teresa Greely–Science Education–2008

- 31. Lore Ayoub–Marine Science (P. Coble, Co-chair)–2009
- 32. Jennifer Dupont–Marine Science (Chair)–2009
- 33. Bryan McCloskey–Marine Science (Chair)–2009
- 34. Heidi Souder-Marine Science (R. Byrne, Co-chair)-2009
- 35. James Ivey–Marine Science–2009
- 36. David Karlen-Biology-2010
- 37. Sarine Manoukian–Marine Science–2011
- 38. Julie Galkiewicz-Marine Science (Chair)-2011
- 39. Camille Daniels–Marine Science (Co-chair with Mya Breitbart)–2011
- 40. Patrick Schwing-Marine Science-2011
- 41. Daniel Otis–Marine Science–2012
- 42. Paul Suprenand–Marine Science (Co-chair with JJ Torres)–2013
- 43. Luis Miranda–Marine Science–2013
- 44. Regina Easley–Marine Science–2013
- 45. Lara Henry–Marine Science (Co-chair with JJ Torres)–2013
- 46. Brian Barnes–Marine Science–2013
- 47. Candace Simmons–Marine Science–2013
- 48. Mark Patsavas–Marine Science–2014
- 49. W. Noland Elsaesser–Marine Science (Co-chair with N. Blake)–2014
- 50. Paul Knorr-Geology-2014
- 51. Bo Yang–Marine Science–2015
- 52. Katherine Wirt–Marine Science–2016
- 53. Kwasi H. Barnes–Marine Science–2016
- 54. Natasha Mendez–Ferrer–Marine Science–2016
- 55. Michael Martinez–Colon–Marine Science–2016
- 56. Maria Vega-Rodriguez-Marine Science-2016
- 57. Shane Dunn–Marine Science–2016
- 58. Josh Breithaupt-Marine Science-2017
- 59. Adrienne George–Marine Science (Chair)–2017
- 60. Nora (Katie) Douglas–Marine Science–2018
- 61. Christian Haller–Marine Science (Co-Chair)–2018
- 62. Elizabeth Brown–Marine Science (Chair)–2018
- 63. Benjamin Ross-Marine Science-(Chair)-2018
- 64. Selena Kupfner Johnson-Marine Science (Chair)-2019
- 65. Savanna Hartman–Marine Science–2023
- 66. Cara Estes–Marine Science–Marine Science–2023

Dissertation Committees-in progress

Natalia Lopez-Figueroa–Marine Science (Chair) Laura Carvalho Britto C Azevedo–Marine Science Juan Millan-Otoya–Marine Science Angeligue Rosa Marin–Marine Science (Chair)

**Dissertation Defense Chair** 

Nicholas Curtis–USF Department of Biology–2006 Keith Hackett–USF Department of Mathematics and Statistics–2011 Michael Middlebrook–USF Department of Integrative Biology–2012 Doctoral Dissertation Advisory Committees–Other Universities University of Calcutta (External Examiner) 1. Mrinal Khanti Ghosh-Zoology-1988 2. Sri Sabyasachi Majumdar-Marine Science-2003 University of Tennessee at Knoxville (Outside Reader) 3. Jonathan Bryan–Geology–1991 James Cook University, Townsville, Australia ((External Examiner) 4. Melissa Lobegeier-Earth Sciences-2001 Universitat de les Illes Balears, Spain (Co-advisor) 5. Guillem Mateu Vicens-Biology-2007 University of Miami, Miami, Florida-2011 (Committee Member) 6. Rebecca Albright-RSMAS University of Queensland, Australia (Independent Examiner) 7. Yogeeta Roshni Narayan-2011 Macquerie University, NSW, Australia (Independent Examiner) 8. Briony Mamo-2011 University of Technology, Sydney, NSW, Australia (External Examiner) 9. Sutinee Sinutok-2012 University of Queensland, Australia (Independent Examiner) 10. Joost Wijtze van Dam-2013 Ain Shams University, Egypt (Dissertation Committee Member) 11. Safia Gaber Abdullah Almenoufy-2014 Pondicherry University, Pudhucherry, India (External Examiner) 12. P. Mothilal Yuvaraja-2014 Utrecht University, The Netherlands (External Examiner) 13. Vibor Novak-2014 Universitat Autònoma de Barcelona, Spain (External Examiner) 14. Maria Eugenia Arriaga Cavalieri-2016 King Fahd University of Petroleum and Minerals, Dhahran, Saudi 15. Abduljamiu Olalekan Amao-2017 (Dissertation Committee Member) University of Bremen and ZMT, Germany (Dissertation Committee Member) 16. Marleen Struh–January 2018 Florida International University, Miami (Dissertation Committee Member) 17. Maria Sider-Geosciences-May 2021 Universitat de les Illes Balears, Spain (External Examiner) 18. Anna Khokhlova–Marine Ecology–2023 Pondicherry University, India (External Examiner) 19. Barbilina Pam-Ocean Studies and Marine Biology-2023 Università degli Studi di Milano-Bicocca, Italy (External Reviewer) 20. Mariani Luca-Scienze chimiche, geologiche e ambientali-2023 Università di Milano Bicocca (External Reviewer)

Mentor/advisor for CMS Minority Recruitment Programs:

Sloan PhD program: Michael Martínez-Colón, PhD 2016 Natasha Mendez-Ferrer, PhD 2016 Adrienne George, MSc, PhD 2017 NSF-Bridge to Doctorate Program for minority students: Camille Daniels, MSc 2005, PhD 2011 Eddy Flores-2005-2006 withdrew Rvann Williams, MSc 2009 Adrienne George, MSc, PhD 2017 Natasha Mendez-Ferrer, PhD 2016 Natalia Lopez-Figueroa, PhD candidate-in progress McKnight Doctoral Fellowship Angelique Rosa Marin, PhD-in progress Other Minority Students Supervised Nicole Turkson, MSc 2000 Ana Hoare, MSc 2002 Nicole Caesar, MSc 2006 Alexa Ramirez, MSc 2008 Kwasi Barnes, PhD 2016

Postdoctoral Researchers Hosted or Supervised:

Niyazi Avsar, Gukurova University, Turkey–1986 Eulalia Gili–Folch, Autonoma University of Barcelona, Spain–1991 Bayu Ludvianto, Benkulu University, Indonesia–1996–97 Timothy Ourbak, CMS–USF Endowed Postdoctoral Researcher–2007–2008 (Co-advisor) Jennifer Dupont–Knauss Fellow–2009–10 Julia Galkiewicz–Knauss Fellow–2012–13 Ahmed Mohamed Badreldin, Alexandria University, Egypt, 2022

Predoctoral Visiting Researchers (including "Sandwich" Scholars) Hosted/Supervised:

Kazuhito Fujuta, Tohuku University, Sendai, Japan–1998 Maria Elena Chávez–Marrero, Instituto de Ocenologia, Reparto Flores, Cuba–2003 Guillem Mateu–Vincens, Universitat de les Illes Balears, Spain–2003, 2005, 2006 Shi Yukun, Nanjing University, China–2007–08 Antje Funcke, University of Brehmen, Germany–2009–10 Imam Bachtiar, Bogor Agricultural University, Indonesia–2009–10 Martina De Freitas Prazeres, University of Rio Grande dul Sul, Brazil–2011 Maria Eugenia Arriaga Cavalieri, Universitat Autònoma de Barcelona, Spain–2014 Marleen Struh, University of Bremen and ZMT, Germany–2014, 2015 Undergraduate Students hosted/supervised:

Michelle Williams, Wichita State University, Wichita, KS-Summer 2000 Jenny Nichols, Environmental Science/Policy, USF, St. Petersburg–Spring 2003 Heidi Gillum, Friends University, Wichita, KS-Summer/Fall 2003 Zaki Moustafa, Duke University-2008 Manuscript published in Proc. 2008 International Coral Reef Symposium Elise Keister, Center for Industrial & Interdisciplinary Mathematics, USF-2009 published project in the Undergraduate Journal of Mathematical Modeling: One + Two, http://shell.cas.usf.edu/math/mug/ujac/f09/ Denise Bortnak, Department of Integrative Biology, USF-2009-10 Brittany Lyp, Environmental Science and Policy, STREAMS Fellow-2008-12 Brooke Freeberg, Environmental Science and Policy, STREAMS Fellow-2009-12 Ashley Earls, Claudia Burriss-Applied Calculus II Projects-Fall 2010 Sofialejandra Bejarano-Applied Calculus II Project-Spring 2011 Elizabeth Stoever-Applied Calculus II Project-Fall 2011 Kasi Techron-Environmental Science and Policy, USF St Petersburg-2011-12 Stephanie Lawler-Environmental Science and Policy, USF St Petersburg-2011 Brittani Woolverton–Environmental Science and Policy. USF St Petersburg–2012 Elizabeth Johnsey–Environmental Science and Policy, USF St Petersburg–2012–14 Benjamin Prueitt-Environmental Science and Policy, USF St Petersburg-Senior Honors Thesis Advisor-2012-13 Sophia Grammerler-Integrative Biology-2014 Marshall Lester–Environmental Science and Policy (Intern Spring 2015) Garrett Miller-Biology USFSP, Senior Honors Thesis Advisor-December 2015 Alexis Valencia-Biology USFSP-Fall Semester 2016

Avion Stevenson-Environmental Science–USFSP–Summer 2021

Middle/High School Students Hosted/Supervised:

Christy Fascenello, Center for Advanced Technology, Lakewood High School–1998–99 Courtney Borowski, Center for Advanced Technology, Lakewood High School–1998–99 1999 International Science Fair–NASA Internship Award

Zaki Moustafa, Dreyfos High School of the Arts, West Palm Beach, FL–2004–08 Science mentor through high school: Zaki was invited to the International Science and Engineering Fair (ISEF) each year and in 2008 was awarded the "The Pulse of the Planet Award" by National Ocean and Atmospheric Association and the INTEL ISEF–Animal Science–4th Place Grand Award

Sage Hazlett, Home Schooled, Clearwater, Ist place Middle–School Science Fair–2014

University, College, Departmental, or SUS Councils or Committees The University of Texas of the Permian Basin Faculty Senate Curriculum Committee (1981–1982, chair: 1982) Library–Media Committee (1978–1982) Financial Aid and Scholarship Committee (1979–81, 1982–83) Alumni Committee (1981–82) Advisory Committee for the Selection of a Chief Administrative Officer (President) of the University of Texas of the Permian Basin (1982–83) University of South Florida (\*Current) Department of Marine Science Space Committee (1983-87) Department of Marine Science Budget Committee (Chair) (1984-87) Department/College of Marine Science Admissions and Awards Committee (1984-2003) \*Dept/College of Marine Science Tenure and Promotion Committee (1986–), Co-chair (2017– present) Department of Marine Science Curriculum Committee (Chair) (1987–92) Department/College of Marine Science Scientific Diving Committee (Chair) (1987-02) Marine Science School/College Initiative Committee (1988–90) Department of Marine Science Faculty Recruiting Committee (1989–97, Chair 1995–97) Department of Marine Science Search Committee for Physical Oceanographer (1995) Department of Marine Science Search Committee for Marine Geologist (Chair 1995–96) Department of Marine Science Search Committee for Marine Geochemist (1996) Department/College of Marine Science Faculty Evaluation Committee (1990-Chair, 1992, 1994, 1996, 2002, 2006–Chair, 2008, 2009–chair; 2012, 2013; 2018, 2019–chair, 2020) Department of Marine Science PEP Evaluation Committee (1996, 1998-Chair) Department of Marine Science Personnel Committee (1989-97) College of Arts and Sciences Graduate Curriculum Committee (Chair-1990-92) \*University Diving Control Board (Member 1987–2024; Chair 1992–99) University Search Committee, Dean of Arts and Sciences (Member 1989–90) Search Committee, Dean of St. Petersburg Campus (Substitute Member 1991) University of South Florida Research Council (Member 1992–96) University of South Florida Status of Women Committee (Member 1998-2001) Biology Department Search Committee for a Marine Ecologist (Member 1999) College of Marine Science Transition Planning Committee (Member 2000) Dean's Advisory Council, College of Marine Science (Member 2000-2002; 2007-09) College of Marine Science Search Committee for Biological Oceanographer (2002-05) College of Marine Science Evaluation Oversight Committee (Chair-2003-05; Member-2012-13) Search Committees for Dean of the College of Marine Science (2006–2008; 2010) Member, USF Task Force Steering Committee on Faculty Roles, Responsibilities and Rewards; Rewards Working Group Chair (2008–09) CMS Search Committee for Remote–Sensing Oceanographer and Fish Ecologist (2008–09) CMS Center for Ocean Technology Advisory Committee (2008–09) CMS Search Committee for a Paleoclimatologist (2010–11) CMS Ad–Hoc Committee on Undergraduate Teaching (2011–12) CMS Search Committee for a Paleooceanographer (2012-13) CMS Dean's Advisory Council, College of Marine Science (Chair 2012-14) CMS Search Committee for a Biological Oceanographer (2014–15) \*USF Graduate Council (Secretary 2022–24), including Curriculum Committee (Member 2005–08, 2009–12, 2014–24; Co-chair of Curriculum 2010–12) CMS Search Committee for a Chemical Oceanographer (2015–16) \*CMS Curriculum Committee (Member 2011–24) CMS 50<sup>th</sup> Reunion Committee (Co-chair 2016–17) USF Office of Research Integrity & Compliance: Investigation Panel on Research Misconduct (2020-21)

