

Paul J. Hearty, Ph.D.
CURRICULUM VITAE (July 2011)

*Scientist, Educator, and Environmental
Consultant*

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ACADEMIC HISTORY:

B.A. (Human and Cultural Geography) AND M.Sc. 1978 (Geography and Geomorphology):
Department of Geography. University of Nebraska Omaha, Nebraska. M.Sc. Thesis topic: *“The
biogeography and geomorphology of the Niobrara River Valley, Nebraska.”*

PH.D. DEGREE: 1987 Institute of Arctic and Alpine Research (INSTAAR) and Department of
Geology, University of Colorado, Boulder. PhD Thesis: *“Age and Aminostratigraphy of
Quaternary shoreline deposits in the Mediterranean basin”*. (Thesis committee: G. Miller, J. T.
Andrews, J. T. Hollin, P. Birkeland, & C.E. Stearns)

UNIVERSITY AND CONSULTING HISTORY:

- Research Associate Professor and Adjunct RAP, Department of Environmental Studies,
University of North Carolina at Wilmington, Aug 2008 - present.
- Consultant for Village of Bald Head Island on barrier island dynamics and conservation,
groundwater development, and wetland protection. Director of Conservation, Bald Head
Island Conservancy (1 yr contract 8/2008- 7/2009).
- Associate Professor and Principal Fellow, School of Earth and Environmental Sciences,
University of Wollongong, NSW 2522, Australia, 2005-2009.
- Lecturer in Marine Sciences, School of Earth Sciences, James Cook University,
Queensland, Australia 2001- 2005.
- Director, Ainakai Environmental Consulting, Kaua’i, Hawaii USA, 1998-2000.
- Co-Director, EnviroLogic Environmental, Inc. Consultant, Government and private
coastal development (buildings, roads, groundwater pollution-remediation) in the
Bahama Islands, 1992-1998.
- Assistant Professor, College of the Bahamas, 1992-1994.
- Assistant Professor (post-doc), University of South Florida, 1990 to 1992.
- Assistant Professor (post-doc), Duke University, July 1988-August 1990. (Holocene
Climate Change, African Rift Valley Lakes, East Africa).
- Environmental Consultant and Research Geologist, ENEA Rome. (Nuclear Energy
Commission, 1982-1989. Earthquake hazard/risk of nuclear plants in coastal areas).

RESEARCH ACTIVITY:

- PENDING PROPOSAL: NSF-OCE - Frontiers in Earth System Dynamics. “PLIOcene
MAXimum sea level (PLIOMAX): Dynamic ice sheet-Earth response in a warmer
world.” M. Raymo, R. DeConto, P. Hearty, J. Mitrovica, and D. Pollard. 5 yr,
\$3,640,000.

- 2009-2010 – USGS PRISM and NSF funding of PLIOMAX field expedition to South and Western Australia. Led by Hearty and Raymo (Co-PIs). \$80K
- 2005-2007 (subcontract w/G. Goodfriend, S.J. Gould, J. Harasewych) – National Science Foundation (USA), Evol. of Bahamian landsnails (EAR #0106936), \$250K.
- 2005-2008 – ARC Discovery Grant (Australia), Stratigraphy and sea-level history of Kangaroo Island, South Australia. U of Wollongong, \$450K w/ C. Murray-Wallace.
- 2004 - Australian Institute of Nuclear Science and Engineering Award: \$17,600.
- 2002-3 - Intramural Merit Research Grants: \$31,000.
- 2002 - 2004 - Australian Research Council Discovery Grant. CI: \$280,000.
- 2003 - Kanagawa Museum Award (Australian Academy of Sciences): \$9350.
- 2003 - Australian Institute of Nuclear Science and Engineering Award: \$13,200.
- 2002 - Queensland-Smithsonian Fellow, 2001-2003. US\$30,000
- 2002 - Kanagawa Museum Award (Australian Academy of Sciences): \$9980.
- 2001 - James Cook University, Strategic Initiative Proposal, \$76,000.
- 2001 - Intramural JCU Merit Research Grant: \$17,600.

