

October 9, 2013

TO: noaa.rspawg.nominees@noaa.gov.

Dear NOAA Restoration Science Program Advisory Working Group Selection Committee:
I am writing to nominate myself for the NOAA Science Advisory Board (SAB) Gulf Coast Ecosystem Restoration Science Program Advisory Working Group (RSPA WG)

(1) Nominee's full name, title, institutional affiliation, and contact information;

Richard E. Dodge
Dean, Nova Southeastern University Oceanographic Center
Executive Director, National Coral Reef Institute
Nova Southeastern University
Oceanographic Center
8000 N. Ocean Dr.
Dania Beach, FL 33004
954-262-3651
Dodge@nova.edu

(2) Nominee's area(s) of expertise;

- Effects of dispersed oil and oil other pollution effects on coral reefs, including of the Gulf of Mexico
- Restoration ecology, including of coral reefs
- Habitat Equivalency Analysis
- Benthic habitat, including coral reef assessment, monitoring, and restoration for impact assessment, compensation, and management.
- Effects of sedimentation on corals and coral reefs; sewage, oil, dispersed oil, and other pollution effects on coral reefs; ship groundings on coral reefs.
- Ecology, Paleoecology, -climatology, -biology.
- Stony Coral Anatomy, Evolutionary History.
- Coral Reef Morphology and ecology.
- Carbonate and Reef Environments; Geology of raised reefs.
- Sea level changes - ecologic and paleoecologic applications.
- Animal-sediment interactions.
- Coral growth and relationship to environment; Applications of growth banding in invertebrate and vertebrate skeletons to ecologic and geologic problems.

(3) Short description of his qualifications relative to the kinds of advice being solicited

Education

- Ph.D., Geology and Geophysics, Yale University, New Haven, Conn., 1978
- M. Phil., Geology and Geophysics, Yale University, New Haven, Conn., 1973
- B.A., Geology and Geophysics, University of Maine, Orono, 1969

Qualifications Summary

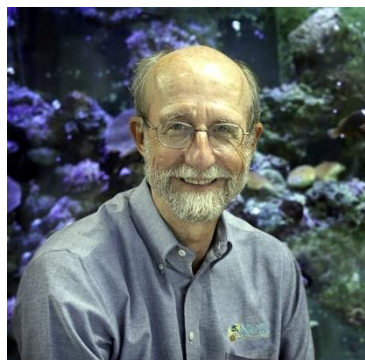
- Over 35 years' experience in coral reef research and science. Authored many publications in the peer-reviewed scientific literature including about ecology and oil spill impacts to coral reefs including on coral reef assessment, monitoring, and restoration (mitigation).
- Serves currently as a Florida governor appointee to the Gulf of Mexico Research Initiative Research board
- Served for 5 years on a Minerals Management Service Review Board to evaluate Smithsonian research following the Galeta Panama oil spill.
- Experienced in the theory and application of Habitat Equivalency Analysis (HEA). Co-author of several publications using and about the HEA. Developed a Windows based computer program on the HEA to facilitate ease of use.
- Conducted research on the effects of dredging on coral and coral reefs and published associated papers in the peer-reviewed scientific literature.
- Executive Director of the National Coral Reef Institute funded via NOAA for over 12 years.
- Recognized authority on corals and coral reef ecosystems. Has conducted research in Haiti, Saudi Arabia, Puerto Rico, Barbados, Turks & Caicos, Jamaica, Virgin Islands, Bahamas, Dominican Republic, Panama, Cayman Islands, Bermuda, Cape Verde Islands, Sao Tome & Principe (Gulf of Guinea), Mexico, and Florida. Dodge has held grants and contracts from sources including the National Science Foundation, the Department of Energy, the US Geological Survey, the U.S. Navy, Florida Sea Grant, NOAA, the EPA, South Florida Water Management District, Marine Spill Response Corporation, MMS, Office of Naval Research, State of Florida DEP and FWC, Broward Co, and the US Department of Justice.
- Expertise on the effects of natural and man-induced impacts to coral reefs. Has served as an expert witness on coral reef injuries.
- Conducted oil spill experiments in Panama to assess effects of oil and dispersed oil on tropical ecosystems. He is a former member of the coral advisory committee for the Southeast Atlantic Fisheries Management Council and currently on the coral advisory committee for the Gulf of Mexico Fisheries Management Council. Dodge is a founding member of the Florida Coastal Ocean Observing System Caucus and Research Consortium. He was Chair of the Local Organizing Committee for the 11th International Coral Reef Symposium held July, 2008 in Ft. Lauderdale Florida. This was the largest coral reef conference in the world. Dodge is the past elected Chair of SECOORA (Southeast Coastal Ocean Observing Regional Association), composed of ocean stakeholders from Florida, Georgia, and North and South Carolina.