SUS/BOR/UFF Committees

UFF/BOR Joint Task for on SUS Faculty Salaries (Member 1999-2000)

#### Civic and Public Service Activities

- Member and scientific advisor, Odessa Meteor Crater Task Force, Tourism Committee, Odessa Chamber of Commerce, Odessa, Texas (1979-1983)
- Career Day Speaker on Oceanography for Midland and Lee Freshman High Schools, Texas (1980-83) Marine Science Consultant to South Baywood Neighborhood (Southeast St. Petersburg, FL) Girl Scouts (1983 - 85)

Book Scholarship Committee Chair, USF-St. Petersburg Women's Organization (1985-86)

- Lecture on coral reefs/marine science/paleontology (or locate lecturers) for Pinellas County Schools Community Resources Bank (1984–1998)
- Member Scientific Advisory Panel, American Littoral Society-Coral Reef Conservation Center, Key Biscayne, Florida (1988-1992)

University of South Florida-St. Petersburg Speaker's Bureau (1983-1998; discontinued at that time) Judge, 35th State Science and Engineering Fair (1990)

Judge, Pinellas County Science Fair (1989, 1991, 1994, 1995, 1999, 2003, 2023, 2024)

Participant, Save Our Shores Coastal Cleanups: annually 1993-2022

Mentor for two Lakewood High School (Center for Advanced Technologies) science students (1996–97) American Association of University Women Legal Advocacy Fund Speaker (1999–2000)

Organized teams for Oasis Bowl-a-thon, USF, St. Petersburg (2000, 2002)

Member: Special Coral Scientific and Statistical Committee, Gulf of Mexico Fishery Management Council (1999 - 2003)

Mentor for Zaki Moustafa, West Palm Beach, Florida, 2005, 2006, 2007, 2008 winner of Senior Division Zoology and 2005 Best of Show, Florida State Science Fair

Expert Judge or Science Judge, Spoonbill Bowl (West Florida Regional qualifier for the National Ocean Science Bowl)-annually, 2006-2010 and 2012-2022; also includes reviewing questions prior to the competition.

Expert Judge, National Ocean Science Bowl-2011

Presentation and Writing Coach, McKnight Doctoral Fellowship Program Mid-Year Meeting Research and Writing Conference, 2012, 2013.

Great American Teach In-Presented talks on careers in science at the Thonotosassa Community Middle School, 10/2015

Camper Interviews, Oceanography Camp for Girls, nearly every year since camp began in 1991.

Reviewer of student applications for the MSPHD program, a nation-wide program aimed at enhancing success in graduate students from underrepresented minorities, annually 2010-2015

Member, Co-organizer of the Salty Dogfish Team for the Tampa Bay SPCA Petwalk-1990s to 2023. Member and participant in ARCS Tampa Bay, a local chapter of ARCS National that raises funds to

support graduate students in STEM disciplines (through 2017). Participant in the Southeastern Guide Dogs Walkathon 2017-2024.

Neighborly Senior Care Network: Meals on Wheels Volunteer-ongoing

# **Research and Creative Activities**

Publications (\*my graduate student;\*\*student on whose committee I served)

#### Articles in Refereed Journals

- 1. Muller, P. Hallock. 1974. Sediment production and population biology of the benthic foraminifer *Amphistegina madagascariensis*. Limnology and Oceanography 19:802–809.
- 2. Muller, P. Hallock. 1978. Carbon-14 fixation and loss in a foraminiferal-algal symbiont system. Journal of Foraminiferal Research 8:34–41.
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- Hallock, P., M. Dotherow McField, and S. Samson. 1999. The prototype radiometer that survived Hurricane Georges. The Slate, A News Publication of the American Academy of Underwater Sciences. October 1999, p. 1.
- 9. Hallock, P. 2008. Memorial to Johanna Martha Resig (1932–2007). Journal of Foraminiferal Research 38(1): 90–91.
- Amao, A., Hallock, P., Kaminski, M.A., Argadestya, I., Frontalini, F. 2022. Modelling climatically and ecologically suitable environment for benthic foraminiferal species. Research Square, DOI: https://doi.org/10.21203/rs.3.rs-1755000/v1

Books, Guidebooks or Special Volumes Edited

- Jons, R. D., P. Hallock and W. R. Gibson (eds.). 1981. Marathon–Marfa Region of west Texas symposium and guidebook. Permian Basin Section–Society of Economic Paleontologists and Mineralogists Publ. 81–20, 227 pp.
- Cromwell, D., P. Hallock and M. van der Loop (eds.). 1982. Middle and Upper Pennsylvanian System of north–central and west Texas (outcrop to subsurface). Permian Basin Section–Society of Economic Paleontologists and Mineralogists. Publ. 82–21, 284 pp.
- 3. Matthews, R.K. 1982.Reviewed manuscript for *Dynamic Stratigraphy*, 2nd Edition, Prentice–Hall, Englewood Cliffs, NJ.
- 4. Strykowski, J.,and Bonem, R. 1991. Reviewed manuscript for *Palaces under the Sea: The Coral Reefs*, W. H. Freeman, New York:
- 5. Hallock, P., and French, L. (eds.). 2000. Diving for Science in the 21<sup>st</sup> Century. Proceedings, 20<sup>th</sup> Annual Symposium of the American Academy for Underwater Science, Nahant, Massachusetts, 69 pp.
- Lee, J.J. and P. Hallock (eds). 2000. Advances in the Biology of Foraminifera. Micropaleontology Vol. 46, supplement 1, 198 pp.
- Yanko–Holmbach, V., Arnold, A., Hallock, P., Ishman, S. McGann, M., and Parker, W.C. 2002. EMMM'2002, The Third International Congress "Environmental Micropaleontology, Microbiology and Meiobenthology", Vienna, Austria, 09/02/02, Program and Abstracts, 232 pp.
- 8. Poag, C.W. 2014. Reviewed manuscript <u>for Ecologic Atlas of Benthic Foraminifera of the Gulf of</u> <u>Mexico.</u> Texas A&M University Press, College Station.
- Yanko, V. Quaternary Foraminifera of the Caspian-Black Sea Corridors: Taxonomy, ecology, paleoenvironmental applications, Springer Nature. (P. Hallock provided extensive scientific and English language edits on this 400+ page tome).

# <u>Book Reviews</u>

- 1. Hallock, P. 1987. *The Gulf of Aqaba–Ecological Micropaleontology*. Reiss, Z., and L. Hottinger, Carbonates and Evaporites 2(1):85–86.
- 2. Hallock, P. 1992. Upper Cretaceous Stratigraphy of the Island of Brac. Gusic, I. and V. Jelaska. Palaios 7(1):125–127.
- Hallock, P. 1995. <u>Radial Foraminifera; Morphometrics and Evolution</u>, C. W. Drooger, Marine Micropaleontology 24(3/4):359–360.
- 4. Hallock, P. 1995. *Elsevier's Microfossil Wall Chart*, compiled by F. G. Koning. Palaeogeography, Palaeoclimatology, Palaeoecology 113:395–396.
- 5. Hallock, P. 1998. *Cool–Water Carbonates*, edited by N.P. James, SEPM Special Publication No. 56. EOS 79(1):4.
- 6. Hallock Muller, P. 1999. What is Natural? Coral Reef Crisis, J. Sapp. American Paleontologist 7:9–10.
- 7. Hallock, P. 2010. *Taxonomy of Foraminifera from Ningaloo Reef, Western Australia*, by Justin H. Parker. 2009, Journal of Foraminiferal Research, 40(3): 601–602.

Technical Reports

- Miller, J. N., P. Hallock Muller and A. L. Char. 1975. Water quality information storage and retrieval system for Hawaii. Final Report, Phase III. University of Hawaii Water Resources Research Center Technical Memorandum No. 43, 134 pp.
- 2. Muller, P. Hallock. 1975. The distribution and sediment production by shallow–water foraminifera at selected sites on Oahu. Final project report to the Environmental Center, University of Hawaii, 9 pp.
- 3. Muller, P. Hallock. 1976. The distribution of foraminifera in the vicinity of the present and proposed outfalls and the present and predicted effects of the Kahe Power Plant hot water outfall on the benthic foraminiferal community. Report prepared for Hawaiian Electric Company, Inc., 30 pp.
- 4. Muller, P. Hallock. 1977. Distribution of foraminifera in the vicinity of the Kahe offshore outfall. Report prepared for Hawaiian Electric Company, Inc., 10 pp.
- 5. Muller, Pamela Hallock. 1979. Depth adaptation in *Heterostegina*: changes in test shape. Final report to Deutscher Akademischer Austauschdienst, 4 pp.
- Glenn, C. and P. Hallock. 1982. Numerical analysis of foraminiferal assemblages: a tool for recognizing depositional facies in Lower Miocene reef complexes. Part II. Foraminiferal biofacies of the cores of the NIDO B–1 and NIDO B–3A wells, offshore Palawan, the Philippines. Cities Service Company ERG Research Report #119 (G82–32), 102 pp.
- Hallock, P. and C. Glenn. 1982. Numerical analysis of foraminiferal assemblages: a tool for recognizing depositional facies in Lower Miocene reef complexes. Part I. Foraminiferal biofacies of Matinloc 2 and Libro 1 Lower Miocene cores, offshore Palawan, the Philippines. Cities Service Company ERG Research Report #113 (G82–22), 85 pp. Tulsa, Oklahoma.
- 8. Hallock, P. and C. Glenn. 1982. Identification of carbonate depositional facies using larger foraminifera. Cities Service Company ERG Research Report #122, 51 pp.
- 9. Muller, P. Hallock. 1982. Odessa's Meteor Crater. Text for educational brochure printed by the Odessa, Texas, Chamber of Commerce.
- Hallock, P. 1987. Oceanic chlorophyll around carbonate platforms of the western Caribbean: variability from CZCS data. Work summary prepared for NASA/ASEE Summer Faculty Fellowship Program, Goddard Space Flight Center, 1 p.
- Jaap, W. C. and P. Hallock. 1990. Coral Reefs. OCS Study MMS 90–0019, Synthesis of Available Biological, Geological, Chemical, Socioeconomic and Cultural Resource Information for the South Florida Area. Contract No. 14–12–0001–30417 with Continental Shelf Associates, Inc., pp. 97–116, with references pp. 141–153.
- Hallock Muller, P. 1998. Foraminifera as Ecosystem Indicators: Phase 1–A Marine Benthic Perturbation Index; Phase 2–Bioassay Protocols. Proceedings, 1996/97 STAR Grants Ecological Assessment/Ecosystem Indicators Program Review, February 3–5, 1998, Las Vegas, Nevada. U.S. Environmental Protection Agency, p. 9–10.
- Hallock Muller, P. 1999. Gender Disparities in Salaries of Full Professors at the University of South Florida in 1998: Evidence, Consequences, and Recommendations for Solutions. Unpublished report to the University of South Florida, January 1999.
- Hammond, M.A., N.J. Blake, C.W. Dye, P. Hallock–Muller, M.E. Luther, D.A. Tomasko, and G. Vargo. 2000. Effects of Disposal of Seawater Desalination Discharges on Nearshore Benthic Communities. Southwest Florida Water Management District, 180 pp, Appendices A–E.
- 15. Shipboard Scientific Party, 2001. Leg 194 Preliminary Report. ODP Prelim. Rpt., 94 [Online]. Available from World Wide Web:<a href="http://www.odp.tamu.edu/publications/prelim/194\_prel/194PREL.PDF">http://www.odp.tamu.edu/publications/prelim/194\_prel/194PREL.PDF</a>>.
- 16. Crevison, H.L. and P. Hallock. 2002. Foraminifers as Bioindicators: Key Subtropical and Western Atlantic Taxa. On Compact Disc and website: (marine.usf.edu/reefslab/foram/html files/titlepage.htm)
- 17. Hallock, P. 2002. Foraminifera as Ecosystem Indicators. U.S. EPA–NCERQA Star Grant–Final Report, Grant # R82–5869.
- Hallock, P., Robbins, L., Larson, R., Beck, T., Schwing, P., Martínez–Colón, M. and Gooch, B. 2010, West Florida shelf: A natural laboratory for the study of ocean acidification: U.S. Geological Survey Open–File Report 2010–1134.
- 19. Hallock, P. 2011. B–Foraminiferal Assemblages Analysis, Solicitation Number: PR–NC–08–10520, U.S. Environmental Protection Agency.

