

# CURRICULUM VITAE

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## EDUCATION:

- 1988 Ph.D. in Marine Biology, Scripps Institution of Oceanography, University of California, San Diego.
- 1982 Bachelor of Science, *summa cum laude*, in Biology, College of Biological Sciences, University of Minnesota, Minneapolis/St. Paul.

## POSITIONS HELD:

- 2003-05 NSF Ex Officio Member, US Coral Reef Task Force
- 2003-05 NSF Ex Officio Member, Marine Protected Area Federal Advisory Committee
- 2003-05 Associate Program Director, National Science Foundation, Biological Oceanography Program
- 2002 Visiting Professor, Dipartimento di Chimica delle Sostanze Naturali, Universita Degli Studi di Napoli Federico II, Naples, Italy.
- 2002 Visiting Scholar, Hong Kong University of Science and Technology, Hong Kong, China
- 1999-04 Chief Scientist, NSF UNOLS expeditions to the Bahamas, *R/V Seward Johnson*
- 1999 Visiting Professor, Dipartimento di Chimica delle Sostanze Naturali, Universita Degli Studi di Napoli Federico II, Naples, Italy.
- 1998 Chief Scientist, NSF UNOLS expedition to Bahamas, *R/V Edwin Link*
- 1998- Professor, Department of Biological Sciences and Center for Marine Science, UNCW
- 1997- Senior Editorial Advisor, *Marine Ecology Progress Series*
- 1996-97 Government-University-Industry Roundtable, Federal Demonstration Project, UNCW Representative, National Academy of Sciences, Washington, D.C.
- 1995- Adjunct Associate Professor, Curriculum in Marine Science, UNC-Chapel Hill
- 1995- Adjunct Assistant Professor, Marine, Earth and Atmospheric Sciences, NCSU
- 1994-98 Associate Professor, Biological Sciences and CMSR, UNC-Wilmington
- 1993-95 Adjunct Assistant Professor, Curriculum in Marine Science, UNC-Chapel Hill
- 1992-95 Adjunct Assistant Professor, Marine, Earth and Atmospheric Sciences, NCSU
- 1992-93 Guest Investigator, Woods Hole Oceanographic Institution
- 1992-96 Editorial Advisor, *Marine Ecology Progress Series*
- 1991-94 Assistant Professor, Biological Sciences and CMSR, UNC-Wilmington
- 1990 Sessional Lecturer, University of Alberta, Edmonton. Marine Biology.
- 1990-91 Postdoctoral Fellowship in Ocean Science and Engineering, Woods Hole Oceanographic Institution, Woods Hole, Massachusetts.
- 1988-90 Killam Memorial Postdoctoral Scholarship, University of Alberta, Edmonton, Canada. In residence at the Friday Harbor Laboratories, University of Washington.
- 1987-88 Lecturer, University of California, San Diego. Introductory Oceanography.
- 1982-88 Research Assistant, Scripps Institution of Oceanography, UC-San Diego.
- 1981-82 Teaching Assistant, Bermuda Biological Station for Research. Marine Invertebrate Zoology.
- 1979-82 Research Assistant, Department of Ecology and Behavioral Biology, University of Minnesota, Minneapolis/St. Paul.

**GRANTS AND AWARDS:**

- 2006 NOAA/NURP grant, "Ecology of sponges on Florida reefs: Demography and bleaching" \$64,502/2yrs
- 2006 NSF Biological Oceanography renewal, "Chemical ecology of sponges on Caribbean reefs."  
\$542,000/ 4yrs
- 2004 NOAA/NURP grant, "Barrel sponges on Florida reefs: Reproduction, mortality and bleaching"  
\$59,774/2yrs
- 2002 NOAA/NURP grant, "Ecology of Caribbean sponges" \$46,476/2 yrs
- 2001 NSF Biological Oceanography renewal, "Assessing the chemical defenses of Caribbean Invertebrates."  
\$440,000/ 4yrs
- 2001 US-Israel Binational Science Foundation grant "Photosymbiotic relationships in marine sponges" with  
M. Ilan and S. Beer. \$229,967/ 3yrs
- 2000 UNCW Faculty Reassignment Award
- 2000 NOAA/NURP grant, "Ecology of deep-water sponges" \$33,490/2 yrs
- 1999 UNCW Award for Faculty Scholarship; Faculty Marshall, December Graduation, UNCW
- 1999 Subcontract on USDA-SBIR, Non-fouling netting for aquaculture; \$10,189/1 yr
- 1999 Contract with Eli Lilly, Inc. for cooperative research; \$30,000/1 yr
- 1999 NOAA/NURP grant, "Chemical ecology of Florida Sponges" \$16,624/2 yrs
- 1998 Nominee: 1998 UNCW Award for Faculty Scholarship
- 1998 Inducted into UNCW Office of Research Administration's Million Dollar Club
- 1998 NSF award for student travel to 5<sup>th</sup> *International Sponge Symposium*. \$25,000/1 yr
- 1998 Contract with Eli Lilly, Inc. for cooperative research; \$30,000/1 yr
- 1998 Contract with Novartis, Inc. for cooperative research; \$44,000/1 yr
- 1997 NSF Bio. Oce. renewal, "Assessing the chemical defenses of Caribbean sponges." \$412,091/ 4yrs
- 1997 Subcontract on USDA-SBIR, Non-fouling netting for aquaculture; \$5,000/1 yr
- 1997 NOAA/NURP grant, "Chemical ecology of Caribbean demosponges." \$6,195/1 yr
- 1996 Contract with Monsanto, Inc. for cooperative research; \$20,000/1 yr
- 1996 Contract with Eli Lilly, Inc. for cooperative research; \$31,588/1 yr
- 1996 UNC - Wilmington Cahill Award for Faculty Research and Development; \$2,000/1 yr
- 1995 NOAA/NURP grant, "Investigations of the chemical and physical defenses of reef and mangrove  
demosponges." \$6785/1 yr.
- 1995 NSF matching funds for cooperative research. \$21,000/1 yr.
- 1994 Contract with Eli Lilly Pharmaceuticals for "Cooperative research program with Sphinx/Lilly."  
\$21,000/1 yr
- 1993 NOAA/NURP grant, "Chemical ecology of Caribbean sponges." \$7,000/1 year.
- 1993-96 NSF Biological Oceanography grant, "RUI: Assessing the chemical defenses of Caribbean sponges."  
\$177,000/3 years
- 1992 UNC - Wilmington Cahill Award for Faculty Research and Development; \$800/1 yr
- 1992 NC Biotechnology Center grant, Visiting Industrial Scientist Program; \$2,500
- 1992-94 ONR Grant "Biofouling by gregarious macrofauna: a multidisciplinary approach." \$157,000/2 yrs
- 1991 UNC - Wilmington Faculty Research and Development Fund Award; \$1,500/1 yr
- 1991-96 National Science Foundation Presidential Young Investigator Award; \$125,000/5 yrs
- 1990 Woods Hole Oceanographic Inst. Postdoctoral Fellowship in Ocean Science and Engineering.
- 1988 ONR Grant (with M.G. Hadfield) for a symposium held at the Annual Conference of the American  
Society of Zoologists, San Francisco.
- 1988 Killam Memorial Postdoctoral Scholarship, University of Alberta, Edmonton, Canada.
- 1987-88 Dissertation Fellowship, Scripps Institution of Oceanography, UC-San Diego.
- 1986 Outstanding Paper Award, Annual Conference of the Western Society of Naturalists, Hilo, HI.
- 1983 -86 National Science Foundation Predoctoral Graduate Fellowship.
- 1980 Exxon Scholarship, Bermuda Biological Station for Research.