AWARDS AND FELLOWSHIPS:

- Nomination for Secretary's Research Prize, Smithsonian Institution, Jan 2011.
- Secretary's Research Prize, Smithsonian Institution, Sept 2010.
- Nomination for the Mawson Medal, Australian Academy of Sciences, 2005.
- Queensland-Smithsonian Fellowship, 2001-2003.
- Bermuda Biodiversity Project Grant (Bermuda Gov.) to reexamine fossil material from Eldredge and Gould's (1972) theory of "punctuated equilibrium", 1998.
- Bradley Fellow, Duke University: Rift Valley Lakes, 1988-1990.
- American Chemical Society, Petroleum Research Fund, Type "G", 1989.
- Sigma Xi, The Scientific Research Society Grant, 1982; 1983.
- National Science Foundation Doctoral Dissertation Fellowship, 1982.
- American Association of Petroleum Geologists Scholarship, 1983; 1984.
- Exxon Corporation Scholarship, 1981.
- Geology Development Foundation Grant, University of Colorado, 1980.
- Fulbright-Hayes Fellowship (Afghanistan), 1976-1977.

SYNERGISTIC ACTIVITIES

REVIEWER FOR PROFESSIONAL JOURNALS AND FUNDING AGENCIES:

Geological Society of America Bull.
Geology
Paleobiology
Marine Geology
Sedimentary Geology
Sedimentology
Geochemica et Cosmochimica Acta
Earth and Planetary Science Letters
Journal of Sedimentary Research
Earth Science Reviews
AAAS Science
Quaternary Research
Quaternary Geochronology

Journal of Quaternary Science
Quaternary International
National Undersea Research Project
(NOAA) proposals
Hawaii Undersea Research L. (HURL)
International Journal of Earth Sciences
Global and Planetary Change
Palaeogeography Palaeoclimatology
Palaeoecology
U.S. National Science Foundation
Quaternary Science Reviews

EDUCATION AND OUTREACH: SCIENCE FOR PUBLIC CONSUMPTION

- Elderhostel educator and guide, Antarctica 1993-1995
- Shipboard and Expedition Scientist (Antarctica (26 return voyages), South Georgia, Malvinas, South Pacific Islands, Papua New Guinea, South and North Atlantic Islands, Newfoundland), 1992-2000, 2010-2011.
- Children's science tutor, Nassau Bahamas, 1992-1997
- Field trip leader, Great Barrier Reef Australia, 2000-2005
- Presentations of Scientific Material in Public Venues
 - Bahamas Historical Society, 1992.
 - Bahamas National Trust, 1993.
 - Bermuda Undersea Exploration Institute (BUEI), Bermuda, 2005.
 - Reef HQ, Townsville, Queensland, 2007
 - "Antarctica" at Kirwan Elementary School, Townsville, Queensland, 2007
 - Bald Head Island Conservancy, numerous public lectures on barrier island geology and processes, 2008-2009.
 - Daufuskie Island Conservancy, Hilton Head, SC 2008-2009.
 - Kid's Geology, Childcare Network, 41st St. Wilmington, 2009
 - Kid's Geology, Alderman Elementary School, Wilmington, 2010, 2011

STATEMENT OF TEACHING AND RESEARCH INTERESTS [[UPON REQUEST]]

LEADER OF FIELD PROGRAMS, EXPEDITIONS AND WORKSHOPS:

- PLIOMAX expedition to South and Western Australia to find geological evidence of mid-late Pliocene sea-level highstands (July 2009; May 2010).
- Rainforest to Reef: Sedimentary processes on slopes, rivers, estuaries, coasts, and the Great Barrier Reef, North Queensland. Internationally attended 2001, 2002, 2003.
- IGCP #437 field trip leader to Molokai, Hawaii, 1999.
- Natural History guide and lecturer on shipboard expedition voyages across the South Pacific, South Atlantic, Antarctica, and Newfoundland, 1995-1999.
- University of South Florida, San Salvador Island, 1996.
- SEPM International Sedimentology Group, Eleuthera Island, 1995.
- University of North Carolina, Chapel Hill, San Salvador Island, 1995.
- University of South Florida, Eckerd College, Lee Stocking Island, Exumas, 1994.
- U.S. Environmental Protection Agency, New Providence I., Bahamas, 1993.