# Grants and Contracts

- Distribution and sediment production by shallow–water foraminifera at selected sites on Oahu, Hawaii. Principal Investigator. The Environmental Center, University of Hawaii. July 1974–June 1975; \$2,500.
- The distribution of foraminifera in the vicinity of the present and proposed outfalls of the Kahe Point Power Plant. Principal Investigator. Hawaiian Electric Company, Inc. May 1975–August 1976; \$4,000.
- The effects of the Kahe offshore outfall on benthic foraminifera. Principal Investigator. Hawaiian Electric Company, Inc. January–October 1977; \$1,500.
- Coiling direction in *Amphistegina*. Co-investigator. Danish Natural Science Research Council, Copenhagen, Denmark. January–April 1978; 2,400 DKr.
- Depth adaptation in *Heterostegina*: changes in test shape. Co-investigator. Deutscher Akademischer Austauschdienst, Bonn, Federal Republic of Germany. June–August 1979; 2,400 DM.
- The effects of vegetation on spectral signatures at Coyanosa Test Site. Principal Investigator. NASA/GEOSAT Test Case Program. July 1980–December 1981; \$3,600.
- Paleodepth studies of symbiont-bearing, benthic foraminifera. Principal Investigator. National Science Foundation EAR-8026459. July 1981–November 1983; \$30,000.
- Instrumentation for paleodepth studies of symbiont-bearing foraminifera. Principal Investigator. National Science Foundation PRM–8112906. July 1981–June 1982; \$9,500.
- Environmental influence of test morphology in soritid foraminifera from Key Largo, Florida. Principal Investigator. University of South Florida Faculty Research and Creative Scholarship. March 1984–May 1985; \$3,600.
- Comparison of living and total assemblages of larger foraminifera from middle and outer shelf habitats of the Tortugas area. Principal Investigator. Florida Institute of Oceanography (ship time on R/V Bellows). September 1984; \$9,250.
- Effects of particulate organic carbon on calcium carbonate deposition in Caribbean reef systems. Principal Investigator. National Science Foundation EAR–8407781. January 1985–June 1987; \$85,400.
- Travel to the VII International Congress of Protozoology, Nairobi, Kenya, June 1985. University of South Florida Faculty Foreign Travel Fund; \$1,000.
- Image Analysis System, HPLC, and Liquid Scintillation Counter for the University of South Florida's Department of Marine Science. Co-principal Investigator. National Science Foundation BSR–8507343. August 1985–July 1986; \$57,715.
- Florida Geology for Elementary Teachers. Seed Grant from the University of South Florida Center for Excellence in Mathematics, Science, Computers, and Technology. April–September 1986; \$1,000.
- Marine Micropaleontology Class Cruise, Fall 1986. Chief Scientist. Florida Institute of Oceanography (ship time on R/V <u>Suncoaster</u>). October 1986; \$5,250.
- Shallow Stratigraphy, Structure, and Modern Depositional Processes Along Margins of Small, Detached Carbonate Platforms in an Active Tectonic Setting: Nicaraguan Rise. Co-principal Investigator with A. C. Hine. National Science Foundation, Division of Ocean Sciences. January 1987–June 1989; \$249,593.
- NASA/ASEE Summer Faculty Fellowship, Goddard Space Flight Center, Greenbelt, Maryland. Summer 1987; \$8,000 plus facilities use.
- Deployment of ROV Along Shallow Margins of Carbonate Platforms Situated on the Nicaraguan Rise: S.W. Caribbean Sea. Co-principal Investigator with A. C. Hine. NOAA National Undersea Research Program, equipment and technical assistance grant, May 1988.
- Travel to the 6th International Coral Reef Symposium, Townsville, Australia, August 1988. University of South Florida Faculty Foreign Travel Fund; \$750.

- Travel to the Global Sedimentary Geology Program Cretaceous Resources, Events and Rhythms Workshops, Digne, France, September 1988. U. S. National Committee, Global Sedimentary Geology Program; \$1,505.
- Comparisons of optical properties and chlorophyll concentrations with carbonate sediment distributions: west Florida shelf. Principal Investigator. Florida Institute of Oceanography (shiptime on R/V <u>Bellows</u>). April 1989.
- Shallow Stratigraphy, Structure, and Modern Depositional Processes Along Margins of Small, Detached Carbonate Platforms in an Active Tectonic Setting: Nicaraguan Rise. Co-principal Investigator with A. C. Hine. National Science Foundation, Division of Ocean Sciences OCE–8900040. May 1989–April 1992; \$163,126.
- Support for preparation of "Geology of Florida for Teachers" book manuscript. Principal Investigator. USF Center for Excellence in Mathematics, Science, Computers and Technology. 1989; \$2,600.
- Travel to Third International Conference on Paleoceanography, Cambridge, England, September 1989. Department of Earth Sciences, University of Milan, Italy; \$700.
- Carbonate Depositional Environments of the Dry Tortugas and Southwest Florida Shelf. Principal Investigator. Florida Institute of Oceanography (ship time on R/V <u>Suncoaster</u>). November 1990; \$7,200.
- Cytological changes with darkness–induced dormancy in foraminifera with algal symbionts. Principal Investigator. USF Research and Creative Scholarship. April 1991–April 1992; \$7,198.
- Foraminiferal assemblages of selected Key Largo reefs, Florida Keys. Principal Investigator with Barbara Lidz (USGS). NOAA/ National Undersea Research Center UNCW9120. May 1, 1991–April 30, 1992; \$2,880.
- Northern Nicaraguan Rise, Case for: Neogene Segmentation of a Carbonate Megaplatform by Strike–Slip and Related Extension Tectonics and Paleogateway for the Neogene Initiation and Strengthening of the Caribbean Current. Co-principal Investigator with A. C. Hine. National Science Foundation OCE– 9212635. January 13, 1992–March 31, 1995; \$133,095.
- Symbiont Loss ("Bleaching") in a Reef–Dwelling Foraminifer. Principal Investigator. National Science Foundation OCE–9203278. February 1, 1992–July 31, 1993; \$48,935.
- Decadal–Scale Changes in Benthic Foraminiferal Assemblages in Reef–Tract Sediments off Key Largo. Principal Investigator with Barbara Lidz (USGS). The Research Consortium. February 1, 1992–July 31, 1993; \$2,000.
- Decadal–Scale Changes in Benthic Foraminiferal Assemblages in Reef–Tract Sediments off Key Largo, Florida. Principal Investigator with Barbara Lidz (USGS). National Oceanic and Atmospheric Administration/National Undersea Research Center UNCW 9221. April 1992–April 1993; \$13,713.
- Bleaching in Benthic Foraminifera: Indicator of Increasing UV Radiation on Coral Reefs. Principal Investigator. NOAA National Undersea Research Center UNCW 9204.4. May 1992–April 1993; \$5,000.
- Acquisition of a Transmission Electron Microscope and Elemental Microanalysis System for the New Marine Science Building. Co-Principal Investigator with J. H. Paul, J. S. Compton, J. B. Rose and R. R. Wilson. National Science Foundation OCE–9214614. September 1992–August 1995; \$150,000.
- Carbonate Depositional Environments of the Dry Tortugas and Southwest Florida Shelf. Principal Investigator. Florida Institute of Oceanography (ship time on R/V <u>Bellows</u>). October 1992; \$7,200.
- UV Induced Bleaching in the Benthic Foraminifer *Amphistegina gibbosa*. Principal Investigator. NOAA National Undersea Research Center UNCW 9322. December 1992–December 1993; \$5,000.
- The Oceanography Camp for Girls. Co-Principal Investigator with P. R. Betzer, P. G. Coble, and T. M. Greeley. National Science Foundation Young Scholars Program ESI–9353012. May 1, 1994– September 30, 1996; \$73,756.
- Evolutionary Implications of Environmental Stress in Adult *Amphistegina*. Principal Investigator. The Geological Society of America, W. Storrs Cole Memorial Research Award. 1994; \$7,000.

- Support of the Research Activities of a Marine Engineering Institute at the University of South Florida. Co-Principal Investigator with J. L. Brown, T. L. Hopkins, R. Streeter, and others. Department of Defense/Office of Naval Research; \$2,000,000. P. Hallock Muller Development of a Underwater UV Radiometer; June 1, 1994–May 31, 1996; \$30,961.
- Field Support to Continue Long–Term Sampling of Stressed Benthic Foraminiferal Populations in the Florida Keys. Principal Investigator. National Oceanic and Atmospheric Administration/National Undersea Research Center UNCW 9515. January 1–December 31, 1995; \$5,749.
- Instrumentation for Molecular Analysis of Marine Organisms. Co-Principal Investigator with J. H. Paul, J. B. Rose, and R. R. Wilson. National Science Foundation BIR–9512122. August 15, 1995–July 31, 1997; \$100,390.
- Field Support to Continue Long–Term Sampling of Stressed Benthic Foraminiferal Populations in the Florida Keys. Principal Investigator. National Oceanic and Atmospheric Administration/National Undersea Research Center UNCW 9609. January 1–December 31, 1996; \$5,406.
- Larger Benthic Foraminifera as Indicators of Environmental Change. Principal Investigator. U.S. Department of Interior–Geological Survey, Reston, Virginia, Award No. 1434–94–A–1185. October 1, 1995–September 30, 1996; \$8,000.
- A Study of the Effects of Disposal of Seawater Desalination Discharges on Nearshore Benthic Communities–Phase II. Southwest Florida Water Management District. Co-PI with N. Blake, G. Vargo and others. 2/97–7/98. \$7,500 (to PHM).
- Recruitment Tiles from the Florida Keys. Florida Department of Environmental Protection. March 5–June 30, 1997. \$10,000.
- Field Support to sample stressed foraminiferal populations in the Florida Keys. Principal Investigator. National Oceanic and Atmospheric Administration/National Undersea Research Center UNCW 9703– 66. January 1–December 31, 1997, \$3,820.
- Design and Construction of an Underwater Housing for Affordable Monitoring of Solar Radiation to USF Research and Creative Scholarship Grant Programs on 2/15/97; \$7,500; May 1997–April 1998. (PI, Scott Samson of the Center for Ocean Technology, Co-PI).
- "Travel to the 10th International Protozoology Congress, Sydney, Australia" to USF International Travel Grants Program on 2/15/97; \$1,500.
- Geosciences and Society–A Multimedia Approach by Teachers and Scientists; National Science
  Foundation–Awards to Facilitate Geoscience Education; PI's Theresa Greely, Peter Betzer, A.C. Hine,
  P. Hallock Muller, F. Muller–Karger, Sarah Tebbens, J.J. Torres, R.H. Weisberg, amount requested:
  \$49,718; proposed duration: 9/1/98–8/30/99.
- Foraminifera as Ecosystem Indicators: Phase 1. A Marine Benthic Perturbation Index; Phase 2. Bioassay Protocols. Principal Investigator. U.S. Environmental Protection Agency–ORD–NCERQA GAD#R825869. October 1, 1997–September 30, 2000. \$295,043. \$49,502 supplement and extension to 09/30/02.
- "Foraminifera in lagoon sediments of Glovers Reef Atoll: Have assemblages changed since 1970?" Wildlife Conservation Society, 10/98–4/00; \$6,000.
- "Biological and Geological Characterization of the Tortugas Banks Area, Florida Keys National Marine Sanctuary". Sustainable Seas Expeditions, National Geographic Society, submersible time in September 1999. PI, Co-PI's include A.C. Hine, D. Naar, and D. Mallinson (DMS–USF), W.C. Jaap, J. Wheaton (FMRI–DEP), and G.P. Schmal (FKNMS). http://oceanservice.noaa.gov/websites/retiredsites/sse\_pdf/sse.pdf
- Bleaching in Reef–Dwelling Foraminifera: Can Stress Symptoms be Induced in Field Experiments? Principal Investigator. National Oceanic and Atmospheric Administration/National Undersea Research Center UNCW 9922. 1/1–12–31/99, \$20,000.