(4) Resume / CV not to exceed four (4) pages in length.

Richard E. Dodge, Ph.D.

Professor; Dean, Nova Southeastern University Oceanographic Center
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Dr. Richard E. Dodge is Dean of, and Professor at, the Nova Southeastern University Oceanographic Center (NSUOC). NSU is the 7th largest private not-for-profit university in the nation. The OC is one of 17 academic divisions of NSU. Dodge is also Executive Director of the Center's National Coral Reef Institute (NCRI), funded through NOAA and other sources. It is devoted to providing management based research outcomes focusing on monitoring, assessment, and restoration of coral reefs.



Dodge received the B.A. degree in from Univ. of Maine in 1969 and the M.Phil. and Ph.D. in Geology & Geophysics from Yale University in 1973 and 1978. He is a recognized authority on corals and coral reef ecosystems. He has conducted research throughout the Caribbean and elsewhere around the world (Haiti, Saudi Arabia, Puerto Rico, Vieques, Barbados, Turks & Caicos, Jamaica, Virgin Islands, Bahamas, Dominican Republic, Panama, Cayman Islands, Bermuda, Cape Verde Islands, Sao Tome & Principe, Gulf of Guinea, Mexico, and Florida). Dodge has held grants and contracts from the National Science Foundation, the Department of Energy, the US Geological Survey, the U.S. Navy, Florida Sea Grant, NOAA, the EPA, South Florida Water Management District, Marine Spill Response Corporation, MMS, Office of Naval Research, State of Florida Department of Environmental Protection and Fish and Wildlife Commission, Broward Co, and the US Department of Justice.

He is the author of many publications in the scientific literature and reports for various agencies and companies. He has expertise on the effects of natural and man-induced impacts to coral reefs and is well versed in assessing and analyzing effects from adverse effects of oil to coral reefs and coral reef environments, physical damage and pollution on coral reefs. This includes experience with sedimentation effects, bomb range impacts, ship grounding damage, and studies and projects evaluating impacts of coastal construction, development, and LNG ports. His experience includes economic analysis and use of HEA (Habitat Equivalency Analysis).

He has served as an expert witness on coral reef injuries. He has been a board member of the Marine Industries Association of South Florida (MIASF). He is past Editor of the international scientific journal *Coral Reefs*. He served for 5 years as a member of the Scientific Review Board of the Smithsonian Tropical Research Institute to oversee a Minerals Management Service contract Dodge is a former member of the coral advisory committee for the Southeast Atlantic Fisheries Management Council and currently serves on the coral advisory committee for the Gulf of Mexico Fisheries Management Council. Dodge is a founding member of the Florida Coastal Ocean Observing System Caucus and Research Consortium. He was Chair of the Local Organizing Committee for the 11th International Coral Reef Symposium held July, 2008 in Ft. Lauderdale Florida. This was the largest coral reef conference in the world. Dodge is the past elected Chair of SECOORA (Southeast Coastal Ocean Observing Regional Association), composed of ocean stakeholders from Florida, Georgia, and North and South Carolina. He was appointed by the Governor of Florida to the Gulf of Mexico Research Initiative Research Board which is responsible for oversight and awarding \$500M from BP for research.

