

**Items submitted by Dr. Randy Edwards at the August
10, 2017 Planning Commission**

My name is Doctor Randy Edwards – a 31 year resident of Manatee Count

- **I have M.S. In marine biology, Ph.D. In marine science from the Univ. Miami Rosentiel School of Marine Science, Bachelor of Engineering degree from the University of Florida.**
- **My Ph.D. Dissertation was on Mangrove ecosystem ecology in SW FL My M.S. Thesis was on ecology of seagrass communities very much like those in the waters of Sarasota Bay adjacent to the submitted general plan site. Time does not allow me to ??? or does it???**
- **For 15 Years was Scientist and Principal Investigator at Mote Mar. Lab where I designed and led in numerous pertinent projectss in the Sarasota Bay area, including Design and assessment of fishery habitat enhancement, including Quick Point on LBK, LBK residential canals, City Island and Tampa Bay adjacent to Port Manatee.**
- **Also numerous studies of fish habitats in SW FL from ENP to Tampa Bay, including Little Sarasota Bay, Sarasota Bay and the Manatee River System and Studies of Mangroves in the Philippine Islands for the US Agency for International Development.**
- **In 7 subsequent years I was Associate Research Professor at USF-St. Petersburg studying fish habitats from the Suwannee River estuary to the Louisiana GOM.**
- **I have a total of 45 years of professional experience. I therefore offer my testimony as an expert witness on mangroves and fishery habitats and fish habitat enhancement. A listing of my pertinent experience is available here for the record.**

Dr. Randy E. Edwards

Research Experience and Publications Directly Pertinent to Long Bar Pointe Environmental issues

Research Grants and Projects

- 2002 US Geological Survey. Using hyperspectral remote sensing and synoptic water quality measurements as a tool for predicting and understanding essential aquatic habitat in a dynamic estuarine system.
- 2000 South Florida Water Management District. Chairman, Caloosahatchee River Estuary Minimum Flow Review Committee.
- 1999 Mote Marine Laboratory Foundation. Impacts and recovery patterns of a red tide bloom on the fish community of a Sarasota seagrass bed.
- 1997 Florida Sea Grant. Ecophysiological assessments of critical juvenile fish habitat: Applications for stock enhancement and habitat conservation (With K.M. Leber, and J.M. Miller).
- 1996 US Agency for International Development (Subcontract through PRC Environmental Management, Inc.). Philippines Coastal Resources Management Project, Mangrove Protection and Restoration Component.
- 1994 Sarasota Bay NEP/ U.S. EPA. Optimizing fishery value of habitat restoration projects.
- 1993 Sarasota Bay National Estuary Program. The role of Little Sarasota Bay as a nursery for finfish and shellfish.
- 1992 Sarasota Bay National Estuary Program. Framework for action.
- 1991 South Florida Water Management District. General decision model for the design of estuarine eutrophication monitoring programs (Co-PI).
- 1991 Sarasota Bay National Estuary Program. City Island habitat monitoring.
- 1991 U.S. EPA, Sarasota Bay National Estuary Program. Seawall Habitat Enhancement.
1989. U.S. EPA, Sarasota Bay National Estuary Program. Fishery resource assessment of Sarasota Bay.
1989. Southwest Florida Water Management District. Identification, classification and inventory of critical nursery habitats for commercially and recreationally important fishes in the Manatee River Estuary System of Tampa Bay.
1989. Florida Department of Natural Resources. Marine fish stock enhancement research.

1988. Florida Department of Natural Resources. Marine fish stock enhancement research.
1987. Florida Department of Natural Resources. Marine fish stock enhancement research.
1986. Florida Department of Natural Resources. Tampa Bay Marine habitat research and restoration project/
1984. Florida Sea Grant. Evaluation of salinity as a critical factor in the physiology and production of juvenile snook. R.E. Edwards and P.L. Lutz, Principal Investigators.
1982. American Museum of Natural History, Lerner Fund for Marine Research. The effects of salinity regime on the structure and function of benthic communities in a polyhaline mangrove ecosystem (renewal).
1980. American Museum of Natural History, Lerner Fund for Marine Research. The effects of salinity regime on the structure and function of benthic communities in a polyhaline mangrove ecosystem.

Publications

2007. Raabe, E.A., Edwards, R.E., McIvor, C.C., Grubbs, J.W., and Dennis, G.D., 2007, Habitat and Hydrology: Assessing Biological Resources of the Suwannee River Estuarine System. USGS Open-File Report 2007-1382.
2004. Neill, W.H., T.S. Bandes, B.J. Burke, S.R. Craig, L.V. DiMichele, K. Duchon, R.E. Edwards, L.P. Fontaine, D.M. Gatlin III, C. Hutchens, J.M. Miller, B.J. Ponwith, C.J. Stahl, J.R. Tomasso, and R.R. Vega. Ecophys.Fish: a simulation model of fish growth in time-varying regimes. *Reviews in Fisheries Science* 12:233–288.
2004. Edwards, R.E., K.J. Sulak, M.T. Randall, and R.A Brooks. Gulf sturgeon – the central role of an iconic species in the Suwannee River Initiative (Abstract). p. 41 *In* B. Katz and E. Raabe, eds. Suwannee River Basin and Estuary Integrated Science Workshop: September 22-24, 2004, Cedar Key, FL. US Geological Survey Open File Report 2004-1380.
2004. Edwards, R.E. and E.A. Raabe. Ecological characteristics and forcing functions of the Suwannee River Estuary (Abstract). p. 13 *In* B. Katz and E. Raabe, eds. Suwannee River Basin and Estuary Integrated Science Workshop: September 22-24, 2004, Cedar Key, FL. US Geological Survey Open File Report 2004-1380.
2004. Raabe, E.A., Edwards, R.E., and C.E. McIvor. Structural and dynamic habitat in the Suwannee Estuary: An application of remotely sensed imagery to integrated habitat mapping (Abstract). p. 38 *In* B. Katz and E. Raabe, eds. Suwannee River Basin and Estuary Integrated Science Workshop: September 22-24, 2004, Cedar Key, FL. US Geological Survey Open File Report 2004-1380