**GRADUATE STUDENTS:**

MS students, acting as major advisor (17): Robert Toonen, David Mense, Brian Chanas, Alicia Henrikson, David Swearingen, Matt Dunlap, Ian Zelo, Brett Waddell, Robyn Palmer, Chloe Deodato, Sebastian Engel, Tim Henkel, Sarah Kelly, Kyle Walters, Shobu Odate, Steven McMurray, Tse-Lynn Loh.

PhD students, acting as major advisor (2): Jonathan Cowart, Tim Henkel

Postdoctoral students, acting as major advisor (2): Julia Kubanek, Susanna Lopez-Legendil

**PUBLICATIONS:**

85. Grube, A., Assmann, M., Lichte, E., Sasse, F., Pawlik, J.R., and Köck, M. 2007. New Bioactive Metabolites from the Caribbean Sponge *Aka coralliphagum*. *Journal of Natural Products* (in press).
84. Epifanio, R., Maia, L.F., Pawlik, J.R., and Fenical, W. 2006. Antipredatory secosterols from the octocoral *Pseudopterogorgia americana*. *Marine Ecology Progress Series*, (in press).
83. Pawlik, J.R., McMurray, S.E., Henkel, T.P., and Cowart, J.D. 2007. Abiotic factors control sponge ecology in Florida mangroves. *Marine Ecology Progress Series* (In press).
82. Pawlik, J.R., Steindler, L., Henkel, T.P., Beer, S., and Ilan, M. 2007. Chemical warfare on coral reefs: Sponge metabolites differentially affect coral symbiosis *in situ*. *Limnology and Oceanography* **52**: (in press).
81. Odate, S., and Pawlik, J.R. 2007. The role of vanadium in the chemical defense of the solitary tunicate, *Phallusia nigra*. *Journal of Chemical Ecology* (in press).
80. Qian, P.Y., Dobretsov, S., Dahms, H.U. and Pawlik, J.R. 2006. Comparison of the antifouling activities and microbial diversity of two congeneric sponges (*Callispongia* spp.) from Hong Kong and the Bahamas. *Marine Ecology Progress Series* **324**: 151-165. [PDF](#)
79. Cowart, J.D., Henkel, T.P., McMurray, S.E., and Pawlik, J.R. 2006. Sponge orange band (SOB): a pathogenic-like condition of the giant barrel sponge, *Xestospongia muta*. *Coral Reefs* **25**: 513. [PDF](#)
78. Lau, S.C.K., Tsoi, M.M.Y., Li, X.C., Plakhotnikova, I., Dobretsov, S.V., Wu, M., Wong, P.K., Pawlik, J.R., and Qian, P.Y. 2006. Description of *Fabibacter halotolerans* gen. nov., sp. nov. and *Roseivirga spongocola* sp. nov. and reclassification of [*Marinicola*] *seohaensis* as *Roseivirga seohaensis* comb. nov.. *International Journal of Systematic and Evolutionary Microbiology* **56**: 1059-1065.
77. Lau, S.C.K., Tsoi, M.M.Y., Li, X.C., Plakhotnikova, I., Dobretsov, S.V., Wong, P.K., Pawlik, J.R., and Qian, P.Y. 2006. *Stenothermobacter spongiae* gen. nov., sp. nov., a novel member of the family Flavobacteriaceae isolated from a marine sponge in the Bahamas, and emended description of *Nonlabens tegetincola*. *International Journal of Systematic and Evolutionary Microbiology* **56**: 181-185.
76. Kelly, S.R., Garo, E., Jensen, P.R., Fenical, W. and Pawlik, J.R. 2005. Effects of sponge secondary metabolites on bacterial surface colonization. *Aquatic Microbial Ecology*, **40**: 191-203. [PDF](#)
75. Engel, S. and Pawlik, J.R. 2005. Interactions among Florida sponges. II. Mangrove habitats. *Marine Ecology Progress Series*, **303**: 145-152. [PDF](#)
74. Engel, S. and Pawlik, J.R. 2005. Interactions among Florida sponges. I. Reef habitats. *Marine Ecology Progress Series*, **303**: 133-144. [PDF](#)
73. Lau, S.C.K., Tsoi, M.M.Y., Li, X.C., Plakhotnikova, I., Dobretsov, S.V., Wong, P.K., Pawlik, J.R. and Qian, P.Y. 2005. *Nonlabentium tegetincola* gen. nov, sp. nov., a new member of the family Flavobacteriaceae isolated from a microbial mat in a subtropical estuary. *International Journal of Systematic and Evolutionary Microbiology*, **55**: 2279-2283. [PDF](#)
72. Jones, A.C., Blum, J.E. and Pawlik, J.R. 2005. Testing for defensive synergy in Caribbean sponges: Bad taste or glass spicules?. *Journal of Experimental Marine Biology and Ecology*, **322**: 67-81. [PDF](#)
71. Walters, K.D. and Pawlik, J.R. 2005. Is there a trade-off between wound-healing and chemical defenses among Caribbean reef sponges? *Integrative and Comparative Biology*, **45**: 352-358. [PDF](#)
70. Henkel, T. and Pawlik, J.R. 2005. Habitat use by sponge-dwelling brittlestars. *Marine Biology*, **146**: 301-313. [PDF](#)
69. Lau, S.C.K., Tsoi, M.M.Y., Li, X.C., Plakhotnikova, I., Dobretsov, S.V., Lau, K.W.J., Wu, M., Wong, P.K., Pawlik, J.R. and Qian, P.Y. 2005. *Winogradskyella poriferorum* sp. nov., a novel member of the family