- ROV observations and acoustic/sedimentologic characteristics of outlier reef, slope bedforms, and lowstand ridge deposits; southwest Florida continental margin. A.C. Hine, P. Hallock Muller and B. Jarret, Co-Pl's. NOAA–National Undersea Research Center; \$20,000 plus field support; 1/99–06/00.
- A Geological Investigation of late Pleistocene Relict Reefs on the South Florida Margin. Florida Institute of Oceanography. Pl with David Mallinson. 5 days ship time on R/V Bellows October 1999 (lost to inclement weather).
- Environmental Marine Biotechnology: Assessing the Health of Coral Reef Ecosystems in the Florida Keys Using an Integrated Molecular Biomarker System. South Carolina Sea Grant Program. PI: Cheryl Woodley and Eric Lacy, Medical University of South Carolina. PH–M is Co-PI with J. Halas, J. Fauth, and C. Downs. Total project \$250,000; subcontract to USF \$41,648; duration: 9/1/00–8/31/02
- Assessment of Foraminiferal Assemblages of Biscayne Bay Sediments. USF component of USGS Project entitled: Pilot Study of the Biogeochemical History of Ecosystems in Biscayne Bay. With USGS PI's: Barbara Lidz and Eugene Shinn. Duration: 10/01/00–09/30/01. \$22,000
- Participation in Ocean Drilling Program Cruise Leg 194–Marion Plateau. 01/06/01–12/31/02. \$51,609.
- Larger benthic foraminifers of Miocene carbonate platforms of the Marion Plateau (ODP Leg 194: Sites 1193–99): Biostratigraphy and paleoenvironmental interpretation. US Science Support Program/Ocean Drilling Program, Texas A&M University. 06/01–05/03. \$22,990.
- Chemical Pollutants and Toxic Effects on Benthic Foraminifera, Biscayne Bay, Florida, PI B. Lidz. Component of the Cooperative Agreement with the U.S. Geological Survey for Partial Support of Research at the USF/USGS Cooperative Research Center for Coastal Geology. This component: \$20,191. Duration 10/01–09/02.
- Ecosystem Response to Elevated Arsenic Levels. National Science Foundation–CHE–0221834. PI: Thomas Pichler, Co-PI's: James Garey, Gary Huxel and Pamela Hallock Muller. \$1.49 million; Duration: 10/01/02–09/30/06.
- Three New Tools for Reef Monitoring and Risk Assessment: Distinguishing Local from Global Stresses. Florida Keys National Marine Sanctuary's 2003 Special Studies Program. \$52,875; Duration: 10/01/03– 06/30/05.
- Biochemistry of Ecosystems in Biscayne Bay, Florida. PI B. Lidz. Component of the Cooperative Agreement with the U.S. Geological Survey for Partial Support of Research at the USF/USGS Cooperative Research Center for Coastal Geology. Funding period: 10/02–09/03: \$33,302; Funding period 050104–043005: \$30,000.
- Advanced Remote Sensing Methods for Caribbean Coral Reef Studies, PI J. Brock, . Component of the Cooperative Agreement with the U.S. Geological Survey for Partial Support of Research at the USF/USGS Cooperative Research Center for Coastal Geology. \$34,359; 050104–043005; 35,999; 050105–043006.
- Quantifying Ecological and Economic Impacts of Tropical Cyclones on Coral Reefs and Coastal Water Quality in South Florida. With T. J. Mason (USF–CPH), NOAA/through FIU International Hurricane Center, Year 1: total \$189,875; PHM component: \$135,465; 10/01/04–12/31/05; Year 2: total \$162,645 PHM component: \$149,060); 10/01/05–12/31/07.
- Application of Historic Data Sets and Bioindicators to Assess Status and Ecological Function of Upper Keys Patch Reefs. U.S. EPA Special Studies in the Florida Keys National Marine Sanctuary or Southeast Florida. \$49, 989, 01/01/07–12/31/08.
- Experiments to Determine the Impacts of a High CO<sub>2</sub> World on High Latitude, Temperate and Tropical Benthic Foraminifera. Subcontract to PHM for proposal submitted to NSF–Biological Oceanography by Joan Bernhard, WHOI. 10/1/07–09/30/10; PHM subcontract: \$54,132.
- Pollutants and foraminiferal assemblages in Jobos Bay: An environmental micropaleontology approach. NOAA–National Estuary Program. PI: PHM for M. Martinez. Proposed duration: 06/1/07–05/31/09; 39,732
- Benthic Foraminifera as Bio–indicators of Heavy Metal Pollution: Torrecilla Lagoon (San Juan Bay Estuary), Puerto Rico. Puerto Rico SeaGrant. PIs: M. Martinez–Colon and P. Hallock Muller. Project period: 02/08–01/10; \$97,394.

- West Florida Shelf: A Natural Laboratory for the Study of Ocean Acidification. Shiptime proposal to Florida Institute of Oceanography. Four days aboard the R/V Suncoaster representing an award of \$15,200 in shiptime and support services from the State of Florida. 04/01–14/08.
- Florida Shelves: A Natural Laboratory for the Study of Ocean Acidification. Shiptime proposal to Florida Institute of Oceanography. Four days aboard the R/V Bellows representing an award of \$12,400 in shiptime and support services from the State of Florida. 03/08.
- Response of Florida Shelf Sediments to Ocean Chemistry. Component of the Cooperative Agreement with the U.S. Geological Survey for Partial Support of Research at the USF/USGS Cooperative Research Center for Coastal Geology. \$19,000; 050108–043009.
- Distinguishing reef acidification processes: Controls on Conch Reef pH by ambient water column variability versus benthic boundary layer processes. Aquarius Reef Base at the University of North Carolina Wilmington. Lead PIs: Niels Lindquist and Chris Martens; USF subcontract; PHM and B. Byrne, Co-PIs): \$22,499. 05/08–04/10.
- Foraminiferal Assemblages Analysis. U.S. EPA contract, sole PI; \$35, 025; 08/26/08-8/29/10
- Distinguishing reef acidification processes: Controls on Conch Reef pH by ambient water column variability versus benthic boundary layer processes. Aquarius Reef Base at the University of North Carolina Wilmington (flow through from NOAA). Lead PIs: Niels Lindquist and Chris Martens; USF subcontract; PHM and B. Byrne, Co-PIs): \$22,499. Project period: 5/09–4/11: \$22,499.
- Monitoring benthic habitats on the West Florida Slope using benthic foraminifera and sediment geochemistry. Florida Institute of Oceanography: W. Hogarth PI. Subcontract to: B.P. Flower, P. Hallock Muller, David Hollander (USF); L. Collins (FIU), G. Brooks, D. Hastings, Eckerd College. Project Period: 8/13/2010– 8/12/2012.
- Toxicity of Deepwater Horizon Oil and Dispersants on Florida's Reef Biota. Florida Institute of Oceanography: Florida Coastal Sentinels, W. Hogarth PI. Subcontract to: P. Hallock Muller Total: \$173,449. Project Period: 8/13/2010–8/12/2012.
- Harmful Algal Bloom Liason. Florida Fish and Wildlife Conservation Commission. PI: P. Hallock Muller, \$66,599/yr, \$332,995 total; Project Period: 10/4/2010–6/30/2015
- Florida Shelves: A Natural Laboratory for the Study of Carbonate Sedimentation. Shiptime proposal to Florida Institute of Oceanography. Four days aboard the R/V Bellows representing an award of ~\$14,000 in shiptime and support services from the State of Florida. 04/11.
- Julia Galkiewicz–Knaus Fellowship 2012. Florida Sea Grant. PI: P. Hallock Muller; \$49,000 total; Project Period: 02/01/2012–01/31/2013.
- Fixed Price TO for Michael Martinez–Colon to participate in Exp. 340. Consortium for Ocean Leadership. PI: P. Hallock Muller; \$19,783 total; Project Period: 02/03/2012–01/31/2015.
- Fixed Price TO for Elizabeth Brown to participate in Exp. 349. Consortium for Ocean Leadership. PI: P. Hallock Muller; \$18,638 total; Project Period: 01/27/2012–02/15/2016.
- Harmful Algal Bloom Liason. Florida Fish and Wildlife Conservation Commission. PI: P. Hallock Muller, \$86,070 yr 1, \$258,285 total; Project Period: 06/19/2015–6/30/2018
- Subtropical Back–barrier Ecological Responses to Environmental Changes. PI: P. Hallock Muller. \$40,000. Project Period: 08/01/16–07/31/17.
- DEP Piney Point project -USF Component, Lead PI: Kristen Buck, 8 co-PIs., Florida Department of Environmental Protection: PHM Secondary Project title: Analysis of archived Piney Point samples, Project dates 12/07/21 - 6/30/22; PHM budget \$5,008
- Field Ecology of Upside-down Jellyfish (Genus *Cassiopea*) Populations and Their Potential as Bioindicators of the Impact of Human Development. NOAA-Margaret Davidson Fellowship for Natalia Lopez-Figueroa, \$120,000, Project dates 08/01/22-0731/2024.

Meeting Abstracts (\*my graduate students; \*\*student on whose committee I served)

Muller, P. Hallock. 1975. Sediment production by shallow-water benthic foraminifera at selected sites around Oahu, Hawaii. First International Symposium on Benthonic Foraminifera, Halifax, Nova Scotia.

- Hallock, P. 1979. Carbonate production by selected large, benthic foraminifera on two Pacific coral reefs. Geological Society of America Annual Meeting, San Diego, California. GAAPBC 11:437.
- Hallock, P. 1980. The application of ecologic studies of living, algal symbiont-bearing foraminifera to paleoecologic interpretation. American Association of Petroleum Geologists Annual Meeting, Denver, Colorado. AAPG Bull. 47:716–717.
- Hallock, P. 1980. Distribution of selected species of living benthic foraminifera on two Pacific coral reefs. Geological Society of America Annual Meeting, Atlanta, Georgia. GAAPBC 12:441.
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- Hallock, P., McCloskey\*, B.J., Engel\*, B. 2014. Preservation Potential versus Survival: Insights from the Vicinity of a Hydrothermal Vent System in Papua New Guinea. In Marchant, M. & Hromic, T. (eds.) International Symposium on Foraminifera Forams 2014, Chile, 19–24 January 2014, Abstract Volume. Grzybowski Foundation Special Publication 20, p. 88. http://gf.tmsoc.org/Documents/Marchant+Hromic%202014%20GFSP20.pdf
- Hallock, P. 2014. Why has optimum habitat for stony corals diverged from that for foraminifers with algal symbionts on the Florida reef tract? 10<sup>th</sup> North American Paleontological Convention, Gainesville, FL, February 15–18, 2014. Abstract Book, p. 13.
- Fisher Moses\*, E., <u>Hallock, P.,</u> Fauth, J.E., Woodley, C.M. 2014. Larger Benthic Foraminiferal Populations on the Florida Reef Tract Reveal the Interplay between Inshore and Offshore Environmental Stressors. Geological Society of America Annual Meeting, Vancouver, BC, Canada, October 2014.https://gsa.confex.com/gsa/2014AM/webprogram/Paper242914.html
- <u>Knorr\*\*, P., Robbins, L.L., Hallock, P., Harries, P., Wynn, J., 2014.</u> Ocean Acidification Model Predicts a 65% Reduction in Large Benthic Foraminiferal Carbonate Sediment Production on the West Florida Shelf By 2140. American Geophysical Union, Fall Meeting 2014, abstract id. B41B-0034.
- <u>Méndez-Ferrer</u>\*, N and Hallock, P. 2014. Seasonal variation in the photosynthetic efficiency of algal symbionts in *Amphistegina gibbosa* (Foraminifera) in the Florida Keys. Ocean Science Meeting, Honolulu, Hawai'i.
- <u>Beckwith\*, S</u>., Hallock, P. 2015. Distribution of *Archaias angulatus* on the Inner West Florida Shelf: Substrata and Water Chemistry versus Temperature. Geological Society of America Annual Meeting, Baltimore, MD (poster). https://gsa.confex.com/gsa/2015AM/webprogram/Paper268867.html
- <u>Brown</u>\*, E.A., Weinkauf, M.F.G., Hallock, P., Kucera, M. 2015. Assessment of the distribution of *Globigerinoides ruber* and *Globigerinoides elongatus* using a minimalist classification scheme. The Micropaleontological Society, Plymouth, UK (poster presentation).
- Hallock, P. 2015. Graduate mentoring: A creative process. Geological Society of America Annual Meeting, Baltimore, MD. https://gsa.confex.com/gsa/2015AM/webprogram/Paper269208.html
- Hallock, P., Mateu Vicens, G., Pomar, L. 2015. Cenozoic Trends in Shallow-Water Carbonate Production: Insights from Chemistry, Climate and Biology. Geological Society of America Annual Meeting, Baltimore, MD. https://gsa.confex.com/gsa/2015AM/webprogram/Paper269072.html
- Knorr\*\*, P., Robbins, L.L., Wynn, J., Hallock, P., Harries, P. 2015. Effect of ocean acidification on large benthic foraminiferal stable isotope composition. Geological Society of America Annual Meeting, Baltimore, MD. https://gsa.confex.com/gsa/2015AM/webprogram/Paper267770.html
- <u>Martínez-Colón</u>\*, M., Hallock, P., 2015. Bioavailability and bulk heavy metal concentrations in Torrecilla Lagoon, Puerto Rico. Geological Society of America, Annual Meeting, Baltimore, MD. https://gsa.confex.com/gsa/2015AM/webprogram/Paper269378.html

Ross\*, B.J., Hallock, P. 2015. Dormancy in the Foraminifera: Implications for the Past, Present and Future. Geological Society of America Annual Meeting, Baltimore, MD. https://gsa.confex.com/gsa/2015AM/webprogram/Paper267520.html

Beckwith<sup>\*</sup>, S.T., and Hallock, P. 2016. ABUNDANCE OF ARCHAIAS ANGULATUS ON THE INNER WEST FLORIDA SHELF SUGGESTS THE INFLUENCE OF CARBONATE ALKALINITY OVER SALINITY. Geological Society of America, Annual Meeting, Boulder Colorado, September 2016.