Selected Publications

- 2009 Riegl B, Bruckner A, Coles SL, Renaud P, and Dodge RE (2009). The Year in Ecology and Conservation Biology, 2009: Ann. N.Y. Acad. Sci. 1162: 136–186 (2009). doi: 10.1111/j.1749-6632.2009.04493.x_c 2009 New York Academy of Sciences.
- 2010 Helmle KP, Dodge RE, Swart PK, Gledhill DK, and Eakin CM (2010) “Growth rates of Florida corals from 1937 to 1996 and their response to climate change” Nature Communications.
- 2011 Helmle KP and Dodge (2011) “Sclerochronology” in: Encyclopedia of Modern Coral Reefs, David Hopley (ed) Springer, Dordrecht, pp 958-966, DOI: 10.1007/978-90-481-2639-2.
- 2008 Dodge RE, Birkeland C, Hatzios M, Kleypas J, Palumbi SR, Hoegh-Guldberg O, Van Woesik R, Ogden J, Aronson R, Causey BD, Staub F (2008), A Call to Action for Coral Reefs 10 OCTOBER 2008 VOL 322 SCIENCE www.sciencemag.org
- 2008 Riegl B, Dodge RE (2008) Introduction: A diversity of oceans, reefs, people, and ideas: a perspective of US coral research. In: Riegl B, Dodge RE (eds) Coral Reefs of the USA. Springer-Verlag, Dordrecht, 1-9
- 2008 Banks KE, Riegl BM, Richards VP, Walker BK, Helmle KP, Jordan LKB, Phipps J, Shivji M, Spieler RE, Dodge RE (2008) The reef tract of continental Southeast Florida (Miami-Dade, Broward, and Palm Beach Counties, USA). In: Riegl B, Dodge RE (eds) Coral Reefs of the USA. Springer-Verlag, Dordrecht, 125-172.
- 2008 Riegl B, Moyer R, Dodge RE, Kohler K, Walker B, Gilliam D (2008) A tale of storms, bombs, and germs: Geomorphology and coral assemblage structure at Vieques (Puerto Rico) and St. Croix (U.S. Virgin Islands). *Journal of Coastal Research*.
- 2007 M Banks K, Riegl B, Shinn EA, Piller WE, Dodge RE (2007) Geomorphology of the southeast Florida continental reef tract (Dade, Broward, and Palm Beach Counties, Florida, USA). *Coral Reefs* 26:617-633.
- 2005 Eakin CM, Swart PK, Quinn TM, Helmle KP, Smith JM, and Dodge RE (2005) Application of Paleoclimatology to Monitoring Areas of Management Concern. *Proc 10th Int Coral Reef Symp* Okinawa, Japan June 28-July 2, 2004.
- 2002 Turgeon, DD, RG Asch, BD Causey, RE Dodge, W Jaap, K Banks, J. Delaney, BD Keller, R Spieler, CA Matos, JR Garcia, E Diaz, D Cantanzaro, CS Rogers, Z Hillis-Starr, R Nemeth, M Taylor, GP Schmahl, MW Miller, DA Gulko, JE Maragos, AM Friedlander, CL Hunter, RS Brainard, P Craig, RH Richmond, G Davis, J Starmer, M Trianni, P Houk, CE Birkeland, A Edward, Y Golbuu, J Gutierrez, N Ideochong, G Paulay, A Tafiichig, and N. Vander Velde. 2003. The State of Coral Reef Ecosystems of the United States and Pacific Freely Associated States: 2002. National Oceanic and Atmospheric Administration / National Ocean Service/National Centers for Coastal Ocean Science. Silver Spring, MD 265pp.
- 2001 Milon, J.W. and Dodge, R.E., 2001. “Applying habitat equivalency analysis for coral reef damage assessment and restoration.” *Bulletin of Marine Science* 69(2): 975-988.
- 1995 Dodge, RE, AH, Knap, BJ Baca, SD Snedaker, and TD Sleeter. The effects of oil and oil dispersants on tropical ecosystems: a 10 year update. SEPM meeting, presentation and abstract, August, 1995, St. Petersburg, FL.
- 1987 Dodge, R.E., Telling time by corals, *New River Times Magazine*, 5, 13-15.
- 1994 Knap, A.H., Dodge, R.E., Baca, B.A., Sleeter, T.D. The effects of oil and oil dispersants in tropical ecosystems: an update. International Oil Spill Research and Development Forum. Abstract. London.
- 1992 Hardy, J.T., F.E. Hoge, J.K. Yungel, and R.E. Dodge. 1992. Remote detection of coral 'bleaching' using pulsed-laser fluorescence spectroscopy. *Mar. Ecol. Prog. Series*. 88: 274-255.
- 1993 Dodge, R.E. and A.Knap. Long-term effects of short-term exposure of oil and dispersed oil to reef building corals. Colloquium on Case Histories of Coral Reefs. University of Miami. June, 1993. paper and invited participant.