- Flavobacteriaceae isolated from a sponge in the Bahamas. *International Journal of Systematic and Evolutionary Microbiology* **55**: 1589-1592. [PDF](#)
68. Masuno, M.N., Pawlik, J.R. and Molinski, T.F. 2004. Phorbasterones A-D, Cytotoxic nor-ring A steroids from the sponge *Phorbas amaranthus*. *Journal of Natural Products*, **67**: 731-733. [PDF](#)
  67. Pawlik, J.R. 2003. Sorting sponges. (Book review.) *Science* **299**: 1846-1847. [PDF](#)
  66. Burns, E., Ifrach, I., Carmeli, S., Pawlik, J.R. and Ilan, M. 2003. Comparison of anti-predatory defenses of Red Sea and Caribbean sponges: I. Chemical defense. *Marine Ecology Progress Series*, **252**: 105-114. [PDF](#)
  65. Kelly, S.R., Jensen, P.R., Henkel, T.P., Fenical, W. and Pawlik, J.R. 2003. Effects of Caribbean sponge extracts on bacterial attachment. *Aquatic Microbial Ecology*, **31**: 175-182. [PDF](#)
  64. Puyana, M., Fenical, W., and Pawlik, J.R. 2003. Are there activated chemical defenses in sponges of the genus *Aplysina* from the Caribbean? *Marine Ecology Progress Series*, **246**: 127-135. [PDF](#)
  63. O'Neal, W. and Pawlik, J.R. 2002. A reappraisal of the chemical and physical defenses of Caribbean gorgonian corals against predatory fishes. *Marine Ecology Progress Series*, **240**: 117-126. [PDF](#)
  62. Pisut, D.P. and Pawlik, J.R. 2002. Anti-predatory chemical defenses of ascidians: Secondary metabolites or inorganic acids? *Journal of Experimental Marine Biology and Ecology*, **270**:203-214. [PDF](#)
  61. Pawlik, J.R., McFall, G., and Zea, S. 2002. Does the odor from sponges of the genus *Ircinia* protect them from fish predators? *Journal of Chemical Ecology*, **28**: 1103-1115. [PDF](#)
  60. Kubanek, J., Whalen, K.E., Engel, S., Kelly, S.R., Henkel, T.P., and Pawlik, J.R. 2002. Multiple defensive roles for triterpene glycosides from two Caribbean sponges. *Oecologia*, **131**: 125-136. [PDF](#)
  59. Toonen, R.J., and Pawlik, J.R. 2001. Foundations of gregariousness: A dispersal polymorphism among the planktonic larvae of a marine invertebrate. *Evolution*, **55**: 2439-2454. [PDF](#)
  58. Toonen, R. J. and Pawlik, J.R. 2001. Settlement of the gregarious tube worm *Hydroides dianthus* (Polychaeta: Serpulidae) II Testing the desperate larva hypothesis. *Marine Ecology Progress Series*, **224**: 115-131. [PDF](#)
  57. Toonen, R. J. and Pawlik, J.R. 2001. Settlement of the gregarious tube worm *Hydroides dianthus* (Polychaeta: Serpulidae) I. Gregarious and non-gregarious settlement. *Marine Ecology Progress Series*, **224**: 103-114. [PDF](#)
  56. Kubanek, J. Fenical W., and Pawlik, J.R.. 2001. New antifeedant triterpene glycosides from the Caribbean sponge *Erylus formosus*. *Natural Products Letters*, **15**: 275-285. [PDF](#)
  55. Pawlik, J.R. 2000. Marine Chemical Ecology. *Marine Ecology Progress Series*, **207**: 225-226. [PDF](#)
  54. Engel, S. and Pawlik, J.R. 2000. Allelopathic activities of sponge extracts. *Marine Ecology Progress Series*, **207**: 273-281. [PDF](#)
  53. Assmann, M., Lichte, E., Pawlik, J.R., and Köck, M. 2000. Chemical defenses of the Caribbean sponges *Agelas wiedenmayeri* and *Agelas conifera*. *Marine Ecology Progress Series*, **207**: 255-262. [PDF](#)
  52. Kubanek, J., Pawlik, J.R., Eve, T.M., and Fenical, W. 2000. Triterpene glycosides defend the Caribbean reef sponge *Erylus formosus* from predatory fishes. *Marine Ecology Progress Series*, **207**: 69-77. [PDF](#)
  51. Lindel, T., Hoffmann, H., Hochgürtel, M., Pawlik, J.R. 2000. Structure-activity relationship of the inhibition of fish feeding by sponge-derived and synthetic pyrrole-imidazole alkaloids. *Journal of Chemical Ecology*, **26**: 1477-1496. [PDF](#)
  50. Waddell, B., Pawlik, J.R. 2000. Defenses of Caribbean sponges against invertebrate predators: II. Assays with sea stars. *Marine Ecology Progress Series*, **195**: 133-144. [PDF](#)
  49. Waddell, B., Pawlik, J.R. 2000. Defenses of Caribbean sponges against invertebrate predators: I. Assays with hermit crabs. *Marine Ecology Progress Series*, **195**: 125-132. [PDF](#)
  48. Wilson, D.M., Puyana, M., Fenical, W., Pawlik, J.R. 1999. Chemical defense of the Caribbean reef sponge *Axinella corrugata* against predatory fishes. *Journal of Chemical Ecology*, **25**: 2811-2823. [PDF](#)
  47. Newbold, R.W., Jensen, P.R., Fenical, W., Pawlik, J.R. 1999. Antimicrobial activity of Caribbean sponge extracts. *Aquatic Microbial Ecology*, **19**: 279-284. [PDF](#)
  46. Dunlap, M., Pawlik, J.R. 1998. Spongivory by parrotfish in Florida mangrove and reef habitats. *P.S.Z.N.I: Marine Ecology*, **19**: 325-337. [PDF](#)

45. Swearingen, D.C. III, Pawlik, J.R. 1998. Variability in the chemical defense of the sponge *Chondrilla nucula* against predatory reef fish. *Marine Biology*, **131**: 619-627. [PDF](#)
44. Vervoort, H.C., Pawlik, J.R., Fenical, W. 1998. Chemical defense of the Caribbean ascidian *Didemnum conchyliatum*. *Marine Ecology Progress Series*, **164**: 221-228. [PDF](#)
43. Pawlik, J.R. 1998. Coral reef sponges: Do predatory fishes affect their distribution? *Limnology and Oceanography*, **43**: 1396-1399. [PDF](#)
42. Henrikson, A.A., Pawlik, J.R. 1998. Seasonal variation in biofouling of gels containing extracts of marine organisms. *Biofouling*, **12**: 245-255. [PDF](#)
41. Chanas, B., Pawlik, J.R. 1997. Variability in the chemical defense of the Caribbean reef sponge *Xestospongia muta*. *Proceedings of the 8th International Coral Reef Symposium*, **2**: 1363-1368. [PDF](#)
40. Pawlik, J.R. 1997. Fish predation on Caribbean reef sponges: an emerging perspective of chemical defenses. *Proceedings of the 8th International Coral Reef Symposium*, **2**: 1255-1258. [PDF](#)
39. Toonen, R.J., Pawlik, J.R. 1996. Settlement of the tube worm *Hydroides dianthus* (Polychaeta: Serpulidae): Cues for Gregarious Settlement. *Marine Biology*, **126**: 725-733. [PDF](#)
38. Chanas, B., Pawlik, J.R., Lindel, T., Fenical, W. 1996. Chemical defense of the Caribbean sponge *Agelas clathrodes* (Schmidt). *Journal of Experimental Marine Biology and Ecology*, **208**: 186-196. [PDF](#)
37. Dunlap, M., Pawlik, J.R. 1996. Video-monitored predation by Caribbean reef fish on an array of reef and mangrove sponges. *Marine Biology*, **126**: 117-123. [PDF](#)
36. Chanas, B., Pawlik, J.R. 1996. Does the skeleton of a sponge provide a defense against predatory reef fish? *Oecologia*, **107**: 225-231. [PDF](#)
35. Pawlik, J.R., Chanas, B., Toonen, R.J., Fenical, W. 1995. Defenses of Caribbean sponges against predatory reef fish: I. Chemical deterrence. *Marine Ecology Progress Series*, **127**: 183-194. [PDF](#)
34. Chanas, B., Pawlik, J.R. 1995. Defenses of Caribbean sponges against predatory reef fish: II. Spicules, tissue toughness, and nutritional quality. *Marine Ecology Progress Series*, **127**: 195-211. [PDF](#)
33. Henrikson, A.A. and J.R. Pawlik. 1995. A new method of assaying extracts of marine organisms for antifouling properties. *Journal of Experimental Marine Biology and Ecology*, **194**, 157-165. [PDF](#)
32. Albrizio, S., Ciminiello, P., Fattorusso, E., Magno, S. and J.R. Pawlik. 1995. Amphitoxin, a new high molecular weight antifeedant pyridinium salt from the Caribbean sponge *Amphimedon compressa*. *Journal of Natural Products*, **58**: 647-652. [PDF](#)
31. Toonen, R.J. and J.R. Pawlik. 1994. Foundations of gregariousness. *Nature (London)* **370**: 511-512.
30. Pawlik, J.R. and D.J. Mense. 1994. Larval transport, food limitation, ontogenetic plasticity, and the recruitment of sabellariid polychaetes. Pages 275-286 in: *Reproduction and Development of Marine Invertebrates*. Edited by Wilson, Jr., W.H., Stricker, S.A. and Shinn, G.L. Johns Hopkins University Press, Baltimore, Maryland. [PDF](#)
29. Pawlik, J.R. and C.A. Butman. 1993. Settlement of a marine tube worm as a function of current velocity: interacting effects of hydrodynamics and behavior. *Limnology and Oceanography*, **38**: 1730-1740. [PDF](#)
28. Pawlik, J.R. 1993. Marine Invertebrate Chemical Defenses. *Chemical Reviews*, **93**: 1911-1922. [PDF](#)
27. Pawlik, J.R. and W. Fenical. 1992. Chemical defense of *Pterogorgia anceps*, a Caribbean gorgonian coral. *Marine Ecology Progress Series*, **87**: 183-188. [PDF](#)
26. Pawlik, J.R. 1992. The Spanish Dancer Nudibranch. *Oceanus*, **35**: 85-86. [PDF](#)
25. Pawlik, J.R. 1992. Chemical Ecology of the Settlement of Benthic Marine Invertebrates. *Oceanography and Marine Biology: An Annual Review*, **30**: 273-335. [PDF](#)
24. Pawlik, J.R. 1992. Induction of Marine Invertebrate Larval Settlement: Evidence for Chemical Cues. Pages 189-236 in: *Ecological Roles of Marine Natural Products*. Edited by V.J. Paul. Cornell University Series in Chemical Ecology, Cornell University Press. [PDF](#)
23. Fenical, W., and J.R. Pawlik. 1991. Defensive properties of secondary metabolites from the Caribbean gorgonian coral *Erythropodium caribaeorum*. *Marine Ecology Progress Series*, **75**: 1-8. [PDF](#)
22. Pawlik, J.R., and F.S. Chia. 1991. Larval settlement of *Sabellaria cementarium* Moore, and comparisons with other species of sabellariid polychaetes. *Canadian Journal of Zoology*, **69**: 765-770. [PDF](#)
21. Pawlik, J.R., C.A. Butman and V.R. Starczak. 1991. Hydrodynamic facilitation of gregarious settlement of