- Brown, E. A.\*, Weinkauf, M. F.G., Hallock, P. and Kucera, M. 2016. EVALUATING MORPHOSPACE DISCONTINUITY WITHIN THE *GLOBIGERINOIDES RUBER-ELONGATUS* PLEXUS, AND THE POTENTIAL FOR A CONSISTENT FOSSIL CLASSIFICATION SCHEME. Geological Society of America, Annual Meeting, Boulder Colorado, September 2016.
- Brown, E. A.\*, Weinkauf, M. F.G., Hallock, P. and Kucera, M. 2016. Quantitative assessment of the potential for consistent morphological classification of *Globigerinoides ruber* morphotypes. International Conference on Palaeoceanography (ICP12), Utrecht, The Netherlands, August 2016. Meeting Abstracts (cont.)

- <u>Gfatter</u>, C., K. Amergian, S. Beckwith, and P. Hallock. 2016. Refugia for carbonate producing organisms in high carbon dioxide environmental conditions. 2016 AGU Fall Meeting, San Francisco, December 16, 2016. <u>https://agu.confex.com/agu/fm16/meetingapp.cgi/Paper/164144</u>.
- Haller, C., Osterman, L.E., Smith, C.G., Hallock, P. and Hine, A. C. 2016. CHANNEL TO UPLAND TRANSITION: MODERN SALT-MARSH FORAMINIFERA FROM GRAND BAY, MISSISSIPPI SOUND. Geological Society of America, Annual Meeting, Boulder Colorado, September 2016.
- Hallock, P., Mateu Vicens\*, G., Pomar, L. 2016. Why do coral reefs thrive in Icehouse World climates? Clues from larger benthic foraminifers. 13<sup>th</sup> International Coral Reef Symposium, Honolulu, HI. June 2016.
- <u>Hallock</u>, P. 2016. How basic life history studies can inform and guide "omics" and other technologyintensive research. Geological Society of America, Annual Meeting, Boulder Colorado, Sept. 2016.
- <u>Méndez-Ferrer</u>\*, N., Hallock, P., Jones, D. 2016. Photochemical efficiencies of diatom symbionts *in hospite* in *Amphistegina gibbosa* (Foraminifera) across seasons in the Florida Keys, USA. 13<sup>th</sup> International Coral Reef Symposium, Honolulu, HI. June 2016.
- <u>Pisapia</u>, C., Spezzaferri, S., El Kateb, A., Ibrahim, N., and Hallock, P. Foraminiferal bleaching in the Maldives: A tool to assess El Nino temperature-related coral bleaching? 13<sup>th</sup> International Coral Reef Symposium, Honolulu, HI. June 2016.
- <u>Mendez-Ferrer</u>, N.\*, and Hallock, P. 2016. Changes in primary production as a result of symbiont-loss in the diatom-foraminifer holobiont *Amphistegina gibbosa* from the Florida Keys. (Invited Presentation). Geological Society of America, Annual Meeting, Boulder Colorado, September 2016.
- <u>Ross</u>, B.J.\*, and Hallock, P. 2016. Observations of the symbiont-bearing foraminifer *Amphistegina gibbosa* utilizing cell-tracker green and epifluorescent microscopy. Geological Society of America, Annual Meeting, Boulder Colorado, September 2016.
- Spezzaferri, S., Pisapia, C., <u>El Kateb</u>, A., Ibrahim, N., and Hallock, P. 2016. Assessing coral reef health in the North Ari atoll, Maldives using the Foram Index. 13<sup>th</sup> International Coral Reef Symposium, Honolulu, HI. June 2016.
- <u>Hallock, P</u>., Papazzoni, C.A., and Seddighi, M. 2017. A proposed model for carbonate banks characterized by large, flat, benthic foraminifers. Geological Society of America, Annual Meeting, Seattle, WA. October 2017.
- <u>Amergian\*, K</u>., S. Beckwith\*, and P. Hallock (2018) Florida's Springs Coast as an Area of Refuge for Foraminifera during Increased Ocean Acidification. Poster, AGU Annual Meeting, December 2018, Washington, D.C.
- <u>Beckwith</u>\*, S., R. Byrne, and P. Hallock (2018) Alternative saturation state calculations from measured calcium concentrations provide a measure of regionally-variable calcification potential. Ocean Sciences Meeting 2018, Portland, OR.
- <u>Haller</u>\*, C., Hallock, P., Hine, A.C., Smith, C.G. (2018) Leeuwin Current activity controls benthic foraminifera on the Carnarvon Ramp, Western Australia: From inception to flow optimum. American Association of Petroleum Geologists-Annual Convention and Exhibition. Salt Lake City, Utah, 20–23 May 2018.
- <u>Hallock</u>, P. 2018. Why foraminiferal research became "geology" and how technology rejuvenated biological studies (poster). FORAMS 2018, International Symposium on Foraminifera, Edinburg, Scotland, June 2018.
- <u>Hallock</u>, P., Papazzoni, C.A., and Seddighi, M. 2018. Bioherms Characterized by Large, Flat, Benthic Foraminifers: Paleoecological Insights from Biology and Oceanography, FORAMS 2018, International Symposium on Foraminifera, Edinburg, Scotland, June 2018.
- <u>Hallock</u>, P. 2018. Insights into the paleoecology of carbonate strata characterized by exceptionally large benthic foraminifera (poster). 20<sup>th</sup> International Sedimentological Congress, Quebec City, Canada, August 2018, Abstracts, v. 2, p. 109.
- <u>Hallock</u>, P., Barnes\*, K. H., Martin\*, M. M., Kellogg, C. A. 2018. Two microbiome studies provide insights into evolutionary histories of host foraminiferal taxa. Geological Society of America, Annual Meeting, Indianapolis, November 2018, <u>https://gsa.confex.com/gsa/2018AM/meetingapp.cgi/Paper/319159</u>.
- <u>Beccari</u>, V., S. Stainbank, P. Hallock, D. Basso, M. Fau, and S. Spezzaferri. 2019. Assessing coral reef health in North Ari Atoll (Maldives Archipelago) using different indices: *Amphistegina* Bleaching, FORAM and SEDCON Indices. IAS International meeting of Sedimentology, Università di Roma La Sapienza.

- Hallock, P. 2019. What exactly are larger benthic foraminifera? Why definitions matter. Geological Society of America, Annual Meeting, Phoenix, September 2019.
- <u>Hallock, P</u>. 2019. To recruit a diversity of graduate students, use a diversity of critera. Geological Society of America, Annual Meeting, Phoenix, September 2019.
- Hallock, P. 2020. Wide-ranging Implications from Studies of Foraminiferal Biology. Geological Society of America, Annual Meeting, online, October 2020. Geological Society of America Abstracts with Programs, Vol 52, No. 6, #203-4, doi: 10.1130/abs/2020AM-355885
- Hallock, P., 2021. Why have habitats of *Amphistegina* (Foraminifera) diverged from those of zooxanthellate corals in recent decades? Virtual Poster, International Coral Reef Symposium, Bremen, Germany.
- <u>López Figueroa\*, N.B.</u>, P. Hallock and E. Stoner. 2021. Field experiment on the settlement of upside-down jellyfish (Genus *Cassiopea*) in a restored salt pond at Jobos Bay Natural Estuarine Research Reserve (JBNERR), 2021 National Estuarine Research Reserve/ National Estuarine Research Reserve Association (NERRS/NERRA) Annual Meeting, 2021, <u>invited</u> oral presentation, virtual.
- <u>López Figueroa</u>\*, N.B., P. Hallock and E. Stoner. 2021.Field experiment on the settlement of upside-down jellyfish (Genus *Cassiopea*) in a restored salt pond at Jobos Bay Natural Estuarine Research Reserve (JBNERR), Puerto Rico, Aquatic Sciences Meeting 2021, <u>invited</u> oral presentation, virtual.
- Stainbank, S., Beccari, V., Spezzaferri, S., Hallock, P., Caragnano, A., Basso, D., Pisapia, C., & CUSO Maldives 2018 Scientific Party. 2021. Status of the Maldivian coral reefs: Have they recovered following the 2016 mass-bleaching event? Virtual Poster, International Coral Reef Symposium, Bremen, Germany.
- <u>Hallock</u>, P., and BadrElDin, A.M. 2022. Might shell production by "invasive" *Amphistegina lobifera locally ameliorate consequences of sea-level rise* in warming Mediterranean coastal waters? Geological Society of America Abstracts with Programs, v. 54, no. 5, https://doi.org/10.1130/abs/2022AM-380330.
- <u>Reymond</u>,C.E., Uthicke, S., Patel,F., Hallock, P. 2022. Contributions of Trimorphic Life-Cycles and Climate Change to the Dispersal of Large Benthic Foraminifera (poster). Australian Coral Reef Society Meeting, Nov. 2022.
- Bardis, D., Triantaphyllou, M., Dimiza, M., Tsourou, T., Koukousiora, O. Weinmann, A., Langer, M., and Hallock, P. 2023. *Amphistegina lobifera* Larsen life cycle mode in a stressed coastal environment: The Vravron site, Aegean Sea, Greece, revisited. FORAMS 2023, June 26th–30th, 2023, Perugia, Italy – Abstract Book, p. 49.
- BadrElDin, A.M., <u>Hallock</u>, P. 2023. Benthic foraminifera as environmental proxies in coastal habitats of Ras Mohamed Nature Reserve, southern Sinai, Red Sea, Egypt. Geological Society of America Abstracts with Programs, v. 55, no. 6, doi: 10.1130/abs/2023AM-393343
- Lirio, G., Osborne, E. Martinez-Colon, M. Hallock, P. 2023. Using shell morphometrics to understand ocean acidification impacts on the calcification of Foraminifera. Poster, Geological Society of America Abstracts with Programs, v. 55, no. 6, doi:10.1130/abs/2023AM-394613.
- López Figueroa<sup>\*</sup>, N.B., Hallock, P. 2023. A Scientometrics Review of the Genus *Cassiopea*. Fifth International Cassiopea Workshop 2023, Key Largo, Florida. [best presentation award].
- <u>López-Figueroa\*</u>, N.B., Di Geronimo, S., Muñoz Hincapié, M., Hallock, P. 2023. Assessment of upsidedown jellyfish (Genus *Cassiopea*) populations as potential bioindicators of human disturbance in coastal ecosystems at Jobos Bay National Estuarine Research Reserve (JBNERR), Puerto Rico). Poster presentation. Ecological Society of America, 08/2023, Portland, Oregon.
- Luna Pirela, L., López Figueroa\*, N., Hallock, P., Muñoz-Hincapié, M. 2023. Effect of seasonal pelagic *Sargassum* accumulation in areas of upside-down jellyfish blooms (Genus *Cassiopea*) at Jobos Bay National Estuarine Research Reserve (JBNERR). Poster presentation. Ecological Society of America, 08/2023, Portland, Oregon.
- <u>Guzmán Echevarria</u>, W., López-Figueroa\*, N.B., Di Geronimo, S., Hallock, P., Muñoz-Hincapié, M. 2023. Assessment of benthic macrophytes in areas of upside-down jellyfish blooms (Genus *Cassiopea*) at Jobos Bay National Estuarine Research Reserve (JBNERR). Poster presentation. Ecological Society of America, 08/2023, Portland, Oregon.