INVITED SPEAKER/SCIENTIFIC VENUES:

- North Carolina Museum of Natural Sciences, December 6, 2010.
- Academy of Natural Sciences of Philadelphia, September 2010.
- Invited speaker, USGS Reston VA. 26 August 2009.
- Invited speaker, PALSEA workshop, Woods Hole Oceanographic Institute, Sept. 2009.
- Invited speaker, American Geophysical Union, Fall Meeting 2005, San Francisco. Session (PP03): "Plio- Pleistocene Extreme Warm Events (Warnke, Burckle, and Scherrer, Ldrs).
- Invited speaker, Smithsonian Institution, Zoology Division, Washington D.C., 2005.
- Keynote Speaker, Climate and Coastal Change Conference, Honolulu, HI, 1999, "Warm interglaciations, abrupt environmental change, and the Antarctic "Wild Card".
- Invited Speaker, American Geophysical Union, Fall Meeting, SF, CA 1999.
- SEPM/IAS Geological Conference, Wildhaus, Switzerland, 1996.

- Geographisches Institut, University of Cologne, Germany, 1996.
- Institut de Géologie, Université de Fribourg, Switzerland, 1991.
- Dept. de Géologie et Paléontologie, Université de Genève, Switzerland, 1991.
- ENEA, Energy and Environmental Dept., Italian Gov., Rome, Italy, 1991.
- SOEST Lecturer, Department of Oceanography, University of Hawaii, 1991.
- University College of Wales, Earth Sciences Department, 1990.
- Weizmann Institute, Rehovot, Israel, 1989.
- Duke University, Geology Department, 1989.
- University of London, Department of Geography, 1987.
- GSA Penrose Conference on Sea Level, St. Georges, Bermuda, 1987.
- University of Cagliari, Sardinia, 1986.
- Université de Liège, Belgique, Études Quaternarie, 1985.
- Université de Paris XII, Département de Géographie, 1985.

INTERNATIONAL TRAVEL AND LANGUAGE:

I have traveled to seven continents and published science and natural history articles related to six of them. I have led research and tourist expeditions in USA, Asia, Europe, Africa, Antarctica, and Australia. When in practice, I am conversational in French, Spanish and Italian, and have a good working knowledge of German and Latin. I formerly spoke fluent Dari, the Afghan dialect of Farsee, and could regain this linguistic skill if needed.

OTHER PROFESSIONAL SKILLS AND QUALIFICATIONS:

- Nearly 10,000 hours of boat operation and crewing on seagoing vessels ranging from Zodiacs, 25 m SuperCat with 2x 160 hp diesel engines, and 75-100 m ice rated research vessels in Antarctica and Pacific crossings.
- Skilled at all aspects of computer operation, software, and skills including writing, graphics (PowerPoint, Corel Draw, Adobe Photoshop, Canvas).
- Professional photographer: long history of publications in professional journals, periodicals, and magazines (examples provided upon request).
- Power Point presentations on a variety of academic, tourism, and natural history subjects are available.
- Several thousand digital images of corals, birds, and exotic places around the world.
- Certified Advanced PADI SCUBA diver
- Certified Ocean Rescue
- Queensland boat operator's license

PUBLICATIONS (with a few key abstracts; not in strict chronological order and not entirely complete; PDF papers available upon request):

105. Hearty, P.J., and Olson, S.L., (in manuscript). The Plio-Pleistocene stability of three subgenera of *Poecilozonites* land snails: a case for earlier Pliocene emergence of Bermuda. To *Palaeogeography Palaeoclimatology Palaeoecology*.
104. Olson, S.L., and Hearty, P.J., (in manuscript). Human driven environmental collapse, extinction, and sedimentary flux at Ohikilolo, Oahu, Hawaiian Islands. To *Proceedings of the National Academy of Sciences*.
103. Olson, S.L., and Hearty, P.J., (in manuscript). Gulf stream velocity, sea surface temperatures, and periodicity of the West Indian Top-Shell, *Cittarium Pica* (Gastropoda: Trochidae) in the Quaternary of Bermuda, To *Palaios*.