- 1994 Dodge, R.E. and K.Kohler. Calibration and variability of x-radiographs of coral skeletons using computer image processing densitometry. Abstract (p.14) and talk, ASLO & PSA 1994 Joint meeting. June 12-16, 1994.
- 1987 Dodge, R.E., "Growth rate of stony corals of Broward County, Florida: Effects from Post beach renourishment projects." Report to Broward County Erosion Prevention District, Environmental Quality Control Board, 73pp.
- 1987 Ballou, T.G., R.E. Dodge, S.C. Hess, A.H. Knap, and T. D. Sleeter, Tropical oil pollution investigations in coastal systems (TROPICS) -- final report to American Petroleum Institute, Research Planning Institute, Inc., Columbia, SC, 218 pp.
- 1987 Ballou, T.G., R.E. Dodge, A.H. Knap, S.H. Hess. Tropical Oil Pollution Investigations in Coastal systems (TROPICS): the effects of an dispersed and whole Prudhoe Bay crude oil on mangroves, seagrass, and corals in Panama, API Pub. No. 4480 American Petroleum Institute, Health and Environmental Science Dept. Washington, D.C.
- 1986 Wyers, S.C., H.R. Frith, R.E. Dodge, S.R. Smith, A.H. Knap, and T.D. Sleeter, "Behavioural effects of chemically dispersed oil and subsequent recovery in Diploria strigosa (Dana), Marine Ecology P.S.Z.N., 7, 23-42.
- 1985 Dodge, R.E., "Jan., 1985 Assessment of Vieques Coral Reefs", report to Ecology and Environment, Inc. for Environmental Impact Statement Update.
- 1985 Getter, C., B. Baca, T. Ballou, M. Brown, A. Knap, R.E. Dodge, and T. Sleeter, "Tropical oil pollution investigation in Coastal System (TROPICS)", Abstract in Proceedings 1985 Oil Spill Conference, Los Angeles, CA.
- 1985 Knap, A.H., T. Sleeter, R.E. Dodge, S. Wyers, R. Frith, and S. R. Smith, "The effects of oil dispersants on Bermuda corals", Abstract in Proceedings 1985 Oil Spill Conference, Los Angeles, Ca.
- 1985 Dodge, R.E., A.H. Knap, S.C. Wyers, H.R. Frith, and S.R. Smith, "The effect of dispersed oil on the calcification rate of the reef-building coral Diploria strigosa. Fifth International Coral Reef Symp, Tahiti, May-June, 1985, 6, 453-457.
- 1985 Research Planning Institute, Inc., Tropical Oil Pollution Investigation In Coastal Systems (TROPICS), a technical status report, T.G. Ballou, M.S. Brown, R.E. Dodge, C.D. Getter, A.H. Knap, and T.D. Sleeter, RPI/R/85- 14, Columbia, SC, 128pp.
- 1985 Dodge, R.E. and A. Szmant-Froelich. "Effects of drilling fluids on reef-building corals: A review", Abstract and talk presented at 3rd Int. Ocean Disposal Symp. WHOI Oct, 1981, pp 152-153, Published in: Wastes in the Ocean, Volume 4: Energy Wastes in the Ocean, eds., I.W. Duedall, D.R. Kester, and P.K. Park, John Wiley & Sons, Inc., Chap. 13, pp 341-364.
- 1985 Freeman, J.H., L.K. Benninger, and R.E. Dodge, Fallout plutonium and naturally-occurring radionuclides in annual bands from Montastrea annularis, Broward County, Florida, EOS, Trans. Amer. Geophys. Union 66, 1330.