- <u>Vega Pérez,</u> J.Y., Lopez-Figueroa, N.B\*., DiGeronimo, S., Muñoz Hincapie, M., Hallock, P. 2024. Characterization of macrofauna associated to upside-down jellyfish blooms (Genus *Cassiopea*) at Jobos Bay National Estuarine Research Reserve (JBNERR), Puerto Rico. Ocean Sciences Meeting, New Orleans, Feb. 2024
- Luna Pirela, L., Lopez-Figueroa, N.B\*., DiGeronimo, S., Muñoz Hincapie, M., Hallock, P. 2024. Effect of seasonal pelagic *Sargassum* accumulation in areas of upside-down jellyfish blooms (Genus *Cassiopea*) at Jobos Bay National Estuarine Research Reserve (JBNERR). Ocean Sciences Meeting, New Orleans, Feb. 2024

Invited Lectures

January 1978	Carbonate production on coral reefs by benthic foraminifera. Department of
January 1978	Geology, Hebrew University of Jerusalem, Israel. Trends in test shape in symbiont-bearing foraminifera. Department of Oceanography, Hebrew University of Jerusalem, Israel.
March 1978	Sediment production on coral reefs by benthic foraminifera. Institute of Historical Geology and Paleontology, University of Copenhagen, Denmark.
August 1982	Evolution and extinction in larger foraminifera. Symposium on Paleobiology of Foraminifera, North American Paleontological Convention, Montreal, Canada.
October 1982	Evolution and extinction in carbonate-producing organisms. San Angelo Geological Society, San Angelo, Texas.
March 1983	Evolution and extinction in carbonate-producing organisms. Permian Basin Section-Society of Economic Paleontologists and Mineralogists, Midland, Texas.
April 1983	Algal symbiosis: Implications for micropaleontology. Society of Economic Paleontologists and Mineralogists-Marine Micropaleontology Research Group, AAPG-SEPM Annual Meeting, Dallas, Texas.
January 1985	Why are larger forams large? Geology Department Colloquium, University of South Florida, Tampa.
June 1985	Ecologic and evolutionary implications of large size in foraminifera. VII International Congress of Protozoology, Nairobi, Kenya.
February 1986	How nutrients kill coral reefs. Department of Geology Seminar, University of South Carolina, Columbia.
February 1986	How nutrients kill coral reefs. Department of Geology–Curriculum in Marine Science Joint Seminar, University of North Carolina, Chapel Hill.
August 1986	Bioerosion as an indicator of nutrient availability in carbonate depositional environments. Fourth North American Paleontological Convention, Symposium on ecological and evolutionary implications of taphonomic processes, Boulder, CO.
August 1986	Musings on functional morphologies in larger foraminifera. Fourth North American Paleontological Convention, Symposium on functional morphology in foraminifera, Boulder, Colorado.
September 1986	Notes on coiling direction in trochospiral foraminifera. Plenary session on quantitative methods, Benthos '86, An International Symposium on Benthic Foraminifera, Geneva, Switzerland.
September 1986	Diversification in algal symbiont-bearing foraminifera: a response to oligotrophy? Plenary session on understanding benthic environments and the application to exploration for mineral resources, Benthos '86, An International Symposium on Benthic Foraminifera, Geneva, Switzerland.
September 1986	Paleoceanographic nutrients and the evolution of larger reef foraminifera. Second International Conference on Paleoceanography, Symposium on evolution and the marine record, Woods Hole, Massachusetts.
September 1986	Nutrient control of biogenic sedimentation in low-latitude, shallow-water environments. SEPM Mid-Year Meeting, Symposium on reefs in time and space revisited, Raleigh, North Carolina (with S. W. Snyder, presented by S. W. Snyder).

Invite	ed Lectures (cont).
July 1987	Presented two short communications to the Working Group on Evolution and
	Extinction of Oceanic Biota at COSOD II (meeting on the future of Scientific Ocean
	Drilling) in Strasbourg, France (participation by invitation).
July 1987	How nutrients kill coral reefs. Laboratory for Oceans, NASA Goddard Space Flight
	Center, Greenbelt, Maryland.
July 1987	Chlorophyll Fluctuations in Oceanic Waters in the Vicinity of the Nicaraguan Rise:
	Summary of Activities under 1987 NASA/ASEE Summer Faculty Fellowship
Sentember 1000	Program, NASA Goddard Space Flight Center, Greenbelt, Maryland. Recognizing paleonutrient influence on carbonate platform drownings in the
September 1988	geologic record. Global Sedimentary Geology Program: Cretaceous Resources,
	Events and Rhythms–Working Group 4: Development and Demise of Carbonate
	Platforms, Marseilles, France.
March 1989	Platforms of the Nicaraguan Rise: Examples of the sensitivity of carbonate
	sedimentation to excess nutrients. University of South Florida, Department of
	Geology Colloquium.
March 1989	How nutrients kill coral reefs. University of Tennessee, Department of Geological
	Sciences Colloquium.
April 1989	How nutrients kill coral reefs. University of Florida, Department of Geology
August 1989	Coral reefs. St. Petersburg Historical Society, St. Petersburg, Florida.
September 1989	Correlation between carbonate-platform benthos and planktonic foraminiferal evolution through Paleogene paleoceanographic changes. 3rd International
	Conference on Paleoceanography (ICP III), Cambridge, England.
November 1989	Nutrification Impact on Fishery Habitats. Gulf Coast Fishery Management Council,
	Florida/Alabama Habitat Protection Advisory Panel, Tampa, Florida.
January 1990	Nutrient excess and the demise of coral reefs and carbonate platforms. University
	of Texas at Dallas, Geosciences Colloquium.
October 1990	How nutrients kill coral reefs. Florida State University, Oceanography Colloquium.
October 1991	Bimodality in coral and algal carbonate production: An example from the
Nevrember 1001	Nicaraguan Rise, western Caribbean. UNOCAL, Brea, California.
November 1991	Coral reefs and environmental change: A global perspective. Wesleyan University, Middletown, Connecticut.
February 1992	Coral reefs: Delicate Balance, Precarious Prospects. Design Center of the
	Americas: Americus Conference, Dania, Florida.
April 1992	Trophic Resources and Evolution: Examples from Foraminifera. University of
•	Chicago, Chicago, Illinois.
April 1992	Bimodality in Coral and Algal Carbonate Production: An Example from the
	Nicaraguan Rise. University of Chicago, Chicago, Illinois.
April 1992	Bimodality in Coral and Algal Carbonate Production: Space for Rudists? University
h.h. 4000	of Wisconsin, Madison, Wisconsin.
July 1992	Bleaching in a Reef-Dwelling Foraminifer, <i>Amphistegina gibbosa</i> . University of Hawaii, Honolulu, Hawaii.
August 1992	Bimodality in Coral/Algal Carbonate Platforms: Ecospace for Rudists? Global
August 1552	Sedimentary Geology Program (GSGP) Cretaceous Resources, Events, and
	Rhythms (CRER) Global Geology of Cretaceous Reefs and Carbonate Platforms
	Working Group 4, Tremp, Spain.
December 1992	Short Course on the Influence of Nutrients on Benthic Communities and the Effects
	on Carbonate Production: Catalan Institute of Natural History, Barcelona, Spain
	Lecture 1: Nutrients and Modern Reefs
	Lecture 2: Nutrients and Carbonate Sedimentation
August 1002	Lecture 3: Nutrients, Paleoceanography and Evolution
August 1993	Ocean mixing, paleoproductivity, and biomineralization: How useful are icehouse-world models for greenhouse-world questions? Invited Plenary
	Address for Paleogroductivity and Ocean Mixing, SEPM Theme Meeting,
	August 8–12, 1993, Pennyslvania State University, University Park.

Invited Lectures (cont).	
January 1995	Amphistegina Densities as a Practical, Reliable, Low-Cost Indicator of Coral Reef
	Vitality. USEPA/NOAA Sponsored Symposium on Methods for Assessing the Biota
	and Habitat Conditions of Coral Reefs. Annapolis, Maryland.
June 1995	Florida's Coral Reefs: Do They Have a Future?, University of South Florida,
•	St. Petersburg, Florida
September 1996	Bleaching in Reef-Dwelling Foraminifera. Department of Geology and Geophysics
	1996–97 L.J. Wilbert Lecture Series, Louisiana State University, Baton Rouge,
November 1996	Louisiana.
November 1990	Nutrients, Coral Reefs and Carbonate Sedimentation Revisited. Department of Marine, Earth and Atmospheric Sciences, North Carolina State University, Raleigh,
	North Carolina.
February 1997	Bleaching in Reef-Dwelling Foraminifera. Department of Geology, University of
	Georgia, Athens, Georgia.
February 1997	Bleaching in Reef-Dwelling Foraminifera: Is Ozone Depletion the Cause? Cause
,	Seminar Series, Department of Geosciences and Earth System Science, Penn
	State University, University Park, Pennsylvania.
May 1997	Series of lectures presented to Petrobras and City University, Rio de Janeiro,
	Brazil, May 28–30, 1997
	Lecture 1. Coral Reef Decline: Causes and Implications
	Lecture 2. Nutrients and Carbonate Sedimentation
	Lecture 3. Larger foraminifera as Environmental Indicators for Coral Reefs Lecture 4. Larger Foraminifera as Tools for Paleoenvironmental Interpretation
February 1998	Habitats of Modern Larger Foraminifera: Taxonomic, Depth and Regional
Tebruary 1990	Comparisons. Tertiary to Recent Larger Foraminifera: Their Depositional
	Environments and Importance as Petroleum Reservoirs–Conference/Workshop.
	Kingston University, UK.
September 1998	Larger Foraminifera as Indicators of Coral Reef Vitality. Department of Geological
	Sciences, University of Texas at Austin.
September 1998	Nutrients and Carbonate Sedimentation. Department of Geological Sciences,
	University of Texas at Austin.
September 1998	Senior Women in Academia: What are Role Models Worth? Association for
lonuor (1000	Women Geoscientists, Lone Star Chapter, Austin Texas.
January 1999	Senior Women in Academia: What are Mentors and Role Models Worth? Women's Campus Collective, University of South Florida–St. Petersburg.
February 1999	Nutrients and Carbonate Sedimentation. Department of Geology, University of
r cordary 1000	South Florida, Tampa.
March 1999	Senior Women in Academia: What are Mentors and Role Models Worth?
	Association for Women Geoscientists, South Florida Chapter-Tampa.
April 1999	Senior Women in Academia: What are Mentors and Role Models Worth?
	American Association for University Women Clearwater, Florida Chapter
April 1999	Careers Panelist, Feminist Majority, New College/USF Sarasota Campus
April 1999	Coral Reefs, MarineQuest, Florida Department of Environmental Protection, St.
May 1000	Petersburg, FL.
May 1999	Coral Reefs and Global Change. U.S. Environmental Protection Agency Conference on Global Change: What does it mean for the Florida Keys?
	Marathon, FL.
October 1999	Senior Women in Science: What are Mentors and Role Models Worth?
	Association for Women Geoscientists, Denver, Colorado.
November 1999	Coral Reefs, Nutrients and Global Change, Department of Geology, University of
	Montana, Missoula.November 1999 Senior Women in Academia: What are
	Mentors and Role Models Worth?
	American Association of University Women, Vero Beach Chapter.
January 2000	Global Change: Implications for Florida's Reefs. Departments of Biology and
	Geology, Kansas State University, Manhattan, Kansas.