102. Hansen, J. et al. Hearty, P.J., (5th Author). 2011. The Case for Young People and Nature: A Path to a Healthy, Natural, Prosperous Future. White Paper seeking legal action to stop and reverse the use of fossil fuels. Washington DC.
101. Hearty, P.J., and Olson, S.L., 2011. [including *Palaios* cover photo montage] Preservation of trace fossils and molds of terrestrial biota by intense storms in mid Last Interglacial (MIS 5c) dunes on Bermuda, with a model for the development of hydrological conduits. *Palaios*, v. 26, no. 7, p. 394-405.
100. Raymo, M.E., Mitrovica, J.X., O'Leary, M.J., DeConto, R. M., and Hearty, P.J., 2011. Departures from eustasy in Pliocene sea-level records. *Nature Geoscience*, doi: 10.1038/NNGEO1118.
98. O'Leary, M.J., Hearty, P.J., and others (in review). Regional tectonic stability in coastal Western Australia since the last interglacial period. *Nature Geoscience*.
97. Hearty, P.J., and Olson, S.L., (in review). Environmental stress and iterative paedomorphism in shells of *Poecilozonites* (Gastropoda: Zonitidae) from Bermuda: a reassessment. *Biological Journal of the Linnean Society*.
- 96a. Hearty, P.J., 2011. Comment on "McMurtry et al: Uplift of Oahu, Hawaii, during the past 500 k.y. as recorded by elevated reef deposits" (*Geology*, 2010, 38(1), 27). *Geology*.
- 96b. Fox, D., 2010. Could Antarctica Be Headed For Big Melt? News Focus, *Science* v. 328, p. 1630-1631. (Describes Global Change research by Raymo, Hearty, and others).
95. Olson, S.L., and P.J. Hearty. 2010. Predation as the primary selective force in recurrent evolution of gigantism in *Poecilozonites* land snails in Quaternary Bermuda. *Biology Letters* 6(6): 807-810. doi: 10.1098/rsbl.2010.0423.
94. Hearty, P.J., 2010. Comment on Bowen, D.Q., *Climates of the Past*, v. 6, p. 19-29, 2010: Can extrapolation of uplift rates from MIS 5e shorelines to MIS 11 yield a product sufficient to supplant direct and tangible geological evidence of its sea-level history? *Climates of the Past*, 6, 295-305.
93. Orrù, P., Antonioli, F., Hearty, P.J., and Radtke, U., 2010. Chronostratigraphic confirmation of a MIS 5 age of a baymouth bar at Is Arenas (Cagliari, Italy). *Quaternary International*, in press.
92. Hearty, P.J. and Olson, S.L., 2010. Geochronology, biostratigraphy, and changing shell morphology in the land snail subgenus *Poecilozonites* during the Quaternary of Bermuda. *Palaeogeography Palaeoclimatology Palaeoecology*; 293, 9–29; doi:10.1016/j.palaeo.2010.04.026.
91. Hearty, P.J., and O'Leary, M.J., 2010. Reply to Bastian, L.V's., comment on Hearty, P.J. and O'Leary, M.J., 2008 Carbonate eolianites, quartz sands, and Quaternary sea-level cycles, Western Australia: A chronostratigraphic approach. *Quaternary Geochronology* 3: 26-55.
90. Raymo, M., Hearty, P.J., DeConto, R., O'Leary, M., Dowsett, H. J., Robinson, M., and Mitrovica, J.X., 2009. PLIOMAX: Pliocene Maximum Sea Level Project. *PAGES*, Spring 2009.
89. Olson, S.L., and Hearty, P.J., 2009. A sustained +21 m highstand during MIS 11 (400 ka): direct fossil and sedimentary evidence from Bermuda. *Quaternary Science Reviews* 28, 271-285.
88. O'Leary, M.J., Hearty, P.J., and McCulloch, M., 2008. Geomorphic evidence of major sea-level fluctuations during marine isotope substage-5e, Cape Cuvier, Western Australia, *Geomorphology* 102, 595-602.
87. O'Leary, M.J., Webster, J.M., Hearty, P.J., McCulloch, M.T., (in review). Uranium-series dating of crustose coralline algae (Corallinaceae). *Quaternary Geochronology*.