- 1985 Dodge, R.E., "Jan., 1985 Assessment of Vieques Coral Reefs", report to Ecology and Environment, Inc. for Environmental Impact Statement Update.
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- 1985* Dodge, R.E. and A. Szmant-Froelich. "Effects of drilling fluids on reef-building corals: A review", Abstract and talk presented at 3rd Int. Ocean Disposal Symp. WHOI Oct, 1981, pp 152-153, Published in: Wastes in the Ocean, Volume 4: Energy Wastes in the Ocean, eds., I.W. Duedall, D.R. Kester, and P.K. Park, John Wiley & Sons, Inc., Chap. 13, pp 341-364.
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- 1984 Dodge, R.E., S. Wyers, H.R. Frith, A.H. Knap, C. Cook, R. Smith, and T.D. Sleeter, Coral calcification rates by the buoyant weight technique: effects of alizarin staining". J. Exp. Mar. Biol. Ecol. 75, 217-232.
- 1984 Dodge, R.E. and G.W. Brass. "Skeletal extension, density, and calcification of a reef coral (Montastrea annularis): St. Croix U.S.V.I.", Bull. Mar. Sci., 34, 288- 307.
- 1984 Dodge, R.E., T.D. Jickells, A.H. Knap, S. Boyd, and R.P.M. Bak, "Reef-building coral skeletons as chemical pollution indicators", Mar. Poll. Bull., 15, 178-187.
- 1984 Dodge, R.E. and T.R. Gilbert, "Chronology of lead pollution contained in banded coral skeletons". Mar. Biol., 82, 9-13.
- 1984 Dodge, R.E., S.C. Wyers, H.R. Frith, A.H. Knap, S.R. Smith, and T.D. Sleeter, "The effects of oil and oil dispersants on the skeletal growth of the hermatypic coral Diploria strigosa", Coral Reefs, 3, 191-198.
- 1984 Dodge, R.E. and K. Kohler, "Image analysis of coral skeletons for extension rate, calcification rate and density". Abstract in: Advances in Reef Science, Joint Meeting of Atlantic Reef Committee and the International Society of Reef Studies, Miami, FLA, Oct 26, 1984, p. 31-32 (talk also presented).
- 1983 Dodge, R.E., R.G. Fairbanks, L.K. Benninger, and F. Maurrasse. "Pleistocene sea levels from raised coral reefs of Haiti". Science, 219, 1423-1425. (cover).
- 1983 Dodge, R.E. and J.C. Lang. "Environmental correlates of Flower Gardens coral growth - northwestern Gulf of Mexico." Limnology & Oceanography, 28, 228-240.
- 1983 Knap, A.H., T.D. Sleeter, R.E. Dodge, S.C. Wyers, H.R. Frith, and S.R. Smith. "The effects of oil spills and dispersant use on corals: a review and multidisciplinary experimental approach". Oil and Petrochemical Pollution, 1, 157-169.
- 1982 Dodge, R.E., "Drilling fluid effects on the reef- building coral Montastrea annularis", Mar. Biol. , 71, 141- 147.
- 1982 Knap, A., T. Sleeter, S. Wyers, H. Frith, and R.E. Dodge. "The effects of chemically dispersed oil on corals: research in progress." Presented at A.S.T.M. Symposium. Oil- Spill Dispersants: Five Years of Research, Oct., 1982.
- 1982* Knap, A.H., J.E. Slobakken, R.E. Dodge, T.D. Sleeter, S.J. Wyers, and K.H. Palmork. "Accumulations and eliminations of (C-14) Phenanthrene in the reef-building coral Diploria strigosa. Bull Environmental Contam. Toxicol. 28, 281-284.