	Invited Lectures (cont).
January 2000	Seminar: "Global Change: Implications for Florida's Reefs" and 1–day Workshop:
January 2000	"Larger Foraminifera as Tools for Paleoenvironmental Interpretation", Department
	of Geology, Wichita State University, Wichita, Kansas, sponsored by the WSU
	Geology Club/AAPG Student Chapter/Sigma Gamma Epsilon (with funding from
	the Association for Women Geoscientists).
March 2000	
March 2000	"The 1998 Class Action Gender Discrimination Case Against the University of South Florida: The Data and the Outcome" To: The Florida International University
March 2000	Chapter of the United Faculty of Florida, Miami, Florida.
March 2000	"Larger Foraminifera as Indicators of Reef Vitality". Department of Geology
	Seminar, Florida International University, Miami, Florida.
April 2000	"Senior Women in Academia: What are Mentors and Role Models Worth?" To:
	American Association of University Women–Naples Beach Chapter, Naples, FL.
June 2000	"Coral Reefs in the 21 <sup>st</sup> Century: Is the past the Key to the Future?" 10 <sup>th</sup>
	Symposium on the Geology of the Bahamas, San Salvador, Bahamas.
August 2000	Foraminifera as Bioindicators in Coral Reef Ecosystems: The FoRAM Protocol.
	Keynote Speaker at AMEP-2000, Application of Micro and Meioorganisms to
	Environmental Problems, Winnipeg, Manitoba, Canada, August 28–31, 2000.
October 2000	"Coral Reefs in the 21 <sup>st</sup> Century: Is the past the Key to the Future?" Department of
	Geology, Kent State University, Ohio.
October 2000	"Senior Women in Academia: What are Mentors and Role Models Worth?" Kent
	State University, Ohio.
November 2000	"Global Change: Implications for Florida's Coral Reefs", Marine Sciences Day, Phi
	Theta Kappa International Honor Society, St. Petersburg Junior College–
	Clearwater Campus.
April 2001	"Coral Reefs are Dying Worldwide. Local, regional and global threats to reefs",
	Earth Day, Williams Park, St. Petersburg, Florida.
May 2001	"Senior Women in the Sciences: What are Mentors and Role Models Worth?"
-	Professional Seminar, Department of Geology, University of Massachusetts at
	Amherst.
May 2001	"Symbiont–Bearing Foraminifera: Harbingers of Global Change?", Organismic and
-	Evolutionary Biology Seminar, University of Massachusetts at Amherst.
May 2001	"Adventures of "our own" AWG Marine Scientist On-board the Joides Resolution",
-	South Florida Chapter, Association for Women in Science.
April 2001	Foraminifers as Bioindicators in Coral Reef Ecosystems. USEPA–NCER Science
	Seminar Series, Washington, DC.
September 2002	Micro-and Meiobiota in Environmental Monitoring and Risk Assessment of Coral
	Reefs: Developing Tools for the Toolbox. Plenary Address, EMMM'2002, The
	Third International Congress " Environmental Micropaleontology, Microbiology and
	Meiobenthology", Vienna, Austria.
October 2002	Hallock, P. 2002. Foraminifers as Bioindicators in Coral Reef Ecosystems.
	Geological Society of America Annual Meeting, Denver, CO.
March 2003	"Coral Reefs in the 21 <sup>st</sup> Century: Is the past the Key to the Future?" Hosted by
	Marine Science Program, University of California at Santa Barbara.
March 2003	"Senior Women in Academia: What are Mentors and Role Models Worth?" WISE,
	University of California at Santa Barbara.
April 2003	Invited Lecture: From Satellites to Molecules: A Multi–scale Approach to
	Environmental Monitoring and Risk Assessment of Coral Reefs. KUDOS series,
	Science Journalism Center, University of South Florida–St. Petersburg.
September 2003	"Environmental Monitoring and Risk Assessment of Coral Reefs: A Multi–Scale
	Approach". Department of Environmental Studies Colloquium, Emory University,
	Atlanta, GA.
September 2003	"Senior Women in Academia: What are Mentors and Role Models Worth?", Emory
2000	University, Atlanta, GA.
September 2003	Invited Panelist, Where are the Women Geoscientist Full Professors" Workshop
	sponsored by NSF–Advance Program and AWG Foundation, Washington, DC.

	Invited Lectures (cont).
October 2003	Invited Panelist: Women in the Workplace Series: Women in Academia. Campus Women's Collective, University of South Florida, St. Petersburg, FL.
January 2005	Distinguishing Local from Global Stresses: Low–Cost Tools for Reef Monitoring
	and Risk Assessment. Brown-bag seminar, Department of Geology, University of
	Missouri, Kansas City, Missouri. Coral Reefs in the 21 <sup>st</sup> Century: Is the Past the Key to the Future? AWG
	Distinguished Lecture, University of Missouri, Kansas City, Missouri.
February 2005	Environmental Monitoring and Risk Assessment of Coral Reefs: A Multi–Scale
	Approach. Fort Johnson Marine Science Seminar Series, Charleston, SC
February 2005	Distinguishing Local from Global Stresses: Low–Cost Tools for Reef Monitoring
·	and Risk Assessment. AWG Distinguished Lecture, University of Utah, Salt Lake
	City, Utah.
December 2005	Coral Reefs in the 21 <sup>st</sup> Century: Is the Past the Key to the Future? AWG
	Distinguished Lecture: Geoscience Colloquium, University of Arkansas,
May 2006	Fayetteville. Coral Reefs in the 21st Century: Is the Past the Key to the Future?;
May 2000	Distinguishing Local from Global Stresses: Low-Cost Tools for Reef Monitoring
	and Risk Assessment; and Causes and Consequences of Bleaching in Reef-
	Dwelling Foraminifer–three lectures as part of a short course on Environmental
	Micropaleontology at the University of Athens, Greece.
September 2006	Plenary Speaker: Bleaching in Foraminifera with Algal Symbionts: Implications for
	Reef Monitoring and Risk Assessment. FORAMS 2006, Natal, Brazil.
October 2006	Coral Reefs in the 21 <sup>st</sup> Century: Is the Past the Key to the Future? AWG
November 2006	Distinguished Lecture: Geoscience Colloquium, Kent State University, Ohio. Bleaching in Foraminifera with Algal Symbionts: Implications for Reef Monitoring
	and Risk Assessment.
February 2007	Coral Reefs in the 21 <sup>st</sup> Century: Is the Past the Key to the Future? St. Petersburg
,	Audubon Society, St. Petersburg, Florida.
July 2007	Coral Reefs in the 21 <sup>st</sup> Century: Is the Past the Key to the Future? Mote Marine
0 / 1 0007	Laboratory, Sarasota Florida.
September 2007	Coral Reefs in the 21 <sup>st</sup> Century: Is the Past the Key to the Future? AWG
February 2008	Distinguished Lecture: Eckerd College, St. Petersburg, Florida. Using Foraminifers as Bioindicators for Coral Reefs and Other Tropical Coastal
	Environments: the Potential and the Challenges. Plenary Address, Fifth
	International Conference "Environmental Micropaleontology, Microbiology and
	Meiobenthology" (EMMM'2008), University of Madras, Chennai, India, February
	2008 (delivered remotely by video).
February 2009	Goldilocks and the Three Biogenic Carbonate Minerals: What Determines "Just
April 2000	Right"? Department of Earth Sciences, Florida International University, Miami.
April 2009	Coral Reefs in the 21st Century: Is the Past the Key to the Future? AWG Distinguished Lecture for UNCW Women in Science and Engineering, University
	of North Carolina at Wilmington.
April 2009	Senior Women in Academia: What are Mentors and Role Models Worth? AWG
·	Distinguished Lecture for UNCW Women in Science and Engineering, University
	of North Carolina at Wilmington.
June 2009	Careers in Marine Science–A Lot More than Manatees and Dolphins. 2009 USF
October 2000	Girls STEM Summit, University of South Florida, Sarasota Campus.
October 2009	Goldilocks and the Three Carbonate Minerals: What Determines "Just Right." Sperry Family–Five Colleges speaker for 2009, Williams College, Massachusetts.
October 2009	Coral Reefs in the 21st Century: Is the Past the Key to the Future? Sperry Family–
23(050) 2000	Five Colleges speaker for 2009, Williams College, Massachusetts.
November 2009	Coral Reefs in the 21st Century: Is the Past the Key to the Future? Eckerd College
	Sigma Xi Chapter Speaker.
February 2010	Coral Reefs in the 21st Century: Is the Past the Key to the Future? Hillsborough
	Community College Lecture Series.

	Invited Lectures (cont).
March 2010	Coral Reefs in the 21st Century: Is the Past the Key to the Future? AWG
	Distinguished Lecture for Department of Earth Sciences, Montana State
	University, Bozeman, MT.
March 2010	Coral Reefs in the 21st Century: Is the Past the Key to the Future? AWG
	Distinguished Lecture for Department of Geology, University of Montana,
	Missoula, MT.
April 2010	Goldilocks and the Three Biogenic Carbonate Minerals: What Determines "Just
	Right"? Department of Geology, University of Cincinnati, Ohio.
May 2010	Plenary Lecture: Cenozoic Evolution of Benthic Carbonate Systems: Solving
	Paradoxes to Understand the Past and Predict the Future. International
	Conference: The Colors of Cretaceous and Paleogene Oceans in Honor of
October 2010	Isabella Premoli Silva, Verbania, Italy.
	Coral Reefs in the 21st Century: Is the Past the Key to the Future? Aquatic Animal Health Program, University of Florida, Gainesville.
January 2011	Coral Reefs in the 21st Century: Is the Past the Key to the Future? Pasco County
January 2011	Environmental Lands Education Program, New Port Richey, Florida.
March 2011	Coral–Reefs of the 21st Century: Is the Past the Key to the Future. Environmental
	Science and Policy, USF–St Petersburg, Spring Seminar Series.
October 2011	Modern coral reefs under global change: New opportunities to understand
	carbonate depositional hiatuses The Paleontological Society Shortcourse: Corals
	and Reefs: Crises, Collapse and Change, Minneapolis, MN, Oct. 8, 2011.
October 2011	Coral reefs in the Anthropocene: What paradoxes can we learn from today?
	College of Marine Science Seminar, University of South Florida, St. Petersburg.
November 2011	Coral Reefs and Climate Change: Goldilocks or Canaries? Association of Senior
	Professional as Eckerd College, St. Petersburg, FL
November 2011	Influence of a Shallow–Water Hydrothermal Vent System at Ambitle Island, Papua
	New Guinea, on Tropical Foraminiferal Assemblages. Leibniz Center for Tropical
	Marine Ecology (ZMT), Bremen, Germany.
December 2011	Global Change in the 21st Century: Do Coral Reefs Have a Future? Satly Topics
	Seminar Series, Weedon Island Preserve, St. Petersburg, FL.,
January 2012	Global Change in the 21st Century: Do Coral Reefs Have a Future? Indian Rocks
	Beach Neighborhood Association Boat Club, Indian Rocks Beach, FL.
April 2012	Global Change in the 21st Century: Do Coral Reefs Have a Future? University of California, Merced, California.
May 2012	21st Century Coastal Environments: Do Coral Reefs Have a Future? Coastal
101ay 2012	Cities Summit, St. Petersburg, Florida.
October 2012	Bleaching in reef-dwelling foraminifers: implications for reef decline. Women in
	Science Lecture, Leibniz Center for Tropical Marine Ecology (ZMT), Bremen,
	Germany.
October 2012	Bleaching in reef-dwelling foraminifers: implications for reef decline. Alfred
	Wegener Institute for Polar and Marine Studies (AWI), Bremerhaven, Germany.
October 2012	Hallock, P. 2012. The FORAM Index revisited:Usefulness, challenges and
0010001 2012	limitations. USF–St Petersburg Environmental Science Seminar Series.
November 2012	The FoRAM Index: A single-metric indicator of coastal and reef water quality.
	Invited talk for The Role of Microfossils in Environmental Monitoring, Geological
	Society of America Annual Meeting, Charlotte, NC,
November 2012	Strategies for energy capture indicate environments of carbonate production.
	Invited talk for Heterozoan Carbonates in Time and Space, Geological Society of
	America Annual Meeting, Charlotte, NC, November 2012.
October 2013	The FoRAM Index: A single-metric indicator of coastal and reef water quality.
	Alfred Wegener Institute for Polar and Marine Studies (AWI), Bremerhaven.
October 2013	Anthropocene stress in reef-dwelling Foraminifera: Taphonomic evidence.
	Geological Society of America Annual Meeting, Denver, CO.
April 2014	Modern Coral Reefs Under Global Change: Lessons from Goldilocks. AWG
	Distinguished Lecture, Colby College, Maine.

March 2016	Invited Lectures (cont). Two lectures: Cenozoic Trends in Shallow–Water Carbonate Production: Insights from Chemistry, Climate and Biology, and Women in the Geosciences: The Amazing Power of One. Association of Women Geoscientists Distinguished Lectures presented at University of Texas at Austin.
April 2016	Cenozoic Trends in Shallow–Water Carbonate Production: Insights from Chemistry, Climate and Biology. Seminar for Louisiana State University College of the Coast and Environment.
September 2017	Modern Coral Reefs Under Global Change: Opportunities to Understand Paradoxes in the Carbonate Record. University of Lausanne, Switzerland.
September 2017	Forams as Bioindicators in Warm–Water Coastal Environments, Bridging gaps and generations in foraminiferal biomonitoring: toward a new COST action on pollution monitoring (FORAM–COST). Fribourg, Switzerland, September 2017.
September 2019	Invited Instructor, Short course on Foraminifera and Scientific Writing, Nanjing University, Nanjing, China.
June 2020	Mentor Mentee Relationships, Facilitator of Diversi-Teas Session, College of Marine Science.
March 2021	Virtual Seminar: What can paleo-environments of Cenozoic carbonate buildups reveal about the Anthropocene divergence of habitats of zooxanthellate corals from those of larger benthic forams? Department of Geology, University of Nebraska – Lincoln.
October 2021	Virtual Seminar: Forams as Bioindicators in Warm-Water Coastal Environments. School of Geology, Aristotle University of Thessaloniki, Greece.
November 2021	Virtual Seminars: "Modern Coral Reefs Under Global Change: Opportunities to Understand Paradoxes in the Carbonate Record" and "The First, The Only, One of the Few"; Geological Sciences, East Carolina University.
February 2022	Virtual Seminar: Strategies for Energy Capture Indicate Environments of Carbonate Production. Permian Basin SEPM, Midland, Texas.
April 2022	Modern Coral Reefs Under Global Change: Lessons from Goldilocks and the Three Four Paradoxes. New College, Florida.
February 2023	Participant, Geological Forum of the <i>Journal of Earth Science</i> : Topic 14. Tropical Large Benthic Foraminifera (virtual).
March 2023	Women in the Geosciences: the Amazing Power of One.USF Office of High Impact Practices and Undergraduate Research Sustain-a-Bull Series (virtual).
April 2023	Modern Coral Reefs Under Global Change, as a part of "Climate Change: From East to West and Pole to Pole, a multi-lecture presentation describing and summarizing recent climate change research". SUNY Orange Cultural Affairs Zoom Lecture event.
May 2023	Energetics: A Key to Understanding Algal Symbioses? Invited Keynote Speaker, 6 <sup>th</sup> International <i>Cassiopea</i> Workshop and Conference 2023, Key Largo, Florida.