- a reef-building tube worm. *Science*, **251**: 421-424. [PDF](#)
20. Roussis, V., J.R. Pawlik, M.E. Hay and W. Fenical. 1990. Secondary metabolites of the chemically rich ascoglossan *Cyerce nigricans*. *Experientia*, **46**: 327-329. [PDF](#)
  19. Pawlik, J.R. 1990. Natural and artificial induction of metamorphosis of *Phragmatopoma lapidosa californica* (Polychaeta: Sabellariidae), with a critical look at the effects of bioactive compounds on marine invertebrate larvae. *Bulletin of Marine Science*, **46**: 512-536. [PDF](#)
  18. Pawlik, J.R., and M.G. Hadfield. 1990. Symposium on chemical factors that influence the settlement and metamorphosis of marine invertebrate larvae: introduction and perspective. *Bulletin of Marine Science*, **46**: 450-454. [PDF](#)
  17. Hay, M.E., J.R. Pawlik, J.E. Duffy, and W. Fenical. 1989. Seaweed-herbivore-predator interactions: host-plant specialization reduces predation on small herbivores. *Oecologia*, **81**: 418-427. [PDF](#)
  16. Pawlik, J.R. 1989. Tubeworms. Pages 341-343 in: *1990 McGraw-Hill Yearbook of Science and Technology*, McGraw-Hill, San Francisco. [PDF](#)
  15. Pawlik, J.R., and W. Fenical. 1989. A re-evaluation of the ichthyodeterrent role of prostaglandins in the Caribbean gorgonian coral, *Plexaura homomalla*. *Marine Ecology Progress Series*, **52**: 95-98. [PDF](#)
  14. Pawlik, J.R. 1989. Larvae of the sea hare *Aplysia californica* settle and metamorphose on an assortment of macroalgal species. *Marine Ecology Progress Series*, **51**: 195-199. [PDF](#)
  13. Pawlik, J.R., M.R. Kernan, T.F. Molinski, M.K. Harper, and D.J. Faulkner. 1988. Defensive chemicals of the Spanish Dancer nudibranch, *Hexabranhus sanguineus*, and its egg ribbons: Macrolides derived from a sponge diet. *Journal of Experimental Marine Biology and Ecology*, **119**: 99-109. [PDF](#)
  12. Pawlik, J.R. 1988. Larval settlement and metamorphosis of sabellariid polychaetes, with special reference to *Phragmatopoma lapidosa*, a reef-building species, and *Sabellaria floridensis*, a non-gregarious species. *Bulletin of Marine Science*, **43**: 41-60. [PDF](#)
  11. Pawlik, J.R., J.B. O'Sullivan and M.G. Harasewych. 1988. The egg capsules, embryos, and larvae of *Cancellaria cooperi* (Gastropoda: Cancellariidae). *The Nautilus*, **102**: 47-53. [PDF](#)
  10. Pawlik, J.R. 1988. Larval settlement and metamorphosis of two gregarious sabellariid polychaetes: *Sabellaria alveolata* compared with *Phragmatopoma californica*. *Journal of the Marine Biological Association of the United Kingdom*, **68**: 101-124. [PDF](#)
  9. Pawlik, J.R. and D.J. Faulkner. 1988. The gregarious settlement of sabellariid polychaetes: New perspectives on chemical cues. Pages 475-487 in: *Marine Biodeterioration. Advanced Techniques Applicable to the Indian Ocean*. Edited by: M.-F. Thompson, R. Sarojini and R. Nagabhushanam. Oxford & IBH Publishing Co., Ltd., New Delhi. 826 pp. [PDF](#)
  8. Amieva, M.R., C.G. Reed and J.R. Pawlik. 1987. Ultrastructure and behavior of the larva of *Phragmatopoma californica* (Polychaeta: Sabellariidae): Identification of sensory organs potentially involved in substrate selection. *Marine Biology*, **95**: 259-266. [PDF](#)
  7. Pawlik, J.R., M.T. Burch and W. Fenical. 1987. Patterns of chemical defense among Caribbean gorgonian corals: a preliminary survey. *Journal of Experimental Marine Biology and Ecology*, **108**: 55-66. [PDF](#)
  6. Pawlik, J.R. 1987. *Bocquetia rosea*, new genus, new species, an unusual rhizocephalan parasite of a sponge-inhabiting barnacle, *Membranobalanus orcutti* (Pilsbry), from California. *Journal of Crustacean Biology*, **7**: 265-273. [PDF](#)
  5. Pawlik, J.R. and D.J. Faulkner. 1986. Specific free fatty acids induce larval settlement and metamorphosis of the reef-building tube worm *Phragmatopoma californica* (Fewkes). *Journal of Experimental Marine Biology and Ecology*, **102**: 301-310. [PDF](#)
  4. Pawlik, J.R. 1986. Chemical induction of larval settlement and metamorphosis in the reef-building tube worm *Phragmatopoma californica* (Polychaeta: Sabellariidae). *Marine Biology*, **91**: 59-68. [PDF](#)
  3. Pawlik, J.R., K.F. Albizati and D.J. Faulkner. 1986. Evidence of a defensive role for limatulone, a novel triterpene from the intertidal limpet *Collisella limatula*. *Marine Ecology Progress Series*, **30**: 251-260. [PDF](#)
  2. Albizati, K.F., J.R. Pawlik and D.J. Faulkner. 1985. Limatulone, a potent defensive metabolite of the intertidal limpet *Collisella limatula*. *Journal of Organic Chemistry*, **50**: 3428-3430. [PDF](#)

1. Pawlik, J.R. 1983. A sponge-eating worm from Bermuda: *Branchiosyllis oculata* (Polychaeta, Syllidae). *P.S.Z.N.I: Marine Ecology*, **4**: 65-79. [PDF](#)