86. Hearty, P.J., MIS 11 rocks! The “smoking gun” of a catastrophic +20 m eustatic sea-level rise, *PAGES* newsletter, Science Highlights, April, 2007, 25-26.
http://www.pages-igbp.org/products/newsletters/nl2007_1lores.pdf
85. O’Leary, M.J., Hearty, P.J., McCulloch, M.T., 2008. U-series evidence for widespread reef development in Shark Bay during the last interglacial. *Palaeogeography Palaeoclimatology Palaeoecology*, doi: 10.1016/j.palaeo.2007.10.022.
84. Hearty, P.J., 2010. Chronostratigraphy and morphological changes in *Cerion* land snail shells over the past 130 ka on Long Island, Bahamas. *Quaternary Geochronology* 5, 50-64: doi:10.1016/j.quageo.2009.09.005.
83. Hearty, P.J., and Kaufman, D.S., 2009. A high-resolution chronostratigraphy for the central Bahama Islands based on AMS ¹⁴C ages and amino acid ratios in whole-rock and *Cerion* land snails. *Quaternary Geochronology* 4, 148-159.
82. Hearty, P.J., and Schellenberg, S.A., 2008. An Integrated Late Quaternary Chronostratigraphy for San Salvador Island, Bahamas: Patterns and Trends of Morphological Change in the Land Snail *Cerion*. *Palaeogeography, Palaeoclimatology, Palaeoecology* 267, 41–58.
81. Olson, S.L., 2008. A new genus and species of buteonine hawk from Quaternary deposits in Bermuda (Aves: Accipitridae), with Geochronology Appendix by Hearty, P.J., and Kaufman, D.S. *Proceedings of the Biological Society of Washington* 121(1), 130-141.
80. Hearty, P.J., Webster, J., Clague, D.A., Kaufman, D.S., Bright, J., and Renema, W., 2010. A pulse of ooid formation in Maui Nui (Hawaiian Islands) during Termination I. *Marine Geology*, 268, 152–162. doi:10.1016/j.margeo.2009.11.007.
78. Hearty, P.J., and O’Leary, M.J., 2008. Carbonate eolianites, quartz sands, sea-level cycles, Western Australia. *Quaternary Geochronology*, v. 3, p. 26-55.
77. Hearty, P.J., and Olson, S.L., 2008. Mega-highstand or megatsunami? Discussion of McMurtry *et al.* (Elevated marine deposits in Bermuda record a late Quaternary megatsunami: *Sedimentary Geology*, 2007). *Sedimentary Geology*, v. 203, p. 307-312.
76. Hearty, P.J., Hollin, J.T., Neumann, A.C., O’Leary, M.J., and McCulloch, M., 2007. Global sea-level fluctuations during the last interglaciation (MIS 5e). *Quaternary Science Reviews*, v. 26, p. 2090-2112.
75. Hearty, P.J., Neumann, A.C., and O’Leary, M.J., 2007. Comment on “Record of MIS 5 sea-level highstands based on U/Th dated coral terraces of Haiti” (B. Dumas, C.T. Hoang, and J. Raffy, 2006, *Quaternary International*, v. 145-146, p. 106-118). *Quaternary International*, v. 162-163, p. 205-208.
74. Hearty, P.J., et al., 2007. Marine deposits at >+20 m in Bermuda, Bahamas, Hawaii, and W. Australia: MIS 11 eustatic sea level or megatsunami? Abstract, INQUA Congress, 2007, Cairns, Australia, p. 159.
73. Olson, S.L., and Hearty, P.J., 2007. Fallacies underlying the assumption of calcium limitation on the evolution of land snails in Bermuda. *The Veliger*, v. 49(3), p. 132-139.
72. Muller, J., Wust, R.A.J., and Hearty, P.J., 2006. Sediment transport along an artificial shoreline: “The Strand”, Townsville, northeast Queensland, Australia. *Estuarine and Coastal and Shelf Science* 66, 204-210.
71. Hearty, P.J., O’Leary, M.J., Donald, A., and Lachlan, T., 2006. The enigma of 3400 yr BP coastal oolites in Tropical northwest Western Australia... why then, why there? *Sedimentary Geology* 186, 171-185.
70. Olson, S.L., P.J. Hearty and G.K. Pregill. 2006. Geological constraints on evolution and survival in endemic reptiles on Bermuda. *Journal of Herpetology* v. 40(3), p. 394-398.