2000. Edwards, R.E., W. Lung, P.A. Montagna, and H.L. Windom. Final review report of the Caloosahatchee minimum flow peer review panel. Final report to South Florida Water Management District. 30 p.
2000. Edwards, R.E. and R.H. Pierce. Effects of a major red tide on seagrass and nearshore fishes in Sarasota Bay, Florida: Initial impacts and recovery patterns. Florida Chapter of the American Fisheries Society Annual Meeting, 2000. (Abstract).
2000. Melana, D.M., Atchue, J. III, Yao, C.E., Edwards, R., Melana, E.E. and H.I. Gonzales. Mangrove management handbook. Department of Environmental and Natural Resources, Manila, Philippines through the Coastal Resource Management Project, Cebu City, Philippines. 96 p. (ISBN 971-91925-6-9)
1999. Ransier, J., Dennis, B., Edwards, R. and C. Neidig. The use of sonic tags to track mixed assemblages of wild and hatchery-reared red drum. Florida Chapter of the American Fisheries Society Annual Meeting, 1999. (Abstract).
1995. Edwards, R.E. Fishery value of a Sarasota Bay, Florida habitat enhancement project. p. 33-48 ~~in~~ F. J. Webb (ed.), Proceedings of the Twenty First Annual Conference on Wetlands Restoration and Creation. Hillsboro Community College, Tampa.
1993. Edwards, R.E. Sediment/porewater factors as predictors or indicators of seagrass and saltmarsh habitat restoration success. Proceedings 20th Annual Conference on Wetlands Restoration and Creation. Hillsboro Community College (Abstract).
1993. Edwards, R.E. Fishery resource assessment. p. 10.1-10.28 In Framework for Action, Sarasota Bay National Estuary Program.
1993. Tomasko, D.A., M. Alderson, P. Clark, J. Culter, K. Dixon, R.E. Edwards, E. Estevez, M. Heyl, S. Lowrey, Y.P. Sheng, and J. Stevely. Technical synthesis of Sarasota Bay. p. 14.1-14.16 In Framework for Action, Sarasota Bay National Estuary Program.
1991. Edwards, R.E. Nursery habitats of important early-juvenile fishes in the Manatee River Estuary System of Tampa Bay. p. 237-251 In S.F. Treat and P.A. Clark (eds.) Proceedings, Tampa Bay Area Scientific Symposium 2. 528 p.
1991. Estevez, E.D., R.E. Edwards and D.M. Hayward. An ecological overview of Tampa Bay's tidal rivers. p. 263-276 In S.F. Treat and P.A. Clark (eds.) Proceedings, Tampa Bay Area Scientific Symposium 2. 528 p.
1991. Edwards, R.E. The role of science and scientists in the National Estuary Program. Science in the nation's estuaries, US EPA (Abstract).

1989. Edwards, R.E. The importance of early-juvenile habitat to Florida fishery recruitment. p. 38 In G.S. Kleppel and W.S. Seaman, Jr., editors. Fishery recruitment in Florida waters. Florida Sea Grant Technical Paper No. 57.
1988. Neidig, C.L., R.E. Edwards, J.M. Sprinkel, and W.S. Heidelbaugh. Growth of snook (Centropomus undecimalis) early-life stages in seawater, reduced-salinity, and near-freshwater conditions. Florida Scientist 51(Supplement):19 (Abstract).
1987. Edwards, R.E. Effects of seasonal salinity changes on benthic functioning in a mangrove estuary in southwestern Florida. Florida Scientist 50(Supplement):17 (Abstract).
1986. Richards, W.J. and R.E. Edwards. Stocking marine species to restore or enhance fisheries. p. 75-80. In: R.H. Stroud (ed.). Fish culture in fisheries management. Amer. Fish. Soc., Bethesda. 481 pp.
1986. Edwards, R.E. Effects of seasonal salinity transitions on benthic functioning in a poikilohaline mangrove estuary in southwestern Florida. Ph.D. Dissertation, Univ. of Miami, Coral Gables.
1983. Edwards, R.E. Effects of seasonal salinity transitions on estuarine benthic nutrient fluxes. American Soc. of Limnol. and Oceanogr. 46th Ann. Meet., St. John's Newfoundland. June 13-16, 1983 (Abstract).
1982. Browder, J.A., D. Cottrell, M. Brown, M. Newman, R. Edwards and J. Yuska. Biomass and primary production of macrophytes in periphyton habitats of the southern Everglades. (Rept. T-662). National Park Service South Florida Research Center. Everglades National Park. Homestead, Fla. 49 pp.
- ~~1981. Edwards, R.E. The influence of salinity transition on benthic nutrient regeneration in estuaries. p. 2-15. In: R.D. Cross and D.L. Williams (eds.). Proceedings of the National Symposium on Freshwater Inflow to Estuaries. Fish and Wildlife Service, U.S. Dept. Int., Wash. 528 pp.~~
1978. Edwards, R.E. The respiration of a shallow-water benthic marine community associated with the seagrass Halodule wrightii Ascherson. 2nd International Congress of Ecology (Abstract).
1977. Edwards, R.E. Respiration of a shallow-water benthic community associated with the seagrass Halodule wrightii. M.S. Thesis, Univ. of Miami, 85 pp.