#### ABSTRACTS AND PRESENTATIONS:

139. Pawlik, J.R., McMurray, S.E., Henkel, T.P. and Cowart, J.D. 2006. Surviving the swamp: Abiotic factors control sponge ecology in Florida mangroves. *35<sup>th</sup> Annual Benthic Ecology Meeting*; 8-12 March, Québec City, Canada.
138. McMurray, S.E. and Pawlik, J.R. 2006. What causes bleaching of the giant barrel sponge, *Xestospongia muta*? Manipulative experiments. *35<sup>th</sup> Annual Benthic Ecology Meeting*; 8-12 March, Québec City, Canada.
137. Henkel, T.P. and Pawlik, J.R. 2006. Cleaning mutualist, quiet commensal, or larval parasite? New insights into a sponge-brittlestar association. *35<sup>th</sup> Annual Benthic Ecology Meeting*; 8-12 March, Québec City, Canada.
136. Cowart, J.D. and Pawlik J.R. 2006. Does a trade-off exist between reproduction and growth form for two closely related Florida reef sponges? *35<sup>th</sup> Annual Benthic Ecology Meeting*; 8-12 March, Québec City, Canada.
135. Lee, O.O., Pawlik, J.R., and Qian, P.Y. 2006. Surface bacterial community and antifouling activities of two congeneric sponge *Mycale* spp. from Hong Kong and the Bahamas. *35<sup>th</sup> Annual Benthic Ecology Meeting*; 8-12 March, Québec City, Canada.
134. Cowart J.D. and Pawlik J.R. 2006. Is there a trade-off between reproduction and growth form for two closely related Florida reef sponges? *Society for Integrative and Comparative Biology Annual Meeting*, 5-8 January, Orlando, Florida.
133. Pawlik J.R. 2005. Bad taste or glass needles? Reassessing chemical versus physical defenses in Caribbean sponges. *4<sup>th</sup> European Conf on Marine Natural Products*, 12-16 September, Paris, France.
132. Pawlik J.R. 2005. How expensive is bad taste? The chemical ecology of sponges on Caribbean coral reefs. Invited speaker: 24 June, InterUniversity Institute, Eilat, Israel.
131. Pawlik J.R. 2005. How expensive is bad taste? The chemical ecology of sponges on Caribbean coral reefs. Invited speaker: 21 June, Department of Zoology, Tel Aviv University, Tel Aviv, Israel.
130. Pawlik J.R. 2005. Assessing allelopathic effects of sponge metabolites on reef corals. *34<sup>th</sup> Annual Benthic Ecology Meeting*; 6-10 April, Williamsburg, VA.
129. Meredith, T.L. and Pawlik J.R. 2005. Palatability of the polychaete, *Cirriformia punctata* to three generalist predators. *34<sup>th</sup> Annual Benthic Ecology Meeting*; 6-10 April, Williamsburg, VA.
128. McMurray, S.E., Leichter, J.J. and Pawlik J.R. 2005. Bleaching of the giant barrel sponge, *Xestospongia muta* in the Florida Keys. *34<sup>th</sup> Annual Benthic Ecology Meeting*; 6-10 April, Williamsburg, VA.
127. Henkel, T.P. and Pawlik J.R. 2005. Using a sponge-brittlestar association to examine facilitative interactions on coral reefs. *34<sup>th</sup> Annual Benthic Ecology Meeting*; 6-10 April, Williamsburg, VA.
126. Cowart, J.D. and Pawlik J.R. 2005. Is there a trade-off between reproduction and chemical defense among Florida reef sponges? *34<sup>th</sup> Annual Benthic Ecology Meeting*; 6-10 April, Williamsburg, VA.
125. Pawlik, J.R. 2005. How expensive is bad taste? Resource allocation and chemical defenses of Caribbean sponges. Invited speaker: Biology Department, University of Richmond. 17 Feb, Richmond, Virginia.
124. Pawlik, J.R. 2004. Is bad taste expensive? Resource allocation and chemical defenses of Caribbean sponges. *11<sup>th</sup> International Symposium on Marine Natural Products*; 4-9 September, Sorrento, Italy.
123. Pawlik, J.R. 2004. Is bad taste expensive? Resource allocation and chemical defenses of Caribbean sponges. *33<sup>rd</sup> Annual Benthic Ecology Meeting*; 25-28 March, Mobile, AL.
122. Jones, A.C. and Pawlik, J.R. 2004. Sponge synergy: Evidence for interactions between physical and chemical defenses in Caribbean sponges. *33<sup>rd</sup> Annual Benthic Ecology Meeting*; 25-28 March, Mobile, AL.
121. Henkel, T.P. and Pawlik, J.R. 2004. So much data, so little time: Making sense of a long-term coral reef sponge photo-monitoring program. *33<sup>rd</sup> Annual Benthic Ecology Meeting*; 25-28 March, Mobile, AL.

120. Cowart, J.D., Hentschel, U. and Pawlik, J.R. 2004. The effects of bleaching on the cyanobacterial community associated with the giant barrel sponge, *Xestospongia muta*. *33<sup>rd</sup> Annual Benthic Ecology Meeting*; 25-28 March, Mobile, AL.
119. Masuno, M.N., Cowart, J., Pawlik, J. and Molinski, T.F. 2004. Phorbasterones A-D; Secondary metabolites from the sponge *Phorbas amaranthus*. *Gordon Conference in Marine Natural Products*, 22-27 February, Ventura, California.
118. Pawlik, J.R. 2004. Chemical warfare on coral reefs: The ecology of Caribbean sponges. Invited speaker: Ocean Sciences Section, National Science Foundation. 11 Feb, Arlington, Virginia.
117. Pawlik, J.R. 2004. Is bad taste expensive? Resource allocation and chemical defenses of Caribbean sponges. *DIZ Symposium: Sponges: New views of old animals. Society for Integrative and Comparative Biology Annual Meeting*, 5-9 January, New Orleans, Louisiana.
116. Pawlik, J.R., Steindler, L, Ilan M, Beer, S. 2003. New methods for assessing allelopathic effects of sponge metabolites on reef corals. *International Symposium on Chemistry and Biology of Marine Organisms*, 21-26 September, Kolympari, Crete, Greece.
115. Pawlik, J.R. 2003. The settlement of marine invertebrates. *MarineQuest* guest lecture; UNCW-CMS, 9 April, Wilmington, NC.
114. Jones, A.C. and J.R. Pawlik. 2003. Sponge physical chemistry: Are chemical defenses affected by structural elements? (poster) *32<sup>nd</sup> Annual Benthic Ecology Meeting*; 28-30 March, Groton, CT.
113. Odate, S. and J.R. Pawlik. 2003. The role of vanadium in the chemical defense of the solitary tunicate *Phallusia nigra*. *32<sup>nd</sup> Annual Benthic Ecology Meeting*; 28-30 March, Groton, CT.
112. Walters, K. and J.R. Pawlik. 2003. Do chemically defended sponges heal wounds at different rates than sponges that are grazed by fishes? *32<sup>nd</sup> Annual Benthic Ecology Meeting*; 28-30 March, Groton, CT.
111. Pawlik, J.R. 2003. Chemical defenses of coral reef sponges: Are they optimized? *32<sup>nd</sup> Annual Benthic Ecology Meeting*; 28-30 March, Groton, CT.
110. Pawlik, J.R. 2003. How the spineless protect themselves: Chemical warfare on coral reefs. Invited speaker: Planet Ocean Seminar Program, UNCW Center for Marine Science. 4 March, Wilmington, NC.
109. Pawlik, J.R. 2003. Adaptation and optimization of chemical defenses in coral reef sponges. *Annual meeting of the Society for Integrative and Comparative Biology*, 4-8 January, Toronto, Canada.
108. Pawlik, J.R. 2002. Chemical defenses of marine invertebrates: are they optimized? Invited speaker: UNCW Department of Biological Sciences, 8 November, Wilmington, NC
107. Pawlik, J.R. 2002. What can sponge chemistry tell us about sponge ecology?. Invited keynote speaker: 6<sup>th</sup> International Sponge Conference. 4 October, Rapallo, Italy.
106. Pawlik, J.R. 2002. Are chemical defenses of benthic marine invertebrates "optimized"?. Invited speaker: Stazione Zoologica "Anton Dohrn". 26 September, Naples, Italy.
105. Pawlik, J.R. 2002. Defenses of Caribbean sponges against predators, competitors, and pathogens. Invited speaker: Department of Pharmacy, University of Naples, Federico II. 25 September, Naples, Italy.
104. Pawlik, J.R. 2002. Just how "optimized" are chemical defenses in marine sponges? Invited keynote speaker: 3<sup>rd</sup> European Conference on Marine Natural Products. 20 September, Elmau Castle, Bavaria, Germany.
103. Pawlik, J.R. 2002. Defenses of Caribbean sponges against predators, competitors, and pathogens. Invited speaker: Alfred Wegener Institute for Polar Biology, 13 September, Bremerhaven, Germany.
102. Pawlik, J.R. 2002. Defenses of Caribbean sponges against predators, competitors, and pathogens. Invited speaker: UNC-Chapel Hill Marine Sciences Curriculum. 10 April, Chapel Hill, NC.
101. Assmann, M., E. Lichte, S. Engel, S.R. Kelly, J.R. Pawlik, and M. Köck. 2002. Multiple defensive roles for bromopyrrole alkaloids from Caribbean *Agelas* sponges. *Gordon Research Conference in Marine Natural Products*; February, Ventura, California.
100. Pawlik, J.R. 2002. Redwoods of the reef? Demography of the Caribbean barrel sponge, *Xestospongia muta*. *31<sup>st</sup> Annual Benthic Ecology Meeting*; 21-24 March, Orlando, FL.
99. Henkel, T.P, and J.R. Pawlik. 2002. Star-crossed sponges: the sponge-brittlestar association between *Callyspongia vaginalis* and *Ophiothrix lineata*. *31<sup>st</sup> Annual Benthic Ecology Meeting*; 21-24 March,