69. Hearty, P.J., James, H., and Olson, S.L., 2005. The geological context of paleo-lakes and Pleistocene birds at Ulupau Head, O'ahu, Hawaiian Islands. Pages 113-128, in J. A. Alcover and P. Bover, eds. *Insular Vertebrate Evolution: the Palaeontological Approach. Monografies de la Societat d'Història Natural de les Balears*. September 2003, Mallorca, Spain. 390 pp.
68. Hearty, P.J., Karner, D.B., Renne, P.R., Olson, S.L., and Fletcher, S., 2005. $^{40}\text{Ar}/^{39}\text{Ar}$ age of a young rejuvenation basalt flow: Implications for the duration of volcanism and the timing of carbonate platform development during the Quaternary on Kaua'i, Hawaiian Islands. *New Zealand Journal of Geology and Geophysics*, v. 48, p. 199-211.
67. Hearty, P.J., Olson, S.L., Kaufman, D.S., Edwards, R.L., and Cheng, H., 2004. Stratigraphy and geochronology of pitfall accumulations in caves and fissures, Bermuda. *Quaternary Science Reviews* 23, 1151-1171.
66. Hearty, P.J., O'Leary, M.J., Kaufman, D.S., Page, M., and Bright, J., 2004. Amino acid geochronology of individual foraminifer (*Pulleniatina obliquiloculata*) tests, north Queensland margin, Australia: a new approach to correlating and dating Quaternary tropical marine sediment cores. *Paleoceanography* 19, PA4022, doi: 10.1029/2004PA001059.
65. Olson, S. L., Wingate, D. B., Hearty, P.J., and Grady, F.V., 2005. Prodrumus of vertebrate paleontology and geochronology of Bermuda. Pages 1-22, in J. A. Alcover and P. Bover, eds. *Insular Vertebrate Evolution: the Palaeontological Approach. Monografies de la Societat d'Història Natural de les Balears*. Sept. 2003, Mallorca, Spain, 390 pp.
64. Hearty, P.J., O'Leary, M.J., Donald, A., and Allayialis, D., 2004. Stratigraphy and geochronology of Quaternary carbonate and quartz dunes of Western Australia. *Proceedings of the 17th Australian Geological Convention*, Hobart, Tasmania, Feb. 2004.
63. Donald, A., Hearty, P.J., and O'Leary, M.J., 2004. Ocean-Continent sediment flux in Shark Bay, Western Australia. *Proceedings of the 17th Australian Geological Convention*, Hobart, Tasmania, Feb. 2004.
62. Olson, S., and Hearty, P.J., 2003. Probable extirpation of a middle Pleistocene breeding colony of Short-tailed Albatross (*Phoebastria albatrus*) on Bermuda by a +20 m interglacial sea-level rise. *Proceedings of the National Academy of Sciences* 100:(22)12825-12829.
61. O'Leary, M., Hearty, P.J., and McCulloch, M., 2003. ICPMS ^{234}U anomalies in fossil coral reefs of Western Australia. *Proceedings of the Australian Coral Reef Society*. Townsville, QLD. Sept. 03.
60. Hearty, P.J., 2003. Stratigraphy and ages of fossil carbonate deposits of Rottneest Island, Western Australia. *Quaternary Research* 60: 211-222.
59. Hearty, P.J., and Dai Pra, G., 2003. Comment on: "The age of Late Pleistocene shorelines and tectonic activity of Taranto area, southern Italy". *Quaternary Science Reviews*, 22, (21-22), 2363-2367.
58. Hearty, P.J., 2002. Stratigraphy and age of the carbonate dunes of Rottneest Island, Western Australia. *Proceedings of the 16th Annual Geological Convention*, Adelaide, Australia, 1-5th July, 2002, 67, 25.
57. Hearty, P.J., 2002. A revision of the late Pleistocene stratigraphy of Bermuda. *Sedimentary Geology* 153 (1-2) 1-21.
56. O'Leary, M.J., and Hearty, P.J., 2002. Amino acid racemisation geochronology of the planktonic foraminifera, *Pulleniatina obliquiloculata*, from Queensland Trough piston