## Workshops Organized

Co-organized, with Dr. John Lee of City University of New York, a Workshop on Foraminiferal Biology held at Lizard Island Research Station, Australia, on July 27–30, in conjunction with the 10th International Congress of Protozoology, which was held in Sydney 21–25 July 1997.

Co-organizer, with Dr. Robert G. Loucks of ARCO Petroleum Company, Prof. Richard Moody of Kingston University, UK, and Dr. Mark Sonnenfeld of Elf Aquitaine Production Company, of an international Conference/Workshop entitled "Tertiary to Recent Larger Foraminifera: Their Depositional Environments and Importance as Petroleum Reservoirs", which was held in mid-February 1998, in Kingston, England. Sessions Chaired at Professional Meetings

Co-chair Sedimentology III: carbonates, evaporites, cherts. 1979 Annual Meeting, Geological Society of America, San Diego, CA. Co-chair Paleontology III. 1980 Annual Meeting, Geological Society of America, Atlanta, GA. Co-chair Paleontology I. Phylogeny and Evolution. 1982 Annual Meeting, Geological Society of America, New Orleans, LA. Co-chair Micropaleontology. 1983 Annual Meeting, Geological Society of America, Indianapolis, IN. Co-chair Cushman Symposium on functional morphology in foraminifera. Fourth North American Paleontological Congress, Boulder, CO, August 1986. Co-chair Paleontological Society Session on Evolution: Radiation and Extinction. 1989 Annual Meeting, Geological Society of America, St. Louis, MO. Co-chair Carbonate Platforms session, Society of Economic Paleontologists and Mineralogists Research Conference on Cretaceous Resources, Events, and Rhythms (CRER), Denver, CO, Aug. 1990. Chair Scientific session of American Academy of Underwater Sciences Tenth Annual Scientific Diving Symposium, St. Petersburg, FL, Oct. 1990. Co-chair Sedimentology I. Carbonate Sedimentology: Modern and Ancient. 1990 Annual Meeting, Geological Society of America, Dallas, TX. Co-chair Global Environmental Changes and Reef Responses. 7th International Coral Reef Symposium, Guam. June 1992. Convener Age, Stage and Gender in the Scientific Community, panel for conference on The Politics and Processes of Scholarly Publishing, University of South Florida, St. Petersburg, FL, March 1994. Co-chair Micropaleontology Session. 1995 Annual Meeting, Geological Society of America, New Orleans, LA. October 1995 Co-chair Biology of Foraminifera, 10th International Congress of Protozoologists, Sydney, Australia, July 1997 Co-chair Micropaleontology.1996 Annual Meeting, Geological Society of America, Denver, CO, Oct.1996 Co-chair Larger Foraminifera as Environmental Indicators. Forams '98, Monterrey, Mexico, July 1998 Co-chair Pollution: Micro-and Meioorganisms in Background Assessment, Impact, Environmental Monitoring and Recovery. Second International Conference "Application of Micro-and Meioorganisms to Environmental Problems", Winnipeg, Manitoba, Canada, August 2000. Co-chair Beach Development and Biogenic Framework. Carbonate Beaches 2000, Key Largo, Florida, December 2000.

- Co-chair Micropaleontological Solutions to Urban Problems, Geological Society of America, Denver, Colorado, October 2002.
- Co-chair "Protists in Extreme Environments: Fossil Evidence to Physiological Adaptations"; Cushman Foundation/ Paleontological Society Theme Session, Geological Society of America, Oct. 2005.
- Co-convenor: Ontogenetic, Taphonomic and diagenetic shell features: What stories can they tell? Forams 2010–International Symposium on Foraminifera, September 5–10, 2010, Bonn, Germany.
- Co-convenor (with Michael Martinez–Colon): Ontogenetic, taphonomic and diagenetic shell features: What stories can they tell? Forams 2010, Bonn, Germany, Sept. 2010.
- Co-convenor: Coral Reefs in a Crystal Ball: What Will Be Their Future? ASLO-San Juan, February 2011.
- Co-convenor: Frontiers in Foraminiferal Research: Implications for Interpreting the Past, Understanding the Present, and Predicting the Future. Geological Society of America Annual Meeting, Minneapolis, MN, October 2011.
- Co-convenor: Benthic foraminfera as indicators and model organisms for environmental changes on coral reefs: local, regional and global. 12<sup>th</sup> Internat. Coral Reef Symp., Cairns, Australia, July 2012.
- Co-convenor:Advances in Environmental Micropaleontology, Forams 2014–International Symposium on Foraminifera, Concepcion, Chile, January 2014.
- Co-convenor: The Microfossil Record: The Past is the Key to the Future (or Present) in Conservation Paleobiology. NAPC 2014–North American Paleontological Congress, Gainesville, Florida, USA, February 2014.
- Lead convenor: Indicator taxa: What can they tell us about the past, present and future for coral reefs? International Coral Reef Symposium, Honolulu, June 2016.
- Lead convenor: Session V: Foraminiferal Research Schools: The Past Can Inform the Future: FORAMS 2018, International Symposium on Foraminifera, Edinburg, Scotland, June 2018.

Invited Workshop or Committee Participation

NOAA–NURP Workshop on Coral Reef Research and Management in the Florida Keys, June 1988. Global Sedimentary Geology Program (GSGP)–Cretaceous Resources, Events and Rhythms (CRER)

- Workshop, Carbonate Platforms Working Group, Marseilles, France, September 1988.
- NSF/EPA/NOAA–sponsored Workshop on Coral Bleaching/Coral Reef Ecosystems and Global Change, Miami, Florida, June 1991.
- NOAA-NURC/UNCW-sponsored Florida Keys Nutrient Workshop, Key Largo, June 1991.

EPA–sponsored Coral Community Assessment Workshop, Water Quality Protection Program for the Florida Keys National Marine Sanctuary, February 1992.

GSGP–CRER Workshop, Carbonate Platforms Working Group, Tremp, Spain, September 1992. International Environmental Education Seminar for Women, sponsored by Pan Pacific and South East

Asia Women's Association (PPSEAWA) chapter from the Republic of China, in cooperation with PPSEAWA International (a UNESCO chartered organization), Taipei, Taiwan, August 1993.

- NOAA-NURP Gulf of Mexico Workshop, New Orleans, Louisiana, May 1994.
- NOAA/EPA A Coral Reef Symposium on Methods for Assessing the Biota and Habitat Conditions of Coral Reefs. Annapolis, MD, January 26–27, 1995.

Coral and Live Bottom Habitat Sub–Group Workshop, South Atlantic Fishery Management Council, September 16–17, 1997, in St. Petersburg, Florida.

- World Resources Institute, International Centre for Living Aquatic Marine Resources, and World Conservation Monitoring Centre: Reefs at Risk Workshop; Manila, Philippines; Sept. 24–25, 1997.
- U.S. Environmental Protection Agency: 1996/97 STAR Grants Ecological Assessment/ Ecosystem Indicators Program Review; Las Vegas, Nevada, February 3–5, 1998.
- Florida Department of Environmental Protection: Developing a Statewide Biological Assessment Approach for Florida's Marine and Estuarine Ecosystems; St. Petersburg, FL; Apr. 28–29, 1998.
- Invited Participant: Workshop on Developing a Statewide Biological Assessment Approach for Florida's Coral–Reef and Hardbottom Ecosystems; Sponsored by the Florida Department of Environmental Protection, St,. Petersburg, FL., October 13–14, 1998; March 30–31, 1999.
- Gulf of Mexico Fishery Management Council: Special Coral Scientific and Statistical Committee (Appointed Member–1999–02)
- Invited Panelist: Gender Equity Workshop, Geological Society of America Committee on Minorities and Women in the Geosciences, National Association of Black Geologists and Geophysicists, and Mills College Women's Leadership Institute; Geological Society of America Meeting, Reno, NV, 11/12/00.
- Invited Participant: National Center for Caribbean Reef Research sponsored Workshop on the Future of Caribbean Reefs, 09/26–28/01

Technical Workshop on Coral, Coral Reefs and Live/Hard Bottom Habitat and Artificial Reefs, South Atlantic Fishery Management Council, March 26–27, 2003, in St. Petersburg, Florida.

Invited Participant: Coral Reefs, Climate and Coral Bleaching Workshop, Coral Reef Task Force, June 18–20, 2003, in Kahuku (Oahu), Hawaii.

Invited Panelist: Where are the Women Geoscience Professors? Workshop sponsored by the Association for Women Geoscientists, the University of Nebraska and the National Science Foundation, September 26–27, 2003; in Washington, D.C.

Presented "Reef Risk Assessment: Satellites to Molecules". South Carolina Sea Grant Consortium, Environmental Marine Biotechnology Program: Assessing the Health of Coral Reef Ecosystems in the Florida Keys Using an Integrated Molecular Biomarker System. Constituents Workshop, Key Largo, FL, January 17–18, 2004.

Healthy Mesoamerican Reef Workshop, Invited participant and speaker, Miami, Florida, 06/02–04/04.

- Satellites to Molecules: Strategies and Tools for Reef Monitoring & Risk Assessment. Florida Hurricane Alliance Workshop, March 1, 2005.
- Chaired Session 2A and presented session summary: Ecosystem Responses to Elevated CO<sub>2</sub>–Neritic Ecosystem Response. Impacts of Increasing Atmospheric CO<sub>2</sub> on Coral Reefs and Other Marine Calcifiers. Sponsors: NOAA/NSF/USGS. St. Petersburg, Florida April 18–20, 2005.
- Satellites to Molecules: Strategies and Tools for Reef Monitoring & Risk Assessment. Shortcourse on Environmental Micropaleontology–Monitoring past and present environmental perturbations using micro–organisms, Conference Universitaire de la Suisse Occidentale (CUSO), Fribourg, Switzerland, July 5, 2005.

- Causes and Consequences of Bleaching in the Reef–Dwelling Foraminifera, *Amphistegina* spp. Workshop on unicellular symbionts, University of Vienna, Austria, December 12, 2005.
- 14th International Conference on Environmental Bioindicators, Maritime Institute, Linthicum, Maryland, April 24–26, 2006
- NSF Workshop: Community Sedimentary Model for Carbonate Systems, Colorado School of Mines, Golden, CO, February 27–29, 2008.
- NSF Workshop: Broadening the Spectrum: A Community Workshop to Expand Opportunities for Underrepresented Minorities in the Marine and Environmental Sciences in South Florida. Indian River State College, Fort Pierce, FL, USA, February 2013.
- Scientific Committee Member, Forams 2014–International Symposium on Foraminifera, Concepcion, Chile, January 2014.
- Bridging gaps and generations in foraminiferal biomonitoring: toward a new COST action on pollution monitoring (FORAM–COST). Fribourg, Switzerland, September 2017.
- Scientific Committee Member, Forams 2018–International Symposium on Foraminifera, Edinburgh, Scotland, June 2018.
- Member of the Scientific Committee of the 3rd Conference of the Arabian Journal of Geosciences (CAJG), held online, on 2–5 November 2020.
- Scientific Committee Member, Forams 2023–International Symposium on Foraminifera, Perugia, Italy, June 2023.

## **Consulting Activities**

- For Hawaiian Electric Company, Inc., Honolulu, Hawaii: Consultant on the effects of thermal effluent on benthic foraminifera and nearshore carbonate sedimentation (1975–1977)
- For Cities Service Research Center, Tulsa, Oklahoma: Consultant on paleoenvironmental analysis to Tertiary carbonate cores (1981)

For W. T. Probandt, Exploration Geologist: Consultant on reef models for hydrocarbon exploration(1983) For Southwest Teacher Education Center, Fort Myers, Florida, and Sarasota County School Board,

Osprey, Florida: Consultant in Earth Science Education (June–July 1984) For Continental Shelf Associates, Jupiter, Florida: Consultant on coral reefs of the Florida Keys (1989) For R&RSolutions, Arlington, VA, provided technical recommendations (2019)