Orlando, FL.

98. Kelly, S.R. and J.R. Pawlik. 2002. Influence of secondary metabolites from Caribbean sponges on bacterial surface colonization. *31<sup>st</sup> Annual Benthic Ecology Meeting*; 21-24 March, Orlando, FL.
97. Kubanek, J., K.E. Whalen, S. Engel, S.R. Kelly, T.P. Henkel, W. Fenical and J.R. Pawlik. 2002. More bang for your buck: multiple defensive roles of sponge triterpene glycosides. *31<sup>st</sup> Annual Benthic Ecology Meeting*; 21-24 March, Orlando, FL.
96. O'Neal, W. and J.R. Pawlik. 2002. "Where's my sea whip?" Are defenses in Caribbean gorgonians physical or chemical? *31<sup>st</sup> Annual Benthic Ecology Meeting*; 21-24 March, Orlando, FL.
95. Odate, S. and J.R. Pawlik. 2002. Vanadium in sea squirts: is heavy metal in bad taste? (poster) *31<sup>st</sup> Annual Benthic Ecology Meeting*; 21-24 March, Orlando, FL.
94. Walters, K.D. and J.R. Pawlik. 2002. Rhizocephalan recognition: are the larvae of parasitic barnacles aggregated to chemical cues? (poster) *31<sup>st</sup> Annual Benthic Ecology Meeting*; 21-24 March, Orlando, FL.
93. Whalen, K., J. Kubanek and J.R. Pawlik. 2002. Localization of ecologically active secondary metabolites in two Caribbean sponges. (poster) *31<sup>st</sup> Annual Benthic Ecology Meeting*; 21-24 March, Orlando, FL.
92. Pawlik, J.R. 2002. Defenses of Caribbean sponges against predators, competitors, and pathogens. Invited speaker: Duke University Marine Laboratory. 16 January, 2002, Beaufort, NC.
91. Pawlik, J.R. 2001. Sponges: Primitive animals, superior chemists. Invited speaker: Center for Marine Science, UNC-Wilmington. 26 November, 2001, Wilmington, NC.
90. Pawlik, J.R. 2001. Chemical defenses of Caribbean sponges. Invited speaker: Department of Chemistry, Wake Forest University. 7 January, 2001, Wake Forest, NC.
89. Pawlik, J.R. 2000. Chemical defenses of Caribbean sponges. Invited speaker: Grice Marine Laboratory, College of Charleston. 3 November 2000, Charleston, SC.
88. Puyana, M., Fenical, W., and Pawlik, J.R. 2000. Chemical defenses of Caribbean *Aplysina* sponges. I. Roles of secondary metabolites in mediating sponge-microbial interactions. *9<sup>th</sup> International Coral Reef Symposium*; 23-27 October, Nusa Dua, Indonesia.
87. Engel, S. Pawlik, J.R. 2000. Allelopathic activities of Caribbean sponge extracts. *9<sup>th</sup> International Coral Reef Symposium*; 23-27 October, Nusa Dua, Indonesia.
86. Pawlik, J.R. 2000. The chemical ecology of Caribbean reef sponges. Invited speaker: Bermuda Biological Station for Research. 13 September 2000, St. Georges, Bermuda.
85. Engel, S., Pawlik, J.R. 2000. Chemical FENCES: Allelopathic activity of sponge extracts. *29<sup>th</sup> Annual Benthic Ecology Meeting*; 9-11 March, Wilmington, NC.
84. Henkel T., Pawlik, J.R. 2000. Prime real estate: sponge habitat allocation by two species of Caribbean ophiuroids. *29<sup>th</sup> Annual Benthic Ecology Meeting*; 9-11 March, Wilmington, NC.
83. Kelly, S.R., Henkel, T.P., Jensen, P.R., and Pawlik, J.R. 2000. Deterrence of microbial settlement by extracts of Caribbean sponges. *29<sup>th</sup> Annual Benthic Ecology Meeting*; 9-11 March, Wilmington, NC.
82. Kubanek, J., Pawlik, J.R., Fenical, W. 2000. Triterpene glycosides defend Caribbean reef sponges from predatory fishes. *29<sup>th</sup> Annual Benthic Ecology Meeting*; 9-11 March, Wilmington, NC.
81. Lindel, T., Hoffmann, H., Hockgürtel, M, Pawlik, J.R. 2000. Structure-activity relationship of feeding deterrence by sponge-derived and synthetic alkaloids. *29<sup>th</sup> Annual Benthic Ecology Meeting*; 9-11 March, Wilmington, NC.
80. McFall, G., Pawlik, J.R. 2000. Recruitment and mortality of the barrel sponge *Xestospongia muta* in the Florida Keys. *29<sup>th</sup> Annual Benthic Ecology Meeting*; 9-11 March, Wilmington, NC.
79. O'Neal, W., Pawlik, J.R. 2000. Do calcitic spicules inhibit fish predation on Caribbean gorgonians? *29<sup>th</sup> Annual Benthic Ecology Meeting*; 9-11 March, Wilmington, NC.
78. Pisut, D., Pawlik, J.R. 2000. Squirts that hurt: Ascidian chemical defenses against predation. *29<sup>th</sup> Annual Benthic Ecology Meeting*; 9-11 March, Wilmington, NC.
77. Whalen, K., Pawlik, J.R. 2000. Antifouling activity of organic extracts of Caribbean sponges. *29<sup>th</sup> Annual Benthic Ecology Meeting*; 9-11 March, Wilmington, NC.
76. Assmann, M., Lichte, E. Pawlik, J.R, Köck, M. 2000. Chemical defenses of the Caribbean sponge *Agleas conifera* against predatory fishes. *29<sup>th</sup> Annual Benthic Ecology Meeting*; 9-11 March, Wilmington, NC.