- cores, Australia. Proceedings of the 16th Annual Geological Convention, Adelaide, 1-5 July, 2002, 67, 25.
55. Hearty, P.J., and Neumann, A.C., 2001. Rapid Sea-Level and Climate Change at the Close of the Last Interglaciation (MIS 5e): Evidence from the Bahama Islands. *Quaternary Science Reviews*, 20, 1881-1895.
54. Hearty, P.J., Tormey, B.R., and Neumann, A.C., 2002. Discussion: Palaeoclimate significance of co-occurring wind- and water-induced sedimentary structures in the last interglacial coastal deposits from Bermuda and the Bahamas (Kindler and Strasser, *Sedimentary Geology* 131, 1-7).
53. Hearty, P.J., 2002. The Kaena highstand on Oahu, Hawaii: Further evidence of Antarctic Ice collapse during the middle Pleistocene. *Pacific Science* 56(1), 65-82.
52. Hearty, P.J., Kaufman, D.S., Olson, S.L., and H.F. James, 2000. Stratigraphy and whole-rock amino acid geochronology of key Holocene and Last Interglacial carbonate deposits in the Hawaiian Islands. *Pacific Science* 54(4): 423-442.
51. Hearty, P.J., and Kaufman, D.S., 2000. Whole-Rock Aminostratigraphy and Quaternary Sea-Level History of the Bahamas *Quaternary Research*, 54, 163-173.
50. Kindler, P., and Hearty, P.J., 2000. Elevated marine terraces from Eleuthera (Bahamas) and Bermuda: sedimentological, petrographic, and geochronological evidence for important deglaciation events during the middle Pleistocene. *Global and Planetary Change*, 24, 41-58.
49. Hearty, P.J., 1999. (Keynote Address): Warm interglaciations, abrupt environmental change, and the Antarctic "Wild Card". In: Fletcher, C.H., III, and Matthews, J.V. (editors), *The Non-Steady State of the Inner Shelf and Shoreline: Coastal Change on the Time Scale of Decades to Millennia in the Quaternary. Abstracts with Programs, Inaugural Meeting of IGCP Project #437 "Coastal Environmental Change During Sea Level Highstands"*, University of Hawaii, Honolulu, USA, Nov. 9-12, p. 99-100.
48. Hearty, P.J., Kindler, P., Cheng, H., and Edwards, R.L., 1999. A+20 m middle Pleistocene sea-level highstand (Bermuda and the Bahamas) due to partial collapse of Antarctic ice. *Geology* 27, 375-378.
47. Hearty, P.J. 1998. The geology of Eleuthera Island, Bahamas: a Rosetta Stone of Quaternary stratigraphy and sea-level history. *Quaternary Science Reviews* 17: 333-355.
46. Hearty, P.J., Neumann, A.C., and Kaufman, D.S., 1998. Chevron ridges and runup deposits in the Bahamas from storms late in oxygen isotope substage 5e. *Quaternary Research*, 50: 309-322.
45. Hearty, P.J. and Kindler, P., 1997. The stratigraphy and surficial geology of New Providence Island, Bahamas. *Journal of Coastal Research* 13 (3): 798-812.
44. Kindler, P., and Hearty, P.J. 1997. Geology of the Bahamas: Architecture of Bahamian Islands. In: Vacher, H.L. and Quinn, T. (Editors) *Geology and Hydrogeology of Carbonate Islands, Developments in Sedimentology*, 54. Elsevier, p. 141-160.
43. Hearty, P.J., 1997. Boulder deposits from large waves during the last interglaciation at North Eleuthera, Bahamas. *Quaternary Research* 48(3): 325-337.
42. Hearty, P.J., and Neumann, A.C., 1997. Rapid sea-level changes at the close of the Last Interglacial (Stage 5e) recorded in Bahamian Island geology. *Comment and Reply*. 25, 572-575.
41. Kindler, P., and Hearty, P.J. 1996. Carbonate petrology as an indicator of climate and sea-level changes: new data from Bahamian Quaternary units. *Sedimentology* 43: 381-399.

40. Neumann, A.C., and Hearty, P.J. 1996. Rapid sealevel changes at the close of the Last Interglacial (Stage 5e) recorded in Bahamian Island geology. *Geology* 24: 775-778.
39. Hearty, P.J. and Kindler, P., 1996. Sea-level highstand chronology from stable carbonate platforms (Bermuda and the Bahamas). In: Davis, R.A., Donoghue, J.F., and Krantz, D.E., (eds.) Episodic Sea-level Change. *Journal of Coastal Research* 11(3): 675-689.
38. Kindler, P., and Hearty, P.J. 1996. Pre-Sangamonian eolianites in the Bahamas? New evidence from Eleuthera Island. *Marine Geology* 124: 73-86.
37. Hearty, P.J. and Kindler, P., 1996. The Geology of North Eleuthera, Bahamas: A 'Rosetta Stone' of Quaternary Stratigraphy and Sea Levels. *SEPM Field Guidebook* #3. (August 9-12, 1995).
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