75. Pawlik, J.R. 1999. Doing double duty: Chemical defenses of Caribbean sponges against diverse predators and pathogens. Oral presentation at *Second Euroconference on Marine Natural Products*; 12-16 September, Santiago de Compostela, Spain.
74. Assmann, M., Lichte, E., Pawlik, J.R., van Soest, R.W.M., Köck, M. 1999. Chemical defenses of the Caribbean sponges *Agelas wiedenmayeri* and *Agelas conifera*. Poster presentation at *Second Euroconference on Marine Natural Products*; 12-16 September, Santiago de Compostela, Spain.
73. Pawlik, J.R. 1999. Ecology of Caribbean reef sponges: the importance of chemical defenses. *Invited seminar speaker for July, Woods Hole Oceanographic Institution*; 8 July, Woods Hole, MA.
72. Pawlik, J.R., Newbold, R., Wilson, D.M., Puyana, M., Fenical, W. 1999. Doing double duty: Chemical defense of the Caribbean reef sponge *Axinella corrugata*. *28<sup>th</sup> Annual Benthic Ecology Meeting*; 25-28 March, Baton Rouge, LA.
71. McFall, G., Pawlik, J. 1999. Chemical defense in the Caribbean reef sponges of the genus *Ircinia*. *28<sup>th</sup> Annual Benthic Ecology Meeting*; 25-28 March, Baton Rouge, LA.
70. Vervoort, H.C., Pawlik, J.R., Fenical, W. 1998. Chemical defense of the Caribbean ascidian *Didemnum conchyliatum*. *9<sup>th</sup> International Symposium on Marine Natural Products*; 5-10 July; Townsville, Australia.
69. Chanas, B., Pawlik, J.R. 1998. Do Caribbean sponges have physical defenses? *5<sup>th</sup> International Sponge Symposium*; 27 June-3 July; Brisbane, Queensland, Australia.
68. Dunlap, M.J., Pawlik, J.R. 1998. Polly want a sponge?: Field examination of spongivory by Caribbean parrotfishes in reef and mangrove habitats. *5<sup>th</sup> International Sponge Symposium*; 27 June-3 July; Brisbane, Queensland, Australia.
67. Newbold, R.W., Pawlik, J.R., Jensen, P., Fenical, W. 1998. Antimicrobial activity of Caribbean sponge extracts. *5<sup>th</sup> International Sponge Symposium*; 27 June-3 July; Brisbane, Queensland, Australia.
66. Pawlik, J.R. 1998. Predation on Caribbean sponges: The importance of chemical defenses. *5<sup>th</sup> International Sponge Symposium*; 27 June-3 July; Brisbane, Queensland, Australia.
65. Puyana, M., Pawlik, J.R., Fenical W. 1998. Chemical defenses of the Caribbean sponges *Aplysina fulva* and *A. insularis*. *5<sup>th</sup> International Sponge Symposium*; 27 June-3 July; Brisbane, Queensland, Australia.
64. Pawlik, J.R. 1998. Caribbean sponge secondary metabolites: Defenses against fish predators. *Invited speaker: Joint Entomology-Zoology Seminar, NCSU*, March 19, Raleigh, NC.
63. Newbold, R., Pawlik, J.R., Jensen, P., Fenical, W. 1998. Antimicrobial activity of Caribbean sponge extracts. *26<sup>th</sup> Annual Benthic Ecology Meeting*; 13-15 March, Melbourne, FL.
62. Waddell, M.B., Pawlik, J.R. 1998. Chemical and physical defenses of Caribbean sponges against invertebrate predators. *26<sup>th</sup> Annual Benthic Ecology Meeting*; 13-15 March, Melbourne, FL.
61. Pawlik, J.R., Swearingen, D.C.III. 1998. Intraspecific variability in chemical defenses: Does the chicken-liver sponge invest wisely? *26<sup>th</sup> Annual Benthic Ecology Meeting*; 13-15 March, Melbourne, FL.
60. Pawlik, J.R. 1998. A survey of the chemical and physical defenses of Caribbean sponges. *2<sup>nd</sup> UNCW Symposium on Chemistry and Biochemistry*; 30-31 January, UNCW.
59. Newbold, R.W., Pawlik, J.R., Jensen, P. and Fenical, W. 1998. Antimicrobial activity of Caribbean sponge extracts. *2<sup>nd</sup> UNCW Symposium on Chemistry and Biochemistry*; 30-31 January, UNCW.
58. Pawlik, J.R., Lindel, T., Fenical, W. 1997. Caribbean sponge secondary metabolites responsible for chemical defense against predatory fishes. *1<sup>st</sup> Euroconference on Marine Natural Products*; 2-6 November, Athens, Greece.
57. Pawlik, J.R. 1997. Predation on Caribbean sponges: the importance of chemical defenses. *14<sup>th</sup> Annual Meeting of the International Society of Chemical Ecology*; 12-16 July, Vancouver, British Columbia.
56. Pawlik, J.R. 1997. Predation on Caribbean reef sponges: an emerging perspective of chemical defenses. *25<sup>th</sup> Annual Benthic Ecology Meeting*; 3-6 April, Portland, ME.
55. Dunlap, M.J. and Pawlik, J.R. 1997. Sponge-feeding by Caribbean parrotfishes in mangrove and reef habitats. *25<sup>th</sup> Annual Benthic Ecology Meeting*; 3-6 April, Portland, ME.
54. Newbold, R. W. and Pawlik, J.R. 1997. Antimicrobial activity of Bahamian sponges. *25<sup>th</sup> Annual Benthic Ecology Meeting*; 3-6 April, Portland, ME.

53. Newbold, R. W. and Pawlik, J.R. 1997. Antimicrobial activity of Bahamian sponges. *UNCW Chapter, Sigma Xi Meeting*; 10 April, Wilmington, NC
52. Pawlik, J.R. 1997. Chemical ecology of Caribbean sponges. Winter Colloquium Series, Dauphin Island Sea Lab, 21 February 1997, Dauphin Island, Alabama
51. Pawlik, J.R. 1997. Antipredatory chemical defenses of Caribbean sponges. *First UNCW Mini-Symposium on Chemical and Biochemical Structure and Function*; 26-27 January, Wilmington, NC.
50. Pawlik, J.R. 1996. Natural chemical cues controlling invertebrate larval settlement: an update. *International Symposium on the Settlement and Metamorphosis of Marine Invertebrate Larvae*, 15-18 July, Plymouth, England. (abstract listed, talk not given due to hurricane).
49. Dunlap, M.J. and Pawlik, J.R. 1996. Parrotfish spongivory and other findings from field studies of predation by Caribbean reef fish. *American Society of Ichthyologists and Herpetologists Annual Meeting*, 3-7 July, New Orleans, LA
48. Pawlik, J.R. 1996. Patterns of antipredatory chemical defenses of Caribbean demosponges. *8th International Coral Reef Congress*, 24-29 June, Panama City, Panama.
47. Pawlik, J.R. 1996. Why are coral reef sponges so colorful? *8th International Coral Reef Congress*, 24-29 June, Panama City, Panama.
46. Pawlik, J.R., Chanas, B. 1996. Variability in the chemical defense of the Caribbean reef sponge *Xestospongia muta*. *8th International Coral Reef Congress*, 24-29 June, Panama City, Panama. (1996)
45. Pawlik, J.R. 1996. Synergistic chemical defenses of the Caribbean sponges *Aplysina archeri* and *A. cauliformis*. *24th Annual Benthic Ecology Meeting*; 7-10 March, Columbia, SC.
44. Dunlap, M. and Pawlik, J.R. 1996. Does predation by reef fish influence Caribbean sponge distributions? *24th Annual Benthic Ecology Meeting*; 7-10 March, Columbia, SC.
43. Towne, V. and Pawlik, J.R. 1996. Chemical defenses of benthic invertebrates inhabiting the coastal waters of North Carolina. *24th Annual Benthic Ecology Meeting*; 7-10 March, Columbia, SC.
42. Pawlik, J.R. 1996. Synergy, biotransformation, and the chemical defenses of the Caribbean sponges *Aplysina archeri* and *A. cauliformis*. *Gordon Research Conference in Marine Natural Products*; 25 February- 1 March 1996, Ventura, California.
41. Pawlik, J.R. 1995. A survey of the chemical and physical defenses of Caribbean demosponges. *8th International Symposium on Marine Natural Products*; Tenerife, Canary Islands, 10-15 September 1995.
40. Lindel, T., Chanas, B., Pawlik, J.R. and Fenical, W. 1995. The chemical defense of the marine sponge *Agelas clathrodes*. *8th International Symposium on Marine Natural Products*; Tenerife, Canary Islands, 10-15 September 1995.
39. Pawlik, J.R. 1995. Not only the vile survive: some sponges are palatable. *23rd Annual Marine Benthic Ecology Meeting*; Rutgers, New Brunswick, NJ. 16-19 March 1995.
38. Chanas, B. and Pawlik, J.R. 1995. You can't be too rich or too thin: nutritional value and chemical defenses of Caribbean sponges. *23rd Annual Marine Benthic Ecology Meeting*; Rutgers, New Brunswick, NJ. 16-19 March 1995.
37. Swearingen, D.C. III and Pawlik, J.R. 1995. Intraspecific variability of chemical defense in a sponge. *23rd Annual Marine Benthic Ecology Meeting*; Rutgers, New Brunswick, NJ. 16-19 March 1995.
36. Dunlap, M. and Pawlik, J.R. 1995. Spongivory by Caribbean reef fish - lessons from a sponge buffet. *23rd Annual Marine Benthic Ecology Meeting*; Rutgers, New Brunswick, NJ. 16-19 March 1995.
35. Henrikson, A. and Pawlik, J.R. 1995. Antifouling properties of invertebrate secondary metabolites. *23rd Annual Marine Benthic Ecology Meeting*; Rutgers, New Brunswick, NJ. 16-19 March 1995.
34. Toonen, R.J. and Pawlik, J.R. 1995. The production of founder larvae is not a heritable trait. *23rd Annual Marine Benthic Ecology Meeting*; Rutgers, New Brunswick, NJ. 16-19 March 1995.
33. Chanas, B. and J.R. Pawlik. 1994. Anti-predatory defenses of the Caribbean reef sponge, *Agelas clathrodes*: When tough is not tough enough. *22nd Annual Marine Benthic Ecology Meeting*; Mystic, Connecticut.
32. Henrikson, A.A. and J.R. Pawlik. 1994. A new method for assaying metabolites for antifouling properties. *22nd Annual Marine Benthic Ecology Meeting*; Mystic, Connecticut.
31. Pawlik, J.R. 1994. Do glass spicules defend reef sponges from fish predators? *22nd Annual Marine Benthic*

*Ecology Meeting*; Mystic, Connecticut.

30. Pawlik, J.R. 1993. The role of spicules in defending Caribbean sponges from predation: Glass just doesn't cut it. *American Zoologist*, **33**: 22A.
29. Toonen, R.J. and J.R. Pawlik. 1993. For a marine tube worm, all larvae are not created equal. *American Zoologist*, **33**: 118A.
28. Pawlik, J.R. 1993. Chemical defenses of Caribbean sponges. *Tenth Annual International Society of Chemical Ecology Meeting*; Clearwater Beach, FL.
27. Garland, E.D., Butman, C.A. and J.R. Pawlik. 1993. Larval settlement of the polychaete *Hydroides dianthus* in manipulated boundary-layer flow. *First Annual Larval Ecology Meeting*; State University of New York, Stony Brook, NY.
26. Toonen, R.J., Pawlik, J.R. and C.A. Butman. 1993. Founders of aggregations of the tube worm *Hydroides dianthus* are not desperate larvae. *American Society of Limnology and Oceanography*; Edmonton, Canada.
25. Chanas, B. and J.R. Pawlik. 1993. Anti-predatory defenses of the Caribbean sponge *Xestospongia muta*. *21<sup>st</sup> Annual Marine Benthic Ecology Meeting*; Mobile, Alabama.
24. Toonen, R.J. and Pawlik, J.R. 1993. All larvae are not created equal. *21<sup>st</sup> Annual Marine Benthic Ecology Meeting*; Mobile, Alabama.
23. Pawlik, J.R. 1993. Honey, I shrunk the larvae, and they became incompetent! *21<sup>st</sup> Annual Marine Benthic Ecology Meeting*; Mobile, Alabama.
22. Butman, C.A., Pawlik, J.R. and E.D. Garland. 1993. Larval settlement of a serpulid polychaete in manipulated boundary-layer flow. *Annual Conference of the Western Society of Naturalists*; Newport, Oregon.
21. Pawlik, J.R. 1992. Preliminary investigations of sponge chemical defenses. *Eighth Annual Duke/UNC Oceanographic Consortium Symposium*; Duke University Marine Laboratory, Beaufort, North Carolina.
20. Pawlik, J.R. 1992. Patterns of chemical defense among Caribbean coral reef sponges. *First Annual Meeting of the Florida Sponge Society*; Harbor Branch Oceanographic Institution, Ft. Pierce, Florida.
19. Pawlik, J.R. 1992. Patterns of chemical defense among Caribbean coral reef sponges. *Seventh International Symposium on Marine Natural Products*; Capri, Italy.
18. Pawlik, J.R. and D. Mense. 1992. Chemical and physical factors influencing the settlement of sabellariid polychaetes. *Symposium on the Reproduction and Development of Marine Invertebrates (In Honor of Christopher G. Reed)*; Friday Harbor, Washington.
17. Pawlik, J.R. and C.A. Butman. 1992. Interacting effects of hydrodynamics and behavior on tube worm settlement. *20<sup>th</sup> Annual Marine Benthic Ecology Meeting*; Newport, Rhode Island.
16. Pawlik, J.R. 1992. Chemistry, physics, and behavior: the settlement of marine invertebrate larvae. Invited presentation. *1992 Gordon Research Conference on Marine Natural Products Chemistry*; Ventura, California
15. Pawlik, J.R., C.A. Butman and V.R. Starczak. 1991. Hydrodynamic facilitation of gregarious settlement of a reef-building tube worm. *19<sup>th</sup> Annual Marine Benthic Ecology Meeting*; Williamsburg, Virginia.
14. Pawlik, J.R., C.A. Butman and V.R. Starczak. 1990. Bedload transport enhances chemically induced gregarious settlement of a reef-building tube worm. *Annual Conference of the Western Society of Naturalists*; Monterey, California.
13. Pawlik, J.R. and F.S. Chia. 1990. Poster: A new method for assessing the antifouling role of marine natural products. *1990 Gordon Research Conference on Marine Natural Products Chemistry*; Ventura, California.
12. Pawlik, J.R. 1989. Chemical defense of the Spanish Dancer. *Annual Conference of the Western Society of Naturalists*; Tacoma, Washington.
11. Butman, C.A. and J.R. Pawlik. 1989. Flume studies of the chemical, physical and biological processes controlling larval settlement of the reef-building polychaete *Phragmatopoma lapidosa californica* (Sabellariidae). *Contractors Meeting, Marine Biosurfaces Program, Office of Naval Research*; Hopkins Marine Station, Pacific Grove, California.

10. Pawlik, J.R. 1988. Natural and artificial inducers of settlement and metamorphosis of gregarious sabellariid polychaete worms. *Symposium on Chemical Factors that Influence the Settlement and Metamorphosis of Marine Invertebrate Larvae* (Co-chairman); *Annual Meeting of the American Society of Zoologists*; San Francisco, California.
9. Pawlik, J.R. 1987. Specificity of larval settlement of the sea hare, *Aplysia californica*: What's up doc? *Annual Conference of the Western Society of Naturalists*; Long Beach, California.
8. Pawlik, J.R. 1986. When the best defense is something offensive: Shell breakage and chemical defense in an intertidal limpet. *Annual Conference of the Western Society of Naturalists*; Hilo, Hawaii. (received *Best Paper Award*)
7. Pawlik, J.R. 1986. Chemical induction of larval settling in a reef-building tube worm. *1986 Gordon Research Conference on Marine Natural Products Chemistry*; Oxnard, California.
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